WALTER
Engineering Kompetenz

Turning, drilling,
threading, milling

Product Innovations catalogue
Edition 2019

_PERFORMANCE AND RELIABILITY EXTEND YOUR PERSPECTIVE.

Product Innovations catalogue

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The Walter General Catalogue 2017 contains the entire standard range of our competence brands Walter, Walter Titex and Walter Prototyp.
It is supplemented regularly with the latest Product Innovations catalogue.

New: Product Innovations catalogue 2019

+

General Catalogue 2017 **Product Innovations catalogue 2019**

Walter product innovations

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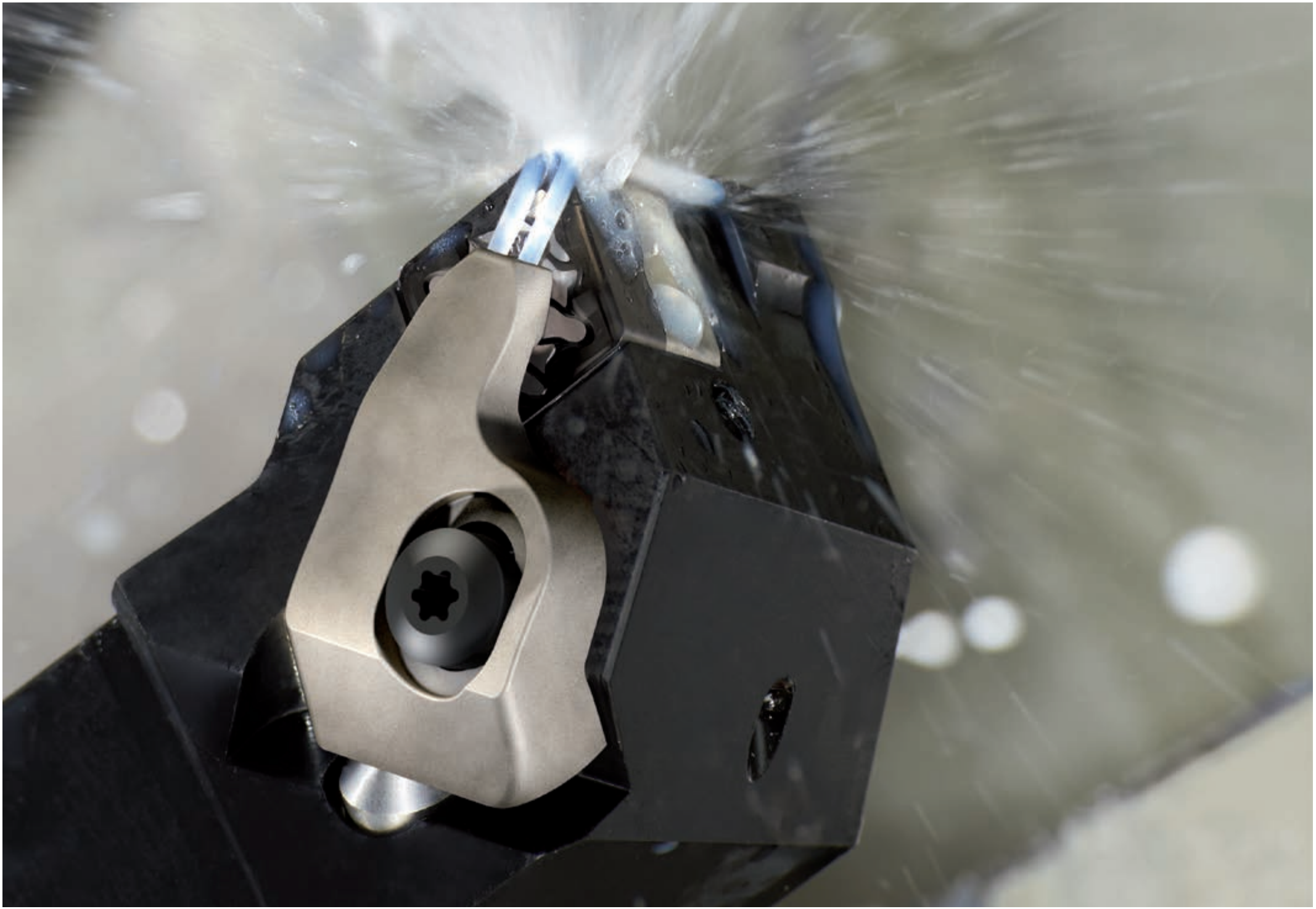
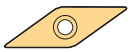
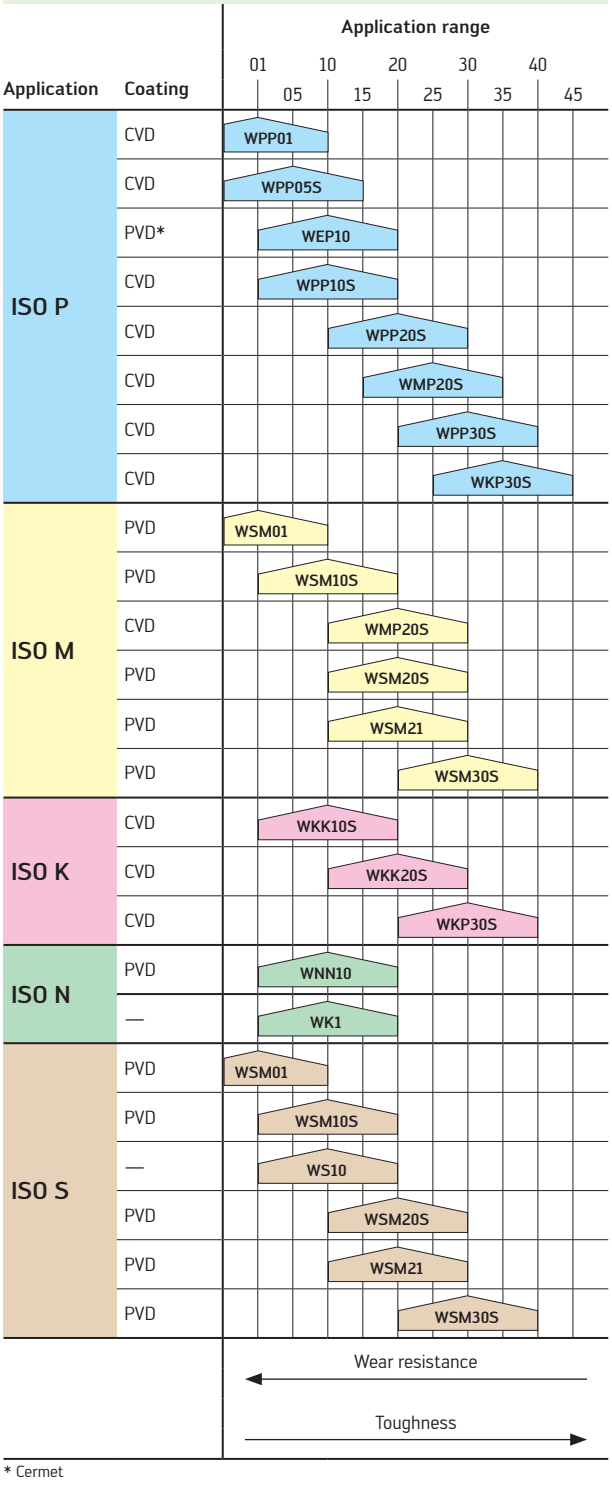


Product range overview of indexable inserts and cutting tool materials: ISO turning – Carbide

Indexable inserts

Insert shape		Description	Page
  Wiper	**C**	Negative basic shape	10
		Positive basic shape 7°	26
		Positive basic shape 11°	28
  Wiper	**D**	Negative basic shape	14
		Positive basic shape 7°	30
		Positive basic shape 11°	32
	**R**	Negative basic shape	16
		Positive basic shape 7°	33
	**S**	Negative basic shape	17
		Positive basic shape 7°	34
		Positive basic shape 11°	35
	**T**	Negative basic shape	19
		Positive basic shape 7°	36
		Positive basic shape 11°	38
	**V**	Negative basic shape	21
		Positive basic shape 5°/7°	40
  Wiper	**W**	Negative basic shape	22
		Positive basic shape 7°	42

Cutting tool materials: Carbide



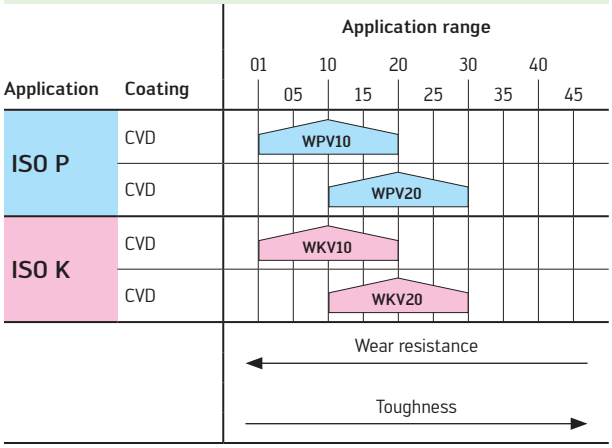
* Cermet

Product range overview of indexable inserts and cutting tool materials: ISO turning – Perform line carbide

Indexable inserts

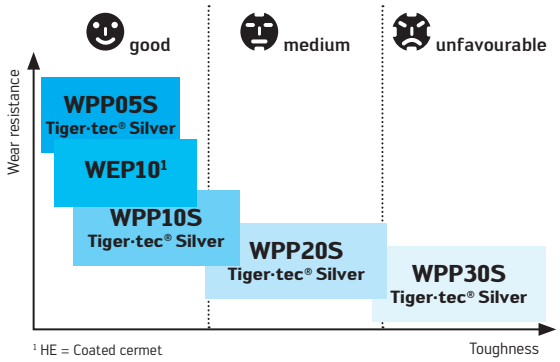
Insert shape		Description	Page
	**C**	Negative basic shape Positive basic shape 7°	13 29
	**D**	Negative basic shape Positive basic shape 7°	16 32
	**S**	Negative basic shape	18
	**T**	Negative basic shape Positive basic shape 7°	20 39
	**V**	Negative basic shape Positive basic shape 5°/7°	21 41
	**W**	Negative basic shape	24

Cutting tool materials: Perform line carbide



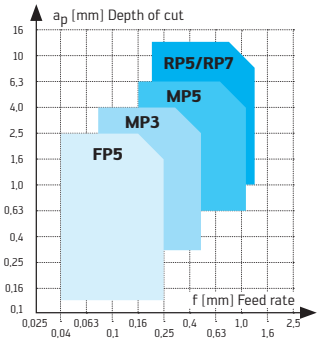
Product range overview of indexable inserts for ISO turning: Tiger·tec® Silver grades and geometries

Machining steel ISO P



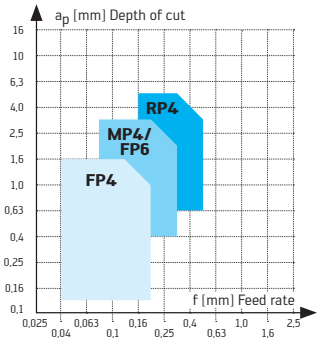
¹ HE = Coated cermet

Negative basic shape



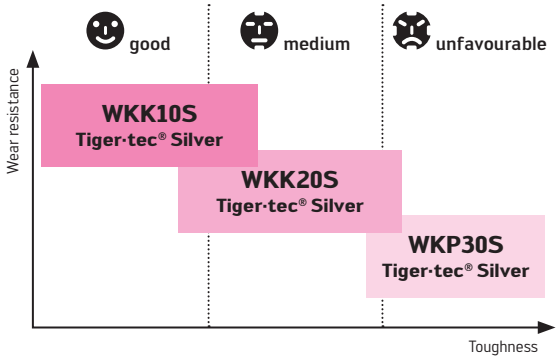
MP5: For universal machining
RP5: For universal machining
RP7: For interrupted cuts, cast skin/forged skin

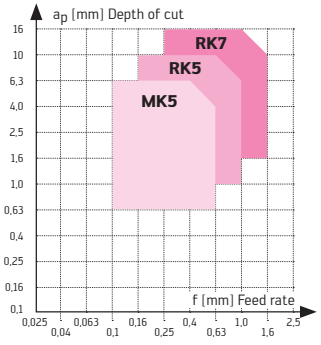
Positive basic shape

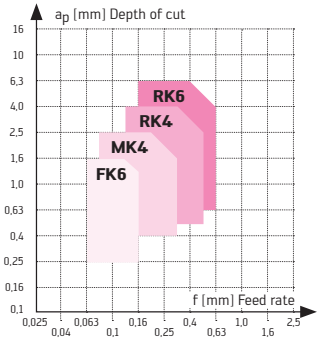


MP4: For universal machining, copy turning
FP6: For semi-finishing operations

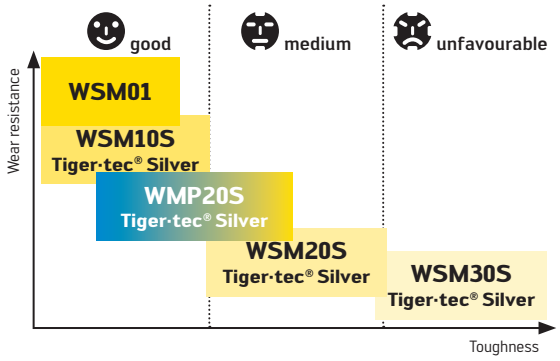
Cast iron machining ISO K

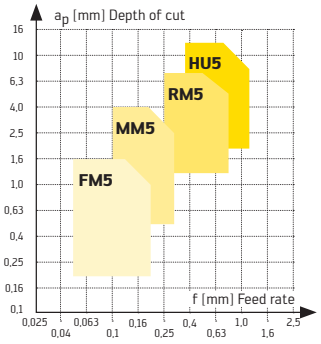


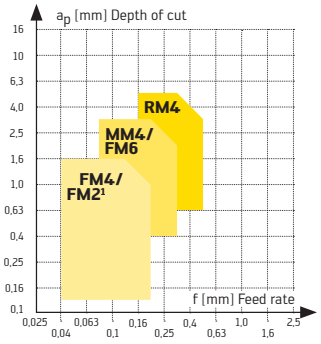




Stainless steel ISO M

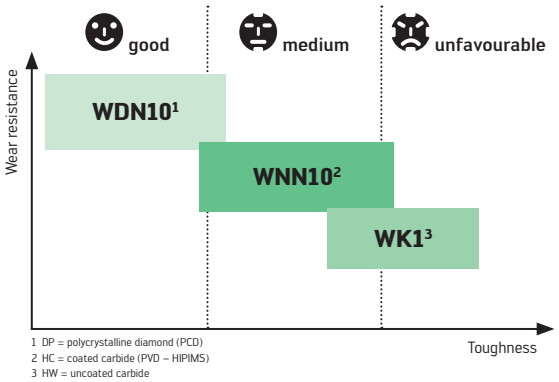






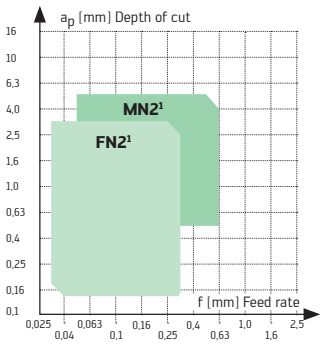
MM4: For universal machining, copy turning
FM6: For semi-finishing operations
¹ Circumference fully ground

NF metals ISO N



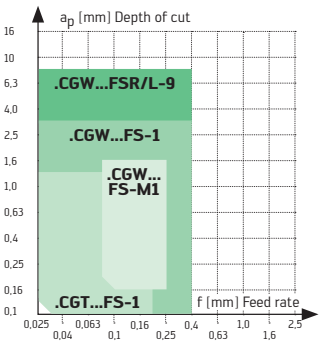
1 DP = polycrystalline diamond (PCD)
2 HC = coated carbide (PVD – HIPIMS)
3 HW = uncoated carbide

Positive basic shape Carbide

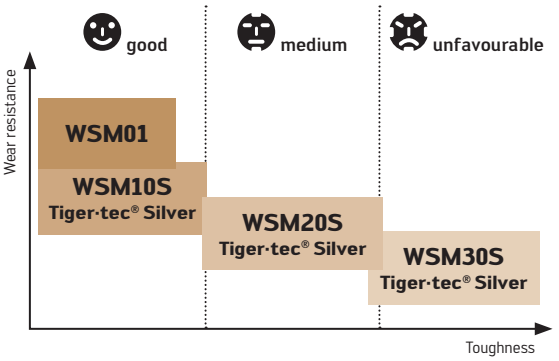


¹ Circumference fully ground

Positive basic shape PCD

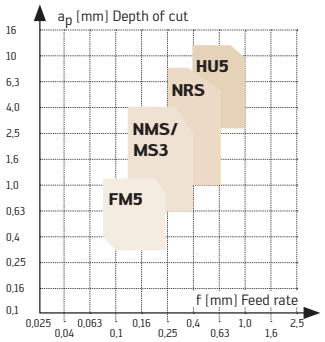


ISO S high-temperature alloys and titanium alloys



Negative basic shape

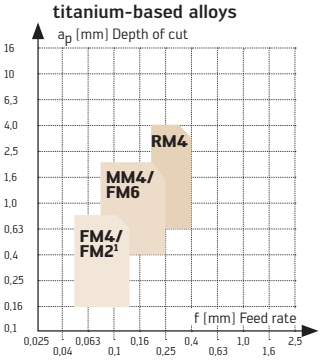
Ni, Co and Fe-based alloys



NMS: For universal machining
MS3: For low cutting pressure

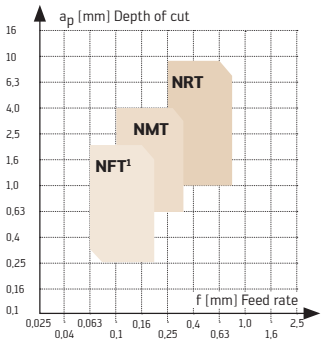
Positive basic shape

Ni, Co, Fe and titanium-based alloys



MM4: For universal machining, copy turning
FM6: For semi-finishing operations
¹ Circumference fully ground

Titanium-based alloys



¹ Circumference fully ground

Product range overview of indexable inserts for ISO turning: Perform line

Designation key

Simple geometry designation:

M	V	5
1	2	3

1: Chip breaking range – e.g. M = Medium machining
2: Versatile materials
3: Feed/chip breaking range

Simple grade designation:

W	P	V	20
1	2	3	4

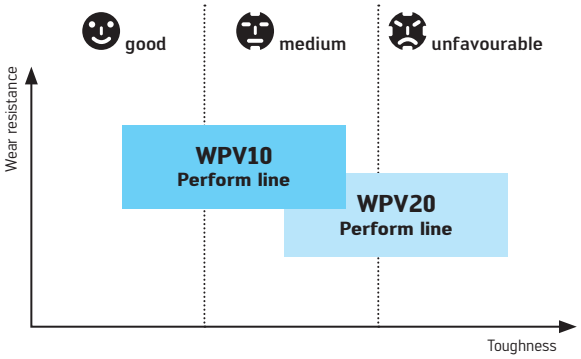
1: Walter
2: First primary application – e.g. P = ISO P
3: Second primary application, "Versatile"
4: ISO application range

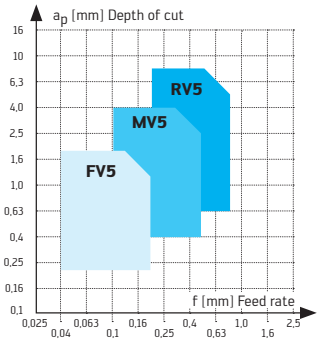
Grades and geometries

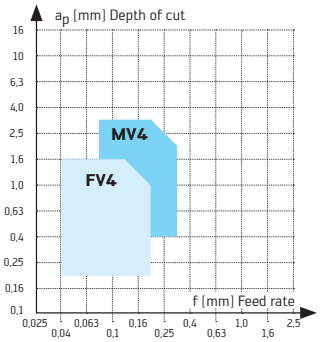
Machining steel ISO P

Negative basic shape

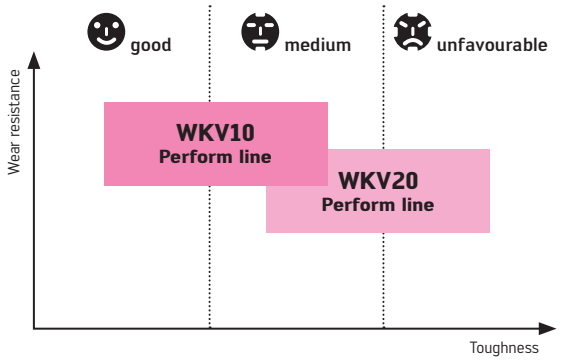
Positive basic shape

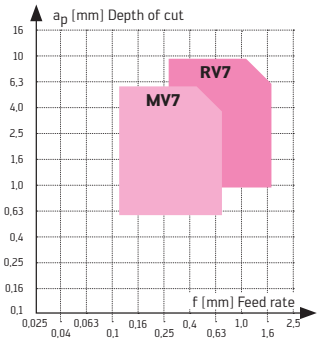






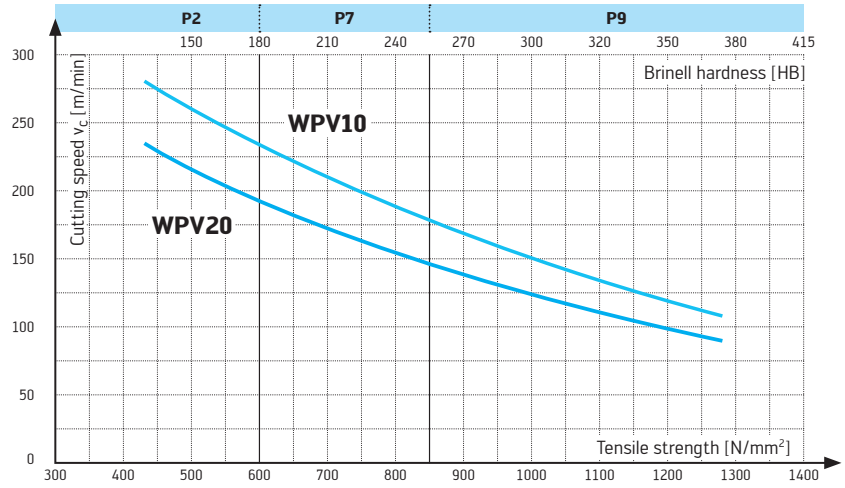
Cast iron machining ISO K





Cutting speeds

Cutting speed selection based on tensile strength/hardness:



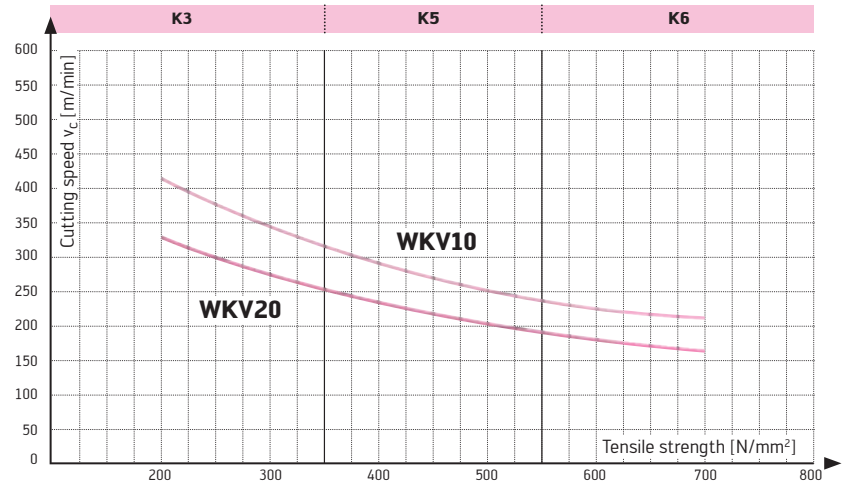
Basis: f = 0.32 mm

Machining steel ISO P

Cutting speed range for selected materials:

ISO material group	Material	Tensile strength	Brinell hardness	Cutting speed	
				WPV10	WPV20
P2	S235JR (St37), C45	500 N/mm²	150 HB	200–**240**–340 m/min	160–**200**–280 m/min
P7	100Cr6, 42CrMo4	800 N/mm²	240 HB	130–**180**–200 m/min	100–**150**–180 m/min
P9	56NiCrMoV7	1250 N/mm²	370 HB	80–**130**–140 m/min	70–**100**–130 m/min

Cutting speed selection for ISO K materials based on tensile strength:



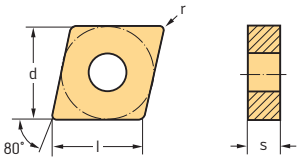
Basis: f = 0.32 mm

Cutting speed range for selected materials:

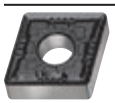
ISO material group	Material	Tensile strength	Brinell hardness	Cutting speed	
				WKV10	WKV20
K3	GG-25 (FC250)	250 N/mm²	180 HB	270–**360**–560 m/min	210–**300**–500 m/min
K5	GGG-40 (FCD400)	400 N/mm²	155 HB	210–**270**–370 m/min	160–**220**–290 m/min
K6	GGG-70 (FCD700)	700 N/mm²	265 HB	170–**210**–270 m/min	130–**170**–210 m/min

For indexable inserts with positive basic shape, the cutting speed should be reduced by approximately 10%

Negative rhombic 80°
CNMG / CNGG / CNMA / CNMM
Tiger·tec® Silver



Indexable inserts

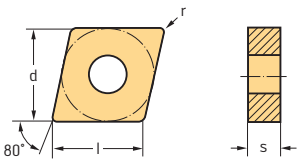
	Designation	r mm	f mm	a_p mm	P HC WPP01	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
 Wiper	CNMG120404-NF	0,4	0,10–0,40	0,4–2,0	●		●	●						●							●		
	CNMG120408-NF	0,8	0,15–0,55	0,5–3,0	●		●	●						●							●		
	CNMG120404-NFT	0,4	0,08–0,17	0,4–1,5										●							●		●
	CNMG120408-NFT	0,8	0,10–0,20	0,5–2,0										●							●		●
	CNMG120402-FM5	0,2	0,03–0,10	0,1–1,0									●	●						●	●		
	CNMG120404-FM5	0,4	0,05–0,15	0,2–1,5						●	●		●	●						●	●		
	CNMG120408-FM5	0,8	0,07–0,20	0,4–1,5						●	●		●	●						●	●		
	CNMG120412-FM5	1,2	0,10–0,25	0,5–2,0										●							●		
 Wiper	CNMG120408-NM	0,8	0,20–0,55	0,8–3,0			●	●						●		●	●				●		
	CNMG120412-NM	1,2	0,25–0,70	1,5–4,0			●	●						●		●	●				●		
	CNMG120404-MS3	0,4	0,12–0,25	0,6–3,0								●	●	●	✖				●	●	●	✖	●
	CNMG120408-MS3	0,8	0,15–0,30	0,8–3,0			●	●				●	●	●	✖				●	●	●	✖	
	CNGG120401-MS3	0,1	0,02–0,06	0,2–2,5								●							●				
	CNGG120402-MS3	0,2	0,05–0,12	0,4–2,5								●							●				
	CNGG120404-MS3	0,4	0,10–0,25	0,6–3,0								●							●				
	CNGG120408-MS3	0,8	0,12–0,30	0,8–3,0								●							●				
	CNMG120408-NMT	0,8	0,12–0,30	0,8–4,0										●							●		●
	CNMG120412-NMT	1,2	0,15–0,32	1,0–4,0										●							●		●
	CNMG120404-NMS	0,4	0,10–0,24	0,6–2,5								●	●	●	✖				●	●	●	✖	
	CNMG120408-NMS	0,8	0,13–0,32	0,8–3,5								●	●	●	✖				●	●	●	✖	
	CNMG120412-NMS	1,2	0,16–0,36	1,0–3,5									●	●						●	●		
	CNMG090304-MP3	0,4	0,06–0,20	0,3–2,2			●	●															
	CNMG090308-MP3	0,8	0,10–0,28	0,6–3,0			●	●	✖														
	CNMG120404-MP3	0,4	0,08–0,22	0,3–2,5			●	●	✖														
	CNMG120408-MP3	0,8	0,12–0,32	0,6–3,2		●	●	●	✖														
	CNMG120412-MP3	1,2	0,16–0,40	0,8–3,5		●	●	●	✖														

See the ISO 1832 designation key for dimensions

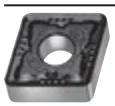
HC = Coated carbide
HW = Uncoated carbide

● ● ✖ / ★ New addition to the product range

Negative rhombic 80°
CNMG / CNGG / CNMA / CNMM
Tiger·tec® Silver

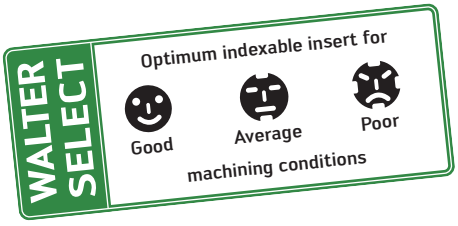


Indexable inserts

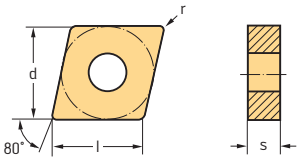
	Designation	r mm	f mm	a_p mm	P HC WPP01	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
	CNMG120404-MM5	0,4	0,10–0,20	0,5–3,0						☺	☺		☺	☺	☹					☺	☺	☹	
	CNMG120408-MM5	0,8	0,15–0,32	0,8–3,0						☺	☺		☺	☺	☹					☺	☺	☹	
	CNMG120412-MM5	1,2	0,15–0,35	0,8–3,5						☺	☺		☺	☺	☹					☺	☺	☹	
	CNMG120416-MM5	1,6	0,15–0,40	1,0–4,0										☺	☹						☺	☹	
	CNMG160608-MM5	0,8	0,15–0,35	0,8–4,5						☺	☺		☺	☺	☹					☺	☺	☹	
	CNMG160612-MM5	1,2	0,18–0,40	0,8–4,5						☺	☺		☺	☺	☹					☺	☺	☹	
	CNMG160616-MM5	1,6	0,20–0,45	1,0–4,5										☺	☹						☺	☹	
	CNMG090308-MK5	0,8	0,10–0,20	0,2–3,0												☺	☺						
	CNMG120404-MK5	0,4	0,16–0,25	0,6–5,0												☺	☺						
	CNMG120408-MK5	0,8	0,25–0,50	0,8–5,0												☺	☺	☹					
	CNMG120412-MK5	1,2	0,30–0,50	1,2–5,0												☺	☺	☹					
	CNMG120416-MK5	1,6	0,35–0,50	1,5–5,0												☺	☺						
	CNMG160608-MK5	0,8	0,25–0,50	0,8–7,0												☺	☺						
	CNMG160612-MK5	1,2	0,30–0,60	1,2–7,0												☺	☺	☹					
	CNMG160616-MK5	1,6	0,35–0,60	1,5–7,0												☺	☺	☹					
	CNMG190612-MK5	1,2	0,30–0,65	1,2–8,0												☺	☺						
	CNMG190616-MK5	1,6	0,35–0,80	1,5–8,0												☺	☺						
	CNMG120408-NRT	0,8	0,18–0,35	1,0–6,0										☺							☺		☺
	CNMG120412-NRT	1,2	0,20–0,40	1,2–6,0										☺							☺		☺
	CNMG160612-NRT	1,2	0,28–0,55	1,5–7,5										☺							☺		☺
	CNMG190616-NRT	1,6	0,35–0,70	2,0–9,0										☺							☺		☺
	CNMG120408-NRS	0,8	0,16–0,35	1,0–4,0						☺	☺	☺	☺	☺	☹				☺	☺	☺	☹	
	CNMG120412-NRS	1,2	0,18–0,40	1,2–4,0						☺	☺	☺	☺	☺	☹				☺	☺	☺	☹	
	CNMG160612-NRS	1,2	0,21–0,45	1,2–6,5						☺	☺		☺	☺	☹					☺	☺	☹	
	CNMG160616-NRS	1,6	0,23–0,50	1,5–6,5									☺	☺						☺	☺		
	CNMG190608-NRS	0,8	0,20–0,45	1,0–8,0									☺	☺						☺	☺		
	CNMG190612-NRS	1,2	0,23–0,50	1,2–8,5									☺	☺						☺	☺		
	CNMG120408-RM5	0,8	0,20–0,40	1,2–5,0			☺	☺		☺	☺		☺	☺	☹					☺	☺	☹	
	CNMG120412-RM5	1,2	0,25–0,50	1,5–5,0			☺	☺		☺	☺		☺	☺	☹					☺	☺	☹	
	CNMG120416-RM5	1,6	0,30–0,55	2,0–5,0										☺	☹						☺	☹	
	CNMG160608-RM5	0,8	0,22–0,45	1,2–7,0									☺	☺	☹					☺	☺	☹	
	CNMG160612-RM5	1,2	0,25–0,60	1,5–7,0			☺	☺		☺	☺		☺	☺	☹					☺	☺	☹	
	CNMG160616-RM5	1,6	0,30–0,65	2,0–7,0			☺	☺		☺	☺			☺	☹						☺	☹	
	CNMG190612-RM5	1,2	0,25–0,60	1,5–8,0						☺	☺		☺	☺	☹					☺	☺	☹	
	CNMG190616-RM5	1,6	0,30–0,80	2,0–8,0						☺	☺		☺	☺	☹					☺	☺	☹	

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide



Negative rhombic 80°
CNMG / CNGG / CNMA / CNMM
Tiger·tec® Silver



Indexable inserts

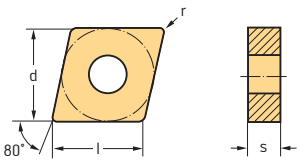
	Designation	r mm	f mm	a_p mm	P HC WPP01	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
	CNMA120404-RK5	0,4	0,16–0,25	0,6–5,0												☻	☻						
	CNMA120408-RK5	0,8	0,25–0,50	0,8–5,0								☻				☻	☻		☻				
	CNMA120412-RK5	1,2	0,30–0,50	1,2–5,0												☻	☻						
	CNMA120416-RK5	1,6	0,35–0,70	1,5–5,0												☻	☻						
	CNMA160612-RK5	1,2	0,35–0,70	1,2–7,0												☻	☻						
	CNMA160616-RK5	1,6	0,35–0,80	1,5–7,0												☻	☻						
	CNMA190612-RK5	1,2	0,30–0,65	1,2–8,0												☻	☻						
	CNMA190616-RK5	1,6	0,35–0,80	1,5–8,0												☻	☻						
	CNMA190624-RK5	2,4	0,40–0,90	2,5–8,0													☻						
	CNMM120412-HU5	1,2	0,30–0,70	1,5–7,0			☻	☻		☻	☻			☻	☻						☻	☻	
	CNMM160612-HU5	1,2	0,35–0,70	1,5–9,0			☻	☻		☻	☻			☻	☻						☻	☻	
	CNMM160616-HU5	1,6	0,40–0,80	2,0–9,0			☻	☻		☻	☻			☻	☻						☻	☻	
	CNMM190612-HU5	1,2	0,35–0,70	1,5–10,0			☻	☻		☻	☻			☻	☻						☻	☻	
	CNMM190616-HU5	1,6	0,40–0,90	2,0–10,0			☻	☻		☻	☻			☻	☻						☻	☻	

See the ISO 1832 designation key for dimensions

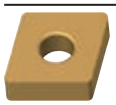
HC = Coated carbide
HW = Uncoated carbide

☻☻☻ / ★ New addition to the product range

Negative rhombic 80°
CNMG Perform / CNMA Perform

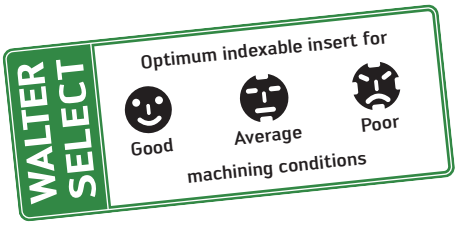


Indexable inserts

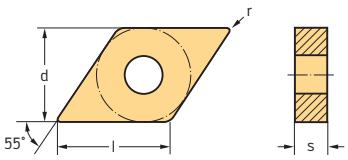
	Designation	r mm	f mm	a_p mm	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	P HC WPV10	P HC WPV20	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	K HC WKV10	K HC WKV20	S HC WSM10S	S HC WSM20S	S HC WSM30S
	CNMG120404-FV5	0,4	0,05–0,20	0,2–1,5						☺	😐												
	CNMG120408-FV5	0,8	0,08–0,25	0,4–2,0						☺	😐												
	CNMG120404-MV5	0,4	0,10–0,20	0,5–3,5						☺	😐												
	CNMG120408-MV5	0,8	0,15–0,32	0,8–4,0						☺	😐												
	CNMG120412-MV5	1,2	0,18–0,40	0,8–4,0						☺	😐												
	CNMG160612-MV5	1,2	0,20–0,45	0,8–5,0						☺	😐												
	CNMG120408-MV7	0,8	0,20–0,45	0,8–5,0						☺	😐								☺	😐			
	CNMG120412-MV7	1,2	0,25–0,50	1,2–5,0						☺	😐								☺	😐			
	CNMG120416-MV7	1,6	0,30–0,55	1,5–5,0															☺	😐			
	CNMG160612-MV7	1,2	0,25–0,50	1,2–7,0															☺	😐			
	CNMG160616-MV7	1,6	0,30–0,55	1,5–7,0						☺	😐								☺	😐			
	CNMG190612-MV7	1,2	0,30–0,60	1,2–8,0						☺	😐												
	CNMG120408-RV5	0,8	0,20–0,40	1,0–5,0						☺	😐												
	CNMG120412-RV5	1,2	0,25–0,55	1,0–5,0						☺	😐												
	CNMG160612-RV5	1,2	0,25–0,55	2,0–6,0						☺	😐												
	CNMG160616-RV5	1,6	0,35–0,60	2,0–6,0						☺	😐												
	CNMA120408-RV7	0,8	0,25–0,50	0,8–5,0															☺	😐			
	CNMA120412-RV7	1,2	0,30–0,55	1,2–5,0															☺	😐			
	CNMA120416-RV7	1,6	0,35–0,70	1,5–5,0															☺	😐			

See the ISO 1832 designation key for dimensions

HC = Coated carbide



Negative rhombic 55°
DNMG / DNGG / DNMM
Tiger·tec® Silver



Indexable inserts

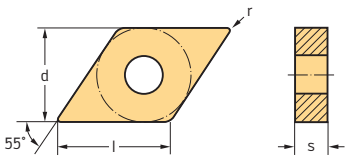
	Designation	r mm	f mm	a_p mm	P HC WPP01	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
	DNMG110408-NF	0,8	0,15–0,50	0,5–2,0	☺		☺							😐							😐		
	DNMG150408-NF	0,8	0,15–0,50	0,5–3,0	☺		☺																
	DNMG150608-NF	0,8	0,15–0,50	0,5–3,0	☺		☺							😐							😐		
Wiper																							
	DNMG150404-NFT	0,4	0,06–0,16	0,4–1,5										😐							😐		😐
	DNMG150604-NFT	0,4	0,06–0,16	0,4–1,5										😐							😐		😐
	DNMG150608-NFT	0,8	0,08–0,19	0,5–2,0										😐							😐		😐
	DNMG110404-FM5	0,4	0,05–0,15	0,2–1,0						😐	😐		☺	😐					☺		😐		
	DNMG110408-FM5	0,8	0,07–0,20	0,4–1,5						😐	😐		☺	😐					☺		😐		
	DNMG150404-FM5	0,4	0,05–0,15	0,2–1,5						😐	😐		☺	😐					☺		😐		
	DNMG150408-FM5	0,8	0,07–0,20	0,4–1,5									☺	😐					☺		😐		
	DNMG150602-FM5	0,2	0,03–0,10	0,1–1,0									☺	😐					☺		😐		
	DNMG150604-FM5	0,4	0,05–0,15	0,2–1,5						😐	😐		☺	😐					☺		😐		
	DNMG150608-FM5	0,8	0,07–0,20	0,4–1,5						😐	😐		☺	😐					☺		😐		
	DNMG110408-MS3	0,8	0,12–0,30	0,8–2,5								☺	☺		😵				☺	☺		😵	
	DNMG150404-MS3	0,4	0,12–0,25	0,6–2,5								☺	☺						☺	☺			
	DNMG150408-MS3	0,8	0,15–0,30	0,8–2,5			☺					☺	☺		😵				☺	☺		😵	
	DNMG150604-MS3	0,4	0,12–0,25	0,6–2,5								☺	☺						☺	☺			
	DNMG150608-MS3	0,8	0,15–0,30	0,8–2,5				☺				☺	☺		😵				☺	☺		😵	
	DNGG150402-MS3	0,2	0,05–0,12	0,4–2,0								☺							☺				
	DNGG150404-MS3	0,4	0,10–0,25	0,6–2,5								☺							☺				
	DNGG150408-MS3	0,8	0,12–0,30	0,8–2,5								☺							☺				
	DNMG110404-NMT	0,4	0,08–0,22	0,4–2,5										😐							😐		
	DNMG110408-NMT	0,8	0,12–0,28	0,6–3,2										😐							😐		
	DNMG150408-NMT	0,8	0,12–0,28	0,6–4,0										😐							😐		😐
	DNMG150608-NMT	0,8	0,12–0,28	0,6–4,0									☺	😐						☺	😐		😐
	DNMG150612-NMT	1,2	0,15–0,30	0,8–4,0																			😐
	DNMG150404-NMS	0,4	0,09–0,22	0,6–2,5									☺	😐						☺	😐		
	DNMG150408-NMS	0,8	0,11–0,30	0,8–3,5								☺	☺	😐					☺	☺	😐		
	DNMG150604-NMS	0,4	0,09–0,22	0,6–2,5								☺	☺	😐					☺	☺	😐		
	DNMG150608-NMS	0,8	0,11–0,30	0,8–3,5								☺	☺	😐	😵				☺	☺	😐	😵	
	DNMG110404-MM5	0,4	0,10–0,18	0,5–2,0						😐	😐		☺	😐	😵					☺	😐	😵	
	DNMG110408-MM5	0,8	0,15–0,25	0,8–3,0						😐	😐		☺	😐	😵					☺	😐	😵	
	DNMG150404-MM5	0,4	0,10–0,18	0,5–2,5						😐	😐		☺	😐	😵					☺	😐	😵	
	DNMG150408-MM5	0,8	0,15–0,25	0,8–3,0						😐	😐		☺	😐	😵					☺	😐	😵	
	DNMG150412-MM5	1,2	0,18–0,30	0,8–3,0										😐							😐		
	DNMG150604-MM5	0,4	0,10–0,18	0,5–2,5						😐	😐		☺	😐	😵					☺	😐	😵	
	DNMG150608-MM5	0,8	0,15–0,25	0,8–3,0						😐	😐		☺	😐	😵					☺	😐	😵	
	DNMG150612-MM5	1,2	0,18–0,30	0,8–3,0						😐	😐		☺	😐	😵					☺	😐	😵	

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

☺ 😐 😵 / ★ New addition to the product range

Negative rhombic 55°
DNMG / DNGG / DNMM
Tiger·tec® Silver

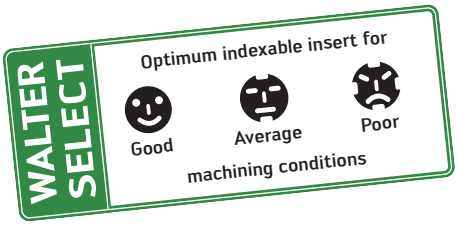


Indexable inserts

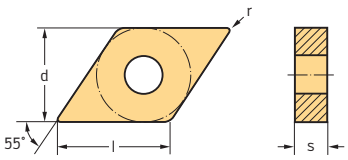
	Designation	r mm	f mm	a_p mm	P HC WPP01	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
	DNMG150408-NRS	0,8	0,13–0,32	1,0–4,0						☺	☺		☺	☺						☺	☺		
	DNMG150608-NRS	0,8	0,13–0,32	1,0–4,0						☺	☺		☺	☺						☺	☺		
	DNMG150612-NRS	1,2	0,15–0,35	1,2–4,0									☺	☺						☺	☺		
	DNMG110408-RM5	0,8	0,20–0,40	1,2–3,5						☺	☺			☺	☹						☺	☹	
	DNMG110412-RM5	1,2	0,25–0,50	1,5–3,5						☺	☺			☺	☹						☺	☹	
	DNMG150408-RM5	0,8	0,20–0,40	1,2–4,0						☺	☺			☺	☹						☺	☹	
	DNMG150608-RM5	0,8	0,20–0,40	1,2–4,0						☺	☺		☺	☺	☹					☺	☺	☹	
	DNMG150612-RM5	1,2	0,25–0,50	1,5–4,0						☺	☺			☺	☹						☺	☹	
	DNMM150608-HU5	0,8	0,25–0,45	1,0–5,0				☹		☹	☹			☹	☹						☹	☹	
	DNMM150612-HU5	1,2	0,30–0,50	1,5–5,0				☹		☹	☹			☹	☹						☹	☹	

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide



Negative rhombic 55°
DNMG Perform



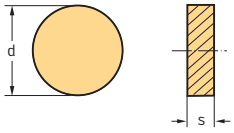
Indexable inserts

	Designation	r mm	f mm	a_p mm	P HC							M HC				K HC					S HC			
					WPP05S	WPP10S	WPP20S	WPP30S	WMP20S	WPV10	WPV20	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WKP30S	WKV10	WKV20	WSM10S	WSM20S	WSM30S
	DNMG110404-FV5	0,4	0,05–0,20	0,2–1,5						●	●												
	DNMG110408-FV5	0,8	0,08–0,25	0,4–2,0						●	●												
	DNMG150408-FV5	0,8	0,08–0,25	0,4–2,0						●	●												
	DNMG150604-FV5	0,4	0,05–0,20	0,2–1,5						●	●												
	DNMG150608-FV5	0,8	0,08–0,25	0,4–2,0						●	●												
	DNMG110408-MV5	0,8	0,15–0,32	0,8–3,0						●	●												
	DNMG150408-MV5	0,8	0,15–0,32	0,8–3,5						●	●												
	DNMG150608-MV5	0,8	0,15–0,32	0,8–3,5						●	●												
	DNMG150412-MV7	1,2	0,25–0,45	1,2–5,0															●	●			
	DNMG150608-MV7	0,8	0,20–0,45	0,8–5,0						●	●								●	●			
	DNMG150612-MV7	1,2	0,25–0,45	1,2–5,0						●	●								●	●			
	DNMG150608-RV5	0,8	0,15–0,40	1,0–4,5						●	●												
	DNMG150612-RV5	1,2	0,20–0,50	1,0–4,5						●	●												

See the ISO 1832 designation key for dimensions

HC = Coated carbide

Negative round
RNMG / RNMA
Tiger·tec® Silver



Indexable inserts

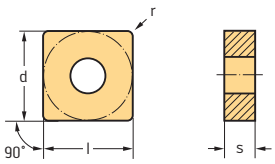
	Designation	d mm	f mm	a_p mm	P HC					M HC				K HC			S HC			HW
					WPP05S	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WKP30S	WSM10S	WSM20S	WSM30S	WS10
	RNMG120400-RP5	12,7	0,20–0,60	1,2–5,0			●													●
	RNMA120400-RK5	12,7	0,15–0,60	1,2–4,0											●					

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

● ● ● / ★ New addition to the product range

Negative square
SNMG / SNMM
Tiger·tec® Silver

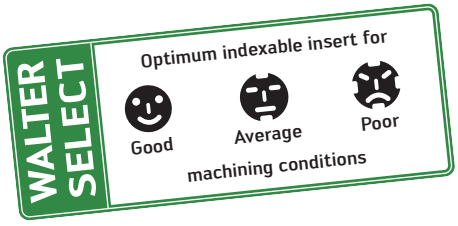


Indexable inserts

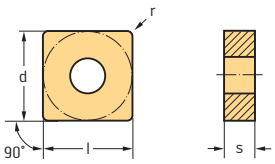
	Designation	r mm	f mm	a_p mm	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
	SNMG120408-FM5	0,8	0,07–0,20	0,4–1,5							☺	😐					☺	😐		
	SNMG120412-FM5	1,2	0,10–0,25	0,5–2,0					😐	😐	☺	😐					☺	😐		
	SNMG120404-MM5	0,4	0,10–0,18	0,5–2,0								😐	😵					😐	😵	
	SNMG120408-MM5	0,8	0,15–0,25	0,8–3,0					😐	😐	☺	😐	😵				☺	😐	😵	
	SNMG120412-MM5	1,2	0,18–0,30	0,8–3,5					😐	😐	☺	😐	😵				☺	😐	😵	
	SNMG090308-MK5	0,8	0,10–0,20	0,2–3,0										☺	😐					
	SNMG120408-MK5	0,8	0,25–0,50	0,8–5,0										☺	😐					
	SNMG120412-MK5	1,2	0,30–0,50	1,2–5,0										☺	😐	😵				
	SNMG120416-MK5	1,6	0,35–0,50	1,5–5,0										☺	😐					
	SNMG150612-MK5	1,2	0,30–0,60	1,2–7,0										☺	😐					
	SNMG150616-MK5	1,6	0,35–0,60	1,5–7,0										☺	😐					
	SNMG190612-MK5	1,2	0,30–0,65	1,2–8,0										☺	😐					
	SNMG190616-MK5	1,6	0,35–0,80	1,5–8,0										☺	😐					
	SNMG120412-NRT	1,2	0,25–0,50	0,8–6,0								😐						😐		😐
	SNMG150612-NRT	1,2	0,30–0,60	1,0–7,5								😐						😐		😐
	SNMG150616-NRT	1,6	0,35–0,70	1,2–7,5								😐						😐		
	SNMG190616-NRT	1,6	0,40–0,80	1,5–9,0																😐
	SNMG120408-NRS	0,8	0,20–0,40	0,8–5,0							☺	😐	😵				☺	😐	😵	
	SNMG120412-NRS	1,2	0,22–0,45	1,0–5,0							☺	😐	😵				☺	😐	😵	
	SNMG150616-NRS	1,6	0,24–0,55	1,2–7,0							☺	😐					☺	😐		
	SNMG190612-NRS	1,2	0,24–0,55	1,0–9,0							☺	😐					☺	😐		
	SNMG190616-NRS	1,6	0,27–0,60	1,2–9,0							☺	😐					☺	😐		
	SNMG120408-RM5	0,8	0,20–0,40	1,2–5,0					😐	😐		😐	😵					😐	😵	
	SNMG120412-RM5	1,2	0,25–0,50	1,5–5,0					😐	😐		😐	😵					😐	😵	
	SNMG120416-RM5	1,6	0,30–0,55	2,0–5,0								😐	😵					😐	😵	
	SNMG150612-RM5	1,2	0,25–0,60	1,5–7,0					😐	😐		😐	😵					😐	😵	
	SNMG150616-RM5	1,6	0,30–0,55	2,0–7,0					😐	😐		😐	😵					😐	😵	
	SNMG190612-RM5	1,2	0,25–0,60	1,5–8,0					😐	😐		😐	😵					😐	😵	
	SNMG190616-RM5	1,6	0,30–0,80	2,0–8,0					😐	😐		😐	😵					😐	😵	
	SNMM120412-HU5	1,2	0,30–0,70	1,5–7,0			😐		😐	😐		😐	😵					😐	😵	
	SNMM150612-HU5	1,2	0,35–0,70	1,5–9,0			😐		😐	😐		😐	😵					😐	😵	
	SNMM190612-HU5	1,2	0,35–0,80	1,5–10,0		☺	😐		😐	😐		😐	😵					😐	😵	
	SNMM190616-HU5	1,6	0,40–1,00	2,0–10,0		☺	😐		😐	😐		😐	😵					😐	😵	
	SNMM250924-HU5	2,4	0,50–1,20	2,5–12,0			😐		😐	😐		😐	😵					😐	😵	

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide



Negative square
SNMG Perform / SNMA Perform



Indexable inserts

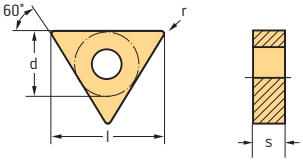
	Designation	r mm	f mm	a_p mm	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	P HC WPV10	P HC WPV20	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	K HC WKV10	K HC WKV20	S HC WSM10S	S HC WSM20S	S HC WSM30S
	SNMG120408-MV5	0,8	0,15–0,32	0,8–4,0						●	●												
	SNMG120408-MV7	0,8	0,25–0,50	0,8–5,0															●	●			
	SNMG120412-MV7	1,2	0,30–0,50	1,2–5,0															●	●			
	SNMG150612-MV7	1,2	0,30–0,60	1,2–7,0															●	●			
	SNMA120412-RV7	1,2	0,30–0,60	1,2–5,0															●	●			

See the ISO 1832 designation key for dimensions

HC = Coated carbide

● / ★ New addition to the product range

Negative triangular 60°
TNMG
Tiger·tec® Silver



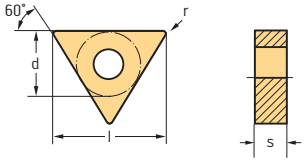
Indexable inserts

	Designation	r mm	f mm	a_p mm	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
	TNMG160404-FM5	0,4	0,05–0,15	0,2–1,0					●	●		●	●						●	●		
	TNMG160408-FM5	0,8	0,07–0,20	0,4–1,5					●	●		●	●						●	●		
	TNMG160412-FM5	1,2	0,10–0,25	0,5–2,0								●	●						●	●		
	TNMG160304-MS3	0,4	0,12–0,25	0,6–3,0			●															
	TNMG160308-MS3	0,8	0,15–0,30	0,8–3,0			●	✖														
	TNMG160404-MS3	0,4	0,12–0,25	0,6–3,0			●				●							●				
	TNMG160408-MS3	0,8	0,15–0,30	0,8–3,0		●	●				●	●						●	●			
	TNMG220404-MS3	0,4	0,12–0,25	0,6–3,0			●				●							●				
	TNMG220408-MS3	0,8	0,15–0,30	0,8–3,0			●	✖			●	●						●	●			
	TNMG160404-NMT	0,4	0,08–0,20	0,6–3,0									●							●		●
	TNMG160408-NMT	0,8	0,12–0,30	1,0–4,0									●							●		●
	TNMG160404-NMS	0,4	0,09–0,22	0,6–2,5							●	●	●	✖				●	●	●	✖	
	TNMG160408-NMS	0,8	0,11–0,30	0,8–3,5							●	●	●	✖				●	●	●	✖	
	TNMG160404-MM5	0,4	0,10–0,18	0,5–2,0					●	●		●	●	✖					●	●	✖	
	TNMG160408-MM5	0,8	0,15–0,25	0,8–3,0					●	●		●	●	✖					●	●	✖	
	TNMG160412-MM5	1,2	0,18–0,30	0,8–3,5					●	●		●	●	✖					●	●	✖	
	TNMG160416-MM5	1,6	0,20–0,35	1,0–4,0									●							●		
	TNMG160412-NRS	1,2	0,25–0,50	1,5–4,5								●	●						●	●		
	TNMG160408-RM5	0,8	0,20–0,40	1,2–4,0					●	●		●	●	✖					●	●	✖	
	TNMG160412-RM5	1,2	0,25–0,50	1,5–4,0					●	●			●	✖						●	✖	
	TNMG220408-RM5	0,8	0,20–0,40	1,2–4,0					●	●		●	●	✖					●	●	✖	
	TNMG220412-RM5	1,2	0,25–0,55	1,5–5,0					●	●			●	✖						●	✖	

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

Negative triangular 60°
TNMG Perform

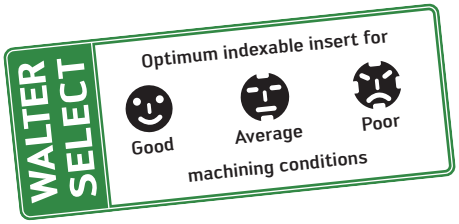


Indexable inserts

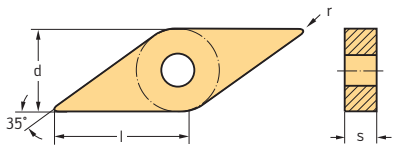
	Designation	r mm	f mm	a_p mm	P HC							M HC				K HC					S HC		
					WPP05S	WPP10S	WPP20S	WPP30S	WMP20S	WPV10	WPV20	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WKP30S	WKV10	WKV20	WSM10S	WSM20S	WSM30S
	TNMG160404-FV5	0,4	0,05–0,20	0,2–1,5						☺	😐												
	TNMG160408-FV5	0,8	0,08–0,25	0,4–2,0						☺	😐												
	TNMG160404-MV5	0,4	0,10–0,20	0,5–3,5						☺	😐												
	TNMG160408-MV5	0,8	0,15–0,32	0,8–3,5						☺	😐												
	TNMG160408-MV7	0,8	0,20–0,45	0,8–5,0															☺	😐			
	TNMG160412-MV7	1,2	0,25–0,45	1,2–5,0															☺	😐			
	TNMG160408-RV5	0,8	0,15–0,40	1,0–4,5						☺	😐												

See the ISO 1832 designation key for dimensions

HC = Coated carbide



Negative rhombic 35°
VNMG / VNGG
Tiger·tec® Silver



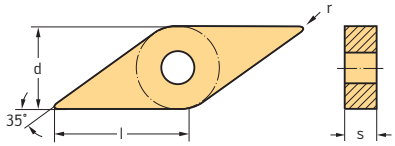
Indexable inserts

	Designation	r mm	f mm	a_p mm	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
	VNMG160404-NFT	0,4	0,05–0,15	0,2–1,5									●						●		●
	VNMG160408-NFT	0,8	0,07–0,18	0,3–2,0									●						●		●
	VNMG160402-FM5	0,2	0,03–0,10	0,1–1,0								●	●						●	●		
	VNMG160404-FM5	0,4	0,05–0,15	0,2–1,0								●	●						●	●		
	VNMG160408-FM5	0,8	0,07–0,20	0,4–1,5								●	●						●	●		
	VNMG160404-FP5	0,4	0,04–0,22	0,1–1,5		●	●															
	VNMG160408-FP5	0,8	0,08–0,25	0,2–2,0		●	●															
	VNMG160412-FP5	1,2	0,12–0,28	0,3–2,5		●	●															
	VNMG160404-MS3	0,4	0,10–0,20	0,6–2,5				◓			●	●						●	●			
	VNMG160408-MS3	0,8	0,12–0,25	0,8–2,5				◓			●	●						●	●			
	VNGG160401-MS3	0,1	0,02–0,06	0,2–2,0							●							●				
	VNGG160402-MS3	0,2	0,05–0,12	0,4–2,0							●							●				
	VNGG160404-MS3	0,4	0,10–0,20	0,6–2,0							●							●				
	VNMG160404-NMS	0,4	0,08–0,16	0,5–1,5								●	●						●	●		
	VNMG160408-NMS	0,8	0,10–0,22	0,8–2,2								●	●						●	●		
	VNMG160404-MM5	0,4	0,10–0,18	0,5–2,0					◓	◓		●	●	◓					●	●	◓	
	VNMG160408-MM5	0,8	0,15–0,25	0,8–3,0					◓	◓		●	●	◓					●	●	◓	

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

Negative rhombic 35°
VNMG Perform



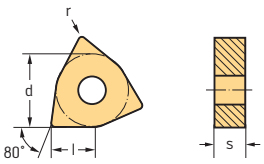
Indexable inserts

	Designation	r mm	f mm	a_p mm	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	P HC WPV10	P HC WPV20	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM10S	S HC WSM20S	S HC WSM30S
	VNMG160404-FV5	0,4	0,05–0,20	0,2–1,5						●	●										
	VNMG160408-FV5	0,8	0,08–0,25	0,4–2,0						●	●										

See the ISO 1832 designation key for dimensions

HC = Coated carbide

Negative Trigon 80°
WNMG
Tiger·tec® Silver



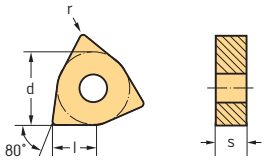
Indexable inserts

	Designation	r mm	f mm	a_p mm	P HC WPP01	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
 Wiper	WNMG060404-NF	0,4	0,10–0,40	0,4–2,0	●		●							●							●		
	WNMG060408-NF	0,8	0,15–0,50	0,5–3,0	●		●							●							●		
	WNMG080404-NF	0,4	0,20–0,40	0,4–2,0	●		●							●							●		
	WNMG080408-NF	0,8	0,25–0,55	0,5–3,0	●		●							●							●		
	WNMG080412-NF	1,2	0,25–0,70	0,8–3,0			●																
	WNMG060404-FM5	0,4	0,05–0,15	0,2–1,0									●	●						●	●		
	WNMG060408-FM5	0,8	0,07–0,20	0,4–1,5									●	●						●	●		
	WNMG080404-FM5	0,4	0,05–0,15	0,2–1,5						●	●		●	●						●	●		
	WNMG080408-FM5	0,8	0,07–0,20	0,4–1,5						●	●		●	●						●	●		
	WNMG080412-FM5	1,2	0,10–0,25	0,5–2,0									●	●						●	●		
 Wiper	WNMG060408-NM	0,8	0,20–0,55	0,8–3,0			●									●							
	WNMG060412-NM	1,2	0,25–0,55	1,5–4,0			●									●							
	WNMG080408-NM	0,8	0,20–0,55	0,8–3,0			●	●						●		●	●				●		
	WNMG080412-NM	1,2	0,25–0,70	1,5–4,0			●	●						●		●	●				●		
	WNMG080404-MS3	0,4	0,12–0,25	0,6–3,0								●	●		●				●	●		●	
	WNMG080408-MS3	0,8	0,15–0,30	0,8–3,0								●	●		●				●	●		●	
	WNMG080408-NMT	0,8	0,12–0,30	0,8–4,0										●							●		●
	WNMG080412-NMT	1,2	0,15–0,32	1,0–4,0																			●
	WNMG060408-NMS	0,8	0,10–0,30	0,8–3,0									●	●						●	●		
	WNMG080404-NMS	0,4	0,10–0,24	0,6–2,5								●	●	●	●				●	●	●	●	
	WNMG080408-NMS	0,8	0,13–0,32	0,8–3,5								●	●	●	●				●	●	●	●	
	WNMG060404-MM5	0,4	0,10–0,18	0,5–2,0						●	●		●	●	●					●	●	●	
	WNMG060408-MM5	0,8	0,15–0,25	0,8–2,5						●	●		●	●	●					●	●	●	
	WNMG060412-MM5	1,2	0,18–0,30	0,8–3,0										●	●						●	●	
	WNMG080404-MM5	0,4	0,10–0,20	0,5–3,0						●	●		●	●	●					●	●	●	
	WNMG080408-MM5	0,8	0,15–0,32	0,8–3,0						●	●		●	●	●					●	●	●	
	WNMG080412-MM5	1,2	0,15–0,35	0,8–3,5						●	●		●	●	●					●	●	●	
	WNMG080416-MM5	1,6	0,15–0,40	1,0–4,0										●	●						●	●	
	WNMG100608-MM5	0,8	0,18–0,40	0,8–4,5										●	●						●	●	
	WNMG100612-MM5	1,2	0,20–0,45	0,8–4,5										●	●						●	●	

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

Negative Trigon 80°
WNMG
Tiger·tec® Silver

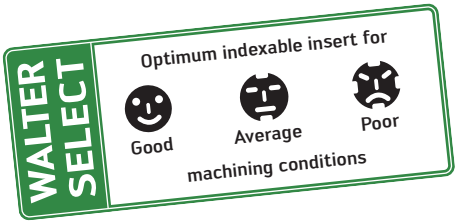


Indexable inserts

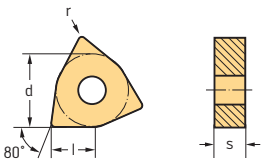
	Designation	r mm	f mm	a_p mm	P HC WPP01	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	K HC WKP30S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
	WNMG060404-MK5	0,4	0,16–0,25	0,6–4,0												😊	😐						
	WNMG060408-MK5	0,8	0,20–0,40	0,8–4,0												😊	😐						
	WNMG060412-MK5	1,2	0,16–0,45	0,6–4,0												😊	😐						
	WNMG080404-MK5	0,4	0,16–0,25	0,6–5,0												😊	😐						
	WNMG080408-MK5	0,8	0,20–0,45	1,2–5,0												😊	😐	☹					
	WNMG080412-MK5	1,2	0,22–0,50	1,5–5,0												😊	😐	☹					
	WNMG080416-MK5	1,6	0,25–0,55	2,0–5,0												😊	😐						
	WNMG100608-MK5	0,8	0,25–0,50	0,8–7,0												😊	😐						
	WNMG100612-MK5	1,2	0,30–0,60	1,2–7,0												😊	😐						
	WNMG100616-MK5	1,6	0,35–0,60	1,5–7,0												😊	😐						
	WNMG080408-NRS	0,8	0,16–0,35	1,0–4,0						😐	😐	😊	😊	😐	☹				😊	😊	😐	☹	
	WNMG080412-NRS	1,2	0,18–0,40	1,2–4,0						😐	😐	😊	😊	😐	☹				😊	😊	😐	☹	
	WNMG060408-RM5	0,8	0,20–0,40	1,2–3,5						😐	😐			😐	☹						😐	☹	
	WNMG080408-RM5	0,8	0,20–0,40	1,2–4,5			😊	😐		😐	😐		😊	😐	☹					😊	😐	☹	
	WNMG080412-RM5	1,2	0,25–0,50	1,5–4,5			😊	😐		😐	😐		😊	😐	☹					😊	😐	☹	
	WNMG080408-RP7	0,8	0,16–0,45	1,0–5,0			😊	😐	☹									☹					
	WNMG080412-RP7	1,2	0,20–0,45	1,5–5,0			😊	😐	☹									☹					
	WNMG100608-RP7	0,8	0,30–0,50	0,8–6,0				😐	☹														
	WNMG100612-RP7	1,2	0,35–0,60	1,2–6,0			😊	😐	☹														
	WNMG100616-RP7	1,6	0,40–0,60	1,5–6,0				😐	☹														

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide



Negative Trigon 80°
WNMG Perform / WNMA Perform



Indexable inserts

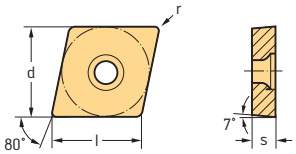
	Designation	r mm	f mm	a_p mm	P HC							M HC				K HC					S HC		
					WPP05S	WPP10S	WPP20S	WPP30S	WMP20S	WPV10	WPV20	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WKP30S	WKV10	WKV20	WSM10S	WSM20S	WSM30S
	WNMG080408-FV5	0,8	0,08–0,25	0,4–2,0						●	●												
	WNMG060408-MV5	0,8	0,15–0,32	0,8–3,0						●	●												
	WNMG080404-MV5	0,4	0,10–0,20	0,5–3,5						●	●												
	WNMG080408-MV5	0,8	0,15–0,32	0,8–4,0						●	●												
	WNMG080412-MV5	1,2	0,18–0,40	0,8–4,0						●	●												
	WNMG080408-MV7	0,8	0,20–0,45	1,2–5,0						●	●								●	●			
	WNMG080412-MV7	1,2	0,25–0,50	1,5–5,0						●	●								●	●			
	WNMG080408-RV5	0,8	0,20–0,40	1,0–5,0						●	●												
	WNMG080412-RV5	1,2	0,25–0,55	1,0–5,0						●	●												
	WNMA080408-RV7	0,8	0,20–0,45	1,2–5,0															●	●			
	WNMA080412-RV7	1,2	0,25–0,50	1,5–5,0															●	●			

See the ISO 1832 designation key for dimensions

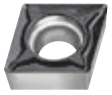
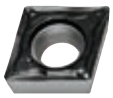
HC = Coated carbide

● / ★ New addition to the product range

Positive rhombic 80°
CCMT / CCGT
Tiger·tec® Silver



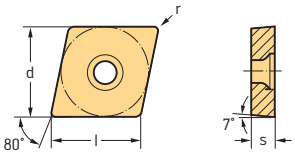
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HE WEP10	P HC WPP01	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
 Wiper	CCMT060204-PF	6,45	0,4	0,05–0,30	0,3–2,0		●	●	●						●	●						●	●
	CCMT060208-PF	6,45	0,8	0,09–0,35	0,3–2,0			●	●						●							●	
	CCMT09T304-PF	9,67	0,4	0,07–0,30	0,3–3,0		●	●	●						●	●						●	●
	CCMT09T308-PF	9,67	0,8	0,12–0,45	0,3–3,0		●	●	●						●	●						●	●
	CCGT060201-FN2	6,45	0,1	0,02–0,06	0,1–1,5														●				
	CCGT060202-FN2	6,45	0,2	0,05–0,12	0,2–2,0														●				
	CCGT060204-FN2	6,45	0,4	0,08–0,25	0,2–2,5														●				
	CCGT09T301-FN2	9,67	0,1	0,02–0,06	0,1–1,5														●				
	CCGT09T302-FN2	9,67	0,2	0,05–0,12	0,2–2,0														●				
	CCGT09T304-FN2	9,67	0,4	0,08–0,25	0,2–2,5														●				
	CCGT09T308-FN2	9,67	0,8	0,10–0,30	0,3–3,0														●				
	CCGT120404-FN2	12,90	0,4	0,08–0,25	0,2–3,0														●				
	CCGT120408-FN2	12,90	0,8	0,10–0,30	0,3–3,5														●				
	CCGT060201-FM2	6,45	0,1	0,02–0,06	0,1–1,5										●							●	
	CCGT060202-FM2	6,45	0,2	0,05–0,12	0,2–2,0								●		●					●		●	
	CCGT060204-FM2	6,45	0,4	0,08–0,25	0,2–2,5								●		●					●		●	
	CCGT09T301-FM2	9,67	0,1	0,02–0,06	0,1–1,5										●							●	
	CCGT09T302-FM2	9,67	0,2	0,05–0,12	0,2–2,0								●		●					●		●	
	CCGT09T304-FM2	9,67	0,4	0,08–0,25	0,2–2,5								●	●	●					●	●	●	
	CCGT09T308-FM2	9,67	0,8	0,10–0,30	0,3–3,0								●	●	●					●	●	●	
	CCGT120404-FM2	12,90	0,4	0,08–0,25	0,2–3,0										●							●	
	CCGT120408-FM2	12,90	0,8	0,10–0,30	0,3–3,5										●							●	
	CCMT060202-FP4	6,45	0,2	0,04–0,12	0,1–1,0	●		●	●														
	CCMT060204-FP4	6,45	0,4	0,05–0,16	0,1–1,5	●		●	●														
	CCMT060208-FP4	6,45	0,8	0,08–0,20	0,1–1,5			●	●														
	CCMT09T302-FP4	9,67	0,2	0,04–0,12	0,1–1,0	●		●	●														
	CCMT09T304-FP4	9,67	0,4	0,05–0,16	0,1–1,5	●		●	●														
	CCMT09T308-FP4	9,67	0,8	0,08–0,20	0,1–1,5	●		●	●														
	CCMT120404-FP4	12,90	0,4	0,05–0,16	0,1–1,5			●	●														
	CCMT120408-FP4	12,90	0,8	0,08–0,20	0,1–1,5			●	●														
	CCMT060204-FM6	6,45	0,4	0,08–0,25	0,3–1,6										●	●						●	●
	CCMT060208-FM6	6,45	0,8	0,12–0,30	0,5–1,6										●							●	
	CCMT09T304-FM6	9,67	0,4	0,08–0,25	0,3–2,0										●	●						●	●
	CCMT09T308-FM6	9,67	0,8	0,12–0,32	0,5–2,0										●	●						●	●
	CCMT120408-FM6	12,90	0,8	0,12–0,32	0,5–2,5										●	●						●	●

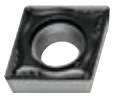
See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide

Positive rhombic 80°
CCMT / CCGT
Tiger·tec® Silver

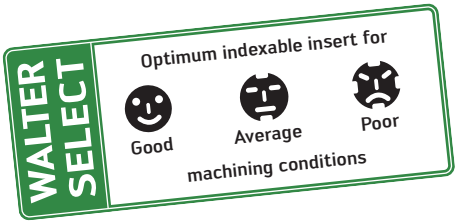


Indexable inserts

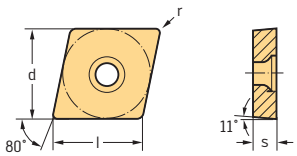
	Designation	l mm	r mm	f mm	a_p mm	P HE WEP10	P HC WPP01	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	CCGT060201-MN2	6,45	0,1	0,02–0,06	0,5–1,5														☺				
	CCGT060202-MN2	6,45	0,2	0,05–0,12	0,5–2,0								☺						☺	☺			
	CCGT060204-MN2	6,45	0,4	0,08–0,25	0,6–3,0								☺						☺	☺			
	CCGT09T301-MN2	9,67	0,1	0,02–0,06	0,5–1,5														☺				
	CCGT09T302-MN2	9,67	0,2	0,05–0,12	0,5–2,0								☺						☺	☺			
	CCGT09T304-MN2	9,67	0,4	0,08–0,25	0,6–4,0								☺						☺	☺			
	CCGT09T308-MN2	9,67	0,8	0,10–0,35	0,8–4,0								☺						☺	☺			
	CCGT120402-MN2	12,90	0,2	0,05–0,12	0,5–2,0														☺				
	CCGT120404-MN2	12,90	0,4	0,08–0,25	0,6–5,0														☺				
	CCGT120408-MN2	12,90	0,8	0,10–0,35	0,8–5,0														☺				
	CCMT060204-MM4	6,45	0,4	0,08–0,20	0,4–2,0						😐	😐		☺	😐	😟					☺	😐	😟
	CCMT060208-MM4	6,45	0,8	0,12–0,25	0,5–2,0						😐	😐			😐							😐	
	CCMT09T304-MM4	9,67	0,4	0,08–0,25	0,4–3,0						😐	😐		☺	😐	😟					☺	😐	😟
	CCMT09T308-MM4	9,67	0,8	0,12–0,32	0,5–3,0						😐	😐		☺	😐	😟					☺	😐	😟
	CCMT120404-MM4	12,90	0,4	0,12–0,25	0,4–3,5						😐	😐			😐							😐	
	CCMT120408-MM4	12,90	0,8	0,12–0,32	0,5–3,5						😐	😐		☺	😐						☺	😐	
	CCGT060204-MM4	6,45	0,4	0,08–0,20	0,4–2,0								☺		😐				☺		😐		
	CCGT060208-MM4	6,45	0,8	0,12–0,25	0,5–2,0								☺		😐				☺		😐		
	CCGT09T304-MM4	9,67	0,4	0,08–0,25	0,4–3,0								☺		😐				☺		😐		
	CCGT09T308-MM4	9,67	0,8	0,12–0,32	0,5–3,0								☺		😐				☺		😐		
	CCGT120408-MM4	12,90	0,8	0,12–0,32	0,5–3,5										😐						😐		

See the ISO 1832 designation key for dimensions

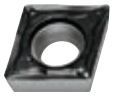
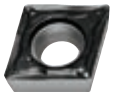
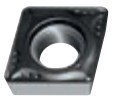
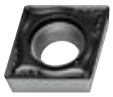
HE = Coated cermet
HC = Coated carbide



Positive rhombic 80°
CPMT / CPGT / CPMW
Tiger·tec® Silver



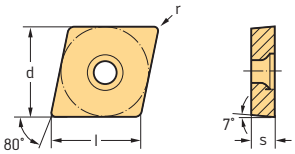
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	CPMT050204-FM4	5,64	0,4	0,05–0,16	0,1–1,5				●	●			●						●	
	CPMT060204-FM4	6,45	0,4	0,05–0,16	0,1–1,5				●	●			●						●	
	CPMT09T304-FM4	9,67	0,4	0,05–0,16	0,1–1,5				●	●			●						●	
	CPMT09T308-FM4	9,67	0,8	0,08–0,20	0,1–1,5				●	●			●						●	
	CPMT050204-FP4	5,64	0,4	0,05–0,16	0,1–1,5	●														
	CPMT060204-FP4	6,45	0,4	0,05–0,16	0,1–1,5	●														
	CPMT09T304-FP4	9,67	0,4	0,05–0,16	0,1–1,5	●														
	CPMT09T308-FP4	9,67	0,8	0,08–0,20	0,1–1,5	●														
	CPMT04T104-MM4	4,84	0,4	0,06–0,16	0,3–1,5								●						●	
	CPMT060204-MM4	6,45	0,4	0,08–0,20	0,4–2,0								●						●	
	CPMT060208-MM4	6,45	0,8	0,12–0,25	0,5–2,0								●						●	
	CPMT09T304-MM4	9,67	0,4	0,08–0,25	0,4–3,0								●						●	
	CPMT09T308-MM4	9,67	0,8	0,12–0,32	0,5–3,0								●						●	
	CPGT050204-MM4	5,64	0,4	0,08–0,20	0,4–1,5								●						●	
	CPGT060201-MM4	6,45	0,1	0,04–0,12	0,1–2,0						●						●			
	CPGT060202-MM4	6,45	0,2	0,06–0,16	0,2–2,0						●						●			
	CPGT060204-MM4	6,45	0,4	0,08–0,20	0,4–2,0						●		●				●		●	
	CPGT060208-MM4	6,45	0,8	0,12–0,25	0,5–2,0						●		●				●		●	
	CPGT09T301-MM4	9,67	0,1	0,06–0,20	0,1–3,0						●						●			
	CPGT09T304-MM4	9,67	0,4	0,08–0,25	0,4–3,0						●		●				●		●	
	CPGT09T308-MM4	9,67	0,8	0,12–0,32	0,5–3,0						●		●				●		●	
	CPMT04T104-MP4	4,84	0,4	0,06–0,16	0,3–1,5		●													
	CPMT060204-MP4	6,45	0,4	0,08–0,20	0,4–2,0		●													
	CPMT060208-MP4	6,45	0,8	0,12–0,25	0,5–2,0		●													
	CPMT09T304-MP4	9,67	0,4	0,08–0,25	0,4–3,0		●													
	CPMT09T308-MP4	9,67	0,8	0,12–0,32	0,5–3,0		●													
	CPMW050204-RK6	5,64	0,4	0,12–0,25	0,4–2,5						●					●	●			
	CPMW060204-RK6	6,45	0,4	0,12–0,25	0,4–2,5											●				
	CPMW09T304-RK6	9,67	0,4	0,12–0,25	0,4–3,0											●				
	CPMW09T308-RK6	9,67	0,8	0,16–0,35	0,5–4,0											●				

See the ISO 1832 designation key for dimensions

HC = Coated carbide

Positive rhombic 80°
CCMT Perform

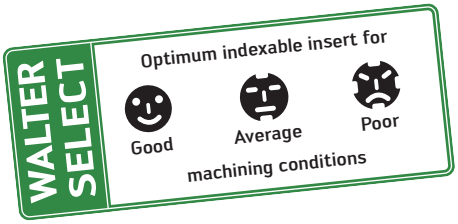


Indexable inserts

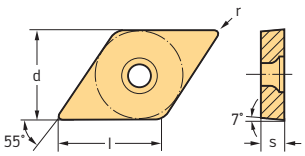
	Designation	l mm	r mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	P HC WPV10	P HC WPV20	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM10S	S HC WSM20S	S HC WSM30S
	CCMT060204-FV4	6,45	0,4	0,05–0,16	0,1–1,5					☺	☹									
	CCMT09T304-FV4	9,67	0,4	0,05–0,16	0,1–1,5					☺	☹									
	CCMT09T308-FV4	9,67	0,8	0,08–0,20	0,1–1,5					☺	☹									
	CCMT060204-MV4	6,45	0,4	0,10–0,25	0,4–2,5					☺	☹									
	CCMT09T304-MV4	9,67	0,4	0,10–0,25	0,4–3,0					☺	☹									
	CCMT09T308-MV4	9,67	0,8	0,15–0,32	0,6–3,0					☺	☹									
	CCMT120408-MV4	12,90	0,8	0,15–0,35	0,6–3,5					☺	☹									

See the ISO 1832 designation key for dimensions

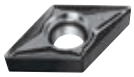
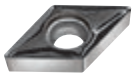
HC = Coated carbide



Positive rhombic 55°
DCMT / DCGT
Tiger·tec® Silver



Indexable inserts

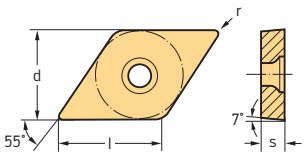
	Designation	l mm	r mm	f mm	a_p mm	P HE WEP10	P HC WPP01	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
 Wiper	DCMT070204-PF	7,75	0,4	0,05–0,25	0,3–2,0		●	●	●						●	●						●	●
	DCMT070208-PF	7,75	0,8	0,05–0,25	0,3–2,0										●	●						●	●
	DCMT11T304-PF	11,63	0,4	0,07–0,30	0,3–3,0		●	●	●						●	●						●	●
	DCMT11T308-PF	11,63	0,8	0,12–0,40	0,3–3,0		●	●	●						●	●						●	●
	DCGT070201-FN2	7,75	0,1	0,02–0,06	0,1–1,5														●				
	DCGT070202-FN2	7,75	0,2	0,05–0,12	0,2–2,0														●				
	DCGT070204-FN2	7,75	0,4	0,08–0,25	0,2–2,5														●				
	DCGT11T301-FN2	11,63	0,1	0,02–0,06	0,1–1,5														●				
	DCGT11T302-FN2	11,63	0,2	0,05–0,12	0,2–2,0														●				
	DCGT11T304-FN2	11,63	0,4	0,08–0,25	0,2–2,5														●				
	DCGT11T308-FN2	11,63	0,8	0,10–0,30	0,3–3,0														●				
	DCGT070201-FM2	7,75	0,1	0,02–0,06	0,1–1,5										●							●	
	DCGT070202-FM2	7,75	0,2	0,05–0,12	0,2–2,0								●	●	●					●	●	●	
	DCGT070204-FM2	7,75	0,4	0,08–0,25	0,2–2,5								●	●	●					●	●	●	
	DCGT11T301-FM2	11,63	0,1	0,02–0,06	0,1–1,5										●							●	
	DCGT11T302-FM2	11,63	0,2	0,05–0,12	0,2–2,0								●	●	●					●	●	●	
	DCGT11T304-FM2	11,63	0,4	0,08–0,25	0,2–2,5								●	●	●					●	●	●	
	DCGT11T308-FM2	11,63	0,8	0,10–0,30	0,3–3,0								●	●	●					●	●	●	
	DCMT070202-FP4	7,75	0,2	0,04–0,12	0,1–1,0	●		●	●														
	DCMT070204-FP4	7,75	0,4	0,05–0,16	0,1–1,5	●		●	●														
	DCMT070208-FP4	7,75	0,8	0,08–0,20	0,1–1,5			●	●														
	DCMT11T302-FP4	11,63	0,2	0,04–0,12	0,1–1,0	●		●	●														
	DCMT11T304-FP4	11,63	0,4	0,05–0,16	0,1–1,5	●		●	●														
	DCMT11T308-FP4	11,63	0,8	0,08–0,20	0,1–1,5	●		●	●														
	DCMT070204-FM6	7,75	0,4	0,08–0,25	0,3–1,6										●	●						●	●
	DCMT11T304-FM6	11,63	0,4	0,08–0,25	0,3–2,0										●	●						●	●
	DCMT11T308-FM6	11,63	0,8	0,12–0,32	0,6–2,0										●	●						●	●
 Wiper	DCMT11T304-PM	11,63	0,4	0,12–0,40	0,5–4,0			●	●						●		●	●				●	
	DCMT11T308-PM	11,63	0,8	0,15–0,50	0,5–4,0			●	●						●		●	●				●	
	DCGT070201-MN2	7,75	0,1	0,02–0,06	0,5–1,5														●				
	DCGT070202-MN2	7,75	0,2	0,05–0,12	0,5–2,0								●						●	●			
	DCGT070204-MN2	7,75	0,4	0,08–0,25	0,6–2,5								●						●	●			
	DCGT11T301-MN2	11,63	0,1	0,02–0,06	0,5–1,5														●				
	DCGT11T302-MN2	11,63	0,2	0,05–0,12	0,5–2,0								●						●	●			
	DCGT11T304-MN2	11,63	0,4	0,08–0,25	0,6–3,0								●						●	●			
	DCGT11T308-MN2	11,63	0,8	0,10–0,30	0,8–3,5								●						●	●			

See the ISO 1832 designation key for dimensions

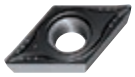
HE = Coated cermet
HC = Coated carbide

● ● ● / ★ New addition to the product range

Positive rhombic 55°
DCMT / DCGT
Tiger·tec® Silver



Indexable inserts

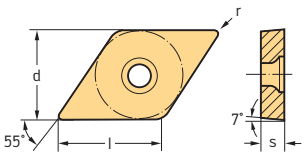
	Designation	l mm	r mm	f mm	a_p mm	P HE WEP10	P HC WPP01	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	DCMT070204-MM4	7,75	0,4	0,08–0,20	0,4–2,0						☺	☺		☺	☺	☹					☺	☺	☹
	DCMT070208-MM4	7,75	0,8	0,12–0,25	0,5–2,0						☺	☺		☺	☺						☺	☺	
	DCMT11T302-MM4	11,63	0,2	0,04–0,12	0,2–2,0										☺	☹						☺	☹
	DCMT11T304-MM4	11,63	0,4	0,08–0,25	0,4–3,0						☺	☺		☺	☺	☹					☺	☺	☹
	DCMT11T308-MM4	11,63	0,8	0,12–0,32	0,5–3,0						☺	☺		☺	☺	☹					☺	☺	☹
	DCMT11T312-MM4	11,63	1,2	0,15–0,35	0,5–3,0										☺							☺	
	DCGT070204-MM4	7,75	0,4	0,08–0,20	0,4–2,0								☺		☺					☺		☺	
	DCGT11T302-MM4	11,63	0,2	0,04–0,12	0,2–2,0								☺		☺					☺		☺	
	DCGT11T304-MM4	11,63	0,4	0,08–0,25	0,4–3,0								☺	☺	☺					☺	☺	☺	
	DCGT11T308-MM4	11,63	0,8	0,12–0,32	0,5–3,0								☺	☺	☺					☺	☺	☺	

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide

WALTER SELECT
Optimum indexable insert for
Good ☺ Average 😐 Poor ☹
machining conditions

Positive rhombic 55°
DCMT Perform



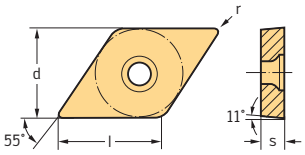
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	P HC WPV10	P HC WPV20	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM10S	S HC WSM20S	S HC WSM30S
	DCMT070204-FV4	7,75	0,4	0,05–0,16	0,1–1,5					●	●									
	DCMT11T302-FV4	11,63	0,2	0,04–0,12	0,1–1,0					●	●									
	DCMT11T304-FV4	11,63	0,4	0,05–0,16	0,1–1,5					●	●									
	DCMT11T308-FV4	11,63	0,8	0,08–0,20	0,1–1,5					●	●									
	DCMT11T304-MV4	11,63	0,4	0,10–0,25	0,4–3,0					●	●									
	DCMT11T308-MV4	11,63	0,8	0,15–0,32	0,6–3,0					●	●									

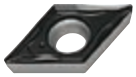
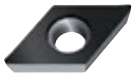
See the ISO 1832 designation key for dimensions

HC = Coated carbide

Positive rhombic 55°
DPMT / DPGT / DPMW
Tiger·tec® Silver



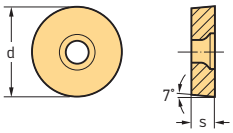
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	DPMT070204-FM4	7,75	0,4	0,05–0,16	0,1–1,5				●	●			●						●	
	DPMT11T304-FM4	11,63	0,4	0,05–0,16	0,1–1,5				●	●			●						●	
	DPMT11T308-FM4	11,63	0,8	0,08–0,20	0,1–1,5				●	●			●						●	
	DPMT070204-FP4	7,75	0,4	0,05–0,16	0,1–1,5	●														
	DPMT11T304-FP4	11,63	0,4	0,05–0,16	0,1–1,5	●														
	DPMT11T308-FP4	11,63	0,8	0,08–0,20	0,1–1,5	●														
	DPGT070204-MM4	7,75	0,4	0,08–0,20	0,4–2,0						●		●				●		●	
	DPGT11T304-MM4	11,63	0,4	0,08–0,25	0,4–3,0						●		●				●		●	
	DPGT11T308-MM4	11,63	0,8	0,12–0,32	0,5–3,0						●		●				●		●	
	DPMW11T308-RK6	11,63	0,8	0,16–0,35	0,5–4,0											●				

See the ISO 1832 designation key for dimensions

HC = Coated carbide

Positive round
RCGT



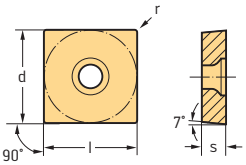
Indexable inserts

	Designation	d mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM10S	S HC WSM20S	S HC WSM30S
	RCGT0602M0-MN2	6	0,10–0,55	0,6–2,5											☺			
	RCGT0803M0-MN2	8	0,12–0,60	0,7–3,0											☺			
	RCGT10T3M0-MN2	10	0,15–0,70	0,8–4,0											☺			
	RCGT1204M0-MN2	12	0,18–0,80	1,0–5,0											☺			
	RCGT120400-MN2	12,7	0,18–0,80	1,0–5,0											☺			

See the ISO 1832 designation key for dimensions

HC = Coated carbide

Positive square
SCGT / SCMT
Tiger·tec® Silver



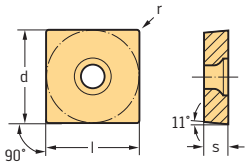
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	SCGT09T304-FN2	9,53	0,4	0,08–0,25	0,2–2,5												●				
	SCGT09T308-FN2	9,53	0,8	0,10–0,30	0,3–3,0												●				
	SCGT120408-FN2	12,7	0,8	0,10–0,30	0,3–3,0												●				
	SCGT09T304-FM2	9,53	0,4	0,08–0,25	0,2–2,5								◐							◐	
	SCGT09T308-FM2	9,53	0,8	0,10–0,30	0,3–3,0								◐							◐	
	SCGT120408-FM2	12,7	0,8	0,10–0,30	0,3–3,0								◐							◐	
	SCMT060204-FM4	6,35	0,4	0,05–0,16	0,1–1,5				◐	◐			◐							◐	
	SCMT09T304-FM4	9,53	0,4	0,05–0,15	0,1–1,5				◐	◐			◐	◒						◐	◒
	SCMT09T308-FM4	9,53	0,8	0,05–0,18	0,1–1,8				◐	◐			◐	◒						◐	◒
	SCMT120404-FM4	12,7	0,4	0,05–0,15	0,1–1,5								◐	◒						◐	◒
	SCMT120408-FM4	12,7	0,8	0,05–0,18	0,1–1,8								◐	◒						◐	◒
	SCMT060204-FP4	6,35	0,4	0,05–0,16	0,1–1,5	●															
	SCMT09T304-FP4	9,53	0,4	0,05–0,15	0,1–1,5	●	◐														
	SCMT09T308-FP4	9,53	0,8	0,05–0,18	0,1–1,8	●	◐														
	SCMT120404-FP4	12,7	0,4	0,05–0,15	0,1–1,5	●	◐														
	SCMT120408-FP4	12,7	0,8	0,05–0,18	0,1–1,8	●	◐														
	SCMT120412-FP4	12,7	1,2	0,12–0,32	0,3–1,8	●	◐														
	SCMT09T304-FM6	9,53	0,4	0,08–0,25	0,3–2,0									◒							◒
	SCMT09T308-FM6	9,53	0,8	0,12–0,30	0,5–2,0								◐	◒						◐	◒
	SCMT120408-FM6	12,7	0,8	0,12–0,32	0,5–2,5								◐	◒						◐	◒
	SCGT09T304-MN2	9,53	0,4	0,08–0,25	0,6–4,0						●						●	●			
	SCGT09T308-MN2	9,53	0,8	0,10–0,35	0,7–4,0						●						●	●			
	SCGT120408-MN2	12,7	0,8	0,10–0,40	0,8–6,0												●				
	SCMT09T304-MM4	9,53	0,4	0,08–0,25	0,4–3,0				◐	◐		●	◐	◒					●	◐	◒
	SCMT09T308-MM4	9,53	0,8	0,12–0,32	0,5–3,0				◐	◐		●	◐	◒					●	◐	◒
	SCMT120408-MM4	12,7	0,8	0,12–0,32	0,5–3,5				◐	◐			◐							◐	
	SCGT09T304-MM4	9,53	0,4	0,08–0,25	0,4–3,0						●		◐					●		◐	
	SCGT09T308-MM4	9,53	0,8	0,12–0,32	0,5–3,0						●		◐					●		◐	
	SCGT120408-MM4	12,7	0,8	0,12–0,32	0,5–3,5						●		◐					●		◐	

See the ISO 1832 designation key for dimensions

HC = Coated carbide

Positive square
SPMT / SPGT / SPMW
Tiger·tec® Silver



Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	SPMT120408-FP4	12,7	0,8	0,05–0,18	0,1–1,8	☺														
	SPMT09T304-MM4	9,53	0,4	0,08–0,25	0,4–3,0								😐						😐	
	SPMT09T308-MM4	9,53	0,8	0,12–0,32	0,5–3,0								😐						😐	
	SPGT09T304-MM4	9,53	0,4	0,08–0,25	0,4–3,0								😐						😐	
	SPGT09T308-MM4	9,53	0,8	0,12–0,32	0,5–3,0								😐						😐	
	SPMT09T304-MP4	9,53	0,4	0,08–0,25	0,4–3,0		😐													
	SPMT09T308-MP4	9,53	0,8	0,12–0,32	0,5–3,0		😐													
	SPGT09T304-MP4	9,53	0,4	0,08–0,25	0,4–3,0	☺	😐													
	SPGT09T308-MP4	9,53	0,8	0,12–0,32	0,5–3,0	☺	😐													
	SPMT09T304-MK4	9,53	0,4	0,08–0,25	0,4–3,0											😐				
	SPMT09T308-MK4	9,53	0,8	0,12–0,32	0,5–3,0											😐				
	SPGT09T304-MK4	9,53	0,4	0,08–0,25	0,4–3,0											😐				
	SPGT09T308-MK4	9,53	0,8	0,12–0,32	0,5–3,0											😐				
	SPMW09T304-RK6	9,53	0,4	0,12–0,25	0,4–3,0											😐				
	SPMW09T308-RK6	9,53	0,8	0,16–0,35	0,6–4,0						☺					😐	☺			
	SPMW120408-RK6	12,7	0,8	0,16–0,40	0,6–5,0											😐				

See the ISO 1832 designation key for dimensions

HC = Coated carbide

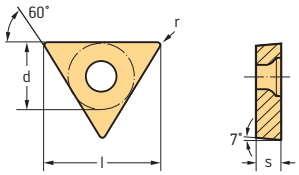
WALTER SELECT

Optimum indexable insert for

☺ Good 😐 Average ☹ Poor

machining conditions

Positive triangular 60°
TCGT / TCMT
Tiger·tec® Silver



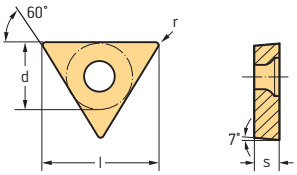
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HE WEP10	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM21	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	TCGT06T101-FN2	6,87	0,1	0,02–0,06	0,1–1,5														☺				
	TCGT06T102-FN2	6,87	0,2	0,05–0,12	0,2–2,0														☺				
	TCGT06T104-FN2	6,87	0,4	0,08–0,25	0,2–2,5														☺				
	TCGT090202-FN2	9,62	0,2	0,05–0,12	0,2–2,0														☺				
	TCGT090204-FN2	9,62	0,4	0,08–0,25	0,2–2,5														☺				
	TCGT110202-FN2	11,00	0,2	0,05–0,12	0,2–2,0														☺				
	TCGT110204-FN2	11,00	0,4	0,08–0,25	0,2–2,5														☺				
	TCGT16T304-FN2	16,50	0,4	0,08–0,25	0,2–2,5														☺				
	TCGT16T308-FN2	16,50	0,8	0,10–0,30	0,3–3,0														☺				
	TCGT06T101-FM2	6,87	0,1	0,02–0,06	0,1–1,5										☹								
	TCGT06T102-FM2	6,87	0,2	0,05–0,12	0,2–2,0										☹								
	TCGT06T104-FM2	6,87	0,4	0,08–0,25	0,2–2,5							☺			☹					☺			
	TCGT090202-FM2	9,62	0,2	0,05–0,12	0,2–2,0									😐							😐		
	TCGT090204-FM2	9,62	0,4	0,08–0,25	0,2–2,5									😐							😐		
	TCGT110201-FM2	11,00	0,1	0,02–0,06	0,1–1,5									😐							😐		
	TCGT110202-FM2	11,00	0,2	0,05–0,12	0,2–2,0							☺		😐						☺	😐		
	TCGT110204-FM2	11,00	0,4	0,08–0,25	0,2–2,5							☺		😐						☺	😐		
	TCGT16T302-FM2	16,50	0,2	0,05–0,12	0,2–2,0									😐							😐		
	TCGT16T304-FM2	16,50	0,4	0,08–0,25	0,2–2,5							☺		😐						☺	😐		
	TCGT16T308-FM2	16,50	0,8	0,10–0,30	0,3–3,0							☺		😐						☺	😐		
	TCMT06T102-FM4	6,87	0,2	0,02–0,10	0,1–1,0										☹								
	TCMT06T104-FM4	6,62	0,4	0,04–0,17	0,1–1,0										☹								
	TCMT090202-FM4	9,62	0,2	0,04–0,12	0,1–1,0								☺	😐		☹					☺	😐	☹
	TCMT090204-FM4	9,62	0,4	0,05–0,16	0,1–1,5								☺	😐		☹					☺	😐	☹
	TCMT090208-FM4	9,62	0,8	0,08–0,20	0,1–1,5								☺	😐							☺	😐	
	TCMT110202-FM4	11,00	0,2	0,04–0,12	0,1–1,0								☺	😐		☹					☺	😐	☹
	TCMT110204-FM4	11,00	0,4	0,05–0,16	0,1–1,5					😐	😐		☺	😐		☹					☺	😐	☹
	TCMT110208-FM4	11,00	0,8	0,08–0,20	0,1–1,5								☺	😐		☹					☺	😐	☹
	TCMT16T302-FM4	16,50	0,2	0,04–0,12	0,1–1,0								☺	😐		☹					☺	😐	☹
	TCMT16T304-FM4	16,50	0,4	0,05–0,16	0,1–1,5					😐	😐		☺	😐		☹					☺	😐	☹
	TCMT16T308-FM4	16,50	0,8	0,08–0,20	0,1–1,5					😐	😐		☺	😐		☹					☺	😐	☹

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide

Positive triangular 60°
TCGT / TCMT
Tiger·tec® Silver

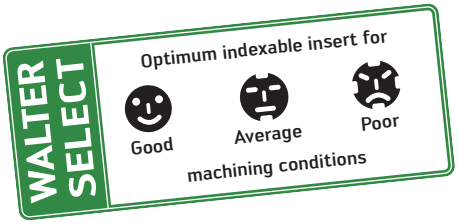


Indexable inserts

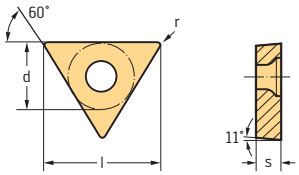
	Designation	l mm	r mm	f mm	a_p mm	P HE WEP10	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM21	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	TCMT06T102-FP4	6,87	0,2	0,02–0,10	0,1–1,0			☻															
	TCMT06T104-FP4	6,87	0,4	0,04–0,17	0,1–1,0	☺		☻															
	TCMT090202-FP4	9,62	0,2	0,04–0,12	0,1–1,0			☻															
	TCMT090204-FP4	9,62	0,4	0,05–0,16	0,1–1,5	☺	☺	☻															
	TCMT090208-FP4	9,62	0,8	0,08–0,20	0,1–1,5			☻															
	TCMT110202-FP4	11,00	0,2	0,04–0,12	0,1–1,0		☺	☻															
	TCMT110204-FP4	11,00	0,4	0,05–0,16	0,1–1,5	☺	☺	☻															
	TCMT110208-FP4	11,00	0,8	0,08–0,20	0,1–1,5		☺	☻															
	TCMT16T302-FP4	16,50	0,2	0,04–0,12	0,1–1,0			☻															
	TCMT16T304-FP4	16,50	0,4	0,05–0,16	0,1–1,5		☺	☻															
	TCMT16T308-FP4	16,50	0,8	0,08–0,20	0,1–1,5	☺	☺	☻															
	TCMT110204-FM6	11,00	0,4	0,08–0,25	0,3–1,6									☻		☹						☻	☹
	TCMT110208-FM6	11,00	0,8	0,12–0,30	0,5–1,6									☻		☹						☻	☹
	TCMT16T304-FM6	16,50	0,4	0,08–0,25	0,3–2,0									☻		☹						☻	☹
	TCMT16T308-FM6	16,50	0,8	0,12–0,32	0,5–2,5									☻								☻	
	TCGT110201-MN2	11,00	0,1	0,02–0,06	0,5–1,5														☺				
	TCGT110202-MN2	11,00	0,2	0,05–0,12	0,6–2,0														☺				
	TCGT110204-MN2	11,00	0,4	0,08–0,25	0,6–3,0							☺							☺	☺			
	TCGT16T302-MN2	16,50	0,2	0,05–0,12	0,5–2,0														☺				
	TCGT16T304-MN2	16,50	0,4	0,08–0,25	0,6–4,0							☺							☺	☺			
	TCGT16T308-MN2	16,50	0,8	0,10–0,35	0,8–4,0							☺							☺	☺			
	TCGT090204-MM4	9,62	0,4	0,08–0,20	0,4–2,0									☻								☻	
	TCGT110204-MM4	11,00	0,4	0,08–0,20	0,4–2,0							☺		☻						☺		☻	
	TCGT110208-MM4	11,00	0,8	0,12–0,30	0,5–2,0							☺		☻						☺		☻	
	TCGT16T304-MM4	16,50	0,4	0,08–0,25	0,4–3,0									☻								☻	
	TCGT16T308-MM4	16,50	0,8	0,12–0,32	0,5–3,0									☻								☻	
	TCMT090204-MP4	9,62	0,4	0,08–0,20	0,4–2,0		☺	☻															
	TCMT090208-MP4	9,62	0,8	0,12–0,25	0,5–2,0		☺	☻															
	TCMT110204-MP4	11,00	0,4	0,08–0,20	0,4–2,0		☺	☻															
	TCMT110208-MP4	11,00	0,8	0,12–0,30	0,5–2,0		☺	☻															
	TCMT16T304-MP4	16,50	0,4	0,08–0,25	0,4–3,0		☺	☻															
	TCMT16T308-MP4	16,50	0,8	0,12–0,32	0,5–3,0		☺	☻															
	TCMT220408-MP4	22,00	0,8	0,12–0,32	0,5–3,5			☻															

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide



Positive triangular 60°
TPMT / TPGT / TPMW / TPMR / TPGN
Tiger·tec® Silver



Indexable inserts

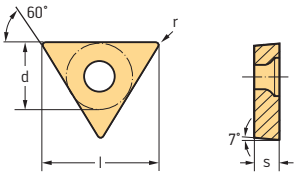
	Designation	l mm	r mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
	TPMT110204-FM4	11,00	0,4	0,05–0,16	0,1–1,5				●	●			●						●		
	TPMT16T304-FM4	16,50	0,4	0,05–0,16	0,1–1,5				●	●			●						●		
	TPMT110204-FP4	11,00	0,4	0,05–0,16	0,1–1,5	●															
	TPMT16T304-FP4	16,50	0,4	0,05–0,16	0,1–1,5	●															
	TPGT110204-MM4	11,00	0,4	0,08–0,20	0,4–2,0						●		●				●		●		
	TPGT110208-MM4	11,00	0,8	0,12–0,30	0,5–2,0						●		●				●		●		
	TPGT16T304-MM4	16,50	0,4	0,08–0,25	0,4–3,0						●		●				●		●		
	TPGT16T308-MM4	16,50	0,8	0,12–0,32	0,5–3,0						●		●				●		●		
	TPMT090204-MP4	9,62	0,4	0,08–0,20	0,4–2,0		●														
	TPMT110204-MP4	11,00	0,4	0,08–0,20	0,4–2,0		●														
	TPMT110208-MP4	11,00	0,8	0,12–0,30	0,5–2,0		●														
	TPMT16T304-MP4	16,50	0,4	0,08–0,25	0,4–3,0		●														
	TPMT16T308-MP4	16,50	0,8	0,12–0,32	0,5–3,0		●														
	TPMT220408-MP4	22,00	0,8	0,15–0,32	0,5–3,5		●														
	TPMT090204-MK4	9,62	0,4	0,08–0,20	0,4–2,0											●					
	TPMT090208-MK4	9,62	0,8	0,12–0,20	0,5–2,0											●					
	TPMT110204-MK4	11,00	0,4	0,08–0,20	0,4–2,0											●					
	TPMT110208-MK4	11,00	0,8	0,12–0,30	0,5–2,0											●					
	TPMT16T304-MK4	16,50	0,4	0,08–0,25	0,4–3,0											●					
	TPMT16T308-MK4	16,50	0,8	0,12–0,32	0,5–3,0											●					
	TPMW110204-RK6	11,00	0,4	0,12–0,25	0,4–2,5											●					
	TPMW110208-RK6	11,00	0,8	0,16–0,30	0,6–3,0											●					
	TPMW16T304-RK6	16,50	0,4	0,12–0,25	0,4–3,0											●					
	TPMW16T308-RK6	16,50	0,8	0,16–0,35	0,6–4,0											●					
	TPMR110308	11,00	0,8	0,16–0,30	0,6–3,0											●					
	TPMR130308	13,75	0,8	0,16–0,30	0,6–3,0		●														
	TPMR160304	16,50	0,4	0,12–0,25	0,4–3,0		●														
	TPMR160308	16,50	0,8	0,16–0,30	0,6–4,0		●														
	TPGN090204	9,62	0,4	0,10–0,18	0,4–2,0											●					
	TPGN090208	9,62	0,8	0,12–0,20	0,8–2,0											●					
	TPGN110308	11,00	0,8	0,12–0,20	0,8–2,0								●			●			●		
	TPGN160304	16,50	0,4	0,10–0,25	0,4–3,0		●	●					●			●			●		●
	TPGN160308	16,50	0,8	0,12–0,30	0,8–3,0		●	●					●			●			●		●
	TPGN220404	22,00	0,4	0,10–0,25	0,4–4,0		●									●					
	TPGN220408	22,00	0,8	0,12–0,30	0,8–4,0		●									●					

See the ISO 1832 designation key for dimensions

HC = Coated carbide
HW = Uncoated carbide

● ● ● / ★ New addition to the product range

Positive triangular 60°
TCMT Perform

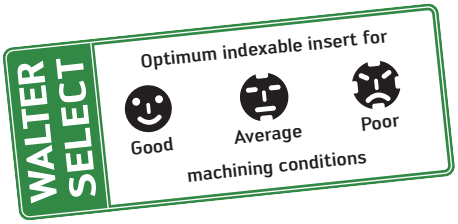


Indexable inserts

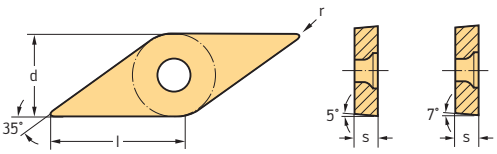
	Designation	l mm	r mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	P HC WPV10	P HC WPV20	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM10S	S HC WSM20S	S HC WSM30S
	TCMT110204-MV4	11,00	0,4	0,10–0,25	0,4–2,0					☺	☹									
	TCMT16T304-MV4	16,50	0,4	0,10–0,25	0,4–3,0					☺	☹									
	TCMT16T308-MV4	16,50	0,8	0,12–0,32	0,5–3,0					☺	☹									

See the ISO 1832 designation key for dimensions

HC = Coated carbide



Positive rhombic 35°
VCGT / VCMT / VBMT
Tiger·tec® Silver



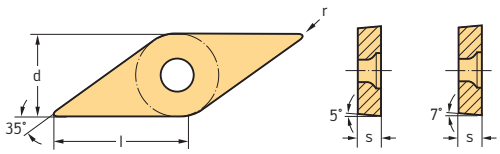
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HE WEP10	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	VCGT110301-FN2	11,07	0,1	0,02–0,06	0,1–1,5													●				
	VCGT110302-FN2	11,07	0,2	0,05–0,12	0,2–2,0													●				
	VCGT110304-FN2	11,07	0,4	0,08–0,25	0,2–2,5													●				
	VCGT160402-FN2	16,61	0,2	0,05–0,12	0,2–2,0													●				
	VCGT160404-FN2	16,61	0,4	0,08–0,25	0,2–2,5													●				
	VCGT160408-FN2	16,61	0,8	0,10–0,30	0,3–3,0													●				
	VCGT110301-FM2	11,07	0,1	0,02–0,06	0,1–1,5									◐							◐	
	VCGT110302-FM2	11,07	0,2	0,05–0,12	0,2–2,0							●		◐					●		◐	
	VCGT110304-FM2	11,07	0,4	0,08–0,25	0,2–2,5							●	●	◐					●	●	◐	
	VCGT160402-FM2	16,61	0,2	0,05–0,12	0,2–2,0							●		◐					●		◐	
	VCGT160404-FM2	16,61	0,4	0,08–0,25	0,2–2,5							●	●	◐					●	●	◐	
	VCGT160408-FM2	16,61	0,8	0,10–0,30	0,3–3,0								●	◐						●	◐	
	VCMT110302-FP4	11,07	0,2	0,04–0,12	0,1–1,0	●	●	◐														
	VCMT110304-FP4	11,07	0,4	0,05–0,16	0,1–1,5	●	●	◐														
	VCMT160402-FP4	16,61	0,2	0,04–0,12	0,1–1,0	●	●	◐														
	VCMT160404-FP4	16,61	0,4	0,05–0,16	0,1–1,5	●	●	◐														
	VCMT160408-FP4	16,61	0,8	0,08–0,20	0,1–1,5	●	●	◐														
	VBMT110304-FM6	11,07	0,4	0,08–0,20	0,3–1,6								●	◐	✖					●	◐	✖
	VBMT110308-FM6	11,07	0,8	0,12–0,30	0,5–1,6								●	◐	✖					●	◐	✖
	VBMT160404-FM6	16,61	0,4	0,08–0,25	0,3–2,0								●	◐	✖					●	◐	✖
	VBMT160408-FM6	16,61	0,8	0,12–0,30	0,6–2,5								●	◐	✖					●	◐	✖
	VBMT160412-FM6	16,61	1,2	0,15–0,30	1,0–2,5								●	◐	✖					●	◐	✖
	VCGT110301-MN2	11,07	0,1	0,02–0,06	0,5–1,5													●				
	VCGT110302-MN2	11,07	0,2	0,05–0,12	0,5–2,0													●				
	VCGT110304-MN2	11,07	0,4	0,08–0,25	0,6–2,5													●				
	VCGT110308-MN2	11,07	0,8	0,10–0,35	0,8–3,0													●				
	VCGT130301-MN2	13,1	0,1	0,02–0,06	0,5–1,5													●				
	VCGT130302-MN2	13,1	0,2	0,05–0,12	0,5–2,0													●				
	VCGT130304-MN2	13,1	0,4	0,08–0,25	0,6–3,0													●				
	VCGT160404-MN2	16,61	0,4	0,08–0,25	0,6–3,5							●						●	●			
	VCGT160408-MN2	16,61	0,8	0,10–0,35	0,8–3,5							●						●	●			
	VCGT160412-MN2	16,61	1,2	0,10–0,45	1,0–3,5													●				
	VBMT110304-MM4	11,07	0,4	0,08–0,20	0,4–1,5					◐	◐		●	◐						●	◐	
	VBMT110308-MM4	11,07	0,8	0,12–0,25	0,5–1,5								●	◐						●	◐	
	VBMT160404-MM4	16,61	0,4	0,08–0,20	0,4–2,0					◐	◐		●	◐	✖					●	◐	✖
	VBMT160408-MM4	16,61	0,8	0,12–0,30	0,5–2,0					◐	◐		●	◐	✖					●	◐	✖
	VBMT160412-MM4	16,61	1,2	0,12–0,32	0,5–2,0								●	◐						●	◐	

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide

Positive rhombic 35°
VCGT / VCMT / VBMT
Tiger·tec® Silver



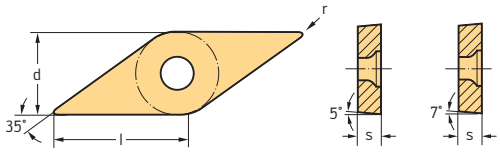
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HE WEP10	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	VCGT110302-MM4	11,07	0,2	0,05–0,12	0,2–1,5							☺		😐					☺		😐	
	VCGT110304-MM4	11,07	0,4	0,08–0,20	0,4–1,5							☺		😐					☺		😐	
	VCGT160402-MM4	16,61	0,2	0,05–0,12	0,2–2,0							☺		😐					☺		😐	
	VCGT160404-MM4	16,61	0,4	0,08–0,20	0,4–2,0							☺		😐					☺		😐	
	VCGT160408-MM4	16,61	0,8	0,12–0,30	0,5–2,0							☺		😐					☺		😐	
	VBMT110304-MK4	11,07	0,4	0,08–0,20	0,4–1,5											☺	😐					
	VBMT110308-MK4	11,07	0,8	0,12–0,25	0,5–1,5											☺	😐					
	VBMT160404-MK4	16,61	0,4	0,08–0,20	0,4–2,0											☺	😐					
	VBMT160408-MK4	16,61	0,8	0,12–0,30	0,5–2,0											☺	😐					
	VBMT160412-MK4	16,61	1,2	0,12–0,32	0,5–2,0											☺	😐					

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide

Positive rhombic 35°
VCMT Perform / VBMT Perform

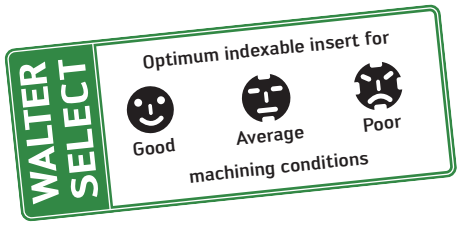


Indexable inserts

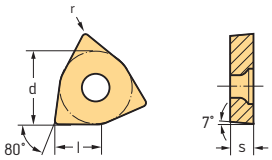
	Designation	l mm	r mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	P HC WPV10	P HC WPV20	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM10S	S HC WSM20S	S HC WSM30S
	VCMT110304-FV4	11,07	0,4	0,05–0,16	0,1–1,5					☺	😐									
	VCMT160404-FV4	16,61	0,4	0,05–0,16	0,1–1,5					☺	😐									
	VCMT160408-FV4	16,61	0,8	0,08–0,20	0,1–1,5					☺	😐									
	VBMT160404-MV4	16,61	0,4	0,10–0,25	0,4–2,0					☺	😐									
	VBMT160408-MV4	16,61	0,8	0,15–0,30	0,5–2,0					☺	😐									

See the ISO 1832 designation key for dimensions

HC = Coated carbide



Positive Trigon 80°
WCGT
Tiger·tec®



Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM21	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM10S	S HC WSM20S	S HC WSM30S
	WCGT020102-FN2	2,7	0,2	0,05–0,12	0,2–1,5												☺			
	WCGT020104-FN2	2,7	0,4	0,08–0,20	0,2–1,5												☺			
	WCGT030202-FN2	3,91	0,2	0,05–0,12	0,2–2,0												☺			
	WCGT030204-FN2	3,91	0,4	0,08–0,25	0,2–2,5												☺			
	WCGT040202-FN2	4,34	0,2	0,05–0,12	0,2–2,0												☺			
	WCGT040204-FN2	4,34	0,4	0,08–0,25	0,2–2,5												☺			
	WCGT06T304-FN2	6,52	0,4	0,08–0,25	0,2–2,5												☺			
	WCGT06T308-FN2	6,52	0,8	0,10–0,30	0,3–3,0												☺			
	WCGT030202-FM2	3,91	0,2	0,05–0,12	0,2–2,0								☒							
	WCGT030204-FM2	3,91	0,4	0,08–0,25	0,2–2,5								☒							
	WCGT040202-FM2	4,34	0,2	0,05–0,12	0,2–2,0								☒							
	WCGT040204-FM2	4,34	0,4	0,08–0,25	0,2–2,5								☒							
	WCGT030202-MN2	3,91	0,2	0,05–0,12	0,5–1,5												☺			
	WCGT030204-MN2	3,91	0,4	0,08–0,20	0,6–1,5												☺			
	WCGT040204-MN2	4,34	0,4	0,08–0,25	0,6–2,5												☺			
	WCGT06T302-MN2	6,52	0,2	0,05–0,12	0,6–2,0												☺			
	WCGT06T304-MN2	6,52	0,4	0,08–0,25	0,6–3,0												☺			
	WCGT080404-MN2	8,69	0,4	0,08–0,25	0,6–4,0												☺			
	WCGT080408-MN2	8,69	0,8	0,10–0,35	0,8–4,0												☺			

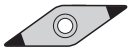
See the ISO 1832 designation key for dimensions

HC = Coated carbide

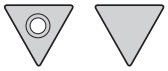
Product range overview of indexable inserts and cutting tool materials: ISO turning – CBN/PCD/ceramic



CBN indexable inserts

Insert shape		Description	Page
	C	Negative basic shape Positive basic shape 7°	48 52
	D	Negative basic shape Positive basic shape 7°	49 53
	S	Negative basic shape	50
	T	Negative basic shape	50
	V	Negative basic shape Positive basic shape 5° Positive basic shape 7°	51 54 54
	W	Negative basic shape	51

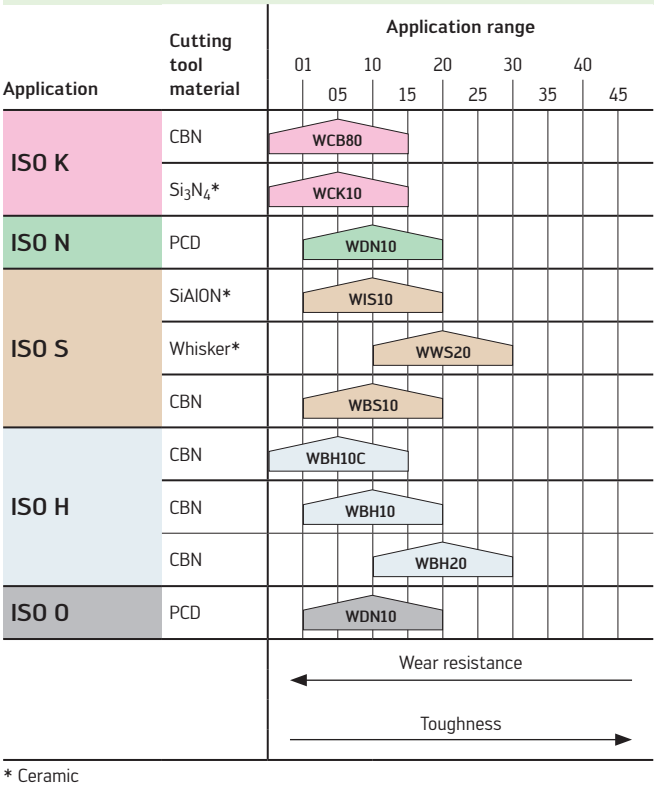
Ceramic indexable inserts

Insert shape		Description	Page
	C	Negative basic shape	57
	D	Negative basic shape	58
	S	Negative basic shape	58
	T	Negative basic shape	59
	W	Negative basic shape	59

PCD indexable inserts

Insert shape		Description	Page
	C	Positive basic shape 11°	55
	D	Positive basic shape 11°	55
	S	Positive basic shape 11°	56
	T	Positive basic shape 11°	56

Cutting tool materials: CBN, PCD, ceramic



* Ceramic

Designation key for CBN / cermet / ceramic / PCD cutting tool materials – Turning

Example:

W	B	H	10	C
Walter	1	2	3	4

1 – Cutting tool material

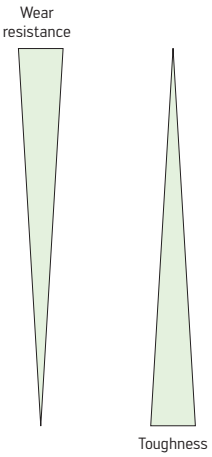
B	CBN
C	Si_3N_4 ceramic
D	Diamond
E	Cermet
I	SiAlON ceramic
W	Whisker-reinforced ceramic

2 – Primary application

P	Steel
M	Stainless steel
K	Cast iron
N	NF metals
S	Materials with difficult cutting properties
H	Hard materials

3 – ISO application range

01
05
10
20
21
23
30
32
33
43



4 – Coating

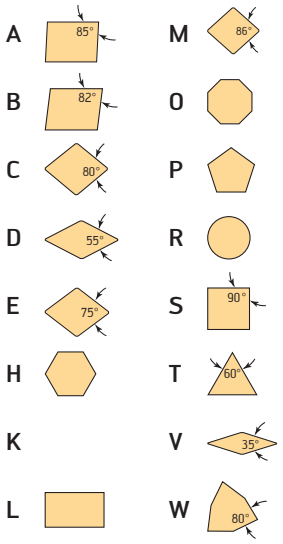
C	Coated

Designation key in accordance with ISO 1832 for indexable inserts for turning

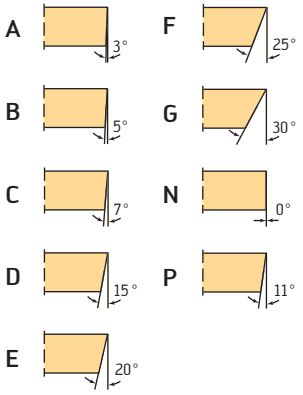
Example: Ceramic indexable inserts

R	N	G	N	12	07	00	T	010	20
1	2	3	4	5	6	7	8	11	12

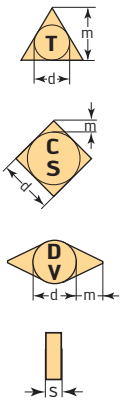
1 Insert shape



2 Clearance angle



3 Tolerances

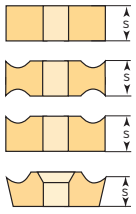


Permissible deviation in mm for

	d	m	s
A	± 0,025	± 0,005	± 0,025
C	± 0,025	± 0,013	± 0,025
E	± 0,025	± 0,025	± 0,025
F	± 0,013	± 0,005	± 0,025
G	± 0,025	± 0,025	± 0,130
H	± 0,013	± 0,013	± 0,025
J[1]	± 0,05–0,15[2]	± 0,005	± 0,025
K[1]	± 0,05–0,15[2]	± 0,013	± 0,025
L[1]	± 0,05–0,15[2]	± 0,025	± 0,025
M	± 0,05–0,15[2]	± 0,08–0,20[2]	± 0,130
N	± 0,05–0,15[2]	± 0,08–0,20[2]	± 0,025
U	± 0,08–0,25[2]	± 0,13–0,38[2]	± 0,130

[1] Inserts with ground planar cutting edges
[2] Depending on the insert size (see ISO standard 1832)

6 Insert thickness s [mm]



01	s = 1,59
T1	s = 1,98
02	s = 2,38
T2	s = 2,78
03	s = 3,18
T3	s = 3,97
04	s = 4,76
05	s = 5,56
06	s = 6,35
07	s = 7,94
09	s = 9,52

7 Corner radius r [mm]

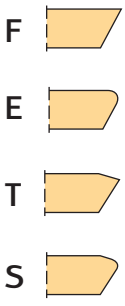
01	r = 0,1
02	r = 0,2
04	r = 0,4
08	r = 0,8
12	r = 1,2
16	r = 1,6
24	r = 2,4

R

M0 Metric version "diameter in [mm]"

00 Inch version "diameter with inch units in [mm]"

8 Edge formation

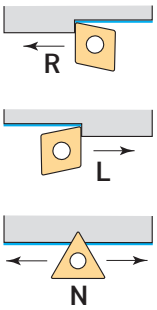


9 Cutting edge preparation

S small

M medium

10 Cutting direction



Example: CBN indexable insert

C	N	G	A	12	04	08	T	M	.	–	MW	.	2
1	2	3	4	5	6	7	8	9	10		13	14	15

4 Machining and fastening features

A		N	
B	β = 70–90°	Q	β = 40–60°
C	β = 70–90°	R	
F		T	β = 40–60°
G		U	β = 40–60°
H	β = 70–90°	W	β = 40–60°
J	β = 70–90°	X	Drawing or precise description of the indexable insert is required
M			

5 Cutting edge length l [mm]

Inner circle diameter d		C		D		R	S		T		V		W	
mm	Inches	Size	l	Size	l	Size	Size	l	Size	l	Size	l	Size	l
3,97	5/32								**06**	6,9				
5	0,197					**05**							**03**	3,8
5,56	7/32								**09**	9				
6	0,236					**06**								
6,35	2/8	**06**	6,4	**07**	7,7	**06**[1]			**11**	11	**11**	11	**04**	4,3
8	0,315					**08**							**05**	5,2
9,525	3/8	**09**	9,6	**11**	11,6	**09**[1]	**09**	9,5	**16**	16,5	**16**	16,5	**06**	6,5
10	0,394					**10**								
12	0,472					**12**								
12,7	4/8	**12**	12,9	**15**	15,5	**12**[1]	**12**	12,7	**22**	22			**08**	8,7
15,875	5/8	**16**	16,1				**15**	15,8	**27**	27			**10**	10,8
16	0,63					**16**								
17,46	11/16												**12**	11,6
19,05	6/8	**19**	19,3			**19**[1]	**19**	19,0						
20	0,787					**20**								
25	0,984					**25**								
25,4	8/8	**25**	25,8			**25**[1]	**25**	25,4						
32	1,26					**32**								

[1] Inch version (00)

11 Chamfer width

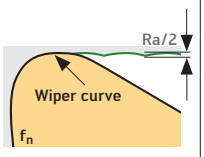
010 = 0,10 mm
020 = 0,20 mm
025 = 0,25 mm
070 = 0,70 mm
150 = 1,50 mm
200 = 2,00 mm

12 Chamfer angle

15 = 15°
20 = 20°

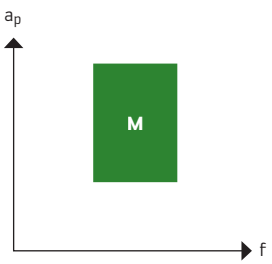
13 Wiper cutting edge

W Wiper



MW Wiper – medium feed

14 Chip breaking area

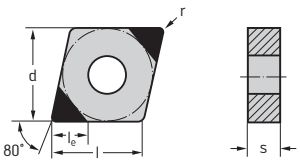


M Medium machining

15 Number of cutting edges / version

1	single	
2	double	
3	triple	
4 :	quadruple	
9	strip	
0	full-face	
S	solid	

CBN – Negative rhombic 80°
CNGA



Indexable inserts

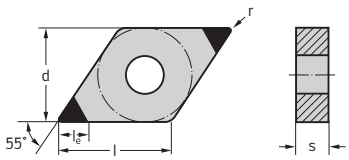
	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
 Wiper	CNGA120404TM-MW2	2	2,8	0,4	0,05–0,20	0,1–0,5					☺	☺		
	CNGA120408TM-MW2	2	2,7	0,8	0,05–0,25	0,1–1,0					☺	☺		
	CNGA120412TM-MW2	2	2,8	1,2	0,05–0,30	0,1–1,0					☺	☺		
	CNGA120404EM-2	2	2,8	0,4	0,05–0,20	0,1–0,5				☺				
	CNGA120408EM-2	2	2,7	0,8	0,05–0,25	0,1–1,0				☺				
 Chipbreaker	CNGA120404TM-M2	2	2,8	0,4	0,05–0,20	0,1–0,5						☺		
	CNGA120408TM-M2	2	2,7	0,8	0,05–0,25	0,1–1,0						☺		
	CNGA120412TM-M2	2	2,8	1,2	0,05–0,30	0,1–1,0						☺		
	CNGA120404TM-2	2	2,8	0,4	0,05–0,20	0,1–0,5					☺	☺	☹	
	CNGA120408TM-2	2	2,7	0,8	0,05–0,25	0,1–1,0					☺	☺	☹	
	CNGA120412TM-2	2	2,8	1,2	0,05–0,30	0,1–1,0					☺	☺	☹	

See the ISO 1832 designation key for dimensions

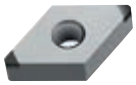
BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content

☺ ☹ ☹ / ★ New addition to the product range

CBN – Negative rhombic 55°
DNGA

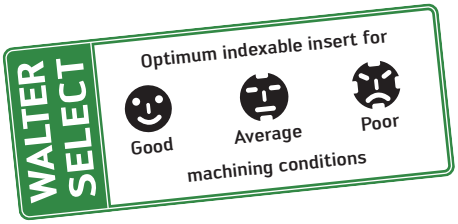


Indexable inserts

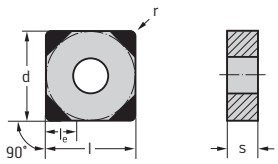
	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
 Wiper	DNGA150404TM-MW2	2	2,9	0,4	0,05–0,20	0,1–0,5					☺	☺		
	DNGA150604TM-MW2	2	2,9	0,4	0,05–0,20	0,1–0,5					☺	☺		
	DNGA150408TM-MW2	2	2,8	0,8	0,05–0,25	0,1–1,0					☺	☺		
	DNGA150608TM-MW2	2	2,8	0,8	0,05–0,25	0,1–1,0					☺	☺		
	DNGA150612TM-MW2	2	2,8	1,2	0,05–0,30	0,1–1,0					☺	☺		
	DNGA150404EM-2	2	2,9	0,4	0,05–0,20	0,1–0,5				☺				
	DNGA150408EM-2	2	2,8	0,8	0,05–0,25	0,1–1,0				☺				
 Chipbreaker	DNGA150404TM-M2	2	2,9	0,4	0,05–0,20	0,1–0,5						☺		
	DNGA150604TM-M2	2	2,9	0,4	0,05–0,20	0,1–0,5						☺		
	DNGA150408TM-M2	2	2,8	0,8	0,05–0,25	0,1–1,0						☺		
	DNGA150608TM-M2	2	2,8	0,8	0,05–0,25	0,1–1,0						☺		
	DNGA150612TM-M2	2	2,8	1,2	0,05–0,30	0,1–1,0						☺		
	DNGA150404TM-2	2	2,9	0,4	0,05–0,20	0,1–0,5					☺	☺	😐	
	DNGA150604TM-2	2	2,9	0,4	0,05–0,20	0,1–0,5					☺	☺	😐	
	DNGA150408TM-2	2	2,8	0,8	0,05–0,25	0,1–1,0					☺	☺	😐	
	DNGA150608TM-2	2	2,8	0,8	0,05–0,25	0,1–1,0					☺	☺	😐	
	DNGA150612TM-2	2	2,8	1,2	0,05–0,30	0,1–1,0					☺	☺	😐	

See the ISO 1832 designation key for dimensions

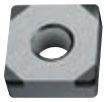
BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content



CBN – Negative square
SNGA



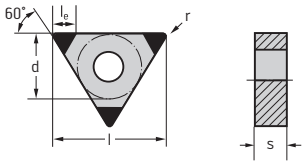
Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	SNGA120408TM-4	4	2,8	0,8	0,05–0,30	0,1–1,0							☺	
	SNGA120412TM-4	4	2,8	1,2	0,05–0,30	0,1–1,0							☺	

See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content

CBN – Negative triangular 60°
TNGA



Indexable inserts

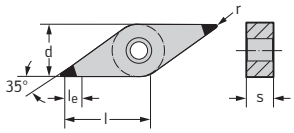
	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	TNGA160404TM-3	3	3	0,4	0,05–0,20	0,1–0,5					☺	☺	☺	
	TNGA160408TM-3	3	2,8	0,8	0,05–0,20	0,1–0,5					☺	☺	☺	

See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content

☺ ☺ ☺ / ★ New addition to the product range

CBN – Negative rhombic 35°
VNGA



Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	VNGA160404TM-2	2	3	0,4	0,05–0,20	0,1–0,5					☺	☺	😠	
	VNGA160408TM-2	2	3	0,8	0,05–0,20	0,1–0,5					☺	☺	😠	

See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
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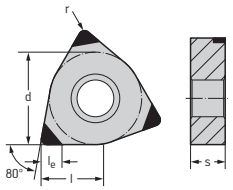
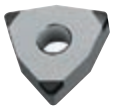
DP = Polycrystalline diamond
BL = CBN with low CBN content

CBN – Negative Trigon 80°
WNGA



Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	WNGA080408TM-3	3	2,8	0,8	0,05–0,25	0,1–1,0						☺	😠	

See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
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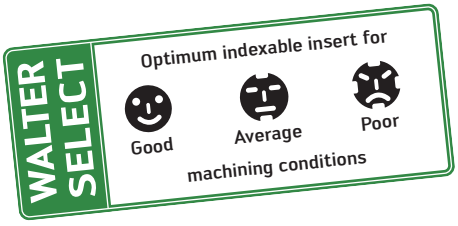
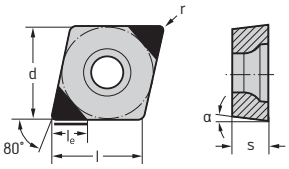
DP = Polycrystalline diamond
BL = CBN with low CBN content



CBN – Positive rhombic 80°
CCGW



Indexable inserts

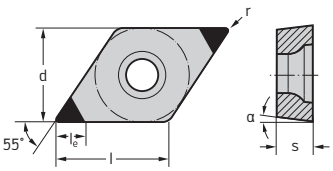
	Designation	Number of cutting edges	l_e mm	r mm	α	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
 Wiper	CCGW09T304TS-MW2	2	2,8	0,4	7°	0,05–0,20	0,1–0,5					☺	☺		
	CCGW09T308TM-MW2	2	2,7	0,8	7°	0,05–0,25	0,1–0,5					☺	☺		
	CCGW060202EM-2	2	2,8	0,2	7°	0,05–0,15	0,1–0,3				☺				
	CCGW060204EM-2	2	2,8	0,4	7°	0,05–0,20	0,1–0,3				☺				
	CCGW09T304EM-2	2	2,8	0,4	7°	0,05–0,20	0,1–0,5				☺				
	CCGW09T308EM-2	2	2,7	0,8	7°	0,05–0,25	0,1–0,5				☺				
	CCGW060202TS-2	2	2,8	0,2	7°	0,05–0,15	0,1–0,3					☺	☺		
	CCGW060204TM-2	2	2,8	0,4	7°	0,05–0,20	0,1–0,3					☺	☺	☺	
	CCGW060208TM-2	2	2,7	0,8	7°	0,05–0,25	0,1–0,5					☺	☺	☺	
	CCGW09T304TM-2	2	2,8	0,4	7°	0,05–0,20	0,1–0,5					☺	☺	☺	
	CCGW09T308TM-2	2	2,7	0,8	7°	0,05–0,25	0,1–0,5					☺	☺	☺	

See the ISO 1832 designation key for dimensions

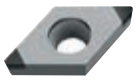
BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content

☺ ☺ ☺ / ★ New addition to the product range

CBN – Positive rhombic 55°
DCGW

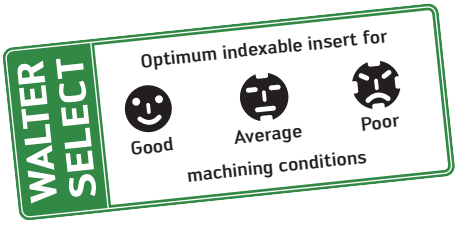


Indexable inserts

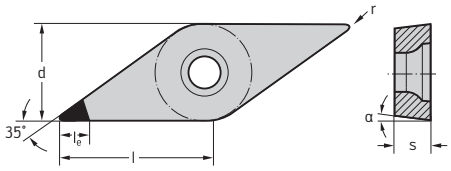
	Designation	Number of cutting edges	l_e mm	r mm	α	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	DCGW070202TM-2	2	3	0,2	7°	0,05–0,15	0,1–0,3							☹	
	DCGW070204TM-2	2	2,9	0,4	7°	0,05–0,20	0,1–0,3					☺	☺	☹	
	DCGW070208TM-2	2	2,8	0,8	7°	0,05–0,25	0,1–0,5					☺	☺	☹	
	DCGW11T302TM-2	2	3	0,2	7°	0,05–0,15	0,1–0,5							☹	
	DCGW11T304TM-2	2	2,9	0,4	7°	0,05–0,20	0,1–0,5					☺	☺	☹	
	DCGW11T308TM-2	2	2,8	0,8	7°	0,05–0,25	0,1–0,5					☺	☺	☹	
	DCGW070202EM-2	2	3	0,2	7°	0,05–0,15	0,1–0,3				☺				
	DCGW070204EM-2	2	2,9	0,4	7°	0,05–0,20	0,1–0,3				☺				
	DCGW11T304EM-2	2	2,9	0,4	7°	0,05–0,20	0,1–0,5				☺				
	DCGW11T308EM-2	2	2,8	0,8	7°	0,05–0,25	0,1–0,5				☺				
	DCGW070202TS-2	2	3	0,2	7°	0,05–0,15	0,1–0,3					☺	☺		
	DCGW11T302TS-2	2	3	0,2	7°	0,05–0,15	0,1–0,5					☺	☺		

See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content



CBN – Positive rhombic 35°
VBGW



Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	α	f mm	a_p mm	K BH WCB80	K BH WCK10	K CN WDN10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	VBGW160404TS-2	2	3	0,4	5°	0,05–0,20	0,1–0,5							☺		
	VBGW160408TS-2	2	3	0,8	5°	0,05–0,25	0,1–0,5							☺		
	VBGW160404TM-2	2	3	0,4	5°	0,05–0,20	0,1–0,5							☺	😐	
	VBGW160408TM-2	2	3	0,8	5°	0,05–0,25	0,1–0,5							☺	😐	

See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
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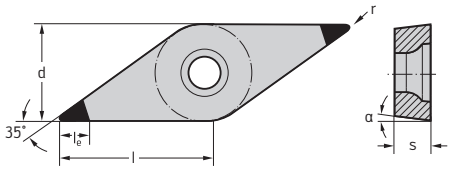
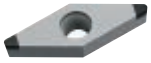
BL = CBN with low CBN content

CBN – Positive rhombic 35°
VCGW



Indexable inserts

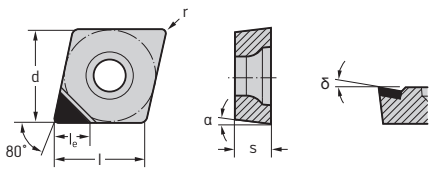
	Designation	Number of cutting edges	l_e mm	r mm	α	f mm	a_p mm	K BH WCB80	K BH WCK10	K CN WDN10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	VCGW160404TS-2	2	3	0,4	7°	0,05–0,20	0,1–0,5							☺		
	VCGW160408TS-2	2	3	0,8	7°	0,05–0,25	0,1–0,5							☺		
	VCGW160404TM-2	2	3	0,4	7°	0,05–0,20	0,1–0,5							☺		
	VCGW160408TM-2	2	3	0,8	7°	0,05–0,25	0,1–0,5							☺		
	VCGW11T302EM-2	2	3,4	0,2	7°	0,05–0,15	0,1–0,3					☺				
	VCGW11T304EM-2	2	3	0,4	7°	0,05–0,20	0,1–0,3					☺				
	VCGW160404EM-2	2	3	0,4	7°	0,05–0,20	0,1–0,5					☺				
	VCGW160408EM-2	2	3	0,8	7°	0,05–0,25	0,1–0,5					☺				

See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content

☺ 😐 ☹ / ★ New addition to the product range

PCD – Positive rhombic 80°
CPGW



Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	α	δ	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	CPGW050204FS-1	1	3	0,4	11°	0°	0,03–0,25	0,1–2,5			☺					☺
	CPGW060204FS-1	1	3,5	0,4	11°	0°	0,03–0,25	0,1–3,0			☺					☺
	CPGW09T304FS-1	1	4	0,4	11°	0°	0,03–0,25	0,1–3,5			☺					☺
	CPGW09T308FS-1	1	4	0,8	11°	0°	0,03–0,38	0,1–3,5			☺					☺
	CPGW120408FS-1	1	4	0,8	11°	0°	0,03–0,38	0,1–3,5			☺					☺

See the ISO 1832 designation key for dimensions

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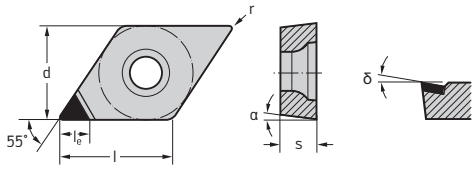
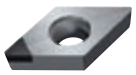
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content

PCD – Positive rhombic 55°
DPGW



Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	α	δ	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	DPGW070204FS-1	1	3,5	0,4	11°	0°	0,03–0,25	0,1–3,0			☺					☺
	DPGW11T304FS-1	1	4	0,4	11°	0°	0,03–0,25	0,1–3,5			☺					☺
	DPGW11T308FS-1	1	4	0,8	11°	0°	0,03–0,38	0,1–3,5			☺					☺

See the ISO 1832 designation key for dimensions

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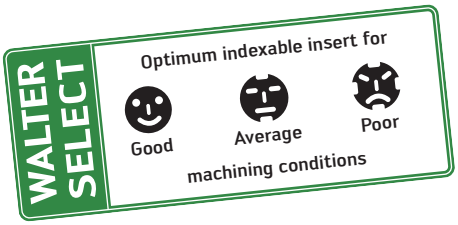
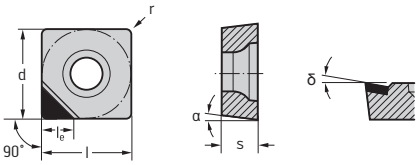
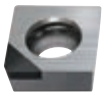
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content



PCD – Positive square
SPGW



Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	α	δ	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	SPGW09T308FS-1	1	4	0,8	11°	0°	0,03–0,38	0,1–3,5			☻					☻

See the ISO 1832 designation key for dimensions

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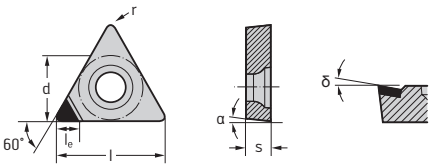
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content

PCD – Positive triangular 60°
TPGW



Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	α	δ	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	TPGW110204FS-1	1	4,2	0,4	11°	0°	0,03–0,25	0,1–3,5			☻					☻
	TPGW110208FS-1	1	4	0,8	11°	0°	0,03–0,38	0,1–3,5			☻					☻
	TPGW16T304FS-1	1	4,2	0,4	11°	0°	0,03–0,25	0,1–3,5			☻					☻
	TPGW16T308FS-1	1	4	0,8	11°	0°	0,03–0,38	0,1–3,5			☻					☻

See the ISO 1832 designation key for dimensions

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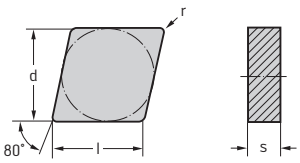
DP = Polycrystalline diamond
BL = CBN with low CBN content

Ceramic – Negative rhombic 80°
CNGN / CNGA / CNGX

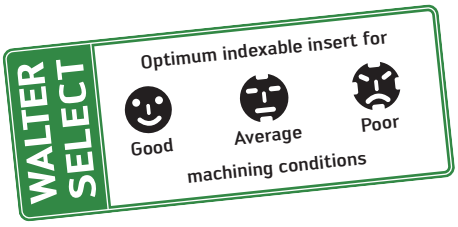


Indexable inserts

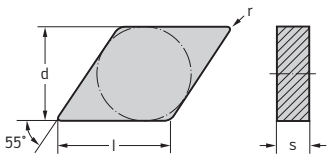
	Designation	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	S CN WIS10	S CR WWS20	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	CNGN120408T01020	0,8	0,10–0,22	0,1–3,6						😐				
	CNGN120408T02020	0,8	0,10–0,40	0,1–6,0		😊								
	CNGN120412T01020	1,2	0,10–0,32	0,1–3,6						😐				
	CNGN120412T02020	1,2	0,10–0,60	0,1–6,0		😊								
	CNGN120416T02020	1,6	0,10–0,60	0,1–6,0		😊								
	CNGN120708T01020	0,8	0,10–0,22	0,1–3,6					😊	😐				
	CNGN120712T01020	1,2	0,10–0,32	0,1–3,6					😊	😐				
	CNGN120712T02020	1,2	0,10–0,60	0,1–6,0		😊								
	CNGN120716T01020	1,6	0,10–0,42	0,1–3,6					😊	😐				
	CNGN120716T02020	1,6	0,10–0,60	0,1–6,0		😊								
	CNGA120408T02020	0,8	0,10–0,40	0,1–6,0		😊								
	CNGA120412T02020	1,2	0,10–0,60	0,1–6,0		😊								
	CNGA120416T02020	1,6	0,10–0,60	0,1–6,0		😊								
	CNGX120712T02020	1,2	0,10–0,60	0,1–6,0		😊								
	CNGX160712T02020	1,2	0,10–0,60	0,1–8,0		😊								
	CNGX120716T02020	1,6	0,10–0,60	0,1–6,0		😊								
	CNGX160716T02020	1,6	0,10–0,60	0,1–8,0		😊								

See the ISO 1832 designation key for dimensions

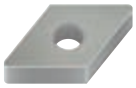
BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
CR = Reinforced ceramic
BL = CBN with low CBN content



Ceramic – Negative rhombic 80°
DNGA



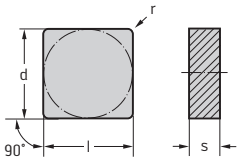
Indexable inserts

	Designation	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	DNGA150608T02020	0,8	0,10–0,40	0,1–5,0		☻						
	DNGA150612T02020	1,2	0,10–0,60	0,1–5,0		☻						

See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content

Ceramic – Negative square
SNGN / SNGA / SNGX



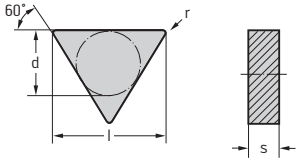
Indexable inserts

	Designation	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	S CN WIS10	S CR WWS20	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	SNGN120412T02020	1,2	0,10–0,60	0,1–5,0		☻								
	SNGN120416T02020	1,6	0,10–0,60	0,1–5,0		☻								
	SNGN120708T01020	0,8	0,10–0,22	0,1–3,6						☹				
	SNGN120712T01020	1,2	0,10–0,32	0,1–3,6					☻	☹				
	SNGN120712T02020	1,2	0,10–0,60	0,1–5,0		☻								
	SNGN120716T01020	1,6	0,10–0,42	0,1–3,6						☹				
	SNGN120716T02020	1,6	0,10–0,60	0,1–5,0		☻								
	SNGA120408T02020	0,8	0,10–0,40	0,1–5,0		☻								
	SNGA120412T02020	1,2	0,10–0,60	0,1–5,0		☻								
	SNGA120416T02020	1,6	0,10–0,80	0,1–5,0		☻								
	SNGX120712T02020	1,2	0,10–0,60	0,1–5,0		☻								
	SNGX120716T02020	1,6	0,10–0,60	0,1–5,0		☻								
	SNGX150712T02020	1,2	0,10–0,60	0,1–7,0		☻								

See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
CR = Reinforced ceramic
BL = CBN with low CBN content

Ceramic – Negative triangular 60°
TNGN / TNGA



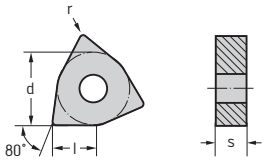
Indexable inserts

	Designation	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	TNGN160412T02020	1,2	0,10–0,60	0,1–5,0		☺						
	TNGN160416T02020	1,6	0,10–0,60	0,1–5,0		☺						
	TNGA160408T02020	0,8	0,10–0,40	0,1–5,0		☺						
	TNGA160412T02020	1,2	0,10–0,60	0,1–5,0		☺						

See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content

Ceramic – Negative Trigon 80°
WNGA

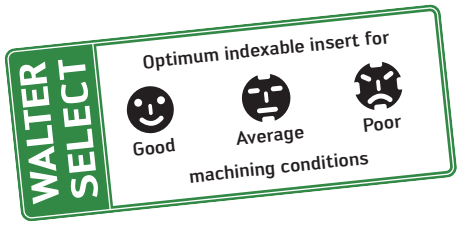


Indexable inserts

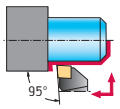
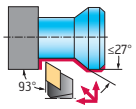
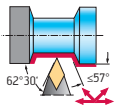
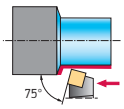
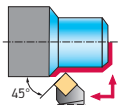
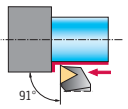
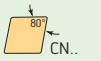
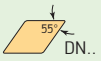
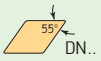
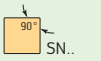
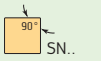
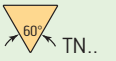
	Designation	r mm	f mm	a_p mm	K BH WCB80	K CN WCK10	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	O DP WDN10
	WNGA080408T02020	0,8	0,10–0,40	0,1–5,0		☺						
	WNGA080412T02020	1,2	0,10–0,60	0,1–5,0		☺						

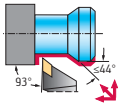
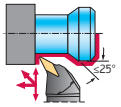
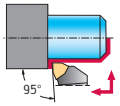
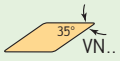
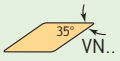
See the ISO 1832 designation key for dimensions

BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4
DP = Polycrystalline diamond
BL = CBN with low CBN content

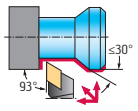
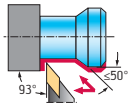
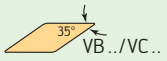


Walter Turn turning tools product range overview – External machining
Square-shank turning toolholders – Negative basic shape

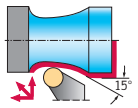
Machining						
Type						
Designation	**DCLN...-P**	**DDJN...-P**	**DDPN**	**DSBN...-P**	**DSSN...-P**	**DTGN...-P**
Approach angle κ	95°	93°	62° 30'	75°	45°	91°
Clamping system	Clamp	Clamp	Clamp	Clamp	Clamp	Clamp
Coolant supply	Precision cooling	Precision cooling	External	Precision cooling	Precision cooling	Precision cooling
Shank size h [mm]	20–32	20–25		25	25	
Shank size h [inch]	0.750–1.000	0.750–1.000	0.750–1.250			0.750–1.000
Page	64	66	68	69	70	71
						

Machining			
Type			
Designation	**DVJN...-P**	**DVTN**	**DWLN...-P**
Approach angle κ	93°	117,5°	95°
Clamping system	Clamp	Clamp	Clamp
Coolant supply	Precision cooling	External	Precision cooling
Shank size h [mm]	20–25		20–25
Shank size h [inch]	0.750–1.000	0.750–1.250	0.750–1.000
Page	72	74	75
			

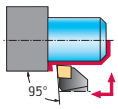
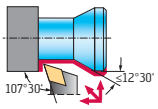
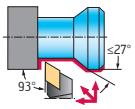
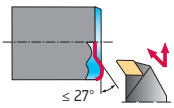
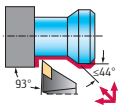
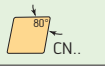
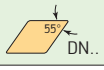
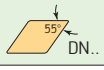
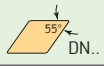
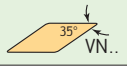
Walter Turn turning tools product range overview – External machining
Square-shank turning toolholders – Positive basic shape

Machining		
Type		
Designation	**DDJC...-P**	**DVJB...-P**
Approach angle κ	93°	93°
Clamping system	Clamp	Clamp
Coolant supply	Precision cooling	Precision cooling
Shank size h [mm]	20–25	20–25
Shank size h [inch]		
Page	77	78
		

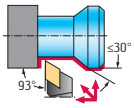
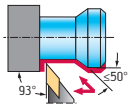
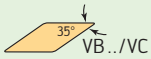
Walter Turn turning tools product range overview – External machining
Square-shank turning toolholders – Ceramic indexable inserts

Machining	
Type	
Designation	**CRSN...-P**
Approach angle κ	0°
Clamping system	Clamp
Coolant supply	Precision cooling
Shank size h [mm]	25
Shank size h [inch]	
Page	79
	

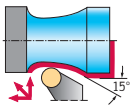
Walter Turn turning tools product range overview – External machining
Walter Capto™ turning toolholders – Negative basic shape

Machining					
Type					
Designation	**C...-DCLN...-P**	**C...-DDHN...-P**	**C...-DDJN...-P**	**C...-DDUN...-P**	**C...-DVJN...-P**
Lead angle κ	95°	107,5°	93°	93°	93°
Clamping system	Clamp	Clamp	Clamp	Clamp	Clamp
Coolant supply	Precision cooling	Precision cooling	Precision cooling	Precision cooling	Precision cooling
Walter Capto™ size	C4–C8	C6	C4–C8	C6	C4–C6
Insert size l [mm]	12–16	15	11–15	15	16
Page	80	81	82	83	84
					

Walter Turn turning tools product range overview – External machining
Walter Capto™ turning toolholders – Positive basic shape

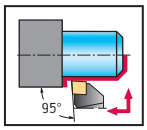
Machining		
Type		
Designation	**C...-DDJC...-P**	**C...-DVJB...-P**
Lead angle κ	93°	93°
Clamping system	Clamp	Clamp
Coolant supply	Precision cooling	Precision cooling
Walter Capto™ size	C4–C5	C4–C8
Insert size l [mm]	11	16
Page	85	86
		

Walter Turn turning tools product range overview – External machining
Walter Capto™ turning toolholders – Ceramic indexable inserts

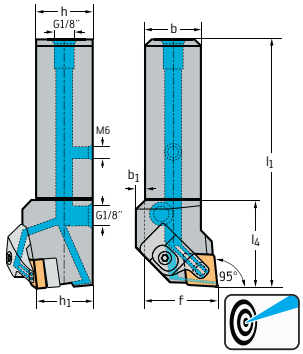
Machining	
Type	RN..
Designation	**C...-CRSN...-P**
Approach angle κ	0°
Clamping system	Clamp
Coolant supply	Precision cooling
Walter Capto™ size	C6
Insert size l [mm]	12
Page	87
	

Shank tool – Rigid clamping
DCLN...-P mm
Walter Turn

– Precision cooling



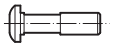
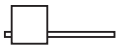
Tool



Designation		h = h1 mm	b mm	b1 mm	f mm	l1 mm	l4 mm	γ	λs	Type
DCLNR/L2020X12-P	12	20	20	10	25	115	38,5	-6°	-6°	CN .. 1204 ..
DCLNR/L2525X12-P	12	25	25	4	32	130	38,5	-6°	-6°	
DCLNR/L2525X16-P	16	25	25	12	32	135	43,5	-6°	-6°	CN .. 1606 ..
★ DCLNR/L3232X16-P	16	32	32	6	40	147	43,5	-6°	-7°	

Measured with master insert: CN .. 120408 / CN .. 160612
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: DCLNR2020X12-P/ordering example, left-hand tool: DCLNL2020X12-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	CN .. 1204 ..	CN .. 1606 ..
	Shim	AP301-CN12	AP302-CN16
	Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm	FS1463 (Torx 20IP) 5,0 Nm
	Left clamp	PK265L	PK267
	Right clamp	PK265R	PK267
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm	FS1474 (Torx 20IP) 6,4 Nm
	Pressure spring	FS2188	FS2298
	G 1/8" threaded plug	FS2258 (SW 5)	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)	FS2288 (SW 3)
	Torx key	FS1465 (Torx 15IP)	FS1464 (Torx 20IP)

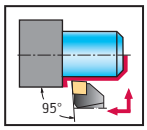
Accessories

	Type	CN .. 1204 ..	CN .. 1606 ..
	Left clamp set (standard assembly parts)	PK265L-SET	PK267-SET
	Right clamp set (standard assembly parts)	PK265R-SET	PK267-SET

/ ★ New addition to the product range

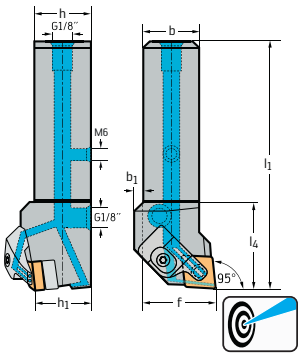
Shank tool – Rigid clamping
DCLN...-P inch
Walter Turn

– Precision cooling



CN . .

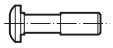
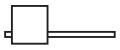
Tool



Designation	in	h = h1 Inch	b Inch	b1 Inch	f Inch	l1 Inch	l4 Inch	γ	λs	Type
DCLNR/L124B-P	0,500	0,750	0,750	0,394	1,000	4,500	1,575	-6°	-6°	CN .. 1204 ..
DCLNR/L164D-P	0,500	1,000	1,000	0,157	1,250	6,000	1,516	-6°	-6°	
DCLNR/L165D-P	0,625	1,000	1,000	0,472	1,250	6,000	1,713	-6°	-6°	CN .. 1606 ..

Measured with master insert: CN .. 120408 / CN .. 160612
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: DCLNR124B-P/ordering example, left-hand tool: DCLNL124B-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	CN .. 1204 ..	CN .. 1606 ..
	Shim	AP301-CN12	AP302-CN16
	Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm	FS1463 (Torx 20IP) 5,0 Nm
	Left clamp	PK265L	PK267
	Right clamp	PK265R	PK267
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm	FS1474 (Torx 20IP) 6,4 Nm
	Pressure spring	FS2188	FS2298
	G 1/8" threaded plug	FS2258 (SW 5)	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)	FS2288 (SW 3)
	Torx key	FS1465 (Torx 15IP)	FS1464 (Torx 20IP)

Accessories

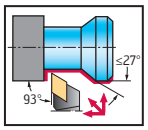
	Type	CN .. 1204 ..	CN .. 1606 ..
	Left clamp set (standard assembly parts)	PK265L-SET	PK267-SET
	Right clamp set (standard assembly parts)	PK265R-SET	PK267-SET

Shank tool – Rigid clamping

DDJN...-P mm

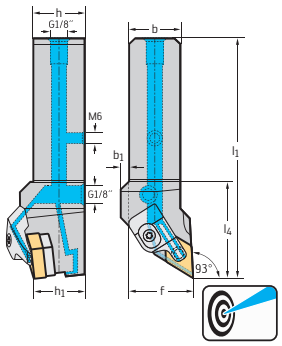
Walter Turn

– Precision cooling



DN . .

Tool



Designation		h = h1 mm	b mm	b1 mm	f mm	l1 mm	l4 mm	γ	λs	Type
DDJNR/L2020X11-P	11	20	20	6	25	125	48,5	-6°	-7°	DN .. 1104 ..
DDJNR/L2525X11-P	11	25	25	3	32	140	48,5	-6°	-7°	
DDJNR/L2020X15-P	15	20	20	7	25	125	48,5	-6°	-7°	DN .. 1506 ..
DDJNR/L2525X15-P	15	25	25	3	32	140	48,5	-6°	-7°	

Measured with master insert: DN .. 110408 / DN .. 150608
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: DDJNR2020X11-P/ordering example, left-hand tool: DDJNL2020X11-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

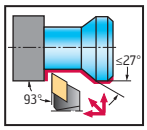
Type	DN .. 1104 ..	DN .. 1506 ..
Shim	AP305-DN11	AP304-DN15
Screw for shim Tightening torque	FS1462 (Torx 9IP) 1,5 Nm	FS1461 (Torx 15IP) 2,5 Nm
Left clamp	PK261L	PK265L
Right clamp	PK261R	PK265R
Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm	FS1473 (Torx 15IP) 3,9 Nm
Pressure spring	FS2188	FS2188
G 1/8" threaded plug	FS2258 (SW 5)	FS2258 (SW 5)
M6 threaded plug	FS2288 (SW 3)	FS2288 (SW 3)
Torx key	FS1465 (Torx 15IP)	FS1465 (Torx 15IP)

Accessories

Type	DN .. 1104 ..	DN .. 1506 ..
Left clamp set (standard assembly parts)	PK261L-SET	PK265L-SET
Right clamp set (standard assembly parts)	PK261R-SET	PK265R-SET
Shim for DN .. 1504 ..		AP304-DN1504

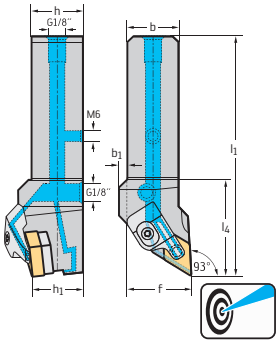
Shank tool – Rigid clamping
DDJN...-P inch
Walter Turn

– Precision cooling



DN . .

Tool



Designation	in	h = h1 Inch	b Inch	b1 Inch	f Inch	l1 Inch	l4 Inch	γ	λs	Type
DDJNR/L163D-P	0,375	1,000	1,000	0,118	1,250	6,000	1,909	-6°	-7°	DN .. 1104 ..
DDJNR/L124B-P	0,500	0,750	0,750	0,276	1,000	4,500	1,969	-6°	-7°	DN .. 1504 ..
DDJNR/L164D-P	0,500	1,000	1,000	0,118	1,250	6,000	1,909	-6°	-7°	

Measured with master insert: DN .. 110408 / DN .. 150408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: DDJNR163D-P/ordering example, left-hand tool: DDJNL163D-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type	DN .. 1104 ..	DN .. 1504 ..
Shim	AP305-DN11	AP304-DN1504
Screw for shim Tightening torque	FS1462 (Torx 9IP) 1,5 Nm	FS1461 (Torx 15IP) 2,5 Nm
Left clamp	PK261L	PK265L
Right clamp	PK261R	PK265R
Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm	FS1473 (Torx 15IP) 3,9 Nm
Pressure spring	FS2188	FS2188
G 1/8" threaded plug	FS2258 (SW 5)	FS2258 (SW 5)
M6 threaded plug	FS2288 (SW 3)	FS2288 (SW 3)
Torx key	FS1465 (Torx 15IP)	FS1465 (Torx 15IP)

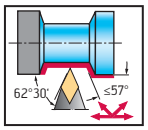
Accessories

Type	DN .. 1104 ..	DN .. 1504 ..
Left clamp set (standard assembly parts)	PK261L-SET	PK265L-SET
Right clamp set (standard assembly parts)	PK261R-SET	PK265R-SET
Shim for DN .. 1506 ..		AP304-DN15

Shank tool – Rigid clamping

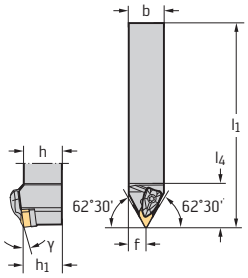
DDPN inch

Walter Turn



DN . . DN . .

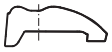
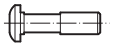
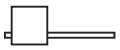
Tool



Designation	in	h = h1 Inch	b Inch	f Inch	l1 Inch	l4 Inch	γ	λs	Type
DDPNN124B	0,500	0,750	0,750	0,375	4,500	1,610	-5°	-9°	
DDPNN164D	0,500	1,000	1,000	0,500	6,000	1,610	-5°	-9°	DN .. 1504 ..
DDPNN204D	0,500	1,250	1,250	0,625	6,000	1,610	-5°	-9°	

Measured with master insert: DN .. 150408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

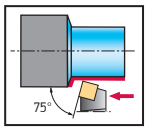
	Type	DN .. 1504 ..
	Shim	AP304-DN1504
	Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm
	Clamp	PK241
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS1470
	Pin	RS117
	Torx key	FS1465 (Torx 15IP)

Accessories

	Type	DN .. 1504 ..
	Clamp set (standard assembly parts)	PK241-SET
	Carbide clamp set Insert with drilled hole	PK245-SET
	Carbide clamp set Insert without drilled hole	PK254-SET
	Shim for DN .. 1504 ..	AP304-DN1504
	Shim for DN .. 1507 ..	AP412-DN1507

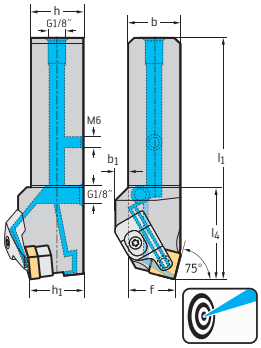
Shank tool – Rigid clamping
DSBN...-P mm
Walter Turn

– Precision cooling



SN . .

Tool



Designation		h = h1 mm	b mm	b1 mm	f mm	l1 mm	l4 mm	γ	λs	Type
DSBNR/L2525X12-P	12	25	25	7	22	135	43,5	-6°	-6°	SN .. 1204 ..

Measured with master insert: SN .. 120408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: DSBNR2525X12-P/ordering example, left-hand tool: DSBNL2525X12-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

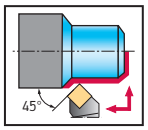
Type	SN .. 1204 ..
Shim	AP308-SN12
Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm
Left clamp	PK265L
Right clamp	PK265R
Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
Pressure spring	FS2188
G 1/8" threaded plug	FS2258 (SW 5)
M6 threaded plug	FS2288 (SW 3)
Torx key	FS1465 (Torx 15IP)

Accessories

Type	SN .. 1204 ..
Left clamp set (standard assembly parts)	PK265L-SET
Right clamp set (standard assembly parts)	PK265R-SET

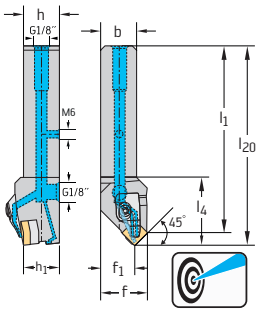
Shank tool – Rigid clamping
DSSN...-P mm
Walter Turn

– Precision cooling



SN . .

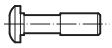
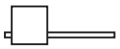
Tool



Designation		h = h1 mm	b mm	b1 mm	f mm	l1 mm	l4 mm	γ	λs	Type
DSSNR/L2525X12-P	12	25	25	0	23,7	138,7	48	-8°	0°	SN .. 1204 ..

Measured with master insert: SN .. 120408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: DSSNR2525X12-P/ordering example, left-hand tool: DSSNL2525X12-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

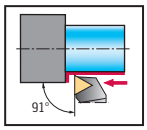
	Type	SN .. 1204 ..
	Shim	AP308-SN12
	Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm
	Left clamp	PK265L
	Right clamp	PK265R
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS2188
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1465 (Torx 15IP)

Accessories

	Type	SN .. 1204 ..
	Left clamp set (standard assembly parts)	PK265L-SET
	Right clamp set (standard assembly parts)	PK265R-SET

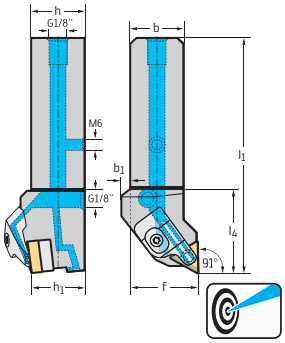
Shank tool – Rigid clamping
DTGN...-P inch
Walter Turn

– Precision cooling



TN . .

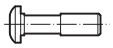
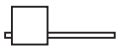
Tool



Designation		h = h1 Inch	b Inch	b1 Inch	f Inch	l1 Inch	l4 Inch	γ	λs	Type
DTGNR/L123B-P	0,375	0,750	0,750	0,000	1,000	4,500	1,516	-6°	-6°	TN .. 1604 ..
DTGNR/L163D-P	0,375	1,000	1,000	0,000	1,250	6,000	1,520	-6°	-6°	

Measured with master insert: TN .. 160408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
Ordering example, right-hand tool: DTGNR123B-P/ordering example, left-hand tool: DTGNL123B-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

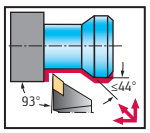
	Type	TN .. 1604 ..
	Shim	AP321-TN16
	Screw for shim Tightening torque	FS1462 (Torx 9IP) 1,5 Nm
	Left clamp	PK261L
	Right clamp	PK261R
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS2188
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1465 (Torx 15IP)

Accessories

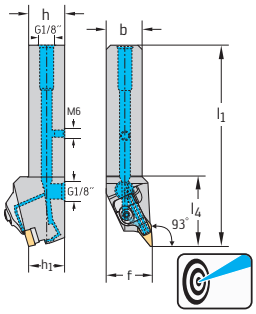
	Type	TN .. 1604 ..
	Left clamp set (standard assembly parts)	PK261L-SET
	Right clamp set (standard assembly parts)	PK261R-SET

Shank tool – Rigid clamping
DVJN...-P mm
Walter Turn

– Precision cooling



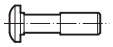
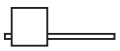
Tool



Designation		h = h1 mm	b mm	b1 mm	f mm	l1 mm	l4 mm	γ	λs	Type
DVJNR/L2020X16-P	16	20	20	4	25	125	48,5	-4°	-13°	VN .. 1604 ..
DVJNR/L2525X16-P	16	25	25	0	32	140	48	-4°	-13°	

Measured with master insert: VN .. 160408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
Ordering example, right-hand tool: DVJNR2020X16-P/ordering example, left-hand tool: DVJNL2020X16-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

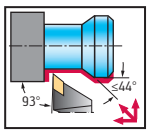
	Type	VN .. 1604 ..
	Shim	AP312-VN16
	Screw for shim Tightening torque	FS1467 (Torx 15IP) 3,0 Nm
	Left clamp	PK261L
	Right clamp	PK261R
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS2188
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1465 (Torx 15IP)

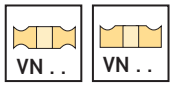
Accessories

	Type	VN .. 1604 ..
	Left clamp set (standard assembly parts)	PK261L-SET
	Right clamp set (standard assembly parts)	PK261R-SET

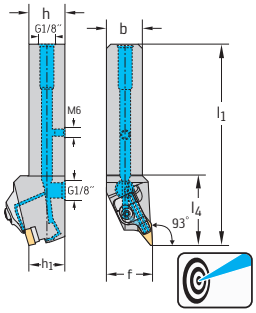
Shank tool – Rigid clamping
DVJN...-P inch
Walter Turn

– Precision cooling





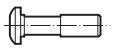
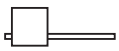
Tool



Designation	in	h = h_1 Inch	b Inch	b_1 Inch	f Inch	l_1 Inch	l_4 Inch	γ	λ_s	Type
DVJNR/L123B-P	0,375	0,750	0,750	0,157	1,000	4,496	1,906	-4°	-13°	VN .. 1604 ..
DVJNR/L163D-P	0,375	1,000	1,000	0,000	1,250	5,996	1,906	-4°	-13°	

Measured with master insert: VN .. 160408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: DVJNR123B-P/ordering example, left-hand tool: DVJNL123B-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	VN .. 1604 ..
	Shim	AP312-VN16
	Screw for shim Tightening torque	FS1467 (Torx 15IP) 3,0 Nm
	Left clamp	PK261L
	Right clamp	PK261R
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS2188
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1465 (Torx 15IP)

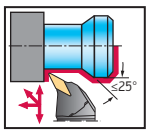
Accessories

	Type	VN .. 1604 ..
	Left clamp set (standard assembly parts)	PK261L-SET
	Right clamp set (standard assembly parts)	PK261R-SET

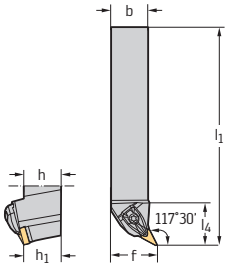
Shank tool – Rigid clamping

DVTN inch

Walter Turn



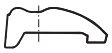
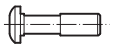
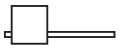
Tool



Designation	in	h = h1 Inch	b Inch	f Inch	l1 Inch	l4 Inch	γ	λs	Type
DVTNR/L123B	0,375	0,750	0,750	1,000	4,500	1,543	-4°	-13°	VN .. 1604 ..
DVTNR/L163D	0,375	1,000	1,000	1,250	6,000	1,544	-4°	-13°	
DVTNR/L203D	0,375	1,250	1,250	1,500	6,000	1,544	-4°	-13°	

Measured with master insert: VN .. 160408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Ordering example, right-hand tool: DVTNR123B/ordering example, left-hand tool: DVTNL123B
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

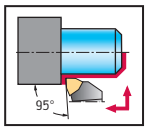
	Type	VN .. 1604 ..
	Shim	AP312-VN16
	Screw for shim Tightening torque	FS1467 (Torx 15IP) 3,0 Nm
	Clamp	PK244
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS1470
	Pin	RS117
	Torx key	FS1465 (Torx 15IP)

Accessories

	Type	VN .. 1604 ..
	Clamp set (standard assembly parts)	PK244-SET

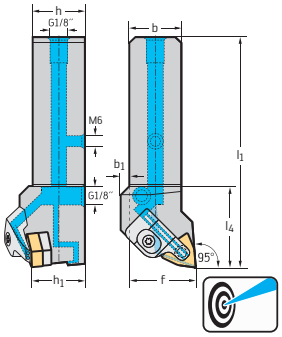
Shank tool – Rigid clamping
DWLN...-P mm
Walter Turn

– Precision cooling



WN . .

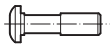
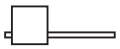
Tool



Designation		h = h1 mm	b mm	b1 mm	f mm	l1 mm	l4 mm	γ	λs	Type
DWLNR/L2020X08-P	8	20	20	0	25	120,0	43,5	-7°	-6°	WN .. 0804 ..
DWLNR/L2525X08-P	8	25	25	0	32	135,0	43,5	-7°	-6°	

Measured with master insert: WN .. 080408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: DWLNR2020X08-P/ordering example, left-hand tool: DWLNL2020X08-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	WN .. 0804 ..
	Shim	AP307-WN08
	Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm
	Left clamp	PK266L
	Right clamp	PK266R
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS2188
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1465 (Torx 15IP)

Accessories

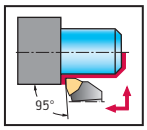
	Type	WN .. 0804 ..
	Left clamp set (standard assembly parts)	PK266L-SET
	Right clamp set (standard assembly parts)	PK266R-SET

Shank tool – Rigid clamping

DWLN...-P inch

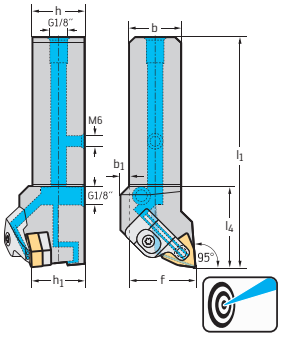
Walter Turn

– Precision cooling



WN . .

Tool



Designation	in	h = h1 Inch	b Inch	b1 Inch	f Inch	l1 Inch	l4 Inch	γ	λs	Type
DWLNR/L124B-P		0,500	0,750	0,750	0,000	1,000	4,500	1,713	-6°	-6°	WN .. 0804 ..
DWLNR/L164D-P		0,500	1,000	1,000	0,000	1,250	6,000	1,713	-7°	-6°	

Measured with master insert: WN .. 080408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
Ordering example, right-hand tool: DWLNR124B-P/ordering example, left-hand tool: DWLNL124B-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

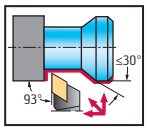
Type	WN .. 0804 ..
Shim	AP307-WN08
Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm
Left clamp	PK266L
Right clamp	PK266R
Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
Pressure spring	FS2188
G 1/8" threaded plug	FS2258 (SW 5)
M6 threaded plug	FS2288 (SW 3)
Torx key	FS1465 (Torx 15IP)

Accessories

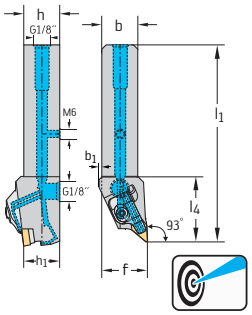
Type	WN .. 0804 ..
Left clamp set (standard assembly parts)	PK266L-SET
Right clamp set (standard assembly parts)	PK266R-SET

Shank tool – Rigid clamping
DDJC...-P mm
Walter Turn

– Precision cooling



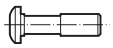
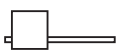
Tool



Designation		h = h_1 mm	b mm	b_1 mm	f mm	l_1 mm	l_4 mm	γ	λ_s	Type
DDJCR/L2020X11-P	11	20	20	6	25	125	48,5	-3°	-7°	DC .. 11T3 ..
DDJCR/L2525X11-P	11	25	25	0	32	140	48,5	-3°	-7°	

Measured with master insert: DC .. 11T308
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: DDJCR2020X11-P/ordering example, left-hand tool: DDJCL2020X11-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

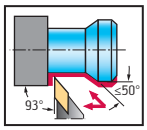
	Type	DC .. 11T3 ..
	Shim for radius	AP315-DC1108 r ≤ 0,8 mm
	Screw for shim	FS2068 (SW 3,5)
	Left clamp	PK261L
	Right clamp	PK261R
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS2188
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1465 (Torx 15IP)

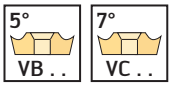
Accessories

	Type	DC .. 11T3 ..
	Left clamp set (standard assembly parts)	PK261L-SET
	Right clamp set (standard assembly parts)	PK261R-SET

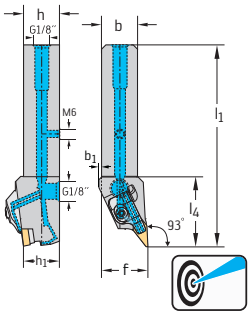
Shank tool – Rigid clamping
DVJB...-P mm
Walter Turn

– Precision cooling





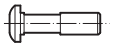
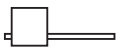
Tool



Designation		h = h_1 mm	b mm	b_1 mm	f mm	l_1 mm	l_4 mm	γ	λ_s	Type
DVJBR/L2020X16-P	16	20	20	4	25	125	48,5	-2°	-7°	VB .. 1604 .. VC .. 1604 ..
DVJBR/L2525X16-P	16	25	25	0	32	140	48,5	-2°	-7°	

Measured with master insert: VB .. 160408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: DVJBR2020X16-P/ordering example, left-hand tool: DVJBL2020X16-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

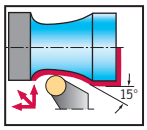
	Type	VB .. 1604 .. VC .. 1604 ..
	Shim	AP312-VN16
	Screw for shim Tightening torque	FS1467 (Torx 15IP) 3,0 Nm
	Left clamp	PK261L
	Right clamp	PK261R
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS2188
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1465 (Torx 15IP)

Accessories

	Type	VB .. 1604 .. VC .. 1604 ..
	Left clamp set (standard assembly parts)	PK261L-SET
	Right clamp set (standard assembly parts)	PK261R-SET

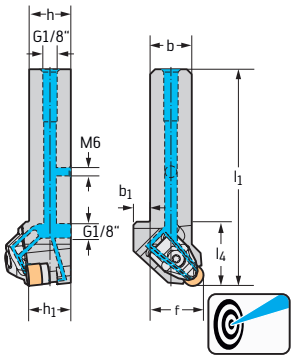
Shank tool – Rigid clamping
CRSN...-P mm
Walter Turn

– Precision cooling
– For ceramic indexable inserts



RN . .

Tool



Designation		h = h1 mm	b mm	b1 mm	f mm	l1 mm	l4 mm	γ	λs	Type
★ CRSNR/L2525X12-P	12	25	25	10	32	130	38,5	-6°	-6°	RN .. 1207 ..

Measured with master insert: RN .. 120700
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: CRSNR2525X12-P/ordering example, left-hand tool: CRSNL2525X12-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type	RN .. 1207 ..
Shim	AP418-RN1207
Screw for shim Tightening torque	FS2241 (Torx 20) 5,0 Nm
Clamp	PK268
Screw for clamp Tightening torque	FS1474 (Torx 20IP) 6,4 Nm
Pressure spring	FS2298
G 1/8" threaded plug	FS2258 (SW 5)
M6 threaded plug	FS2288 (SW 3)
Torx key	FS1464 (Torx 20IP)

Accessories

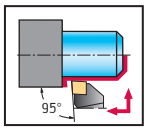
Type	RN .. 1207 ..
Clamp set (standard assembly parts)	PK268-SET

★ New addition to the product range

Turning toolholders – Rigid clamping
C...-DCLN...-P mm

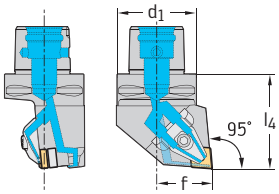
Walter Turn

– Precision cooling
– Walter Capto™



Tool

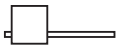
Walter Capto™ in accordance with ISO 26623



Designation		d_1	f mm	l_4 mm	γ	λ_s	Type
C4-DCLNR/L-27050-12-P	12	C4	27	50	-6°	-6°	CN .. 1204 ..
C5-DCLNR/L-35060-12-P	12	C5	35	60	-6°	-6°	
C6-DCLNR/L-45065-12-P	12	C6	45	65	-6°	-6°	
C8-DCLNR/L-55080-12-P	12	C8	55	80	-6°	-6°	
★ C5-DCLNR/L-35060-16-P	16	C5	35	60	-6°	-6°	CN .. 1606 ..
C6-DCLNR/L-45065-16-P	16	C6	45	65	-6°	-6°	
★ C8-DCLNR/L-55080-16-P	16	C8	55	80	-6°	-6°	

Measured with master insert: CN .. 120408 / CN .. 160612
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: C4-DCLNR-27050-12-P/ordering example, left-hand tool: C4-DCLNL-27050-12-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	CN .. 1204 ..	CN .. 1606 ..
	Shim	AP301-CN12	AP302-CN16
	Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm	FS1463 (Torx 20IP) 5,0 Nm
	Clamp	PK255	PK267
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm	FS1474 (Torx 20IP) 6,4 Nm
	Pressure spring	FS2188	FS2298
	Torx key	FS1465 (Torx 15IP)	FS1464 (Torx 20IP)

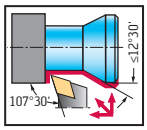
Accessories

	Type	CN .. 1204 ..	CN .. 1606 ..
	Clamp set (standard assembly parts)	PK255-SET	PK267-SET

/ ★ New addition to the product range

Turning toolholders – Rigid clamping
C...-DDHN...-P mm
Walter Turn

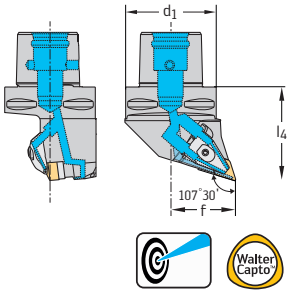
– Precision cooling
– Walter Capto™



DN . .

Tool

Walter Capto™ in accordance with ISO 26623



Designation		d_1	f mm	l_4 mm	γ	λ_s	Type
C6-DDHNR/L-45065-15-P	15	C6	45	65	-6°	7°	DN .. 1506 ..

Measured with master insert: DN .. 150608
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: C6-DDHNR-45065-15-P/ordering example, left-hand tool: C6-DDHNL-45065-15-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

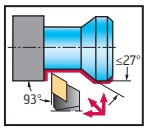
Type	DN .. 1506 ..
Shim	AP304-DN15
Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm
Clamp	PK256
Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
Pressure spring	FS2188
Torx key	FS1465 (Torx 15IP)

Accessories

Type	DN .. 1506 ..
Clamp set (standard assembly parts)	PK256-SET
Shim for DN .. 1504 ..	AP304-DN1504

Turning toolholders – Rigid clamping
C...-DDJN...-P mm
Walter Turn

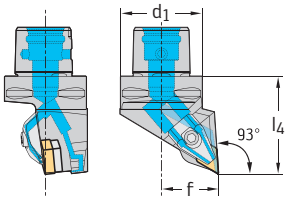
– Precision cooling
– Walter Capto™



DN . .

Tool

Walter Capto™ in accordance with ISO 26623



Designation		d_1	f mm	l_4 mm	γ	λ_s	Type
C4-DDJNR/L-27055-11-P	11	C4	27	55	-6°	-7°	DN .. 1104 ..
C4-DDJNR/L-27055-15-P	15	C4	27	55	-6°	-7°	DN .. 1506 ..
C5-DDJNR/L-35060-15-P	15	C5	35	60	-6°	-7°	
C6-DDJNR/L-45065-15-P	15	C6	45	65	-6°	-7°	
C8-DDJNR/L-55080-15-P	15	C8	55	80	-6°	-7°	

Measured with master insert: DN .. 110408 / DN .. 150608
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: C4-DDJNR-27055-11-P/ordering example, left-hand tool: C4-DDJNL-27055-11-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

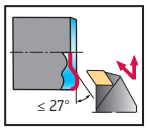
Type	DN .. 1104 ..	DN .. 1506 ..
Shim	AP305-DN11	AP304-DN15
Screw for shim Tightening torque	FS1462 (Torx 9IP) 1,5 Nm	FS1461 (Torx 15IP) 2,5 Nm
Clamp	PK255	PK256
Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm	FS1473 (Torx 15IP) 3,9 Nm
Pressure spring	FS2188	FS2188
Torx key	FS1465 (Torx 15IP)	FS1465 (Torx 15IP)

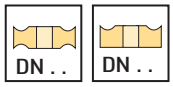
Accessories

Type	DN .. 1104 ..	DN .. 1506 ..
Clamp set (standard assembly parts)	PK255-SET	PK256-SET
Shim for DN .. 1504 ..		AP304-DN1504

Turning toolholders – Rigid clamping
C...-DDUN...-P mm
Walter Turn

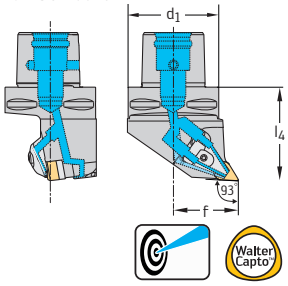
– Precision cooling
– Walter Capto™





Tool

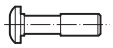
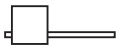
Walter Capto™ in accordance with ISO 26623



Designation		d_1	f mm	l_4 mm	γ	λ_s	Type
C6-DDUNR/L-45065-15-P	15	C6	45	65	-7°	-6°	DN .. 1506 ..

Measured with master insert: DN .. 150608
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: C6-DDUNR-45065-15-P/ordering example, left-hand tool: C6-DDUNL-45065-15-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	DN .. 1506 ..
	Shim	AP304-DN15
	Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm
	Clamp	PK256
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS2188
	Torx key	FS1465 (Torx 15IP)

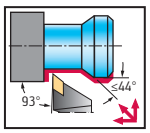
Accessories

	Type	DN .. 1506 ..
	Clamp set (standard assembly parts)	PK256-SET
	Shim for DN .. 1504 ..	AP304-DN1504

Turning toolholders – Rigid clamping
C...-DVJN...-P mm

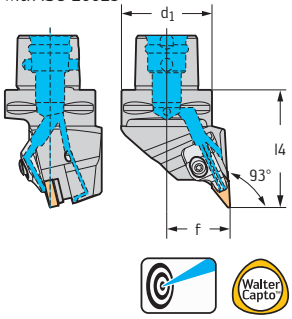
Walter Turn

– Precision cooling
– Walter Capto™



Tool

Walter Capto™ in accordance with ISO 26623



Designation		d_1	f mm	l_4 mm	γ	λ_s	Type
★ C4-DVJNR/L-27062-16-P	16	C4	27	62	-4°	-13°	VN .. 1604 ..
★ C5-DVJNR/L-35065-16-P	16	C5	35	65	-4°	-13°	
★ C6-DVJNR/L-45065-16-P	16	C6	45	65	-4°	-13°	

Measured with master insert: VN .. 160408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: C4-DVJNR-27062-16-P/ordering example, left-hand tool: C4-DVJNL-27062-16-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type	VN .. 1604 ..
Shim	AP312-VN16
Screw for shim Tightening torque	FS1467 (Torx 15IP) 3,0 Nm
Left clamp	PK261L
Right clamp	PK261R
Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
Pressure spring	FS2188
Torx key	FS1465 (Torx 15IP)

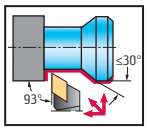
Accessories

Type	VN .. 1604 ..
Left clamp set	PK261L-SET
Right clamp set	PK261R-SET

/ ★ New addition to the product range

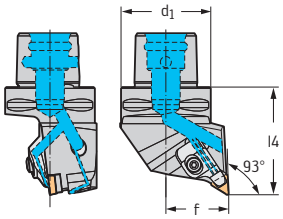
Turning toolholders – Rigid clamping
C...-DDJC...-P mm
Walter Turn

– Precision cooling
– Walter Capto™



Tool

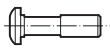
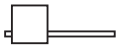
Walter Capto™ in accordance with ISO 26623



Designation		d_1	f mm	l_4 mm	γ	λ_s	Type
★ C4-DDJCR/L-27050-11-P	11	C4	27	50	-3°	-7°	DC .. 11T3 ..
★ C5-DDJCR/L-35060-11-P	11	C5	35	60	-3°	-7°	

Measured with master insert: DC .. 11T308
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: C4-DDJCR-27050-11-P/ordering example, left-hand tool: C4-DDJCL-27050-11-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	DC .. 11T3 ..
	Shim for radius	AP315-DC1108 r ≤ 0,8 mm
	Screw for shim	FS2068 (SW 3,5)
	Left clamp	PK261L
	Right clamp	PK261R
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS2188
	Torx key	FS1465 (Torx 15IP)

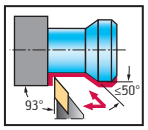
Accessories

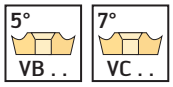
	Type	DC .. 11T3 ..
	Left clamp set (standard assembly parts)	PK261L-SET
	Right clamp set (standard assembly parts)	PK261R-SET

★ / ★ New addition to the product range

Turning toolholders – Rigid clamping
C...-DVJB...-P mm
Walter Turn

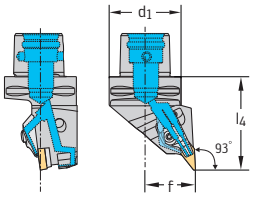
– Precision cooling
– Walter Capto™





Tool

Walter Capto™ in accordance with ISO 26623



Designation		d_1	f mm	l_4 mm	γ	λ_s	Type
C4-DVJBR/L-27062-16-P	16	C4	27	62	-2°	-7°	VB .. 1604 .. VC .. 1604 ..
C5-DVJBR/L-35065-16-P	16	C5	35	65	-2°	-7°	
C6-DVJBR/L-45065-16-P	16	C6	45	65	-2°	-7°	
C8-DVJBR/L-55080-16-P	16	C8	55	65	-2°	-7°	

Measured with master insert: VB .. 160408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: C4-DVJBR-27062-16-P/ordering example, left-hand tool: C4-DVJBL-27062-16-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

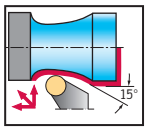
Type	VB .. 1604 .. VC .. 1604 ..
Shim	AP312-VN16
Screw for shim Tightening torque	FS1467 (Torx 15IP) 3,0 Nm
Left clamp	PK261L
Right clamp	PK261R
Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
Pressure spring	FS2188
Torx key	FS1465 (Torx 15IP)

Accessories

Type	VB .. 1604 .. VC .. 1604 ..
Left clamp set (standard assembly parts)	PK261L-SET
Right clamp set (standard assembly parts)	PK261R-SET

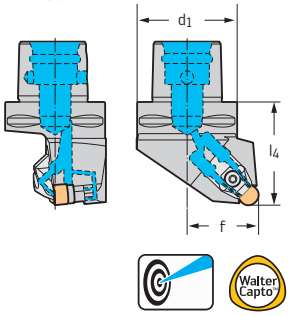
Turning toolholders – Rigid clamping
C...-CRSN...-P mm
Walter Turn

– Precision cooling
– For ceramic indexable inserts



Tool

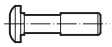
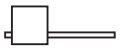
Walter Capto™ in accordance with ISO 26623



Designation		d_1	f mm	l_4 mm	γ	λ_s	Type
★ C6-CRSNR/L-45065-12-P	12	C6	45	65	-6°	-6°	RN .. 1207 ..

Measured with master insert: RN .. 120700
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: C6-CRSNR-45065-12-P/ordering example, left-hand tool: C6-CRSNL-45065-12-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

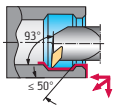
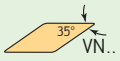
	Type	RN .. 1207 ..
	Shim	AP418-RN1207
	Screw for shim Tightening torque	FS2241 (Torx 20) 5,0 Nm
	Clamp	PK268
	Screw for clamp Tightening torque	FS1474 (Torx 20IP) 6,4 Nm
	Pressure spring	FS2298
	Torx key	FS1464 (Torx 20IP)

Accessories

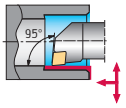
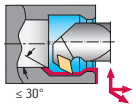
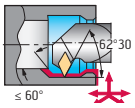
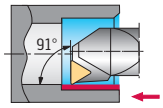
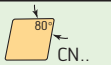
	Type	RN .. 1207 ..
	Clamp set (standard assembly parts)	PK268-SET

★ / ★ New addition to the product range

Walter Turn turning tools product range overview – Internal machining
Boring bars – Negative basic shape

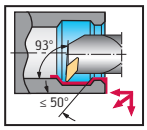
Machining	
Type	
Designation	**A...-DVUN**
Approach angle κ	93°
Clamping system	Clamp
Coolant supply	Internal
Boring bar diameter d_1 [mm]	
Boring bar diameter d_1 [inch]	1.250–1.500
Page	89
	

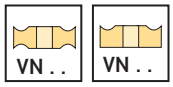
Walter Turn turning tools product range overview – Internal machining
Boring bars – Positive basic shape

Machining					
Type					
Designation	**A...-SCLP / E...-SCLP**	**A...-SDUC...-X**	**A...-SDXC...-X**	**A...-STFC / E...-STFC**	**A2140-W**
Approach angle κ	95°	93°	62,5°	91°	
Clamping system	Screw	Screw	Screw	Screw	
Coolant supply	Internal	Internal	Internal	Internal	Axial
Boring bar diameter d_1 [mm]			25		25–40
Boring bar diameter d_1 [inch]	0.313–1.000	1.000–1.250		0.313–1.500	
Page	90	91	92	93	94
					

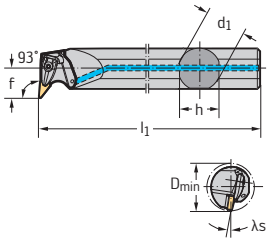
Boring bar – Rigid clamping
A...-DVUN inch
Walter Turn

– A = Steel version with internal coolant





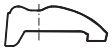
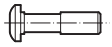
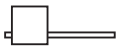
Tool



Designation	in	D_{min} Inch	d_1 Inch	f Inch	h Inch	l_1 Inch	γ	λ_s	Type
A20T-DVUNR/L3	0,375	1,705	1,250	1,000	1,181	12,000	-6°	-9°	VN .. 1604 ..
A24T-DVUNR/L3	0,375	2,000	1,500	1,125	1,374	12,000	-6°	-8°	

Measured with master insert: VN .. 160408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Ordering example, right-hand tool: A20T-DVUNR3/ordering example, left-hand tool: A20T-DVUNL3
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

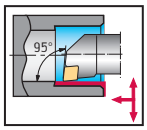
	Type	VN .. 1604 ..
	Shim	AP312-VN16
	Screw for shim Tightening torque	FS1467 (Torx 15IP) 3,0 Nm
	Clamp	PK244
	Screw for clamp Tightening torque	FS1473 (Torx 15IP) 3,9 Nm
	Pressure spring	FS1470
	Pin	RS117
	Torx key	FS1465 (Torx 15IP)

Accessories

	Type	VN .. 1604 ..
	Clamp set (standard assembly parts)	PK244-SET

Boring bar – Screw clamping
A...-SCLP / E...-SCLP inch
Walter Turn

– A = Steel version with internal coolant
– E = Solid carbide version with internal coolant



Tool

Designation	in	D_{min} Inch	d_1 Inch	f Inch	h Inch	l_1 Inch	γ	λ_s	Type
A05K-SCLPR/L2	0,250	0,413	0,313	0,219	0,272	5,000	0°	-9°	CP .. 0602 ..
A06M-SCLPR/L2	0,250	0,480	0,375	0,250	0,336	6,000	4°	-6,5°	
A08M-SCLPR/L2	0,250	0,598	0,500	0,312	0,460	6,000	6°	-2,6°	
A10R-SCLPR/L2	0,250	0,772	0,625	0,406	0,562	8,000	0°	5°	
A12S-SCLPR/L3	0,375	0,929	0,750	0,500	0,709	10,000	0°	-6,3°	CP .. 09T3 ..
A16T-SCLPR/L3	0,375	1,201	1,000	0,639	0,906	14,173	6°	1°	
E06M-SCLPR/L2	0,250	0,480	0,375	0,250	0,359	6,000	4°	-7°	CP .. 0602 ..
E08R-SCLPR/L2	0,250	0,598	0,500	0,312	0,484	8,000	6°	-3°	

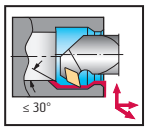
Measured with master insert: CP.. 060204 / CP .. 09T304
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Ordering example, right-hand tool: A05K-SCLPR2/ordering example, left-hand tool: A05K-SCLPL2
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

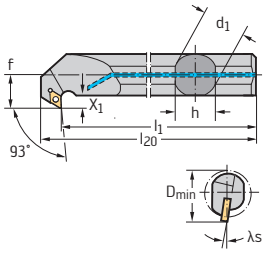
Type D_{min} [Inch]	CP .. 0602 .. 0,413	CP .. 0602 .. 0,480–0,598	CP .. 0602 .. 0,772	CP .. 09T3 .. 0,929	CP .. 09T3 .. 1,201
Clamping screw for insert Tightening torque	FS2187 (Torx 7IP) 0,9 Nm	FS2066 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS2062 (Torx 15IP) 3,0 Nm	FS2063 (Torx 15IP) 3,0 Nm
Torx key	FS1490 (Torx 7IP)	FS1490 (Torx 7IP)	FS1490 (Torx 7IP)	FS1465 (Torx 15IP)	FS1465 (Torx 15IP)

Boring bar – Screw clamping
A...-SDUC...-X inch
Walter Turn

– A = Steel version with internal coolant
– Reverse copy boring bar



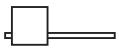
Tool



Designation	in	D_{min} Inch	d_1 Inch	f Inch	h Inch	l_1 Inch	l_{20} Inch	γ	λ_s	Type
A16T-SDUCR/L2-X	0,250	1,299	1,000	0,750	0,906	12,000	12,480	0°	-0,9°	DC .. 0702 ..
A20T-SDUCR/L3-X	0,375	1,579	1,250	0,875	1,181	12,000	12,610	0°	-7,5°	DC .. 11T3 ..

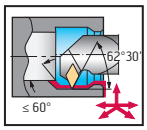
Measured with master insert: DC .. 070204 / DC .. 11T308
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Ordering example, right-hand tool: A16T-SDUCR2-X/ordering example, left-hand tool: A16T-SDUCL2-X
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

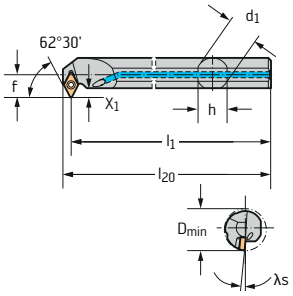
	Type	DC .. 0702 ..	DC .. 11T3 ..
	Clamping screw for insert Tightening torque	FS2061 (Torx 7IP) 0,9 Nm	FS2062 (Torx 15IP) 3,0 Nm
	Torx key	FS1490 (Torx 7IP)	FS1465 (Torx 15IP)

Boring bar – Screw clamping
A...-SDXC...-X mm
Walter Turn

– A = Steel version with internal coolant
– Forwards/reverse copy boring bar



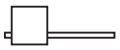
Tool



Designation		D_{min} mm	d_1 mm	f mm	h mm	l_1 mm	l_{20} mm	γ	λ_s	Type
A25T-SDXCR/L11-X	11	32	25	17	23	300	306	-2°	-3°	DC .. 11T3 ..

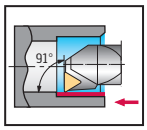
Measured with master insert: DC .. 11T308
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Ordering example, right-hand tool: A25T-SDXCR11-X/ordering example, left-hand tool: A25T-SDXCL11-X
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

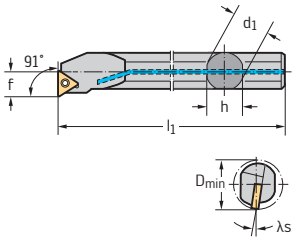
	Type	DC .. 11T3 ..
	Clamping screw for insert Tightening torque	FS2062 (Torx 15IP) 3,0 Nm
	Torx key	FS1465 (Torx 15IP)

Boring bar – Screw clamping
A...-STFC / E...-STFC inch
Walter Turn

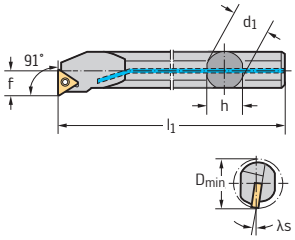
– A = Steel version with internal coolant
– E = Solid carbide version with internal coolant



Tool



Designation	in	D_{min} Inch	d_1 Inch	f Inch	h Inch	l_1 Inch	γ	λ_s	Type
A06M-STFCR/L2	0,250	0,500	0,375	0,250	0,336	6,000	0°	-10,1°	TC .. 1102 ..
A08M-STFCR/L2	0,250	0,598	0,500	0,312	0,460	6,000	0°	-7,2°	
A10R-STFCR/L2	0,250	0,772	0,625	0,406	0,562	8,000	0°	-4,7°	
A12S-STFCR/L2	0,250	0,929	0,750	0,500	0,709	10,000	0°	-3,2°	
A16T-STFCR/L3	0,375	1,201	1,000	0,640	0,906	12,000	0°	-3,8°	TC .. 16T3 ..
A20T-STFCR/L3	0,375	1,469	1,250	0,765	1,181	12,000	0°	-8,7°	
A24T-STFCR/L3	0,375	1,760	1,500	0,890	1,374	12,000	0°	-6,8°	



E06M-STFCR/L1.8	0,219	0,500	0,375	0,264	0,359	6,000	0°	-9,5°	TC .. 0902 ..
E08R-STFCR/L1.8	0,219	0,630	0,500	0,349	0,460	8,000	0°	-7°	
E10R-STFCR/L2	0,250	0,772	0,625	0,406	0,609	8,000	0°	-6°	TC .. 1102 ..
E12S-STFCR/L2	0,250	0,929	0,750	0,500	0,734	10,000	0°	-4°	
E16T-STFCR/L3	0,375	1,201	1,000	0,640	0,984	12,000	0°	-4°	TC .. 16T3 ..

Measured with master insert: TC .. 110204 / TC .. 16T308 / TC .. 090204 / TC .. 110200
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Ordering example, right-hand tool: A06M-STFCR2/ordering example, left-hand tool: A06M-STFCL2
Bodies and assembly parts are included in the scope of delivery.

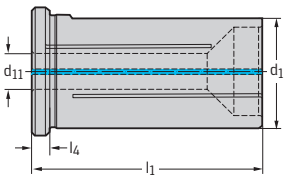
Assembly parts

Type D_{min} [Inch]	TC .. 0902 .. 0,500–0,630	TC .. 1102 .. 0,500–0,598	TC .. 1102 .. 0,772–0,929	TC .. 16T3 .. 1,201	TC .. 16T3 .. 1,469–1,760
Clamping screw for insert Tightening torque	FS2149 (Torx 7IP) 0,9 Nm	FS2067 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS2063 (Torx 15IP) 3,0 Nm	FS2060 (Torx 15IP) 3,0 Nm
Torx key	FS1490 (Torx 7IP)	FS1490 (Torx 7IP)	FS1490 (Torx 7IP)	FS1465 (Torx 15IP)	FS1465 (Torx 15IP)
Shim for radius					AP317-TC1612 r ≤ 1,2 mm
Clamping screw for shim					FS2068 (SW 3,5)

Boring bar adaptor
A2140-W mm

– With Weldon shank in accordance with DIN 9766
– Self-centring for cylindrical round shank

Tool	Designation	d_1 mm	d_{11} mm	l_1 mm	l_4 mm	kg
Parallel shank with surface in accordance with ISO 9766	A2140-W25-R06-061	25	6	61	5	0,2
	A2140-W25-R08-061	25	8	61	5	0,2
	A2140-W25-R10-061	25	10	61	5	0,2
	A2140-W25-R12-061	25	12	61	5	0,2
	A2140-W25-R16-061	25	16	61	5	0,1
	A2140-W32-R06-065	32	6	65	5	0,3
	A2140-W32-R08-065	32	8	65	5	0,3
	A2140-W32-R10-065	32	10	65	5	0,3
	A2140-W32-R12-065	32	12	65	5	0,3
	A2140-W32-R16-065	32	16	65	5	0,3
	A2140-W32-R20-065	32	20	65	5	0,2
	A2140-W40-R06-075	40	6	75	5	0,6
	A2140-W40-R08-075	40	8	75	5	0,6
	A2140-W40-R10-075	40	10	75	5	0,6
	A2140-W40-R12-075	40	12	75	5	0,6
	A2140-W40-R16-075	40	16	75	5	0,6
	A2140-W40-R20-075	40	20	75	5	0,6
	A2140-W40-R25-075	40	25	75	5	0,5

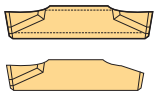
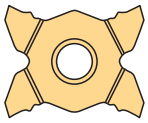
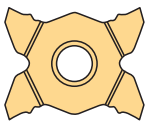


Comment: Groove for self-centring is present on all Walter Turn boring bars with fully rounded shank (-R) dia. 6–25 mm.

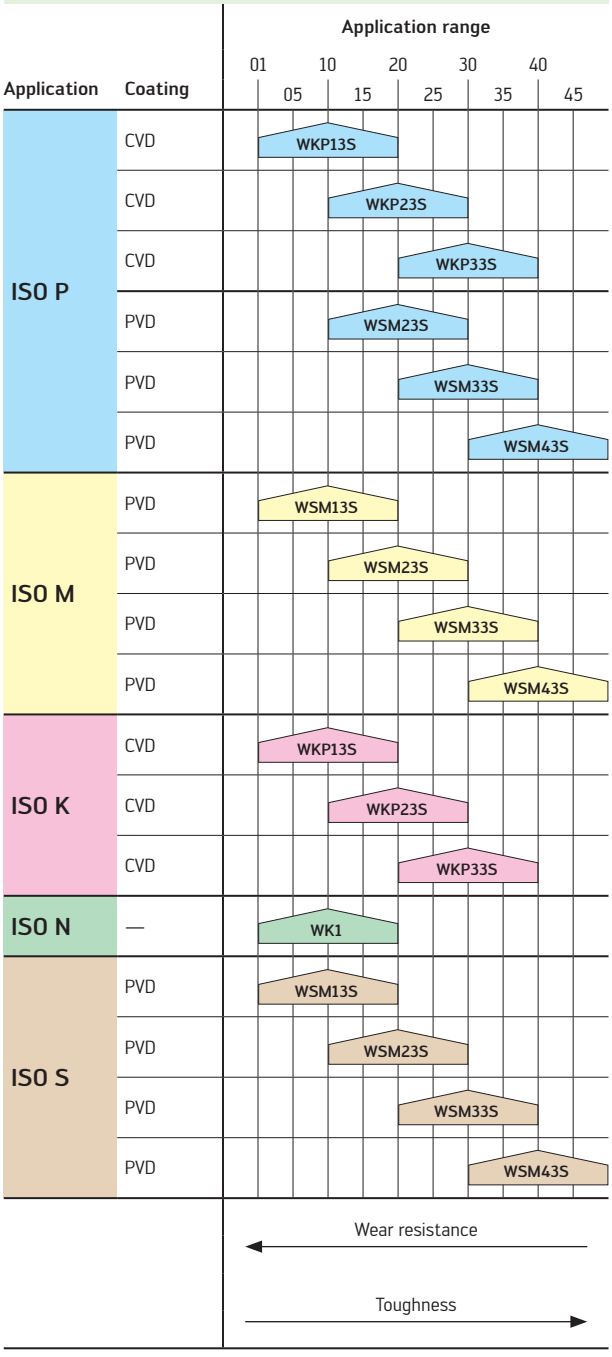
Product range overview of cutting inserts and cutting tool materials: Grooving



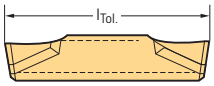

Cutting inserts

Insert shape	Description	Page
Parting off/grooving		
 **GX**	Walter Cut GX grooving inserts, double-edged/ single-edged	96
 **SX**	Walter Cut SX grooving inserts, single-edged	102
 **MX**	Walter Cut MX grooving inserts, four-edged	104
Recessing		
 **GX**	Walter Cut GX grooving inserts, double-edged	99
Semi-finished parts/ blanks		
 **MX**	Walter Cut MX grooving inserts, four-edged	107

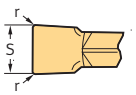
Cutting tool materials: Carbide



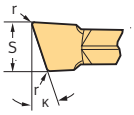
Grooving and parting off
GX cutting inserts
Tiger·tec® Silver



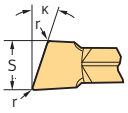
GX...N



GX...R



GX...L



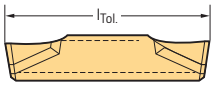
Cutting inserts

	Designation	s mm	r mm	κ	l mm	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	N HW WK1	S HC WSM23S	S HC WSM33S	S HC WSM43S
	GX16-1E200N02-CK8	2	0,2		16,6	0,04–0,12	±0,02	±0,03									●			
	GX16-2E300N02-CK8	3	0,2		16,6	0,08–0,20	±0,02	±0,03									●			
	GX24-2E300N02-CK8	3	0,2		24,6	0,08–0,20	±0,02	±0,03									●			
	GX24-3E400N02-CK8	4	0,2		24,6	0,10–0,22	±0,02	±0,03									●			
	GX16-1E200N00-CF5	2	0		16,6	0,03–0,10	±0,02	±0,05			●	●		●	●				●	●
	GX16-1E200N02-CF5	2	0,2		16,6	0,04–0,12	±0,05	±0,15		●	●	●	●	●	●			●	●	●
	GX16-1E200R/L6-CF5	2	0,2	6°	16,6	0,03–0,10	±0,05	±0,15			●	●		●	●				●	●
	GX16-1E200R/L7-CF5	2	0	7°	16,4	0,03–0,10	±0,05	±0,15			●			●					●	
	GX16-1E200R/L15-CF5	2	0	15°	16,4	0,03–0,10	±0,05	±0,15			●			●					●	
	GX16-1E250N02-CF5	2,5	0,2		16,6	0,05–0,15	±0,05	±0,15			●	●		●	●				●	●
	GX16-1E250R/L6-CF5	2,5	0,2	6°	16,6	0,03–0,12	±0,05	±0,15			●			●					●	
	GX16-2E300N02-CF5	3	0,2		16,6	0,08–0,20	±0,05	±0,15		●	●	●	●	●	●			●	●	●
	GX16-2E300R/L6-CF5	3	0,2	6°	16,6	0,04–0,16	±0,05	±0,15			●			●					●	
	GX16-2E300R/L7-CF5	3	0	7°	16,6	0,04–0,13	±0,05	±0,15			●			●					●	
	GX16-2E300R/L15-CF5	3	0	15°	16,6	0,04–0,13	±0,05	±0,15			●			●					●	
	GX24-1E200N02-CF5	2	0,2		24	0,04–0,12	±0,05	±0,15		●	●	●	●	●	●			●	●	●
	GX24-1E250N02-CF5	2,5	0,2		24	0,05–0,15	±0,05	±0,15			●	●		●	●				●	●
	GX24-2E300N00-CF5	3	0		24,6	0,04–0,16	±0,02	±0,05			●	●		●	●				●	●
	GX24-2E300N02-CF5	3	0,2		24	0,08–0,20	±0,05	±0,15		●	●	●	●	●	●			●	●	●
	GX24-2E300R/L6-CF5	3	0,2	6°	24,6	0,04–0,16	±0,05	±0,15			●	●		●	●				●	●
	GX24-3E400N02-CF5	4	0,2		24	0,10–0,22	±0,05	±0,15		●	●	●	●	●	●			●	●	●
	GX24-3E400R/L6-CF5	4	0,2	6°	24,6	0,10–0,18	±0,05	±0,15			●			●					●	
	GX24-3E500N03-CF5	5	0,3		24	0,10–0,25	±0,05	±0,15			●	●		●	●				●	●
	GX34-2E300N03-CF5	3	0,3		34	0,08–0,20	±0,05	±0,15		●	●	●	●	●	●			●	●	●
	GX34-2E300R/L6-CF5	3	0,3	6°	34	0,04–0,16	±0,05	±0,15			●			●					●	
	GX34-3E400N04-CF5	4	0,4		34	0,10–0,22	±0,05	±0,15		●	●	●	●	●	●			●	●	●

l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm
Parting off with diameters up to 32 mm is possible with GX16 inserts (l = 16.6 mm)

HC = Coated carbide
HW = Uncoated carbide

Grooving and parting off
GX cutting inserts
Tiger·tec® Silver



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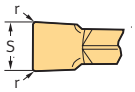

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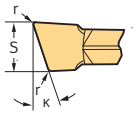
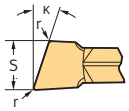


GX...L

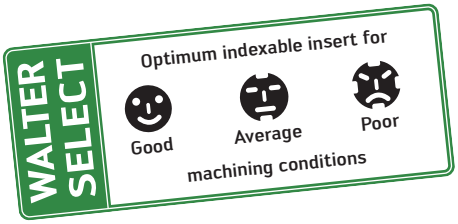


Cutting inserts

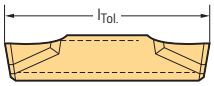
	Designation	s mm	r mm	κ	l mm	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	N HW WK1	S HC WSM23S	S HC WSM33S	S HC WSM43S
	GX16-1E200N02-CE4	2	0,2		16,6	0,06–0,15	±0,05	±0,15		☺	😐	☹	☺	😐	☹			☺	😐	☹
	GX16-1E200R/L6-CE4	2	0,2	6°	16,6	0,04–0,10	±0,05	±0,15			😐	☹		😐	☹				😐	☹
	GX16-1E250N02-CE4	2,5	0,2		16,6	0,07–0,18	±0,05	±0,15			😐	☹		😐	☹				😐	☹
	GX16-1E250R/L6-CE4	2,5	0,2	6°	16,6	0,05–0,12	±0,05	±0,15			😐			😐					😐	
	GX16-2E300N02-CE4	3	0,2		16,6	0,09–0,30	±0,05	±0,15		☺	😐	☹	☺	😐	☹			☺	😐	☹
	GX16-2E300R/L6-CE4	3	0,2	6°	16,6	0,09–0,24	±0,05	±0,15			😐			😐					😐	
	GX24-1E200N02-CE4	2	0,2		24	0,06–0,15	±0,05	±0,15	☺	☺	😐	☹	☺	😐	☹	😐		☺	😐	☹
	GX24-1E250N02-CE4	2,5	0,2		24	0,07–0,18	±0,05	±0,15	☺		😐	☹		😐	☹	😐			😐	☹
	GX24-2E300N02-CE4	3	0,2		24	0,09–0,30	±0,05	±0,15	☺	☺	😐	☹	☺	😐	☹	😐		☺	😐	☹
	GX24-2E300R/L6-CE4	3	0,2	6°	24,6	0,09–0,24	±0,05	±0,15	☺		😐	☹		😐	☹	😐			😐	☹
	GX24-3E400N03-CE4	4	0,3		24	0,10–0,32	±0,05	±0,15	☺	☺	😐	☹	☺	😐	☹	😐		☺	😐	☹
	GX24-3E400R/L6-CE4	4	0,2	6°	24,6	0,10–0,26	±0,05	±0,15			😐	☹		😐	☹				😐	☹
	GX24-3E500N03-CE4	5	0,3		24	0,12–0,35	±0,05	±0,15	☺		😐	☹		😐	☹	😐			😐	☹
	GX24-4E600N03-CE4	6	0,3		24	0,12–0,40	±0,05	±0,15	☺		😐	☹		😐	☹	😐			😐	☹
	GX34-2E300R6-CE4	3	0,3	6°	34	0,09–0,24	±0,05	±0,15			😐			😐					😐	
	GX34-2E300N03-CE4	3	0,3		34	0,09–0,30	±0,05	±0,15	☺		😐	☹		😐	☹	😐			😐	☹
	GX34-2E300L6-CE4	3	0,3	6°	34	0,09–0,24	±0,05	±0,15			😐			😐					😐	
	GX34-3E400N04-CE4	4	0,4		34	0,10–0,32	±0,05	±0,15	☺		😐			😐		😐			😐	
	GX16-1E200N02-GD6	2	0,2		16	0,04–0,12	±0,05	±0,15		☺	😐		☺	😐				☺	😐	
	GX16-1E250N02-GD6	2,5	0,2		16	0,06–0,17	±0,05	±0,15		☺	😐		☺	😐				☺	😐	
	GX16-2E300N03-GD6	3	0,3		16	0,08–0,18	±0,05	±0,15		☺	😐		☺	😐				☺	😐	
	GX16-3E400N04-GD6	4	0,4		16	0,10–0,22	±0,05	±0,15		☺	😐		☺	😐				☺	😐	
	GX16-3E500N04-GD6	5	0,4		16	0,12–0,24	±0,05	±0,15		☺	😐		☺	😐				☺	😐	
	GX24-2E300N03-GD6	3	0,3		24	0,08–0,18	±0,05	±0,15		☺	😐		☺	😐				☺	😐	
	GX24-3E400N04-GD6	4	0,4		24	0,10–0,22	±0,05	±0,15		☺	😐		☺	😐				☺	😐	
	GX24-3E500N04-GD6	5	0,4		24	0,12–0,24	±0,05	±0,15		☺	😐		☺	😐				☺	😐	
	GX24-4E600N05-GD6	6	0,5		24	0,14–0,30	±0,05	±0,15		☺	😐		☺	😐				☺	😐	
	GX34-2E300N03-GD6	3	0,3		34	0,08–0,20	±0,05	±0,15		☺	😐		☺	😐				☺	😐	
	GX34-3E400N04-GD6	4	0,4		34	0,10–0,22	±0,05	±0,15		☺	😐		☺	😐				☺	😐	

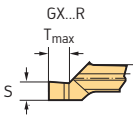
l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm
Parting off with diameters up to 32 mm is possible with GX16 inserts (l = 16.6 mm)

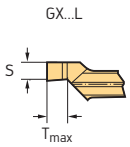
HC = Coated carbide
HW = Uncoated carbide



Grooving and parting off
GX cutting inserts
Tiger·tec® Silver







A2

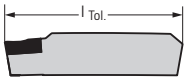
Cutting inserts

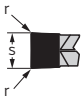
	Designation	s mm	r mm	T_{max} mm	l mm	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	GX09-1E100R/L00-GD8	1	0	1,14	9	0,05–0,10	±0,02	±0,02		☺			☺				☺		
	GX09-1E120R/L00-GD8	1,2	0	1,34	9	0,05–0,10	±0,02	±0,02		☺			☺				☺		
	GX09-1E140R/L00-GD8	1,4	0	1,53	9	0,05–0,10	±0,02	±0,02		☺			☺				☺		
	GX16-2E100R/L00-GD8	1	0	1,14	16	0,05–0,10	±0,02	±0,02		☺			☺				☺		
	GX16-2E120R/L00-GD8	1,2	0	1,34	16	0,05–0,10	±0,02	±0,02		☺			☺				☺		
	GX16-2E140R/L00-GD8	1,4	0	1,53	16	0,05–0,10	±0,02	±0,02		☺			☺				☺		

l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm
Cutting insert can be used in G15... / NCCE / NCNE / NCCI tools
With other tools, adapt support to the cutting insert profile
Further cutting inserts for circlip grooves: GX...UF8 / MX22...GD8 / MX22...CF5

HC = Coated carbide

PCD – Grooving and parting off
GX cutting inserts





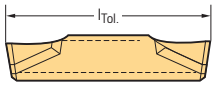
Cutting inserts

	Designation	s mm	r mm	l mm	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM33S	P HC WSM43S	M HC WSM33S	M HC WSM43S	N DP WDN10	K HC WKP23S	S HC WSM33S	S HC WSM43S	S DP WDN10
 Chipbreaker	GX16-1F200N02FS-F1	2	0,2	16	0,04–0,12	±0,02	±0,02						☺				☺
	GX24-2F300N02FS-F1	3	0,2	24	0,05–0,16	±0,02	±0,02						☺				☺
	GX24-2F318N02FS-F1	3,18	0,2	24	0,05–0,16	±0,02	±0,02						☺				☺
	GX24-3F400N02FS-F1	4	0,2	24	0,06–0,22	±0,02	±0,02						☺				☺
	GX24-3F475N02FS-F1	4,75	0,2	24	0,06–0,25	±0,02	±0,02						☺				☺
	GX24-3F500N02FS-F1	5	0,2	24	0,06–0,25	±0,02	±0,02						☺				☺
	GX24-4F600N02FS-F1	6	0,2	24	0,06–0,28	±0,02	±0,02						☺				☺

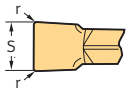
l_{Tol} = Repeat accuracy when changing indexable insert

HC = Coated carbide
DP = Polycrystalline diamond

Grooving and recessing
GX cutting inserts
Tiger·tec® Silver



GX...N



A2

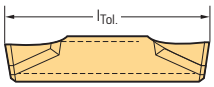
Cutting inserts

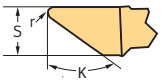
	Designation	s mm	r mm	l mm	f mm	a_p mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	GX09-0E170N01-UF8	1,7	0,1	9	0,05–0,15	0,3–0,8	±0,02	±0,03		●			●				●		
	GX09-0E196N01-UF8	1,96	0,1	9	0,05–0,15	0,3–0,8	±0,02	±0,03		●			●				●		
	GX09-1E225N01-UF8	2,25	0,1	9	0,05–0,20	0,3–1,0	±0,02	±0,03		●			●				●		
	GX09-1E275N01-UF8	2,75	0,1	9	0,05–0,22	0,3–1,3	±0,02	±0,03		●			●				●		
	GX09-2E325N01-UF8	3,25	0,1	9	0,07–0,24	0,4–1,5	±0,02	±0,03		●			●				●		
	GX16-0E160N01-UF8	1,6	0,1	16	0,05–0,17	0,3–1,0	±0,02	±0,03		●			●				●		
	GX16-0E170N01-UF8	1,7	0,1	16	0,05–0,17	0,3–1,0	±0,02	±0,03		●			●				●		
	GX16-0E185N01-UF8	1,85	0,1	16	0,05–0,22	0,3–1,0	±0,02	±0,03		●			●				●		
	GX16-0E196N01-UF8	1,96	0,1	16	0,05–0,22	0,3–1,2	±0,02	±0,03		●			●				●		
	GX16-1E200N02-UF8	2	0,2	16	0,05–0,22	0,3–1,2	±0,02	±0,03		●			●				●		
	GX16-1E225N01-UF8	2,25	0,1	16	0,05–0,22	0,3–1,3	±0,02	±0,03		●			●				●		
	GX16-1E239N02-UF8	2,39	0,2	16	0,05–0,22	0,3–1,3	±0,02	±0,03		●			●				●		
	GX16-1E275N01-UF8	2,75	0,1	16	0,06–0,22	0,3–1,3	±0,02	±0,03		●			●				●		
	GX16-2E300N02-UF8	3	0,2	16	0,07–0,24	0,4–1,5	±0,02	±0,03		●			●				●		
	GX16-2E318N02-UF8	3,18	0,2	16	0,07–0,24	0,4–1,6	±0,02	±0,03		●			●				●		
	GX16-2E325N01-UF8	3,25	0,1	16	0,07–0,24	0,4–1,6	±0,02	±0,03		●			●				●		
	GX16-3E400N04-UF8	4	0,4	16	0,09–0,30	0,9–2,2	±0,02	±0,03		●			●				●		
	GX16-3E425N02-UF8	4,25	0,2	16	0,09–0,30	0,5–2,2	±0,02	±0,03		●			●				●		
	GX16-3E525N02-UF8	5,25	0,2	16	0,11–0,35	0,9–2,6	±0,02	±0,03		●			●				●		
	GX24-1E239N02-UF8	2,39	0,2	24	0,05–0,22	0,3–1,3	±0,02	±0,03		●			●				●		
	GX24-1E275N01-UF8	2,75	0,1	24	0,05–0,22	0,3–1,3	±0,02	±0,03		●			●				●		
	GX24-2E300N02-UF8	3	0,2	24	0,07–0,24	0,4–1,5	±0,02	±0,03		●			●				●		
	GX24-2E300N04-UF8	3	0,4	24	0,07–0,24	0,4–1,5	±0,02	±0,03		●			●				●		
	GX24-2E318N02-UF8	3,18	0,2	24	0,07–0,24	0,4–1,6	±0,02	±0,03		●			●				●		
	GX24-2E325N01-UF8	3,25	0,1	24	0,07–0,24	0,4–1,6	±0,02	±0,03		●			●				●		
	GX24-3E400N02-UF8	4	0,2	24	0,09–0,30	0,3–2,2	±0,02	±0,03		●			●				●		
	GX24-3E400N04-UF8	4	0,4	24	0,09–0,30	0,5–2,2	±0,02	±0,03		●			●				●		
	GX24-3E425N02-UF8	4,25	0,2	24	0,09–0,30	0,5–2,2	±0,02	±0,03		●			●				●		
	GX24-3E475N05-UF8	4,75	0,5	24	0,09–0,30	0,6–2,4	±0,02	±0,03		●			●				●		
	GX24-3E500N02-UF8	5	0,2	24	0,11–0,35	0,3–2,6	±0,02	±0,03		●			●				●		
	GX24-3E500N04-UF8	5	0,4	24	0,11–0,35	0,6–2,6	±0,02	±0,03		●			●				●		
	GX24-3E500N08-UF8	5	0,8	24	0,11–0,35	0,9–2,6	±0,02	±0,03		●			●				●		
	GX24-3E525N02-UF8	5,25	0,2	24	0,11–0,35	0,9–2,6	±0,02	±0,03		●			●				●		
	GX24-3E556N05-UF8	5,56	0,5	24	0,11–0,35	0,6–2,8	±0,02	±0,03		●			●				●		
	GX24-4E600N02-UF8	6	0,2	24	0,11–0,35	0,3–3,2	±0,02	±0,03		●			●				●		
	GX24-4E600N04-UF8	6	0,4	24	0,11–0,35	0,6–3,2	±0,02	±0,03		●			●				●		
	GX24-4E600N08-UF8	6	0,8	24	0,11–0,35	0,9–3,2	±0,02	±0,03		●			●				●		
	GX24-4E635N04-UF8	6,35	0,4	24	0,11–0,35	0,6–3,4	±0,02	±0,03		●			●				●		
	GX24-4E635N08-UF8	6,35	0,8	24	0,11–0,35	0,9–3,4	±0,02	±0,03		●			●				●		
	GX30-5E800N08-UF8	8	0,8	30	0,13–0,40	1,0–4,2	±0,02	±0,03		●			●				●		

l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm

HC = Coated carbide

Grooving and recessing
GX cutting inserts
Tiger·tec® Silver





A2

Cutting inserts

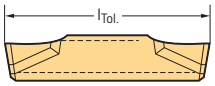
	Designation	s mm	r mm	κ	l mm	f mm	a_p mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	GX24-2E280R02-VG7	2,8	0,2	50°	24	0,05–0,12	0,2–2,0	±0,05	±0,15		●	●		●	●			●	●	
	GX24-2E280R04-VG7	2,8	0,4	50°	24	0,08–0,25	0,2–2,5	±0,05	±0,15		●	●		●	●			●	●	

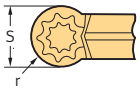
l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm
Cutting insert can be used in G15... tools
With other tools, adapt support to the cutting insert profile

HC = Coated carbide

Grooving and copy turning
GX cutting inserts
Tiger·tec® Silver

GX...N





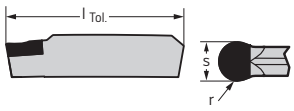
Cutting inserts

	Designation	s mm	r mm	l mm	f mm	a_p mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM13S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM13S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM13S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	GX09-1E200N10-RF8	2	1	9	0,05–0,17	0,1–1,0	±0,02	±0,02			●				●					●		
	GX09-1E239N12-RF8	2,39	1,20	9	0,05–0,20	0,2–1,2	±0,02	±0,02			●				●					●		
	GX16-1E200N10-RF8	2	1	16	0,08–0,25	0,1–1,0	±0,05	±0,05		◐	●			◐	●				◐	●		
	GX16-1E239N12-RF8	2,39	1,20	16	0,08–0,28	0,2–1,2	±0,02	±0,02			●				●					●		
	GX16-2E300N15-RF8	3	1,5	16	0,10–0,30	0,1–1,5	±0,02	±0,02		◐	●			◐	●				◐	●		
	GX16-3E400N20-RF8	4	2	16	0,12–0,45	0,1–2,0	±0,02	±0,02			●				●					●		
	GX16-3E500N25-RF8	5	2,5	16	0,15–0,10	0,2–2,5	±0,02	±0,02			●				●					●		
	GX16-4E600N30-RF8	6	3	16	0,15–0,55	0,1–3,0	±0,02	±0,02			●				●					●		
	GX24-2E300N15-RF8	3	1,5	24	0,10–0,30	0,1–1,5	±0,02	±0,02		◐	●			◐	●				◐	●		
	GX24-2E318N16-RF8	3,18	1,59	24	0,10–0,30	0,1–1,5	±0,02	±0,02			●				●					●		
	GX24-3E400N20-RF8	4	2	24	0,12–0,45	0,1–2,0	±0,02	±0,02		◐	●			◐	●				◐	●		
	GX24-3E475N24-RF8	4,75	2,38	24	0,15–0,50	0,1–2,3	±0,02	±0,02			●				●					●		
	GX24-3E500N25-RF8	5	2,5	24	0,15–0,50	0,1–2,5	±0,02	±0,02		◐	●			◐	●				◐	●		
	GX24-4E600N30-RF8	6	3	24	0,15–0,55	0,1–3,0	±0,02	±0,02		◐	●			◐	●				◐	●		
	GX24-4E635N32-RF8	6,35	3,18	24	0,15–0,55	0,1–3,0	±0,02	±0,02			●				●					●		
	GX30-5E800N40-RF8	8	4	30	0,18–0,60	0,2–4,0	±0,02	±0,02		◐	●			◐	●				◐	●		

l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm

HC = Coated carbide

PCD – Grooving and copy turning
GX cutting inserts



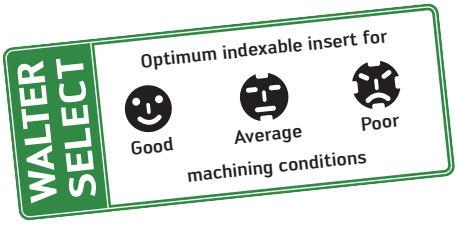
Cutting inserts

Chipbreaker

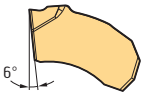
Designation	s mm	r mm	l mm	f mm	a_p mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM33S	P HC WSM43S	M HC WSM33S	M HC WSM43S	N DP WDN10	K HC WKP23S	S HC WSM33S	S HC WSM43S	S DP WDN10
GX16-1F200N10FS-M1	2	0,1	16	0,05–0,25	0,1	±0,02	±0,02						☺				☺
GX24-2F300N15FS-M1	3	0,15	24	0,05–0,30	0,1	±0,02	±0,02						☺				☺
GX24-2F318N16FS-M1	3,18	0,16	24	0,05–0,30	0,1	±0,02	±0,02						☺				☺
GX24-3F400N20FS-M1	4	0,2	24	0,05–0,35	0,1	±0,02	±0,02						☺				☺
GX24-3F475N24FS-M1	4,75	0,24	24	0,05–0,40	0,1	±0,02	±0,02						☺				☺
GX24-3F500N25FS-M1	5	0,25	24	0,05–0,40	0,1	±0,02	±0,02						☺				☺
GX24-4F600N30FS-M1	6	0,3	24	0,05–0,50	0,1	±0,02	±0,02						☺				☺
GX30-5F800N40FS-M1	8	0,4	30	0,05–0,60	0,1	±0,02	±0,02						☺				☺

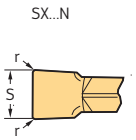
l_{Tol} = Repeat accuracy when changing indexable insert

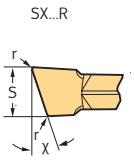
HC = Coated carbide
DP = Polycrystalline diamond

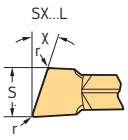


Grooving and parting off
SX cutting inserts
Tiger·tec® Silver









A2

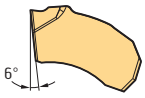
Cutting inserts

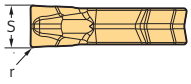
	Designation	s mm	r mm	κ	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	N HW WK1	S HC WSM23S	S HC WSM33S	S HC WSM43S
	SX-2E200N02-CK8	2	0,2		0,04–0,12	±0,02	±0,05									☺			
	SX-3E300N02-CK8	3	0,2		0,08–0,20	±0,02	±0,05									☺			
	SX-4E400N02-CK8	4	0,2		0,10–0,22	±0,02	±0,05									☺			
	SX-5E500N04-CK8	5	0,4		0,10–0,25	±0,02	±0,05									☺			
	SX-6E600N04-CK8	6	0,4		0,10–0,30	±0,02	±0,05									☺			
	SX-1E150N01-CF6	1,5	0,15		0,03–0,10	±0,05	±0,1			😐	😣		😐	😣				😐	😣
	SX-2E200N02-CF6	2	0,2		0,03–0,12	±0,05	±0,1			😐	😣		😐	😣				😐	😣
	SX-3E300N02-CF6	3	0,2		0,04–0,20	±0,05	±0,1			😐	😣		😐	😣				😐	😣
	SX-1E150N01-CE4	1,5	0,15		0,03–0,12	±0,05	±0,1			😐	😣		😐	😣				😐	😣
	SX-1E150R/L6-CE4	1,5	0,15	6°	0,03–0,08	±0,05	±0,1			😐			😐					😐	
	SX-2E200N02-CE4	2	0,2		0,06–0,15	±0,05	±0,1	☺	☺	😐	😣	☺	😐	😣	😐		☺	😐	😣
	SX-2E200R/L6-CE4	2	0,2	6°	0,06–0,10	±0,05	±0,1			😐			😐					😐	
	SX-2E260N03-CE4	2,6	0,3		0,06–0,18	±0,05	±0,1		☺	😐	😣	☺	😐	😣			☺	😐	😣
	SX-3E300N02-CE4	3	0,2		0,09–0,30	±0,05	±0,1	☺	☺	😐	😣	☺	😐	😣	😐		☺	😐	😣
	SX-3E300R/L6-CE4	3	0,2	6°	0,09–0,20	±0,05	±0,1	☺		😐	😣		😐	😣	😐			😐	😣
	SX-3E310N03-CE4	3,1	0,3		0,09–0,30	±0,05	±0,1	☺		😐	😣		😐	😣	😐			😐	😣
	SX-4E400N02-CE4	4	0,2		0,10–0,32	±0,05	±0,1	☺	☺	😐	😣	☺	😐	😣	😐		☺	😐	😣
	SX-4E400R/L6-CE4	4	0,2	6°	0,10–0,22	±0,05	±0,1	☺		😐	😣		😐	😣	😐			😐	😣
	SX-4E410N03-CE4	4,1	0,3		0,10–0,32	±0,05	±0,1	☺		😐	😣		😐	😣	😐			😐	😣
	SX-4E480N03-CE4	4,8	0,3		0,12–0,35	±0,05	±0,1			😐	😣		😐	😣				😐	😣
	SX-5E500N04-CE4	5	0,4		0,12–0,35	±0,05	±0,1	☺	☺	😐	😣	☺	😐	😣	😐		☺	😐	😣
	SX-5E500R/L6-CE4	5	0,4	6°	0,12–0,25	±0,05	±0,1			😐			😐					😐	
	SX-6E600N04-CE4	6	0,4		0,12–0,40	±0,05	±0,1	☺		😐	😣		😐	😣	😐			😐	😣
	SX-6E600R/L6-CE4	6	0,4	6°	0,12–0,30	±0,05	±0,1			😐			😐					😐	
	SX-8E800N08-CE4	8	0,8		0,20–0,55	±0,05	±0,1	☺		😐	😣		😐	😣	😐			😐	😣
	SX-10E1000N08-CE4	10	0,8		0,25–0,60	±0,05	±0,1	☺		😐	😣		😐	😣	😐			😐	😣

l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm

HC = Coated carbide
HW = Uncoated carbide

Grooving and recessing
SX cutting inserts
Tiger·tec® Silver





A2

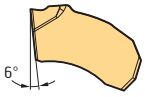
Cutting inserts

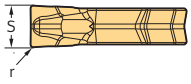
	Designation	s mm	r mm	l mm	f mm	a_p mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM33S	P HC WSM43S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM33S	S HC WSM43S
	SX-8E800N08-UF4	8	0,8	17,4	0,18–0,55	0,9–4,0	±0,05	±0,1	☺	😐	☹	😐	☹	😐	😐	☹

l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm

HC = Coated carbide

Slitting
SX cutting inserts
Tiger·tec® Silver



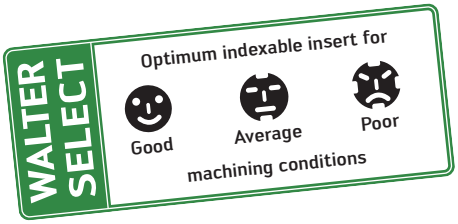


Cutting inserts

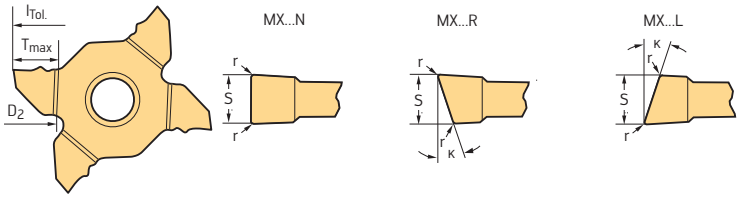
	Designation	s mm	r mm	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM33S	P HC WSM43S	M HC WSM33S	M HC WSM43S	K HC WKP23S	N HW WK1	S HC WSM33S	S HC WSM43S
	SX-1E150N01-SK8	1,5	0,1	0,03–0,08	±0,02	±0,05							☺		
	SX-2E200N02-SK8	2	0,2	0,05–0,10	±0,02	±0,05							☺		
	SX-3E300N02-SK8	3	0,2	0,05–0,15	±0,02	±0,05							☺		
	SX-4E400N02-SK8	4	0,2	0,05–0,20	±0,02	±0,05							☺		
	SX-5E500N04-SK8	5	0,4	0,05–0,25	±0,02	±0,05							☺		
	SX-6E600N04-SK8	6	0,4	0,05–0,30	±0,02	±0,05							☺		
	SX-1E150N01-SF5	1,5	0,15	0,03–0,10	±0,05	±0,1		😐	☹	😐	☹			😐	☹
	SX-2E200N02-SF5	2	0,2	0,06–0,15	±0,05	±0,1		😐	☹	😐	☹			😐	☹
	SX-3E300N02-SF5	3	0,2	0,08–0,20	±0,05	±0,1		😐	☹	😐	☹			😐	☹
	SX-4E400N02-SF5	4	0,2	0,10–0,22	±0,05	±0,1		😐	☹	😐	☹			😐	☹
	SX-5E500N04-SF5	5	0,4	0,10–0,25	±0,05	±0,1		😐	☹	😐	☹			😐	☹

l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm

HC = Coated carbide
HW = Uncoated carbide



Grooving and parting off
MX cutting inserts
Tiger·tec® Silver



Cutting inserts

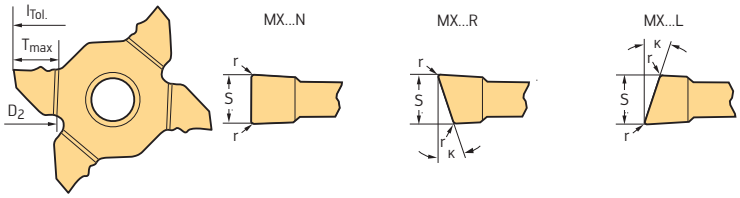
	Designation	s mm	r mm	κ	T_{max} mm	D_2 mm	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	MX22-2E100N01-GD8	1	0,1		3,5	130	0,03–0,06	±0,02	±0,03		●			●				●		
	MX22-2E120N01-GD8	1,2	0,1		2		0,03–0,07	±0,02	±0,03		●			●				●		
	MX22-2E140N01-GD8	1,4	0,1		2		0,03–0,08	±0,02	±0,03		●			●				●		
	MX22-2E150N01-GD8	1,5	0,1		5	130	0,03–0,09	±0,02	±0,03		●			●				●		
	MX22-2E157N02-GD8	1,57	0,2		3		0,03–0,10	±0,02	±0,03		●			●				●		
	MX22-2E170N02-GD8	1,7	0,2		3		0,03–0,10	±0,02	±0,03		●			●				●		
	MX22-2E185N02-GD8	1,85	0,2		3		0,04–0,10	±0,02	±0,03		●			●				●		
	MX22-2E196N02-GD8	1,96	0,2		3		0,04–0,10	±0,02	±0,03		●			●				●		
	MX22-2E200N02-GD8	2	0,2		6	100	0,04–0,10	±0,02	±0,03		●			●				●		
	MX22-2E224N02-GD8	2,24	0,2		6	100	0,04–0,12	±0,02	±0,03		●			●				●		
	MX22-2E239N02-GD8	2,39	0,2		6	100	0,04–0,14	±0,02	±0,03		●			●				●		
	MX22-2E275N02-GD8	2,75	0,2		6	100	0,04–0,14	±0,02	±0,03		●			●				●		
	MX22-2E300N02-GD8	3	0,2		6	100	0,04–0,14	±0,02	±0,03		●			●				●		
	MX22-2E318N02-GD8	3,18	0,2		6	100	0,04–0,14	±0,02	±0,03		●			●				●		
	MX22-2E325N02-GD8	3,25	0,2		6	100	0,04–0,15	±0,02	±0,03		●			●				●		

l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm
For information on T_{max} with diameters larger than D_2, see "Technical information – Grooving"

HC = Coated carbide

● / ★ New addition to the product range

Grooving and parting off
MX cutting inserts
Tiger·tec® Silver

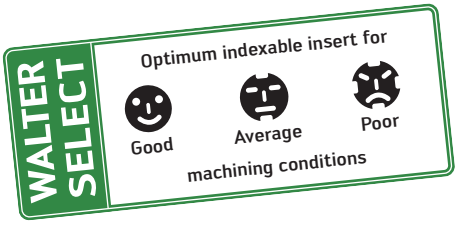


Cutting inserts

Designation	s mm	r mm	κ	T_{max} mm	D_2 mm	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
MX22-2E080R/L5-CF5	0,8	0,05	5°	1,6	130	0,02–0,04	±0,02	±0,03		☺			☺				☺		
MX22-2E080N01-CF5	0,8	0,1		1,6	130	0,02–0,05	±0,02	±0,03		☺			☺				☺		
MX22-2E100R/L10-CF5	1	0,05	10°	3,5	130	0,02–0,04	±0,02	±0,03		☺			☺				☺		
MX22-2E100N01-CF5	1	0,1		3,5	130	0,03–0,07	±0,02	±0,03		☺			☺				☺		
MX22-2E104N01-CF5	1,04	0,1		2		0,03–0,07	±0,02	±0,03		☺			☺				☺		
MX22-2E120N01-CF5	1,2	0,1		2		0,03–0,08	±0,02	±0,03		☺			☺				☺		
MX22-2E140N01-CF5	1,4	0,1		2		0,03–0,09	±0,02	±0,03		☺			☺				☺		
MX22-2E147N01-CF5	1,47	0,1		2,5		0,03–0,09	±0,02	±0,03		☺			☺				☺		
MX22-2E150R/L10-CF5	1,5	0,05	10°	5	130	0,03–0,06	±0,02	±0,03		☺			☺				☺		
MX22-2E150N01-CF5	1,5	0,1		5	130	0,03–0,10	±0,02	±0,03		☺			☺				☺		
MX22-2E157N02-CF5	1,57	0,2		3		0,04–0,12	±0,02	±0,03		☺			☺				☺		
MX22-2E170N02-CF5	1,7	0,2		3		0,04–0,12	±0,02	±0,03		☺			☺				☺		
MX22-2E185N02-CF5	1,85	0,2		3		0,04–0,12	±0,02	±0,03		☺			☺				☺		
MX22-2E196N02-CF5	1,96	0,2		3		0,04–0,12	±0,02	±0,03		☺			☺				☺		
MX22-2E200R/L6-CF5	2	0,1	6°	6	100	0,04–0,12	±0,02	±0,03		☺			☺				☺		
MX22-2E200N02-CF5	2	0,2		6	100	0,04–0,14	±0,02	±0,03		☺			☺				☺		
MX22-2E224N02-CF5	2,24	0,2		6	100	0,04–0,16	±0,02	±0,03		☺			☺				☺		
MX22-2E239N02-CF5	2,39	0,2		6	100	0,04–0,16	±0,02	±0,03		☺			☺				☺		
MX22-2E250N02-CF5	2,5	0,2		6	100	0,04–0,16	±0,02	±0,03		☺			☺				☺		
MX22-2E275N02-CF5	2,75	0,2		6	100	0,04–0,16	±0,02	±0,03		☺			☺				☺		
MX22-2E300N02-CF5	3	0,2		6	100	0,04–0,16	±0,02	±0,03		☺			☺				☺		
MX22-2E318N02-CF5	3,18	0,2		6	100	0,04–0,16	±0,02	±0,03		☺			☺				☺		
MX22-2E325N02-CF5	3,25	0,2		6	100	0,04–0,16	±0,02	±0,03		☺			☺				☺		
MX22-4E400N02-CF5	4	0,2		6	100	0,10–0,20	±0,02	±0,03		☹			☹				☹		
MX22-4E400N04-CF5	4	0,4		6	100	0,10–0,20	±0,02	±0,03		☹			☹				☹		
MX22-4E425N02-CF5	4,25	0,2		6	100	0,10–0,20	±0,02	±0,03		☹			☹				☹		
MX22-4E480N06-CF5	4,8	0,6		6	100	0,10–0,25	±0,02	±0,03		☹			☹				☹		
MX22-4E500N02-CF5	5	0,2		6	100	0,10–0,25	±0,02	±0,03		☹			☹				☹		
MX22-4E500N04-CF5	5	0,4		6	100	0,10–0,25	±0,02	±0,03		☹			☹				☹		
MX22-4E525N02-CF5	5,25	0,2		6	100	0,10–0,25	±0,02	±0,03		☹			☹				☹		
MX22-4E556N02-CF5	5,56	0,2		6	100	0,10–0,28	±0,02	±0,03		☹			☹				☹		

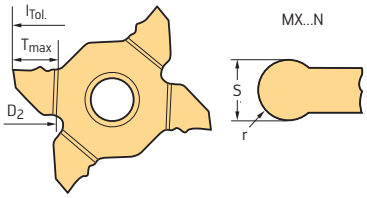
l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm
For information on T_{max} with diameters larger than D_2, see "Technical information – Grooving"

HC = Coated carbide



A2

Grooving and parting off
MX cutting inserts
Tiger·tec® Silver

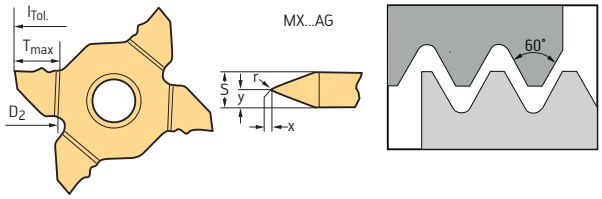


Cutting inserts

	Designation	s mm	r mm	κ	T_{max} mm	D_2 mm	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	MX22-2E157N08-RF5	1,57	0,8		3	130	0,04–0,12	±0,02	±0,03		●			●				●		
	MX22-2E200N10-RF5	2	1		6	100	0,04–0,14	±0,02	±0,03		●			●				●		
	MX22-2E239N12-RF5	2,39	1,2		6	100	0,04–0,18	±0,02	±0,03		●			●				●		
	MX22-2E300N15-RF5	3	1,5		6	100	0,04–0,20	±0,02	±0,03		●			●				●		
	MX22-2E318N16-RF5	3,18	1,6		6	100	0,04–0,20	±0,02	±0,03		●			●				●		
	MX22-4E400N20-RF5	4	2		6	100	0,01–0,22	±0,02	±0,03		●			●				●		
	MX22-4E480N24-RF5	4,8	2,4		6	100	0,01–0,25	±0,02	±0,03		●			●				●		
	MX22-4E500N25-RF5	5	2,5		6	100	0,06–0,25	±0,02	±0,03		●			●				●		

l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm
For information on T_{max} with diameters larger than D_2, see "Technical information – Grooving"
HC = Coated carbide

External thread – Partial profile 60°
MX cutting inserts
Tiger·tec® Silver



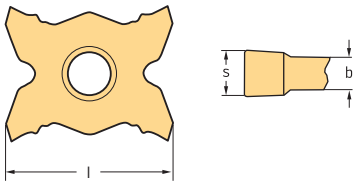
Thread turning inserts

	Designation	Pitch P mm	Pitch (TPI) Inch	r mm	X mm	Y mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	MX22-2E-EN-A60	0,50–1,50	48–16	0,05	0,05	1,68		●			●				●		
	MX22-4E-EN-AG60	0,50–3,00	48–8	0,08	0,08	2,83		●	✖		●	✖			●	✖	

l_{Tol} = Repeat accuracy when changing indexable insert
HC = Coated carbide

● ● ✖ / ★ New addition to the product range

Semi-finished blanks for special profiles
MX cutting inserts



Blanks for special profiles

	Designation	s mm	b mm	l mm	P HC WKP23S	P HC WSM33S	P HC WSM43S	P HF WMG30	M HC WSM33S	M HC WSM43S	M HF WMG30	K HC WKP23S	S HC WSM33S	S HC WSM43S	S HF WMG30
	MX22-2E335N	3,35	3,35	23,2				●			●				●
	MX22-4E565N	5,65	5,65	23,2				●			●				●

Grade WMG30 has the ISO application ranges P20, M20 and S20

HC = Coated carbide
HF = Uncoated fine-grained carbide

Walter Cut grooving tools product range overview
Shank tools / parting blades / boring bars / Walter Capto™ groove turning holders

Shank tools for grooving, parting off and recessing

Machining						
Type						
Designation	**G3011**	**G3011...-P**	**G3021...-P**	**G1011**	**G1011...-P**	**G2012**
Insert width s [mm]	0,5–3,25	0,5–5,56	0,5–5,56	2–8	2–8	1,5–3
Cutting depth T_{max} [mm]	6	6	6	8–32	12–33	15–33
Coolant supply	External	Precision cooling	Precision cooling	External	Precision cooling	External
Shank size h [mm]	10–12	12–25	20–25	12–32	16–32	12–25
Shank size h [inch]	-	0.750–1.000	1.000	0.500–1.000	0.750–1.000	0.500–1.000
						
Page	120	121	123	109	110	117

Parting blades for grooving and parting off

Machining					
Type					
Designation	**G3041**	**G3041...C**	**G1041...-P**	**G1041...C-P**	**G2042...-P**
Insert width s [mm]	0,5–3,25	0,5–3,25	2–4	2–4	2–4
Cutting depth T_{max} [mm]	6	6	16–33	16–32	26–33
Coolant supply	External	External	Precision cooling	Precision cooling	Precision cooling
Shank size h4 [mm]	26	26	26–32	26–32	26–23
Shank size h4 [inch]	1.024	1.024	1.024–1.260	1.024–1.260	1.024–1.260
					
Page	125	126	113	114	119

Boring bars for internal grooving

Machining	
Type	
Designation	**G1221...-P**
Insert width s [mm]	0,8–6
Cutting depth T_{max} [mm]	4–12
Coolant supply	Precision cooling
Shank size d_1 [mm]	16–40
Shank size d_1 [inch]	0.625–1.500
	
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Walter Capto™ groove turning holders for grooving, parting off and recessing

Machining	
Type	
Designation	**G3011...C...-P**
Insert width s [mm]	0,5–5,56
Cutting depth T_{max} [mm]	6
Coolant supply	Precision cooling
Walter Capto™ size	C3–C6
	
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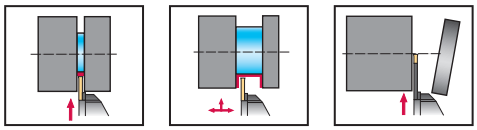
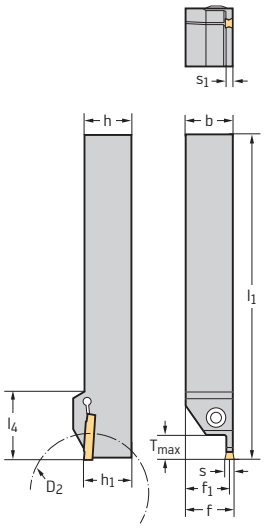
Shank tool – Radial grooving
G1011 inch
Walter Cut

– Screw clamping



Tool



Designation	s Inch	T_{max} Inch	D_2 Inch	$h = h_1$ Inch	b Inch	f_1 Inch	l_1 Inch	l_4 Inch	s_1 Inch	Type
G1011.16R/L-4T32GX24	0,157	1,260		1,000	1,000	0,933	6,496	2,165	0,134	GX24-3E4 .. GX24-3F4 ..

For information on T_{max} with diameters larger than D_2, see "Technical information – Grooving"
$f = f_1 + s/2$
Ordering example, right-hand tool: G1011.16R-4T32GX24/ordering example, left-hand tool: G1011.16L-4T32GX24
Bodies and assembly parts are included in the scope of delivery.

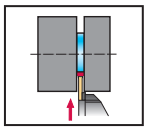
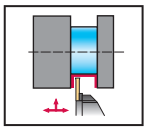
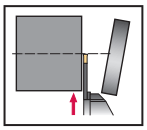
Assembly parts

$h = h_1$ [Inch]	1,000
Clamping screw for grooving insert Tightening torque	FS2118 (Torx 20IP) 5,0 Nm
Torx key	FS1464 (Torx 20IP)

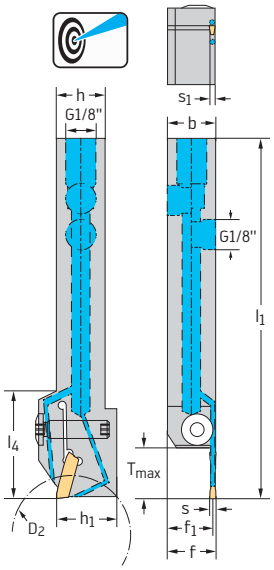
Shank tool – Radial grooving
G1011...-P mm
Walter Cut

A2

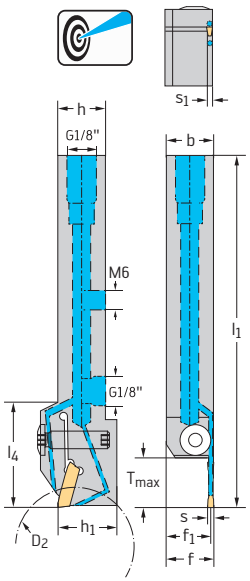
– Screw clamping
– Precision cooling

Tool



Designation	s mm	T_{max} mm	D_2 mm	$h = h_1$ mm	b mm	f_1 mm	l_1 mm	l_4 mm	s_1 mm	Type
G1011.1212R/L-2T12GX16-P	2	12		12	12	11,2	120	31,5	1,6	GX16-1E2 .. GX16-1F2 ..
G1011.1616R/L-2T15GX16-P		15		16	16	15,2	120	35,5	1,6	
G1011.1616R/L-2T21GX24-P		21	80	16	16	15,3	120	40	1,6	GX24-1E2 ..
G1011.1616R/L-3T15GX16-P	3	15		16	16	14,9	120	35,5	2,2	GX16-2E3 ..
★ G1011.1616R/L-3T12GX24-P		12		16	16	14,8	120	31,5	2,4	GX24-2E .. GX24-2F3 ..
G1011.1616R/L-3T21GX24-P		21	80	16	16	14,8	120	40	2,4	
G1011.1616R/L-4T12GX24-P	4	12		16	16	14,3	120	35	3,4	GX24-3E4 .. GX24-3F4 ..

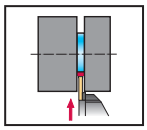
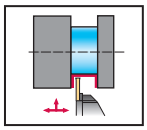
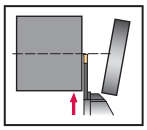


Designation	s mm	T_{max} mm	D_2 mm	$h = h_1$ mm	b mm	f_1 mm	l_1 mm	l_4 mm	s_1 mm	Type
G1011.2020R/L-2T15GX16-P	2	15		20	20	19,2	120	35,5	1,6	GX16-1E2 .. GX16-1F2 ..
G1011.2020R/L-2T21GX24-P		21	80	20	20	19,2	125	40	1,6	GX24-1E2 ..
★ G1011.2525R/L-2T21GX24-P		21		25	25	24,2	130	40	1,5	
G1011.2020R/L-3T15GX16-P	3	15		20	20	18,9	120	35,5	2,2	GX16-2E3 ..
★ G1011.2020R/L-3T12GX24-P		12		20	20	18,8	120	31,5	2,4	GX24-2E .. GX24-2F3 ..
G1011.2020R/L-3T21GX24-P		21	80	20	20	18,8	125	40	2,4	
★ G1011.2525R/L-3T12GX24-P		12		25	25	23,8	125	35	2,4	
G1011.2525R/L-3T21GX24-P		21	80	25	25	23,8	130	40	2,4	
G1011.2020R/L-3T33GX34-P		33	140	20	20	18,8	140	53	2,4	GX34-2E3 ..
G1011.2525R/L-3T33GX34-P		33	140	25	25	23,8	145	53	2,4	
G1011.2020R/L-4T12GX24-P	4	12		20	20	18,3	120	35	3,4	GX24-3E4 .. GX24-3F4 ..
G1011.2020R/L-4T21GX24-P		21		20	20	18,3	125	40	3,4	
G1011.2525R/L-4T12GX24-P		12		25	25	23,3	125	35	3,4	
G1011.2525R/L-4T21GX24-P		21		25	25	23,3	130	40	3,4	
G1011.2525R/L-4T32GX24-P		32		25	25	23,3	145	55	3,4	
G1011.2020R/L-4T33GX34-P		33	140	20	20	18,4	140	53	3,3	GX34-3E4 ..
G1011.2525R/L-4T33GX34-P		33	140	25	25	23,4	145	53	3,3	
G1011.2020R/L-5T12GX24-P	5	12		20	20	17,9	120	35	4,2	GX24-3E5 .. GX24-3F5 ..
G1011.2020R/L-5T21GX24-P		21		20	20	17,9	125	40	4,2	

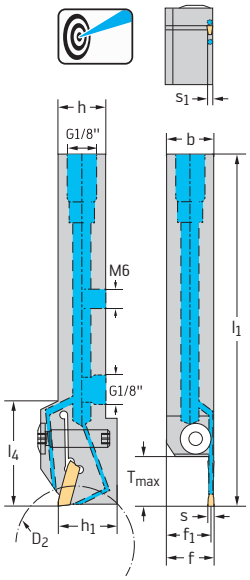
$f = f_1 + s/2$
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: G1011.1212R-2T12GX16-P/ordering example, left-hand tool: G1011.1212L-2T12GX16-P
Bodies and assembly parts are included in the scope of delivery.

Shank tool – Radial grooving
G1011...-P mm
Walter Cut


– Screw clamping
– Precision cooling

Tool



Designation	s mm	T_{max} mm	D_2 mm	$h = h_1$ mm	b mm	f_1 mm	l_1 mm	l_4 mm	s_1 mm	Type
G1011.2525R/L-5T12GX24-P	5	12		25	25	22,9	125	35	4,2	GX24-3E5 .. GX24-3F5 ..
G1011.2525R/L-5T21GX24-P		21		25	25	22,9	130	40	4,2	
G1011.2525R/L-5T32GX24-P		32	120	25	25	22,9	145	55	4,2	
G1011.2525R/L-6T12GX24-P	6	12		25	25	22,4	125	35	5,2	GX24-4 .. GX24-4F6 ..
G1011.2525R/L-6T21GX24-P		21		25	25	22,4	130	40	5,2	
G1011.2525R/L-6T32GX24-P		32		25	25	22,4	145	55	5,2	
G1011.2525R/L-8T28GX30-P	8	28		25	25	22	145	55	6,1	GX30-5E8 .. GX30-5F8 ..
G1011.3225R/L-8T28GX30-P		28		32	25	22	145	55	6,1	

$f = f_1 + s/2$
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: G1011.1212R-2T12GX16-P/ordering example, left-hand tool: G1011.1212L-2T12GX16-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

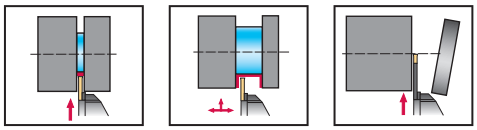
$h = h_1$ [mm] T_{max} [mm]	12 12	16 12–21	20 12	20 15–21	20-25 33	25 12–32	25 21	32 28
Clamping screw for grooving insert Tightening torque	FS2118 (Torx 20IP) 5,0 Nm	FS2118 (Torx 20IP) 5,0 Nm	FS2118 (Torx 20IP) 5,0 Nm	FS2118 (Torx 20IP) 5,0 Nm	M06X025 ISO4762 12.9 (SW 5) 5,0 Nm	FS2118 (Torx 20IP) 5,0 Nm	FS2118 (Torx 20IP) 5,0 Nm	FS2118 (Torx 20IP) 5,0 Nm
G 1/8" threaded plug	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)
M6 threaded plug			FS2288 (SW 3)	FS2288 (SW 3)	FS2288 (SW 3)	FS2288 (SW 3)	FS2288 (SW 3)	FS2288 (SW 3)
Torx key	FS1464 (Torx 20IP)	FS1464 (Torx 20IP)	FS1464 (Torx 20IP)	FS1464 (Torx 20IP)		FS1464 (Torx 20IP)	FS1464 (Torx 20IP)	FS1464 (Torx 20IP)
ISO 2936 key				ISO2936-5 (SW 5)	ISO2936-5 (SW 5)		ISO2936-5 (SW 5)	

/ ★ New addition to the product range

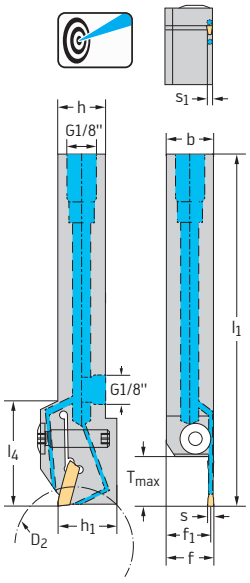
Shank tool – Radial grooving
G1011...-P inch
Walter Cut

A2

– Screw clamping
– Precision cooling



Tool



Designation	s Inch	T_{max} Inch	D_2 Inch	h = h_1 Inch	b Inch	f_1 Inch	l_1 Inch	l_4 Inch	s_1 Inch	Type
G1011.12R/L-2T15GX16-P	0,079	0,591		0,750	0,750	0,719	5,906	1,398	0,063	GX16-1E2 .. GX16-1F2 ..
G1011.16R/L-2T15GX16-P		0,591		1,000	1,000	0,969	5,906	1,398	0,063	
G1011.12R/L-3T15GX16-P	0,118	0,591		0,750	0,750	0,707	5,906	1,398	0,087	GX16-2E3 ..
G1011.12R/L-3T21GX24-P		0,827	3,150	0,750	0,750	0,701	5,906	1,575	0,094	GX24-2E .. GX24-2F3 ..
★ G1011.16R/L-3T12GX24-P		0,472		1,000	1,000	0,953	5,906	1,575	0,094	
G1011.16R/L-3T21GX24-P		0,827	3,150	1,000	1,000	0,953	5,906	1,575	0,094	
G1011.12R/L-3T33GX34-P		1,299	5,512	0,750	0,750	0,703	5,906	2,087	0,094	GX34-2E3 ..
G1011.16R/L-3T33GX34-P		1,299	5,512	1,000	1,000	0,953	5,906	2,087	0,094	
G1011.12R/L-4T12GX24-P	0,157	0,472		0,750	0,750	0,685	5,906	1,378	0,134	GX24-3E4 .. GX24-3F4 ..
G1011.12R/L-4T21GX24-P		0,827		0,750	0,750	0,685	5,906	1,575	0,134	
G1011.16R/L-4T12GX24-P		0,472		1,000	1,000	0,933	5,709	1,378	0,134	
G1011.16R/L-4T21GX24-P		0,827		1,000	1,000	0,933	5,906	1,575	0,134	
G1011.16R/L-4T32GX24-P		1,260		1,000	1,000	0,933	5,906	2,165	0,134	
G1011.12R/L-4T33GX34-P		1,299	5,512	0,750	0,750	0,685	5,906	2,087	0,130	GX34-3E4 ..
G1011.16R/L-4T33GX34-P		1,299	5,512	1,000	1,000	0,937	5,906	2,087	0,130	
G1011.12R/L-5T21GX24-P	0,197	0,827		0,750	0,750	0,669	5,906	1,575	0,165	GX24-3E5 .. GX24-3F5 ..
G1011.16R/L-5T12GX24-P		0,472		1,000	1,000	0,917	5,709	1,378	0,165	
G1011.16R/L-5T21GX24-P		0,827		1,000	1,000	0,917	5,906	1,575	0,165	
G1011.16R/L-5T32GX24-P		1,260		1,000	1,000	0,917	5,906	2,165	0,165	
G1011.16R/L-6T12GX24-P	0,236	0,472		1,000	1,000	0,898	5,709	1,378	0,205	GX24-4 .. GX24-4F6 ..
G1011.16R/L-6T21GX24-P		0,827		1,000	1,000	0,898	5,906	1,575	0,205	
G1011.16R/L-6T32GX24-P		1,260		1,000	1,000	0,898	5,906	2,165	0,205	

$f = f_1 + s/2$
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: G1011.12R-2T15GX16-P/ordering example, left-hand tool: G1011.12L-2T15GX16-P
Bodies and assembly parts are included in the scope of delivery.

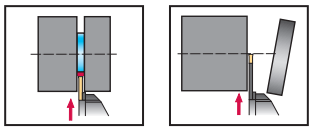
Assembly parts

h = h_1 [Inch] / T_{max} [Inch]	0,750 / 0,472–0,827	0,750-1,000 / 1,299	1,000 / 0,472–1,260
Clamping screw for grooving insert Tightening torque	FS2118 (Torx 20IP) 5,0 Nm	M06X025 ISO4762 12.9 (SW 5) 5,0 Nm	FS2118 (Torx 20IP) 5,0 Nm
G 1/8" threaded plug	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)
M6 threaded plug		FS2288 (SW 3)	
Torx key	FS1464 (Torx 20IP)		FS1464 (Torx 20IP)
ISO 2936 key		ISO2936-5 (SW 5)	

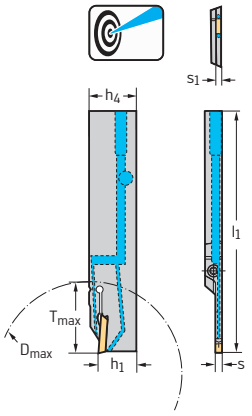
Reinforced parting blade
G1041...-P mm

Walter Cut

– Screw clamping
– Precision cooling



Tool



Designation	s mm	T_{max} mm	D_{max} mm	h_4 mm	l_1 mm	h_1 mm	s_1 mm	Type
G1041.26R/L-2T16GX16-P	2	16	32	26	110	21	1,5	GX16-1E2 .. GX16-1F2 ..
G1041.26R/L-3T23GX24-P	3	23	46	26	110	21	2,2	GX24-2E .. GX24-2F3 ..
G1041.32R/L-3T23GX24-P		23	46	32	110	24,6	2,2	
G1041.32R/L-3T32GX24-P		32	65	32	110	24,6	2,2	
G1041.32R/L-3T33GX34-P		33	65	32	110	24,6	2,4	GX34-2E3 ..
G1041.32R/L-4T32GX24-P	4	32	65	32	110	24,6	3,1	GX24-3E4 .. GX24-3F4 ..
G1041.32R/L-4T33GX34-P		33	65	32	110	24,6	3,3	GX34-3E4 ..

Ordering example, right-hand tool: G1041.26R-2T16GX16-P/ordering example, left-hand tool: G1041.26L-2T16GX16-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	h_4 [mm]	26-32
	Clamping screw for grooving insert Tightening torque	FS2164 (Torx 15IP) 3,5 Nm

Accessories

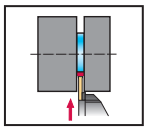
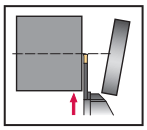
	h_4 [mm]	26-32
	Screwdriver for grooving insert	FS1485 (Torx 15IP)

Reinforced parting blade – Contra
G1041...C-P mm

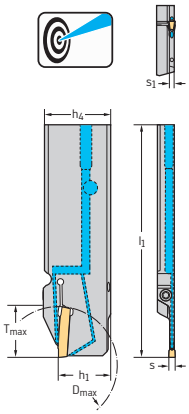
Walter Cut

A2

– Screw clamping
– Precision cooling

Tool



Designation	s mm	T_{max} mm	D_{max} mm	h_4 mm	l_1 mm	h_1 mm	s_1 mm	Type
G1041.26R/L-2T16GX16C-P	2	16	32	26	110	21	1,5	GX16-1E2 .. GX16-1F2 ..
G1041.32R/L-2T23GX24C-P		23	46	32	110	24,6	1,5	GX24-1E2 ..
G1041.26R/L-3T23GX24C-P	3	23	46	26	110	21	2,2	GX24-2E .. GX24-2F3 ..
G1041.32R/L-3T23GX24C-P		23	46	32	110	24,6	2,2	
G1041.32R/L-3T32GX24C-P		32	65	32	110	24,6	2,2	
G1041.32R/L-3T33GX34C-P		33	65	32	110	24,6	2,4	GX34-2E3 ..
G1041.32R/L-4T32GX24C-P	4	32	65	32	110	24,6	3,1	GX24-3E4 .. GX24-3F4 ..
G1041.32R/L-4T33GX34C-P		33	65	32	110	24,6	3,3	GX34-3E4 ..

Ordering example, right-hand tool: G1041.26R-2T16GX16C-P/ordering example, left-hand tool: G1041.26L-2T16GX16C-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	h_4 [mm]	26-32
	Clamping screw for grooving insert Tightening torque	FS2164 (Torx 15IP) 3,5 Nm

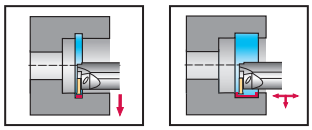
Accessories

	h_4 [mm]	26-32
	Screwdriver for grooving insert	FS1485 (Torx 15IP)

Boring bar – Internal grooving
G1221...-P mm

Walter Cut

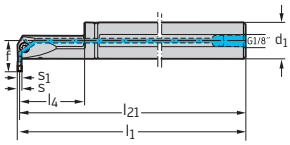
– Screw clamping
– Precision cooling

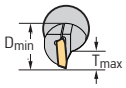


GX..E.. GX..F..

A2

Tool

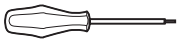




Designation	s mm	T_{max} mm	D_{min} mm	d_1 mm	f mm	l_4 mm	l_{21} mm	s_1 mm	Type
G1221-16QR/L-2T04-GX09-P	2–2,5	4	16	16	12,6	29,3	179,3	1,4	GX09- . E ..
G1221-20QR/L-2T06-GX09-P		6	20	20	16,6	36,3	179,3	1,4	
G1221-25RR/L-2T08-GX16-P		8	25	25	21,1	45,2	199,3	1,5	GX16-1E2 .. GX16-1F2 ..
G1221-20QR/L-3T06-GX09-P	2,5–3	6	20	20	16,6	35,9	179,0	2,1	GX09-2E3 ..
G1221-25RR/L-3T08-GX16-P	3	8	25	25	21,1	44,9	199,0	2,1	GX16-2E3 ..
G1221-32SR/L-3T10-GX16-P		10	32	32	26,6	57,9	249,0	2,1	
★ G1221-40TR/L-3T12-GX24-P		12	40	40	32,6	72,0	298,9	2,1	GX24-2E .. GX24-2F3 ..
G1221-32SR/L-4T10-GX16-P	4	10	32	32	26,6	57,4	248,5	3,1	GX16-3E ..
★ G1221-40TR/L-4T12-GX24-P		12	40	40	32,6	71,5	298,4	3,1	GX24-3E ..
★ G1221-40TR/L-5T12-GX24-P	5–6	12	40	40	32,6	71,1	298,1	3,8	GX24-4E ..

$l_1 = l_{21} + s/2$
Ordering example, right-hand tool: G1221-16QR-2T04-GX09-P/ordering example, left-hand tool: G1221-16QL-2T04-GX09-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	D_{min} [mm]	16	20	25	32	40
	Clamping screw for grooving insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS2081 (Torx 15IP) 4,0 Nm	FS1495 (Torx 20IP) 5,0 Nm	FS2089 (Torx 25IP) 5,0 Nm	FS2089 (Torx 25IP) 5,0 Nm
	Threaded plug	M02X002 ISO 4026 (SW 0,9)	M03X003 ISO 4026 (SW 1,5)	M03X003 ISO 4026 (SW 1,5)	M03X003 ISO 4026 (SW 1,5)	M02X002 ISO 4026 (SW 0,9)
	O-ring	O-RING 11X2	O-RING 15X2	O-RING 20X2	O-RING 27X2	O-RING 34X2
	Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)	FS1487 (Torx 25IP)

Accessories

	D_{min} [mm]	16-20	25	32-40
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2016 (Torx 25IP)

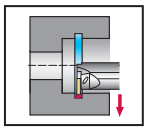
★ New addition to the product range

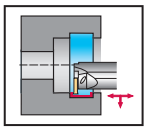
Boring bar – Internal grooving
G1221...-P inch

Walter Cut

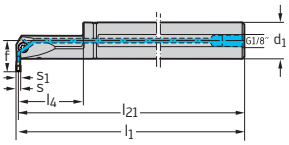
A2

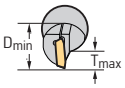
– Screw clamping
– Precision cooling





Tool





Designation	s Inch	T_{max} Inch	D_{min} Inch	d_1 Inch	f Inch	l_4 Inch	l_{21} Inch	s_1 Inch	Type
G1221.10QR/L-2T04-GX09-P	0,079–0,098	0,157	0,625	0,625	0,492	1,154	7,059	0,055	GX09- . E ..
G1221.12QR/L-2T06-GX09-P		0,236	0,750	0,750	0,634	1,429	7,059	0,055	
G1221.16RR/L-2T08-GX16-P		0,315	1,000	1,000	0,839	1,780	7,844	0,059	GX16-1E2 .. GX16-1F2 ..
G1221.12QR/L-3T06-GX09-P	0,118	0,236	0,750	0,750	0,634	1,413	7,045	0,083	GX09-2E3 ..
G1221.16RR/L-3T08-GX16-P		0,315	1,000	1,000	0,839	1,768	7,833	0,083	GX16-2E3 ..
G1221.20SR/L-3T10-GX16-P		0,394	1,250	1,250	1,043	2,280	9,801	0,083	
G1221.20SR/L-4T10-GX16-P	0,157	0,394	1,250	1,250	1,043	2,260	9,781	0,122	GX16-3E ..
★ G1221-24TR/L-4T12-GX24-P		0,472	1,500	1,500	1,244	2,813	11,750	0,122	GX24-3E .. GX24-4E ..
★ G1221-24TR/L-5T12-GX24-P	0,197–0,236	0,472	1,500	1,500	1,244	2,799	11,736	0,150	

$l_1 = l_{21} + s/2$
Ordering example, right-hand tool: G1221.10QR-2T04-GX09-P/ordering example, left-hand tool: G1221.10QL-2T04-GX09-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

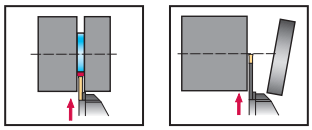
	D_{min} [Inch]	0,625	0,750	1,000	1,250
	Clamping screw for grooving insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS2081 (Torx 15IP) 4,0 Nm	FS1495 (Torx 20IP) 5,0 Nm	FS2089 (Torx 25IP) 5,0 Nm
	Threaded plug	M02X002 ISO 4026 (SW 0,9)	M03X003 ISO 4026 (SW 1,5)	M03X003 ISO 4026 (SW 1,5)	M03X003 ISO 4026 (SW 1,5)
	O-ring	O-RING 11X2	O-RING 15X2	O-RING 20X2	O-RING 27X2
	Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

Accessories

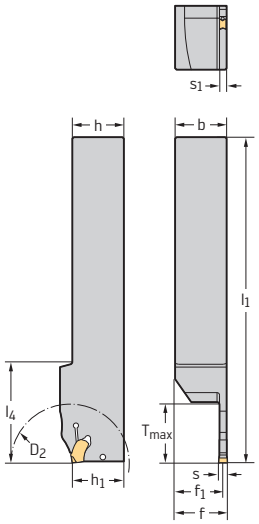
	D_{min} [Inch]	0,625-0,750	1,000	1,250
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2016 (Torx 25IP)

Shank tool – Radial grooving
G2012 mm
Walter Cut

– Self-clamping system



Tool



Designation	s mm	T_{max} mm	D_2 mm	$h = h_1$ mm	b mm	f_1 mm	l_1 mm	l_4 mm	s_1 mm	Type
G2012.1212R/L-1.5T15SX	1,5	15	38	12	12	11,4	120	25	1,2	SX-1E1 ..
G2012.1616R/L-1.5T15SX		15	38	16	16	15,4	120	25	1,2	
G2012.2020R/L-1.5T15SX		15	38	20	20	19,4	120	25	1,2	
G2012.2525R/L-2T26SX	2	26	52	25	25	24,2	146	36	1,6	SX-2E2 ..
G2012.2525R/L-3T33SX	3	33	65	25	25	23,8	150	43	2,5	SX-3E3 ..

$f = f_1 + s/2$

Ordering example, right-hand tool: G2012.1212R-1.5T15SX/ordering example, left-hand tool: G2012.1212L-1.5T15SX

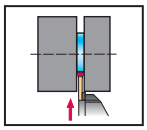
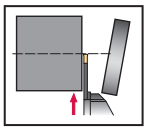
Accessories

	$h = h_1$ [mm]	12-20	25
	Mounting wrench for grooving insert	FS2249	FS1494

Shank tool – Radial grooving
G2012 inch
Walter Cut

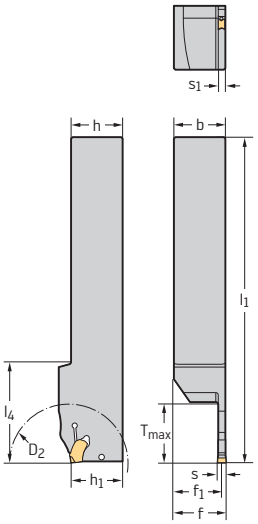
A2

– Self-clamping system

SX

Tool



Designation	s Inch	T_{max} Inch	D_2 Inch	$h = h_1$ Inch	b Inch	f_1 Inch	l_1 Inch	l_4 Inch	s_1 Inch	Type
G2012.08R/L-1.5T15SX		0,591	1,496	0,500	0,500	0,476	4,724	0,984	0,047	
G2012.10R/L-1.5T15SX	0,059	0,591	1,496	0,625	0,625	0,602	4,724	0,984	0,047	SX-1E1 ..
G2012.12R/L-1.5T15SX		0,591	1,496	0,750	0,750	0,726	4,724	0,984	0,047	
G2012.16R/L-2T26SX	0,079	1,024	2,047	1,000	1,000	0,969	5,748	1,417	0,061	SX-2E2 ..
G2012.16R/L-3T33SX	0,118	1,299	2,559	1,000	1,000	0,952	5,906	1,693	0,096	SX-3E3 ..

$f = f_1 + s/2$

Ordering example, right-hand tool: G2012.08R-1.5T15SX/ordering example, left-hand tool: G2012.08L-1.5T15SX

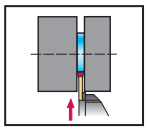
Accessories

	$h = h_1$ [Inch]	0,500-0,750	1,000
	Mounting wrench for grooving insert	FS2249	FS1494

Reinforced parting blade
G2042...R/L...-P mm

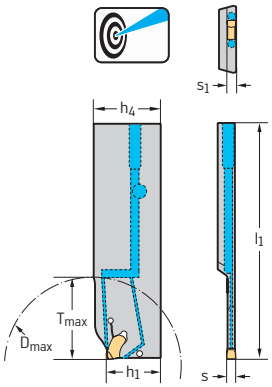
Walter Cut

– Self-clamping system
– Precision cooling



SX

Tool



Designation	s mm	T_{max} mm	D_{max} mm	h_4 mm	l_1 mm	h_1 mm	s_1 mm	Type
G2042.32R/L-2T26SX-P	2	26	52	32	110	24,7	1,6	SX-2E2 ..
G2042.26R/L-3T33SX-P	3	33	65	26	110	21	2,4	SX-3E3 ..
G2042.32R/L-3T33SX-P		33	65	32	110	24,7	2,4	
G2042.32R/L-4T33SX-P	4	33	65	32	110	24,7	3,4	SX-4E4 ..

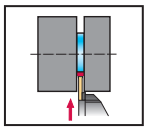
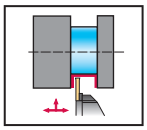
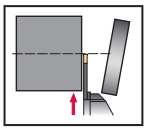
Ordering example, right-hand tool: G2042.32R-2T26SX-P/ordering example, left-hand tool: G2042.32L-2T26SX-P

Accessories

h_4 [mm]	26-32
Mounting wrench for grooving insert	FS1494

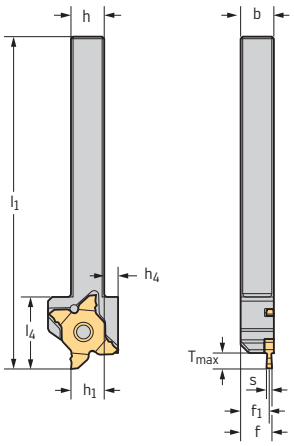
Shank tool – Radial grooving
G3011 mm
Walter Cut


– Screw clamping

MX

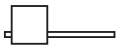
Tool



Designation	s mm	T_{max} mm	h = h_1 mm	b mm	f_1 mm	l_1 mm	h_4 mm	l_4 mm	Type
G3011-1010R/L-MX22-2	0,8–3,25	6	10	10	8,3	120	7	28	MX22-2E ..
G3011-1212R/L-MX22-2		6	12	12	10,3	120	5	26	

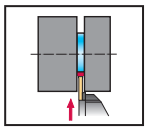
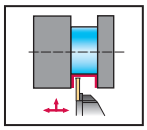
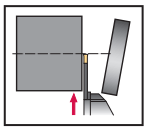
$f = f_1 + s/2$
For information on the maximum cutting depth T_{max}, see "Cutting inserts"
Ordering example, right-hand tool: G3011-1010R-MX22-2/ordering example, left-hand tool: G3011-1010L-MX22-2
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	h = h_1 [mm]	10-12
	Clamping screw for grooving insert	FS2570
	Torx key	FS2572

Shank tool – Radial grooving
G3011...-P mm
Walter Cut

– Screw clamping
– Precision cooling

MX

A2

Tool

Designation	s mm	T_{max} mm	h = h_1 mm	b mm	f_1 mm	l_1 mm	l_4 mm	Type
G3011-1212R/L-MX22-2-P	0,8–3,25	6	12	12	10,3	120	26	MX22-2E ..
G3011-1616R/L-MX22-2-P		6	16	16	14,3	120	26	
G3011-1616R/L-MX22-4-P	4–5,65	6	16	16	13,2	120	26	MX22-4E ..
G3011-2020R/L-MX22-2-P	0,8–3,25	6	20	20	18,3	125	26	MX22-2E ..
G3011-2525R/L-MX22-2-P		6	25	25	23,3	125	26	
G3011-2020R/L-MX22-4-P	4–5,65	6	20	20	17,2	125	26	MX22-4E ..
G3011-2525R/L-MX22-4-P		6	25	25	22,2	125	26	

$f = f_1 + s/2$
For information on the maximum cutting depth T_{max}, see "Cutting inserts"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: G3011-1212R-MX22-2-P/ordering example, left-hand tool: G3011-1212L-MX22-2-P
Bodies and assembly parts are included in the scope of delivery.

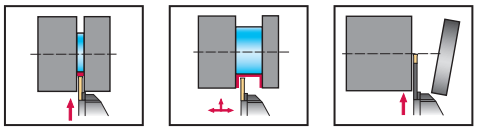
Assembly parts

h = h_1 [mm] s [mm]	12-16 0,8–3,25	16 4–5,65	20 0,8–3,25	20 4–5,65	25 0,8–3,25/4–5,65
Clamping screw for grooving insert	FS2570	FS2571	FS2570	FS2571	FS2571
G 1/8" threaded plug	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)
M6 threaded plug			FS2288 (SW 3)	FS2288 (SW 3)	FS2288 (SW 3)
Torx key	FS2572	FS2572	FS2572	FS2572	FS2572

Shank tool – Radial grooving
G3011...-P inch
Walter Cut

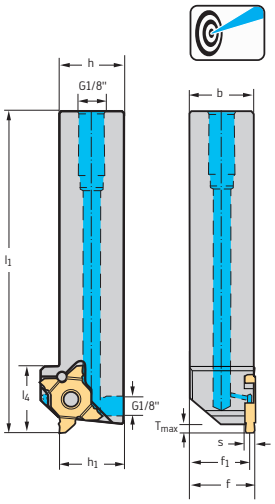
A2

– Screw clamping
– Precision cooling



MX

Tool



Designation	s Inch	T_{max} Inch	$h = h_1$ Inch	b Inch	f Inch	l_4 Inch	l_{21} Inch	Type
G3011.12R/L-MX22-2-P	0,031–0,128	0,236	0,750	0,750	0,684	1,024	5,906	MX22-2E ..
G3011.16R/L-MX22-2-P		0,236	1,000	1,000	0,934	1,024	5,906	
G3011.12R/L-MX22-4-P	0,157–0,222	0,236	0,750	0,750	0,639	1,024	5,906	MX22-4E ..
G3011.16R/L-MX22-4-P		0,236	1,000	1,000	0,889	1,024	5,794	

$f = f_1 + s/2$
For information on the maximum cutting depth T_{max}, see "Cutting inserts"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: G3011.12R-MX22-2-P/ordering example, left-hand tool: G3011.12L-MX22-2-P
Bodies and assembly parts are included in the scope of delivery.

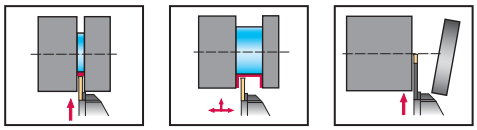
Assembly parts

$h = h_1$ [Inch] s [Inch]	0,750 0,031–0,128	0,750 0,157–0,222	1,000 0,031–0,128/0,157–0,222
Clamping screw for grooving insert	FS2570	FS2571	FS2571
G 1/8" threaded plug	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)
Torx key	FS2572	FS2572	FS2572

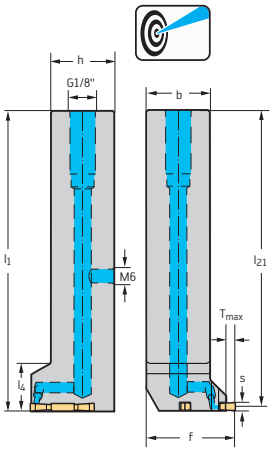
Shank tool – Radial grooving
G3021...-P mm

Walter Cut

– Screw clamping
– Precision cooling



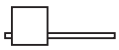
Tool



Designation	s mm	T_{max} mm	h = h_1 mm	b mm	f mm	l_4 mm	l_{21} mm	Type
G3021-2020R/L-MX22-2-P	0,8–3,25	6	20	20	30	19	123,3	MX22-2E ..
G3021-2525R/L-MX22-2-P		6	25	25	35	19	123,3	
G3021-2525R/L-MX22-4-P	4–5,65	6	25	25	35	19	124,5	MX22-4E ..

$l_1 = l_{21} + s/2$
For information on the maximum cutting depth T_{max}, see "Cutting inserts"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: G3021-2020R-MX22-2-P/ordering example, left-hand tool: G3021-2020L-MX22-2-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

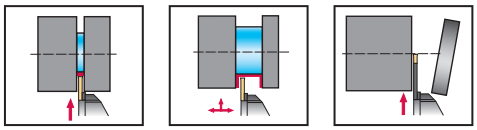
	h = h_1 [mm] s [mm]	20 0,8–3,25	25 0,8–3,25	25 4–5,65
	Clamping screw for grooving insert	FS2570	FS2571	FS2571
	G 1/8" threaded plug	FS2258 (SW 5)	FS2258 (SW 5)	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)	FS2288 (SW 3)	
	Torx key	FS2572	FS2572	FS2572

Shank tool – Radial grooving
G3021...-P inch

Walter Cut

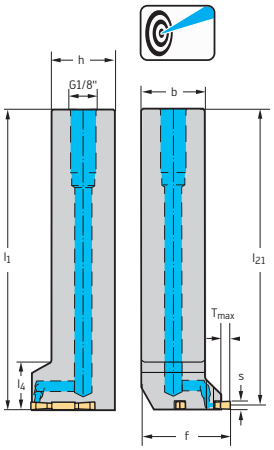
A2

– Screw clamping
– Precision cooling



MX

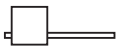
Tool



Designation	s Inch	T_{max} Inch	$h = h_1$ Inch	b Inch	f Inch	l_4 Inch	l_{21} Inch	Type
G3021.16R/L-MX22-2-P	0,031–0,128	0,236	1,000	1,000	1,394	0,748	5,842	MX22-2E ..
G3021.16R/L-MX22-4-P	0,157–0,222	0,236	1,000	1,000	1,394	0,748	5,794	MX22-4E ..

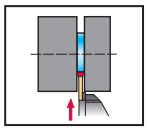
$l_1 = l_{21} + s/2$
For information on the maximum cutting depth T_{max}, see "Cutting inserts"
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: G3021.16R-MX22-2-P/ordering example, left-hand tool: G3021.16L-MX22-2-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

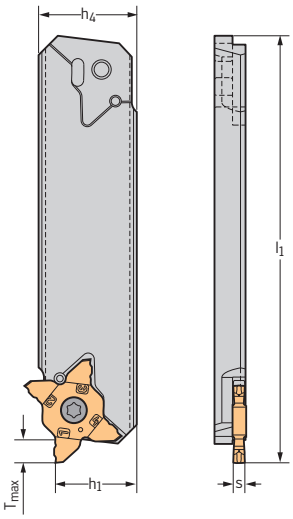
	$h = h_1$ [Inch]	1,000
	Clamping screw for grooving insert	FS2571
	G 1/8" threaded plug	FS2258 (SW 5)
	Torx key	FS2572

Reinforced parting blade
G3041 mm
Walter Cut

– Screw clamping



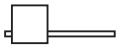
Tool



Designation	s mm	T_{max} mm	h_4 mm	l_1 mm	h_1 mm	Type
★ G3041.26R/L-MX22-2	0,8–3,25	6	26	110	21	MX22-2E ..

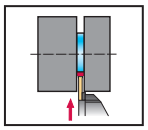
Ordering example, right-hand tool: G3041.26R-MX22-2/ordering example, left-hand tool: G3041.26L-MX22-2
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	h_4 [mm]	26
	Clamping screw for grooving insert	FS2574
	Torx key	FS2572

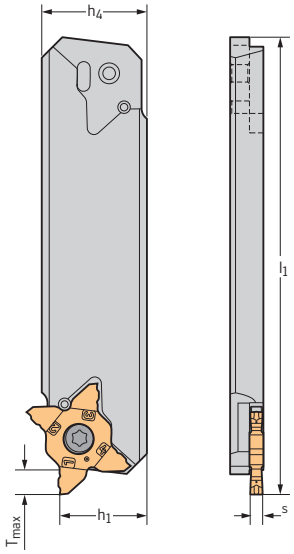
Reinforced parting blade – Contra
G3041...C mm
Walter Cut

– Screw clamping



MX

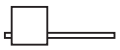
Tool



Designation	s mm	T_{max} mm	h_4 mm	l_1 mm	h_1 mm	Type
★ G3041.26R/L-MX22-2C	0,8–3,25	6	26	110	21	MX22-2E ..

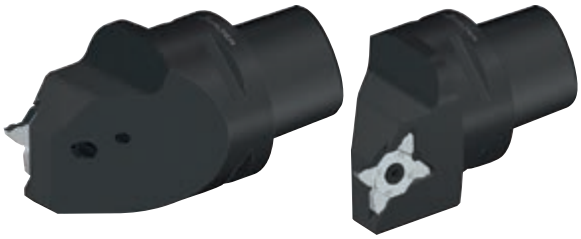
Ordering example, right-hand tool: G3041.26R-MX22-2C/ordering example, left-hand tool: G3041.26L-MX22-2C
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

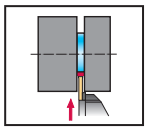
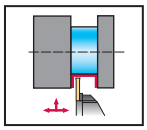
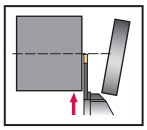
	h_4 [mm]	26
	Clamping screw for grooving insert	FS2574
	Torx key	FS2572

★ New addition to the product range

Groove turning holders – Radial grooving
C...-G3011...-P mm



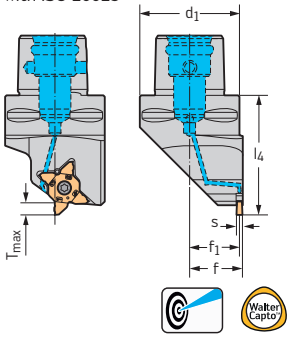
– Walter Capto™
– Screw clamping

MX

Tool

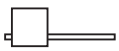
Walter Capto™ in accordance with ISO 26623



Designation	s mm	T_{max} mm	d_1	f_1 mm	l_4 mm	Type
★ G3011-C3R/L-MX22-2-P	0,8–3,25	6	C3	20	45	MX22-2E ..
★ G3011-C4R/L-MX22-2-P		6	C4	20	60	
★ G3011-C5R/L-MX22-2-P		6	C5	25	60	
★ G3011-C6R/L-MX22-2-P		6	C6	32	65	
★ G3011-C4R/L-MX22-4-P	4–5,65	6	C4	20	60	MX22-4E ..
★ G3011-C5R/L-MX22-4-P		6	C5	25	60	
★ G3011-C6R/L-MX22-4-P		6	C6	32	65	

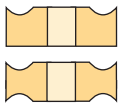
$f = f_1 + s/2$
For information on the maximum cutting depth T_{max}, see "Cutting inserts"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: G3011-C3R-MX22-2-P/ordering example, left-hand tool: G3011-C3L-MX22-2-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	s [mm]	0,8–3,25/4–5,65
	Clamping screw for grooving insert	FS2571
	Torx key	FS2572

★ New addition to the product range

Cutting data for turning inserts – Negative basic shape
Carbide grades



= Cutting data for wet machining
= Dry machining is possible.

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]			Cutting material grades		
									Starting values for cutting speed v_c [m/min]		
									HC		
									WSM01		
									f [mm/rev]		
									0,10	0,20	0,50
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●	●	240	230	
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	●●	●	190	160	
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	●●	●	160	130	
		C > 0.55%	Annealed	190	640	P4	●●	●	150	130	
		C > 0.55%	Heat-treated	300	1010	P5	●●	●	140	100	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	●●	●	210	190	
	Low-alloy steel	Annealed		175	590	P7	●●	●	150	130	
		Heat-treated		285	960	P8	●●	●	130	80	
		Heat-treated		380	1280	P9	●●	●	100	70	
		Heat-treated		430	1480	P10	●●	●	80	60	
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	●●	●	140	120	
		Hardened and tempered		300	1010	P12	●●	●	120	90	
		Hardened and tempered		380	1280	P13	●●	●	70	50	
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●●	●	200	180	
		Martensitic, heat-treated		330	1110	P15	●●	●	150	120	
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●	●	250	190	120
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●	●	150	130	
		Austenitic/ferritic, duplex		230	780	M3	●●	●	160	140	100
K	Malleable cast iron	Ferritic		200	400	K1	●●	●			
		Pearlitic		260	700	K2	●●	●			
	Grey cast iron	Low tensile strength		180	200	K3	●●	●			
		High tensile strength/austenitic		245	350	K4	●●	●			
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●	●			
		Pearlitic		265	700	K6	●●	●			
	GGV (CGI)			230	400	K7	●●	●			
N	Wrought aluminium alloys	Not hardenable		30	–	N1			3000	2400	1800
		Hardenable, hardened		100	340	N2			900	720	360
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3			960	540	360
		≤ 12% Si, hardenable, hardened		90	310	N4			600	360	240
		> 12% Si, not hardenable		130	450	N5					
	Magnesium-based alloys [3]			70	250	N6					
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7			720	480	320
		Brass, bronze, red brass		90	310	N8			480	360	300
		Cu alloys, short-chipping		110	380	N9			340	240	160
		High-tensile, Ampco		300	1010	N10					
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●	●	100	70	
			Hardened	280	940	S2	●●	●	80	60	
		Ni- or Co-based	Annealed	250	840	S3	●●	●	80	60	
			Hardened	350	1180	S4	●●	●	70	50	
			Cast	320	1080	S5	●●	●	60	40	
	Titanium alloys	Pure titanium		200	680	S6	●●	●			
		α and β alloys, hardened		375	1260	S7	●●	●	70	50	
		β alloys		410	1400	S8	●●	●	50	40	
	Tungsten alloys			300	1010	S9					
	Molybdenum alloys			300	1010	S10					
H	Hardened steel	Hardened and tempered		50 HRC		H1	●	●●	50		
		Hardened and tempered		55 HRC		H2	●	●●	40		
		Hardened and tempered		60 HRC		H3	●	●●			
	Hardened cast iron	Hardened and tempered		55 HRC		H4	●	●●			
O	Thermoplastics	Without abrasive fillers				O1					
	Thermosets	Without abrasive fillers				O2					
	Plastic, glass-fibre-reinforced	GFRP				O3					
	Plastic, carbon-fibre-reinforced	CFRP				O4					
	Plastic, aramid-fibre-reinforced	AFRP				O5					
	Graphite (technical)			80 Shore		O6					

●● Recommended application (the specified cutting data is regarded as starting values for the recommended application)
● Possible application

Note: If dry machining is possible, the tool life is reduced by 20–30% on average.

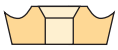
[1] The classification of the machining groups can be found from page A 468 onwards in the Walter General Catalogue 2017.
[3] Water-miscible coolants must not be used when machining magnesium alloys.

Cutting material grades																						
Starting values for cutting speed v_c [m/min]																						
										HC												
WSM10S			WSM20S			WSM30S			WPV10			WPV20			WKV10			WKV20				
f [mm/rev]			f [mm/rev]			f [mm/rev]			f [mm/rev]			f [mm/rev]			f [mm/rev]			f [mm/rev]				
0,10	0,30	0,50	0,10	0,30	0,50	0,10	0,30	0,50	0,10	0,40	0,60	0,10	0,40	0,60	0,10	0,40	0,60	0,10	0,40	0,60		
270	250		230	220		220	200		430	320	250	360	270	220				480	360	280		
210	190		180	160		160	150		340	240	200	280	200	160				170	150	150		
180	160		150	130		130	110		260	200	170	210	170	140				140	120	120		
180	160		140	130		130	120		280	200	160	240	170	130				130	120	120		
									220	160	160	180	130	120				250	180	180		
240	220		200	180		180	160		400	280	230	330	240	180				180	170	170		
170	150		140	120		120	100		310	230	200	260	200	160				130	110	110		
									190	150	130	160	120	100				210	170	150		
									140	100	80	120	80	70				140	110	90		
									70	50								70	60			
170	150		130	110		110	90		280	200	130	240	160	100				120	100	100		
									200	120	100	160	100	80				160	130	120		
									60	50								80	70			
200	180	150	190	170	140	170	150	120	230	180	160	190	160	120								
170	120	110	140	110	100	110	100	80	160	120	100	130	90	70								
260	210	130	240	170	110	200	140	90	250	180	120	200	150	90								
160	140		140	120		110	90		150	130		120	100									
170	150	110	150	130	90	130	110	70	160	130	100	120	110	80								
									260	170	130	230	180	130	340	240	170	270	180	140		
									220	140	100	200	150	90	300	200	130	240	150	100		
									470	280	200	410	210	160	560	370	270	500	290	210		
									260	180	120	200	150	90	360	240	170	270	190	130		
									280	200	150	210	160	120	370	270	210	290	210	160		
									200	150	120	160	120	90	270	210	170	210	160	130		
									240	160	130				290	180						
100	65		90	60		80	50															
80	55		70	50		60	40															
80	55		70	50		60	30															
70	45		60	40		50	30															
60	35		50	30		40	20															
			70	45	40																	
			40	30	25																	
															50							
															40							
															30							
															40							

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

HC = Coated carbide
CN = Silicon nitride Si3N4

Cutting data for turning inserts – Positive basic shape
Carbide grades



= Cutting data for wet machining
= Dry machining is possible.

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]			Cutting material grades Starting values for cutting speed v_c [m/min] HE WEP10 f [mm/rev]		
									0,10	0,20	0,30
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●	●	300	250	200
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	●●	●	230	200	180
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	●●	●	210	180	150
		C > 0.55%	Annealed	190	640	P4	●●	●	220	200	180
		C > 0.55%	Heat-treated	300	1010	P5	●●	●	180	150	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	●●	●	230	200	180
	Low-alloy steel	Annealed		175	590	P7	●●	●	210	180	150
		Heat-treated		285	960	P8	●●	●	150	130	110
		Heat-treated		380	1280	P9	●●	●			
		Heat-treated		430	1480	P10	●●	●			
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	●●	●	160	140	130
		Hardened and tempered		300	1010	P12	●●	●			
		Hardened and tempered		380	1280	P13	●●	●			
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●●	●			
		Martensitic, heat-treated		330	1110	P15	●●	●			
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●	●	210	190	160
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●	●	150	130	110
		Austenitic/ferritic, duplex		230	780	M3	●●	●	160	140	110
K	Malleable cast iron	Ferritic		200	400	K1	●●	●	220	200	180
		Pearlitic		260	700	K2	●●	●	190	170	150
	Grey cast iron	Low tensile strength		180	200	K3	●●	●	420	390	360
		High tensile strength/austenitic		245	350	K4	●●	●	220	200	180
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●	●	240	220	200
		Pearlitic		265	700	K6	●●	●	170	140	130
	GGV (CGI)			230	400	K7	●●	●	220	180	170
N	Wrought aluminium alloys	Not hardenable		30	–	N1	●●	●			
		Hardenable, hardened		100	340	N2	●●	●			
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●	●			
		≤ 12% Si, hardenable, hardened		90	310	N4	●●	●			
		> 12% Si, not hardenable		130	450	N5					
	Magnesium-based alloys [3]			70	250	N6					
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7	●●	●			
		Brass, bronze, red brass		90	310	N8	●●	●			
		Cu alloys, short-chipping		110	380	N9	●●	●			
		High-tensile, Ampco		300	1010	N10					
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●	●			
			Hardened	280	940	S2	●●	●			
		Ni- or Co-based	Annealed	250	840	S3	●●	●			
			Hardened	350	1180	S4	●●	●			
			Cast	320	1080	S5	●●	●			
	Titanium alloys	Pure titanium		200	680	S6	●●	●			
		α and β alloys, hardened		375	1260	S7	●●	●			
		β alloys		410	1400	S8	●●	●			
	Tungsten alloys			300	1010	S9					
	Molybdenum alloys			300	1010	S10					
H	Hardened steel	Hardened and tempered		50 HRC		H1	●	●●			
		Hardened and tempered		55 HRC		H2	●	●●			
		Hardened and tempered		60 HRC		H3	●	●●			
	Hardened cast iron	Hardened and tempered		55 HRC		H4	●	●●			
O	Thermoplastics	Without abrasive fillers				O1					
	Thermosets	Without abrasive fillers				O2					
	Plastic, glass-fibre-reinforced	GFRP				O3					
	Plastic, carbon-fibre-reinforced	CFRP				O4					
	Plastic, aramid-fibre-reinforced	AFRP				O5					
	Graphite (technical)			80 Shore		O6					

●● Recommended application (the specified cutting data is regarded as starting values for the recommended application)
● Possible application

Note: If dry machining is possible, the tool life is reduced by 20–30% on average.

[1] The classification of the machining groups can be found from page A 468 onwards in the Walter General Catalogue 2017.
[3] Water-miscible coolants must not be used when machining magnesium alloys.

Cutting material grades												
Starting values for cutting speed v_c [m/min]												
HC												
WSM01			WNN10			WPV10			WPV20			
f [mm/rev]			f [mm/rev]			f [mm/rev]			f [mm/rev]			
0,10	0,20	0,40	0,10	0,20	0,40	0,10	0,20	0,40	0,10	0,20	0,40	
240	230		230	210		400	350	300	330	300	250	
190	160		170	150		320	280	230	270	240	190	
160	130		130	120		240	210	200	190	170	160	
150	130		140	120		280	260	250	240	220	200	
140	100					190	160	160	160	130	120	
210	190		180	160		360	340	330	310	280	270	
150	130		120	100		290	270	260	250	230	210	
130	80					160	140	130	130	120	100	
100	70					100	80	80	80	70	50	
80	60					70	50		50	40		
140	120		130	100		280	250	240	230	200	190	
120	90					170	160	140	140	120	100	
70	50					60	50		50	40		
200	180					240	220	210	170	160	140	
150	120					100	80	80	80	80	60	
250	190	120	200	180								
150	130		140	120								
160	140	100	150	130								
						230	200	190	200	180	160	
						200	170	160	170	150	130	
						430	400	360	390	360	350	
						230	200	190	170	150	130	
						240	220	200	190	160	150	
						170	150	130	130	110	90	
						230	190	170				
3000	2400	1800	3000	2400	1800							
900	720	360	900	720	360							
960	540	360	960	540	360							
600	360	240	600	360	240							
720	480	320	720	480	320							
480	360	300	480	360	300							
340	240	160	340	240	160							
100	70		80	60								
80	60		60	50								
80	60		60	50								
70	50		50	40								
60	40		40	30								
			220	200	160							
70	50		70	50								
50	40		40	30								
50												
40												
			400	400								
			300	300								
			600	600								

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

HC = Coated carbide
HE = Coated cermet

Cutting data for turning inserts – Negative and positive basic shape
CBN/PCD/ceramic

= Cutting data for wet machining
= Dry machining is possible

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Cutting material grades: Starting values for cutting speed v_c [m/min] CBN BL WBH10C f [mm/rev]				
									0.05	0.15	0.20
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1					
		C > 0.25%... ≤ 0.55%	Annealed	190	640	P2					
		C > 0.25%... ≤ 0.55%	Heat-treated	210	710	P3					
		C > 0.55%	Annealed	190	640	P4					
		C > 0.55%	Heat-treated	300	1010	P5					
		Free-machining steel (short-chipping)	Annealed	220	750	P6					
	Low-alloy steel	Annealed		175	590	P7					
		Heat-treated		285	960	P8					
		Heat-treated		380	1280	P9					
		Heat-treated		430	1480	P10					
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11					
		Hardened and tempered		300	1010	P12					
		Hardened and tempered		380	1280	P13					
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14					
		Martensitic, heat-treated		330	1110	P15					
M	Stainless steel	Austenitic, quench hardened		200	680	M1					
		Austenitic, precipitation hardened (PH)		300	1010	M2					
		Austenitic/ferritic, duplex		230	780	M3					
K	Malleable cast iron	Ferritic		200	400	K1	●●	●			
		Pearlitic		260	700	K2	●●	●			
	Grey cast iron	Low tensile strength		180	200	K3	●●	●			
		High tensile strength/austenitic		245	350	K4	●●	●			
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●	●			
		Pearlitic		265	700	K6	●●	●			
	GGV (CGI)			230	400	K7					
N	Wrought aluminium alloys	Not hardenable		30	–	N1					
		Hardenable, hardened		100	340	N2					
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3					
		≤ 12% Si, hardenable, hardened		90	310	N4					
		> 12% Si, not hardenable		130	450	N5					
	Magnesium alloys			70	250	N6					
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7					
		Brass, bronze, red brass		90	310	N8					
		Cu alloys, short-chipping		110	380	N9					
		High-tensile, Ampco		300	1010	N10					
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1					
			Hardened	280	940	S2					
		Ni- or Co-based	Annealed	250	840	S3	●●	●			
			Hardened	350	1180	S4	●●	●			
			Cast	320	1080	S5	●●	●			
	Titanium alloys	Pure titanium		200	680	S6					
		α and β alloys, hardened		375	1260	S7					
		β alloys		410	1400	S8					
	Tungsten alloys			300	1010	S9					
	Molybdenum alloys			300	1010	S10					
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	●	●●	300	250	220
		Hardened and tempered		55 HRC	–	H2	●	●●	280	230	200
		Hardened and tempered		60 HRC	–	H3	●	●●	250	200	180
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	●	●●	250	200	180
O	Thermoplastics	Without abrasive fillers				O1					
	Thermosets	Without abrasive fillers				O2					
	Plastic, glass-fibre-reinforced	GFRP				O3					
	Plastic, carbon-fibre-reinforced	CFRP				O4					
	Plastic, aramid-fibre-reinforced	AFRP				O5					
	Graphite (technical)			80 Shore		O6					

●● Recommended application (the specified cutting data is regarded as starting values for the recommended application)
● Possible application

[1] The classification of the machining groups can be found from page A 468 onwards in the Walter General Catalogue 2017.

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

	Cutting material grades											
	Starting values for cutting speed v_c [m/min]											
	CBN									Ceramic		
	BL WBH10			BH WBH20			BH WBS10			CN WCK10		
	f [mm/rev]			f [mm/rev]			f [mm/rev]			f [mm/rev]		
	0.05	0.15	0.20	0.05	0.15	0.20	0.05	0.15	0.20	0,10	0,40	0,60
										350	300	250
										250	200	200
										1000	800	700
										800	700	600
										500	400	350
										250	200	200
										350	300	250
							280	220	200			
							280	220	200			
							280	220	200			
	300	250	220	250	200	180						
	280	230	200	220	180	150						
	250	200	180	200	150	120						
	250	200	180	200	150	120						

BH = CBN with high CBN content
BL = CBN with low CBN content
CN = Silicon nitride Si_3N_4
CR = Reinforced ceramic
DP = Polycrystalline diamond

Cutting tool material application chart

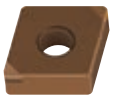
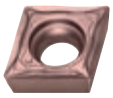
Carbide

Walter grade designation	Standard designation	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Application range 01 05 10 15 20 25 30 35 40 45	Coating method	Coating composition	Indexable insert example
WPV10	HC – P 10	●●								CVD	TiCN + Al_2O_3 + TiN	
	HC – M 20		●									
	HC – K 20			●								
WPV20	HC – P 20	●●								CVD	TiCN + Al_2O_3 + TiN	
	HC – M 30		●									
	HC – K 30			●								
WKV10	HC – K 10			●●						CVD	TiCN + Al_2O_3 + TiN	
	HC – P 10	●										
	HC – H 30						●					
WKV20	HC – K 20			●●						CVD	TiCN + Al_2O_3 + TiN	
	HC – P 20	●										
WSM01	HC – M 01		●●							PVD	TiAlN (HIPIMS)	
	HC – S 01					●●						
	HC – P 10	●										
	HC – N 10				●							
	HC – H 20						●					
WSM21	HC – M 20		●●							PVD	TiAlN	
	HC – S 20					●●						
	HC – P 20	●●										
WNN10	HC – N 10				●●					PVD	TiAlN (HIPIMS)	
	HC – P 01	●										
	HC – M 01		●									

HC = Coated carbide
HW = Uncoated carbide

●● Primary application
● Additional application

CBN/cermet/PCD/ceramic

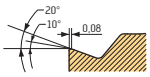
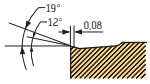
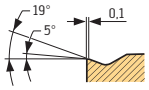
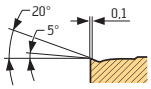
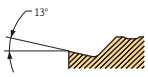
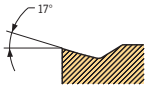
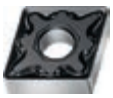
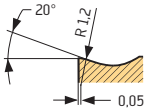
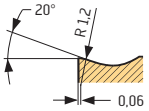
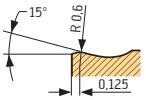
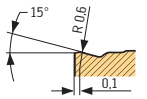
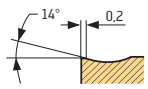
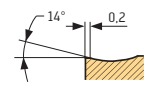
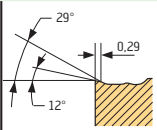
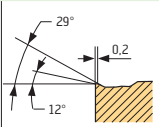
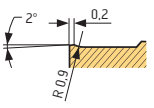
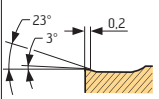
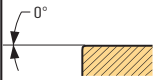
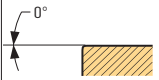
Walter grade designation	Standard designation	Material groups: P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Application range	Coating method	Cutting tool material	Indexable insert example
WBH10C	BL – H 05						●●		01 05 10 15 20 25 30 35 40 45	PVD	CBN + TiAlSiN	
WBH10	BL – H 10						●●			–	CBN	
WBH20	BL – H 20						●●			–	CBN	
WBS10	BH – S 10					●●				–	CBN	
WEP10	HE – P 10	●●								PVD	TiCN + TiAlN	
	HE – M 10		●									
	HE – K 10			●								
WDN10	DP – N 20				●●					–	PCD	
	DP – O 20							●●				
WCK10	CN – K 10			●●						–	Si_3N_4 ceramic	
WIS10	CN – S 10					●●				–	SiAlON ceramic	
WWS20	CR – S 20					●●				–	Whisker ceramic	
	CR – H 20						●					

BH = CBN with high CBN content
BL = CBN with low CBN content
CN = Silicon nitride Si_3N_4
CR = Reinforced ceramic
DP = Polycrystalline diamond

●● Primary application
● Additional application

Geometry overview of turning inserts – Negative basic shape

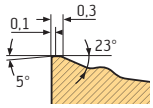
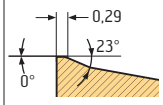
Finishing operation

Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
	**FM5** – Finishing stainless materials and high-temperature alloys – Finishing long-chipping steel materials – Curved cutting edge for cutting pressure reduction	•	••			••					0,1–4,5	0,03–0,50
	**FV5** – Finishing steel materials – Can also be used in semi-finishing	••	•	•							0,2–2,0	0,05–0,25
Medium machining												
	**MS3** – For unstable or thin-walled components – Low cutting forces thanks to sharp cutting edge design – Circumference precision-ground – Circumference precision-sintered	•	•		•	••					0,2–3,0	0,02–0,30
	**MM5** – Universal geometry for stainless materials and for high-temperature alloys – Machining long-chipping steels	•	••			••					0,5–4,5	0,10–0,45
	**MV5** – Universal geometry for steel materials – Wide range of applications	••	•	•							0,5–5,0	0,10–0,45
	**MV7** – Universal geometry for cast iron workpieces – Machining steel materials with higher strength	•		••							0,8–8,0	0,20–0,60
Roughing operation												
	**RM5** – Roughing operations in stainless materials and high-temperature alloys		••			••					1,2–8,0	0,20–0,80
	**RV5** – Roughing steel materials – Roughing ductile cast iron	••		•							1,0–6,0	0,15–0,60
	**RV7** – Universal geometry for cast iron workpieces			••				•			0,8–5,0	0,20–0,70

•• Primary application
• Additional application

Comment: Sectional views show CNMG120408 . .
or CNMA 120408 . .

Roughing operations – Single-sided indexable inserts

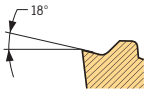
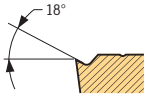
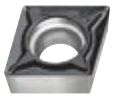
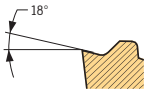
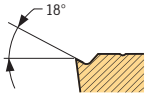
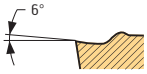
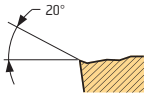
Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
	**HU5** – Universal, single sided roughing insert – Open chip breaker groove design for reduced heat development – Low cutting forces due to curved cutting edge	●	●●	●		●●					2,5–10,0	0,30–1,00

●● Primary application
● Additional application

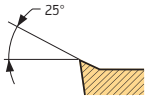
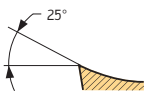
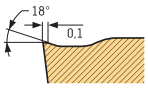
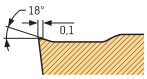
Comment: Sectional views show SNMM190616 . .

Geometry overview of turning inserts – Positive basic shape

Finishing operation

Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
	**FN2** – Finishing insert with circumference fully ground – Low cutting forces – Machining long, small diameter shafts with a tendency to vibrate	••	••	•	••	••					0,12–4,5	0,02–0,45
	**FM2** – Finishing insert with circumference fully ground – Low cutting forces – Machining long, small diameter shafts with a tendency to vibrate	••	••	•	••	••					0,12–4,5	0,02–0,45
	**FV4** – Universal finishing indexable insert – Excellent chip control – Can also be used for precision boring	••	•	•		•					0,1–2,5	0,04–0,20

Medium machining

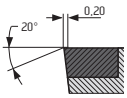
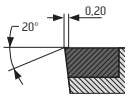
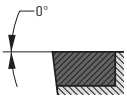
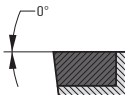
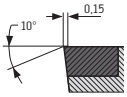
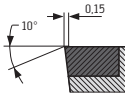
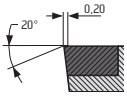
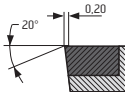
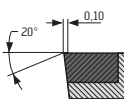
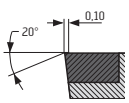
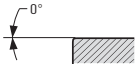
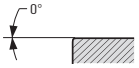
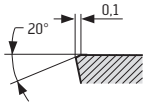
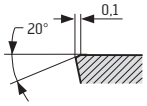
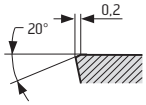
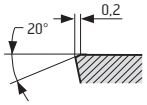
	**MN2** – Universal indexable insert for non-ferrous metallic materials – Sharp cutting edge with circumference fully ground – Polished rake face – Precision finishing on steel and stainless materials	•	•		••	•					0,5–6,0	0,02–0,80
	**MV4** – Machining long-chipping materials – Can be used universally in a wide range of applications	••	•	•		•					0,4–3,5	0,10–0,35

•• Primary application
• Additional application

Comment: Sectional views show CCMT09T308 . .
or CCGT09T308 . .

Geometry overview of turning inserts – Positive basic shape CBN/PCD/ceramic

Ceramic

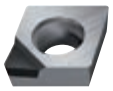
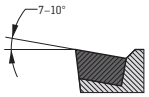
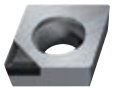
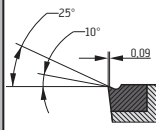
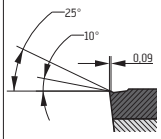
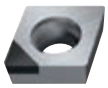
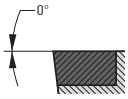
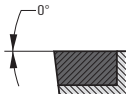
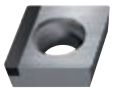
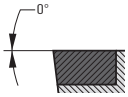
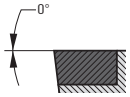
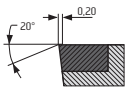
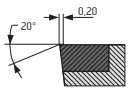
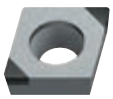
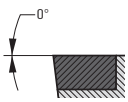
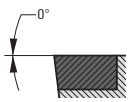
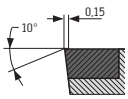
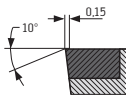
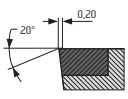
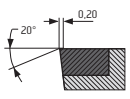
Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
 Wiper	**CNG..TM-MW2** – CBN indexable insert with circumference fully ground to G tolerance – CBN indexable insert with chamfered cutting edge – Effective wiper geometry for the best surfaces						••				0,1–0,5	0,05–0,30
	**CNG..EM2** – CBN indexable insert with circumference fully ground to G tolerance – Rounded cutting edge for minimum cutting forces – Machining high-temperature alloys					••					0,1–2,0	0,05–0,20
	**CNG..TS2** – CBN indexable insert with circumference fully ground to G tolerance – Universal CBN indexable insert with chamfered cutting edge – Finishing operations in hardened steel						••				0,1–0,5	0,05–0,25
	**CNG..TM2** – CBN indexable insert with circumference fully ground to G tolerance – Universal CBN indexable insert with chamfered cutting edge – Machining of hardened steel						••				0,1–0,5	0,05–0,25
 Chipbreaker	**CNG..TM-M2** – CBN indexable insert with circumference fully ground to G tolerance – CBN indexable insert with chamfered cutting edge – Effective chip formation for hard machining						••				0,1–0,5	0,05–0,25
	**. . . E** – Ceramic indexable insert with circumference fully ground – Rounded cutting edge for minimum cutting forces – Machining high-temperature alloys					••					0,1–7,5	0,1–0,5
	**. . . T01020** – Ceramic indexable insert with circumference fully ground – Chamfered cutting edge for maximum stability for medium machining to roughing operations – Machining high-temperature alloys					••	•				0,1–5,0	0,1–0,45
	**. . . T02020** – Ceramic indexable insert with circumference fully ground – Chamfered cutting edge for maximum stability for medium machining to roughing operations – Machining cast iron			••							0,1–6,0	0,1–0,4

•• Primary application
• Additional application

Comment: Sectional views show RNGN120700 . .
CNGA120408 . .

Geometry overview of turning inserts – Positive basic shape CBN/PCD/ceramic

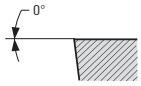
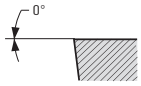
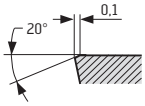
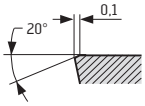
Ceramic

Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
	**. CGT . . . FS-1** – PCD finishing insert with circumference fully ground to G tolerance – Extremely low cutting forces due to 7°–10° rake angle – Extremely high surface quality				●●	●		●●	—		0,05–1,5	0,03–0,38
	**. CGT . . . FS-M1** – PCD indexable insert with circumference fully ground to G tolerance – Excellent chip control thanks to laser-generated chip-breaker geometry – Finishing to medium machining				●●	●		●●			0,1–3,0	0,08–0,2
	**. CGW . . . FS-1** – PCD indexable insert with circumference fully ground to G tolerance – Universal PCD indexable insert with 0° rake angle – Maximum repeat accuracy				●●	●		●●			0,05–3,5	0,03–0,38
	**. CGW . . . FSL/R-9** – PCD indexable insert with circumference fully ground to G tolerance – Cutting edge with guide pad – Maximum depth of cut and shoulder machining				●●	●		●●			0,05–9,0	0,03–0,38
	**. CGW. . TM-MW2** – CBN indexable insert with circumference fully ground to G tolerance – Universal CBN indexable insert with chamfered cutting edge – Effective wiper geometry for the best surfaces						●●				0,1–0,5	0,05–0,30
	**. CGW. . EM2** – CBN indexable insert with circumference fully ground – Rounded cutting edge for minimum cutting forces – Machining high-temperature alloys					●●					0,1–2,0	0,05–0,20
	**. CGW. . TS2** – CBN indexable insert with circumference fully ground to G tolerance – Universal CBN indexable insert with chamfered cutting edge – Finishing operations in hardened steel						●●				0,1–0,5	0,05–0,25
	**. CGW. . TM2** – CBN indexable insert with circumference fully ground to G tolerance – Universal CBN indexable insert with chamfered cutting edge – Machining of hardened steel						●●				0,1–0,5	0,05–0,25

●● Primary application
● Additional application

Comment: Sectional views show CCGT09T304 . ., CCGW09T304 . . or RCGX090700 . . .

Ceramic

Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
	**. . . E** – Ceramic indexable insert with circumference fully ground – Rounded cutting edge for minimum cutting forces – Machining high-temperature alloys					●●					0,1–3,6	0,1–0,32
	**. . . T01020** – Ceramic indexable insert with circumference fully ground – Chamfered cutting edge for maximum stability for medium to roughing operations – Machining high-temperature alloys					●●					0,1–3,6	0,1–0,32

●● Primary application
● Additional application

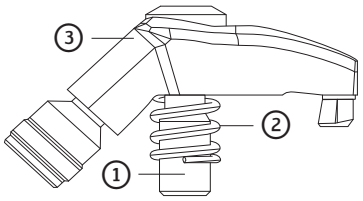
Comment: Sectional views show CCGT09T304 . .,
CCGW09T304 . . or RCGX090700 . . .

Assembly parts and accessories for Walter Turn rigid clamping with precision cooling

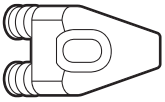
Standard clamps for tools with precision cooling

Application

for indexable inserts with drilled hole



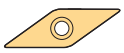
Version



Walter Capto™

Right

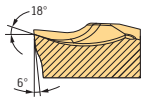
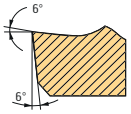
Left

Set	PK255 set	PK256 set	PK264 set	PK267 set	PK268 set	PK261R/L set	PK265R/L set	PK266R/L set
① Clamp screw	FS1473 (Torx 15IP)	FS1473 (Torx 15IP)	FS1474 (Torx 20IP)	FS1474 (Torx 20IP)	FS1474 (Torx20IP)	FS1473 (Torx 15IP)	FS1473 (Torx 15IP)	FS1473 (Torx 15IP)
② Pressure spring	FS2188	FS2188	FS2298	FS2298	FS2298	FS2188	FS2188	FS2188
③ Clamp	PK255	PK256	PK264	PK267	PK268	PK261R/L	PK265R/L	PK266R/L
Type	**Size**							
	CN . . 12 . .		CN . . 19 . .	CN . . 16 . .		CN . . 12 . .	CN . . 12 . . [1]	
	DN . . 11 . .	DN . . 15 . .				DN . . 11 . . DC . . 11 . .	DN . . 15 . .	
					RN . N12 . .			
	SN . . 12 . .					SN . . 12 . .	SN . . 12 . . [1]	
	TN . . 16 . . TC . . 16T3 . .					TN . . 16 . . TC . . 16T3 . .		
	VB . . 1604 . .					VB . . 1604 . .		
	WN . . 08 . .							WN . . 08 . .

[1] First choice

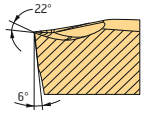
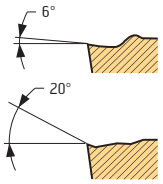
Geometry overview of cutting inserts:

GX system: Grooving and parting off

Geometry	Remarks / field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	View of main cutting edge	s [mm]	f [mm]
	**CK8** – Grooving and parting off operations – Light to moderate feeds – Good chip control – Low burr/centre pip formation – Polished rake face		•		••	•					2	0,04–0,15
											2,5	0,05–0,15
											3	0,08–0,20
											4	0,10–0,22
											5	0,10–0,25
	**GD8** – For DIN 471 circlip grooves with the tolerance class H13 – For precision grooving – Extremely soft cutting action – Light to moderate feeds	••	•	•	•	•					1	0,03–0,06
											1,5	0,03–0,09
											2	0,04–0,10
											2,5	0,04–0,14
											3	0,04–0,14

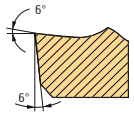
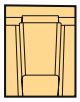
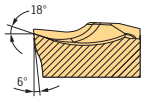
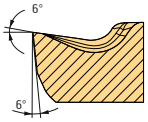
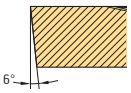
•• Primary application
• Additional application

GX system: Grooving, parting off and recessing

Geometry	Remarks / field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	View of main cutting edge	s [mm]	a_p [mm]	f [mm]
	**UF8** – All grooving operations – Excellent chip control – Low to average feed range – For DIN 471 circlip grooves with the tolerance class H13	••	••	•	••	••					1,6	0,3–1,0	0,05–0,17
											2	0,3–1,2	0,05–0,22
											3	0,4–1,5	0,07–0,24
											4	0,3–2,2	0,07–0,30
											5	0,3–2,6	0,11–0,35
											6	0,3–3,2	0,11–0,35
											8	1,0–4,2	0,13–0,40
	**VG7** – For finishing operations on the rear side of a component, particularly on multi-spindle machines – Enormous savings on material compared to standard ISO indexable inserts – Optimum chip breaking for finishing operations	••	••	•	••	••							
											2,8	0,2–2,5	0,05–0,25

•• Primary application
• Additional application

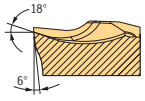
MX system: Cutting inserts for grooving and parting off

Geometry	Remarks / field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	View of main cutting edge	s [mm]	f [mm]
	**GD8** – For DIN 471 circlip grooves with the tolerance class H13 – For precision grooving – Extremely soft cutting action – Light to moderate feeds	●●	●	●	●	●					1	0,03–0,06
											1,5	0,03–0,09
											2	0,04–0,10
											2,5	0,04–0,14
											3	0,04–0,14
	**CF5** – Grooving and parting off operations – Light to moderate feeds – Excellent chip control – Low burr/centre pip formation	●●	●●	●	●	●●					1	0,03–0,07
											1,5	0,03–0,10
											2	0,04–0,14
											2,5	0,04–0,16
											3	0,04–0,16
	**RF5** – For full radius grooves – Circumference fully ground – For low to moderate feeds	●●	●●	●	●	●●					2	0,04–0,14
											2,5	0,04–0,18
											3	0,04–0,20
	**AG60** – For thread turning operations where space is limited – Thread turning with the same basic holder – 60° partial profile external thread – Pitch range 0.5–3.0 mm	●●	●●	●	●	●●					3,35	–
											5,65	–

Additional shapes via Walter Xpress

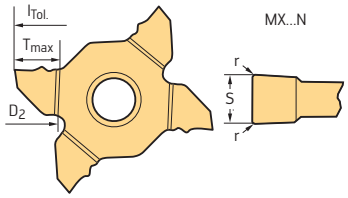
●● Primary application
● Additional application

SX system: Grooving and parting off

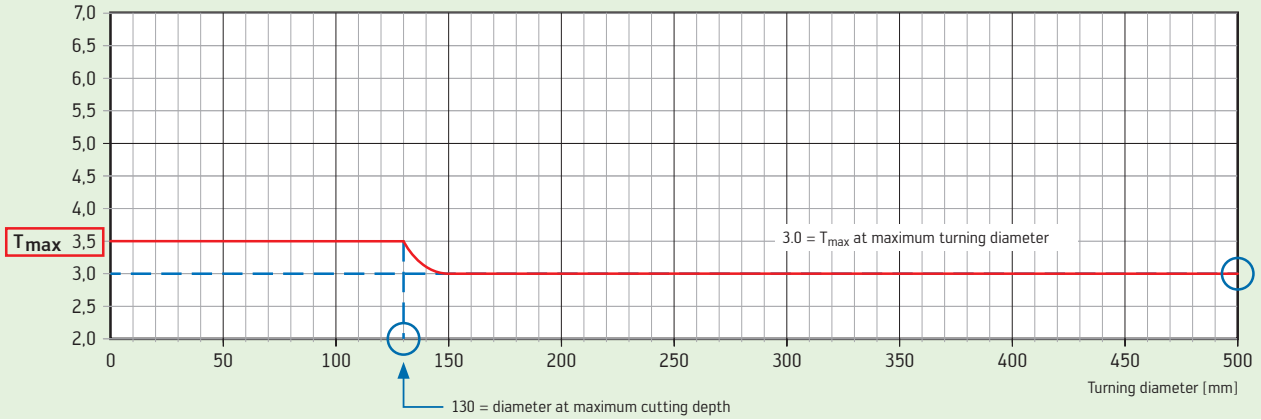
Geometry	Remarks/ field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	View of main cutting edge	s [mm]	f [mm]
	**CK8** – Grooving and parting off operations – Light to moderate feeds – Good chip control – Low burr/centre pip formation – Polished rake face				●●	●					2	0,04–0,15
											2,5	0,05–0,15
											3	0,08–0,20
											4	0,10–0,22
											5	0,10–0,25

●● Primary application
● Additional application

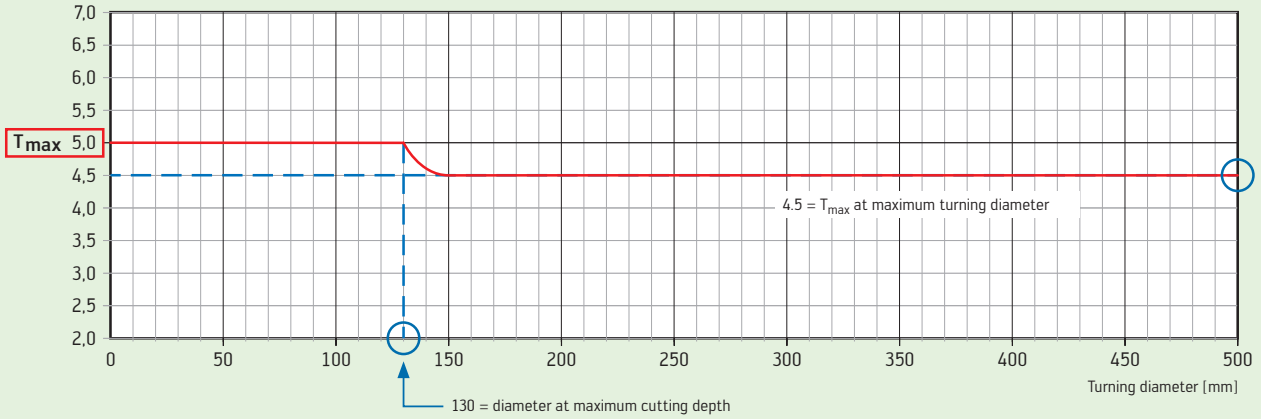
Application information:
Cutting depths depending on turning diameter



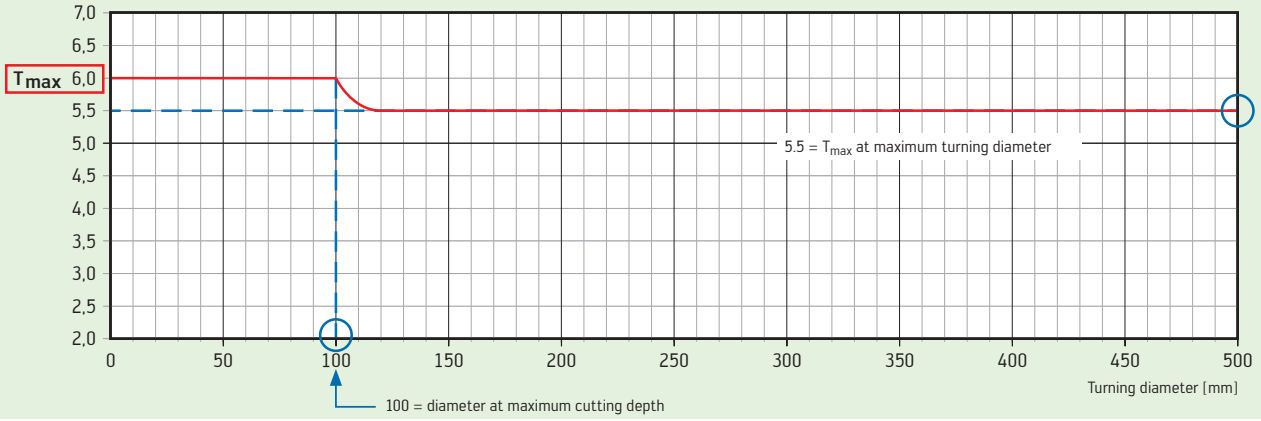
MX22-2E100N01-...



MX22-2E150N01-...



MX22-2E200N02-... – MX22-2E325N02-...



Application information:
Standard values for thread turning with Walter Cut MX

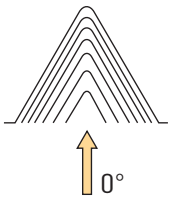
Feed types and their influence on machining

Radial feed

Recommended for:

– Short-chipping materials

– Hard materials



– Formation of V-shaped chips

– Both cutting edges engaged

– High cutting temperature

– Even indexable insert wear on both flanks

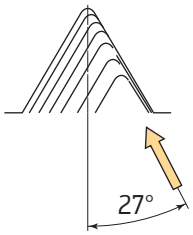
– Suitable for small pitches

Feed via flank 27°–29°

Recommended for:

– Pitches greater than 1.5 mm or 16 TPI

– The manufacture of trapezoidal threads



– Good chip formation

– Formation of helical chips

– One cutting edge engaged

– Chips are guided away from the thread

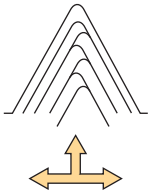
– Thread flanks with excellent surface quality

Alternating feed

Recommended for:

– Steep pitches

– Long-chipping materials



– Good chip formation

– Formation of flat helical chips

– Both cutting edges are evenly engaged, ensuring even wear

Standard values for the number of radial infeeds for each thread turning pass on manual lathes

The recommended cutting passes are only to be regarded as standard values. They were determined under good operating conditions with medium-strength steel materials. In the case of high-strength steel materials, the number of feeds must be increased. It is important to reduce the initial threading cuts in this case.

External machining, metric 60°

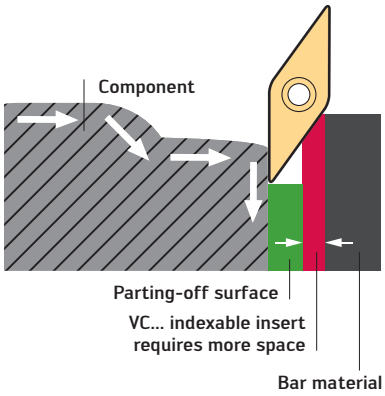
No. of feeds	Pitch [mm]											
	0,5	0,6	0,7	0,75	0,8	1,0	1,25	1,5	1,75	2,0	2,5	3,0
Total depth [mm]	**0,64**	**0,68**	**0,87**	**0,91**	**1,07**	**1,12**	**1,23**	**1,42**	**1,54**	**1,69**	**1,87**	**2,09**
16												
15												
14												
13												
12												0,08
11												0,10
10											0,08	0,11
9											0,11	0,12
8									0,08	0,08	0,11	0,12
7									0,10	0,11	0,12	0,13
6							0,08	0,08	0,10	0,12	0,13	0,14
5						0,08	0,10	0,12	0,12	0,14	0,15	0,16
4	0,07	0,07	0,07	0,07	0,08	0,11	0,11	0,14	0,14	0,16	0,17	0,18
3	0,07	0,08	0,10	0,11	0,12	0,13	0,14	0,17	0,17	0,18	0,20	0,21
2	0,09	0,11	0,14	0,15	0,16	0,16	0,17	0,21	0,21	0,24	0,24	0,26
1	0,11	0,14	0,16	0,17	0,18	0,19	0,20	0,22	0,22	0,25	0,27	0,28

Radial infeed [mm] ← Reduce the cutting speed

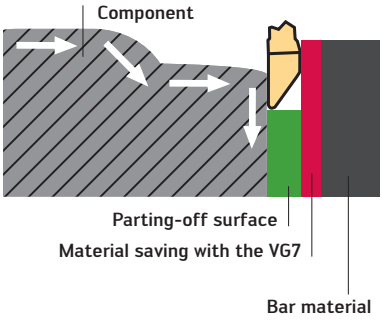
Application information:
Reverse turning with Walter Cut GX-VG7

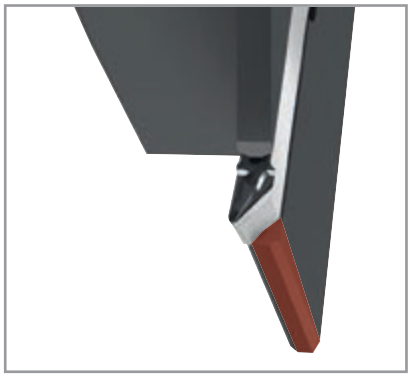
Walter Cut GX-VG7
Area of application for reverse turning
Instead of using a VC.. finishing insert

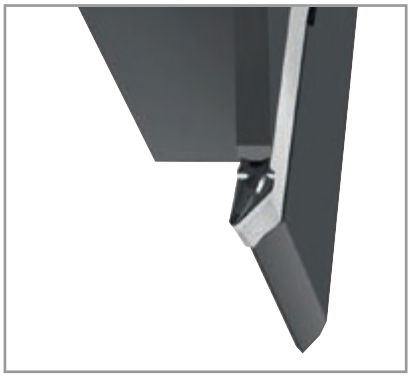
Example of a VC... indexable insert (35°)



GX24-2E280R02-VG7 WSM33S







Cutting inserts can be used in G15.../NCCE/NCNE/NCCI tools
With other tools, e.g. G1011, adapt support to the cutting insert profile.

B – Drilling

Solid drilling – B1

Technical information – B1

Counterboring and precision boring – B2

Technical information – B2


WALTER
TITEX
WALTER
TITEX

Product range overview of solid carbide drilling and reaming tools
Solid carbide drills with internal coolant

Machining							
Drilling depth	**3 × D_c**	**3 × D_c**		**5 × D_c**		**8 × D_c**	**12 × D_c**
Designation	**DC260 Advance**	**DC160 Advance**	**DC150 Perform**	**DC160 Advance**	**DC150 Perform**	**DC160 Advance**	**DC160 Advance**
Standard	Walter	DIN 6537 K	DIN 6537 K	DIN 6537 L	DIN 6537 L	Walter	Walter
Dia. range [mm]	3,3–14	3–20	3–20	3–25	3–20	3–20	3–20
Page	152	153	160	161	169	172	175
							

Product range overview of solid carbide drilling and reaming tools
Solid carbide drills without internal coolant

Machining						
Drilling depth	**3 × D_c**	**3 × D_c**		**5 × D_c**		
Designation	**DC260 Advance**	**DC160 Advance**	**DC150 Perform**	**DB130 Advance**	**DC160 Advance**	**DC150 Perform**
Standard	Walter	DIN 6537 K	DIN 6537 K	DIN 1899	DIN 6537 L	DIN 6537 L
Dia. range [mm]	3,3–14,5	3–20	3–20	0,1–1,45	3–25	3–20
Page	178	179	186	188	190	197
						

Designation key for Walter Titex solid drills

D	C	1	70	–	16	–	03.000	A	1	–	W	J	30	EJ
1	2	3	4	5	6		7	8	9		Grade			

1 Tool group

D	Drilling

2 Generation

3 Tool type

1	Cylindrical drill
2	Chamfer drills

4 Tool type

10	Type N Perform
33	Supreme micro drill
30	Advance micro drill
50	Universal Perform
60	Universal Advance
70	ISO P; ISO K Supreme

5 1. Delimiters

–	Metric
.	Inch

6 Drilling depth

03	≈ 3 × D_c in accordance with DIN 6537 short
05	≈ 5 × D_c in accordance with DIN 6537 long or in accordance with Walter standard
08	≈ 8 × D_c in accordance with Walter standard in accordance with DIN 338
12	≈ 12 × D_c in accordance with Walter standard
16	≈ 16 × D_c in accordance with Walter standard
20	≈ 20 × D_c in accordance with Walter standard
25	≈ 25 × D_c in accordance with Walter standard
30	≈ 30 × D_c in accordance with Walter standard

7 Cutting diameter

8 Shank type

A	DIN 6535 HA parallel shank
F	DIN 6535 HE parallel shank
U	Parallel shank
D	Parallel shank DIN 6535 HB/ DIN 6535 HE

9 Cooling

0	External coolant
1	Axial internal coolant

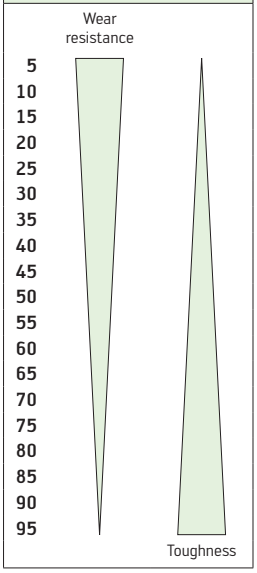
Grade designation key for solid carbide and HSS cutting tool materials

W	J	30	EJ
Walter	1	2	3

1 Substrate

Solid carbide	J
HSS	Z

2 Application range

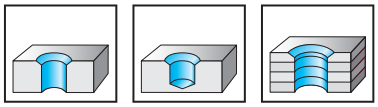


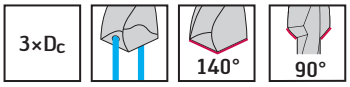
3 Coating

EJ	TiAlN (AlCrN)
RE	TiAlN
TA	TiAlN
EL	AlCrN
ER	AlCrN point coating
UU	Uncoated
ET	TiSiAlCrN/AlTiN
EU	TiSiAlCrN/AlTiN point coating
AJ	TiN point coating

Solid carbide chamfer drills with coolant-through DC260 Advance

– Step length in accordance with DIN 8378
– For threaded core hole drilling





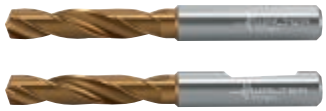
	P	M	K	N	S	H	O
WJ30ET	●●	●	●●	●●	●●	●	●

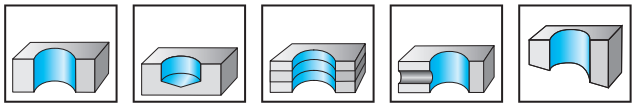
	Designation	For thread	D_c m7 mm	d_{10} h7 mm	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
Shank DIN 6535 HA	DC260-03-03.300A1-	M 4	3,3	5	11	66	28	36	6	
	DC260-03-04.200A1-	M 5	4,2	6	14	66	28	36	6	
	DC260-03-05.000A1-	M 6	5	8	17	79	41	36	8	
	DC260-03-06.800A1-	M 8	6,8	10	21	89	47	40	10	
	DC260-03-08.500A1-	M 10	8,5	12	26	102	55	45	12	
	DC260-03-10.200A1-	M 12	10,2	14	30	107	60	45	14	
	DC260-03-12.000A1-	M 14	12	16	35	115	65	48	16	
	DC260-03-14.000A1-	M 16	14	18	39	123	73	48	18	
Shank DIN 6535 HE	DC260-03-03.300F1-	M 4	3,3	5	11	66	28	36	6	
	DC260-03-04.200F1-	M 5	4,2	6	14	66	28	36	6	
	DC260-03-05.000F1-	M 6	5	8	17	79	41	36	8	
	DC260-03-06.800F1-	M 8	6,8	10	21	89	47	40	10	
	DC260-03-08.500F1-	M 10	8,5	12	26	102	55	45	12	
	DC260-03-10.200F1-	M 12	10,2	14	30	107	60	45	14	
	DC260-03-12.000F1-	M 14	12	16	35	115	65	48	16	
	DC260-03-14.000F1-	M 16	14	18	39	123	73	48	18	

Ordering example for the WJ30ET grade: DC260-03-03.300A1-WJ30ET

/ ★ New addition to the product range

Solid carbide drills with coolant-through
DC160 Advance



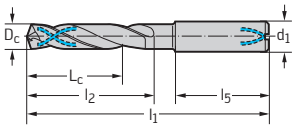


3×D_c | DIN 6537 K | 140°

	P	M	K	N	S	H	O
WJ30ET	●●	●	●●	●●	●●	●	●

B1

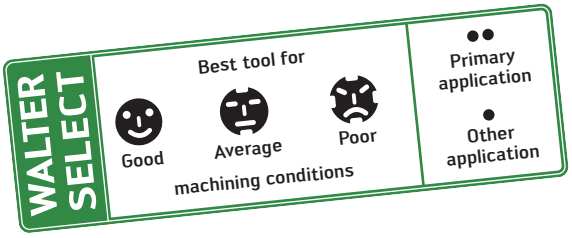
Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-03-03.000A1-	3		14	62	20	36	6	☹
DC160-03-03.100A1-	3,1		14	62	20	36	6	☹
DC160-03-03.175A1-	3,175	1/8"	14	62	20	36	6	☹
DC160-03-03.200A1-	3,2		14	62	20	36	6	☹
DC160-03-03.250A1-	3,25		14	62	20	36	6	☹
DC160-03-03.300A1-	3,3		14	62	20	36	6	☹
DC160-03-03.400A1-	3,4		14	62	20	36	6	☹
DC160-03-03.500A1-	3,5		14	62	20	36	6	☹
DC160-03-03.572A1-	3,572	9/64"	14	62	20	36	6	☹
DC160-03-03.600A1-	3,6		14	62	20	36	6	☹
DC160-03-03.650A1-	3,65		14	62	20	36	6	☹
DC160-03-03.700A1-	3,7		14	62	20	36	6	☹
DC160-03-03.800A1-	3,8		17	66	24	36	6	☹
DC160-03-03.900A1-	3,9		17	66	24	36	6	☹
DC160-03-03.969A1-	3,969	5/32"	17	66	24	36	6	☹
DC160-03-04.000A1-	4		17	66	24	36	6	☹
DC160-03-04.100A1-	4,1		17	66	24	36	6	☹
DC160-03-04.200A1-	4,2		17	66	24	36	6	☹
DC160-03-04.300A1-	4,3		17	66	24	36	6	☹
DC160-03-04.366A1-	4,366	11/64"	17	66	24	36	6	☹
DC160-03-04.400A1-	4,4		17	66	24	36	6	☹
DC160-03-04.500A1-	4,5		17	66	24	36	6	☹
DC160-03-04.600A1-	4,6		17	66	24	36	6	☹
DC160-03-04.650A1-	4,65		17	66	24	36	6	☹
DC160-03-04.700A1-	4,7		17	66	24	36	6	☹
DC160-03-04.763A1-	4,763	3/16"	20	66	28	36	6	☹
DC160-03-04.800A1-	4,8		20	66	28	36	6	☹
DC160-03-04.900A1-	4,9		20	66	28	36	6	☹
DC160-03-05.000A1-	5		20	66	28	36	6	☹
DC160-03-05.100A1-	5,1		20	66	28	36	6	☹
DC160-03-05.159A1-	5,159	13/64"	20	66	28	36	6	☹
DC160-03-05.200A1-	5,2		20	66	28	36	6	☹
DC160-03-05.300A1-	5,3		20	66	28	36	6	☹
DC160-03-05.400A1-	5,4		20	66	28	36	6	☹
DC160-03-05.500A1-	5,5		20	66	28	36	6	☹
DC160-03-05.550A1-	5,55		20	66	28	36	6	☹
DC160-03-05.556A1-	5,556	7/32"	20	66	28	36	6	☹
DC160-03-05.600A1-	5,6		20	66	28	36	6	☹
DC160-03-05.700A1-	5,7		20	66	28	36	6	☹
DC160-03-05.800A1-	5,8		20	66	28	36	6	☹
DC160-03-05.900A1-	5,9		20	66	28	36	6	☹
DC160-03-05.953A1-	5,953	15/64"	20	66	28	36	6	☹
DC160-03-06.000A1-	6		20	66	28	36	6	☹

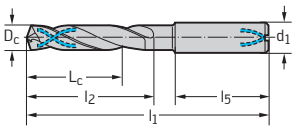
Ordering example for the WJ30ET grade: DC160-03-03.000A1-WJ30ET

Continued



Continued

Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-03-06.100A1-	6,1		24	79	34	36	8	●
DC160-03-06.200A1-	6,2		24	79	34	36	8	●
DC160-03-06.300A1-	6,3		24	79	34	36	8	●
DC160-03-06.350A1-	6,35	1/4"	24	79	34	36	8	●
DC160-03-06.400A1-	6,4		24	79	34	36	8	●
DC160-03-06.500A1-	6,5		24	79	34	36	8	●
DC160-03-06.600A1-	6,6		24	79	34	36	8	●
DC160-03-06.700A1-	6,7		24	79	34	36	8	●
DC160-03-06.747A1-	6,747	17/64"	24	79	34	36	8	●
DC160-03-06.800A1-	6,8		24	79	34	36	8	●
DC160-03-06.900A1-	6,9		24	79	34	36	8	●
DC160-03-07.000A1-	7		24	79	34	36	8	●
DC160-03-07.100A1-	7,1		29	79	41	36	8	●
DC160-03-07.144A1-	7,144	9/32"	29	79	41	36	8	●
DC160-03-07.200A1-	7,2		29	79	41	36	8	●
DC160-03-07.300A1-	7,3		29	79	41	36	8	●
DC160-03-07.400A1-	7,4		29	79	41	36	8	●
DC160-03-07.500A1-	7,5		29	79	41	36	8	●
DC160-03-07.541A1-	7,541	19/64"	29	79	41	36	8	●
DC160-03-07.550A1-	7,55		29	79	41	36	8	●
DC160-03-07.600A1-	7,6		29	79	41	36	8	●
DC160-03-07.700A1-	7,7		29	79	41	36	8	●
DC160-03-07.800A1-	7,8		29	79	41	36	8	●
DC160-03-07.900A1-	7,9		29	79	41	36	8	●
DC160-03-07.938A1-	7,938	5/16"	29	79	41	36	8	●
DC160-03-08.000A1-	8		29	79	41	36	8	●
DC160-03-08.100A1-	8,1		35	89	47	40	10	●
DC160-03-08.200A1-	8,2		35	89	47	40	10	●
DC160-03-08.300A1-	8,3		35	89	47	40	10	●
DC160-03-08.334A1-	8,334	21/64"	35	89	47	40	10	●
DC160-03-08.400A1-	8,4		35	89	47	40	10	●
DC160-03-08.500A1-	8,5		35	89	47	40	10	●
DC160-03-08.600A1-	8,6		35	89	47	40	10	●
DC160-03-08.700A1-	8,7		35	89	47	40	10	●
DC160-03-08.731A1-	8,731	11/32"	35	89	47	40	10	●
DC160-03-08.800A1-	8,8		35	89	47	40	10	●
DC160-03-08.900A1-	8,9		35	89	47	40	10	●
DC160-03-09.000A1-	9		35	89	47	40	10	●
DC160-03-09.100A1-	9,1		35	89	47	40	10	●
DC160-03-09.128A1-	9,128	23/64"	35	89	47	40	10	●
DC160-03-09.200A1-	9,2		35	89	47	40	10	●
DC160-03-09.300A1-	9,3		35	89	47	40	10	●
DC160-03-09.400A1-	9,4		35	89	47	40	10	●
DC160-03-09.500A1-	9,5		35	89	47	40	10	●
DC160-03-09.525A1-	9,525	3/8"	35	89	47	40	10	●
DC160-03-09.550A1-	9,55		35	89	47	40	10	●
DC160-03-09.600A1-	9,6		35	89	47	40	10	●
DC160-03-09.700A1-	9,7		35	89	47	40	10	●
DC160-03-09.800A1-	9,8		35	89	47	40	10	●
DC160-03-09.900A1-	9,9		35	89	47	40	10	●
DC160-03-09.922A1-	9,922	25/64"	35	89	47	40	10	●
DC160-03-10.000A1-	10		35	89	47	40	10	●
DC160-03-10.100A1-	10,1		40	102	55	45	12	●
DC160-03-10.200A1-	10,2		40	102	55	45	12	●
DC160-03-10.300A1-	10,3		40	102	55	45	12	●
DC160-03-10.319A1-	10,319	13/32"	40	102	55	45	12	●
DC160-03-10.400A1-	10,4		40	102	55	45	12	●
DC160-03-10.500A1-	10,5		40	102	55	45	12	●
DC160-03-10.600A1-	10,6		40	102	55	45	12	●
DC160-03-10.700A1-	10,7		40	102	55	45	12	●
DC160-03-10.716A1-	10,716	27/64"	40	102	55	45	12	●

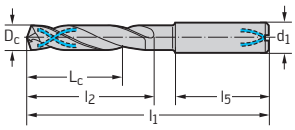
Ordering example for the WJ30ET grade: DC160-03-03.000A1-WJ30ET

Continued

● / ★ New addition to the product range

Continued

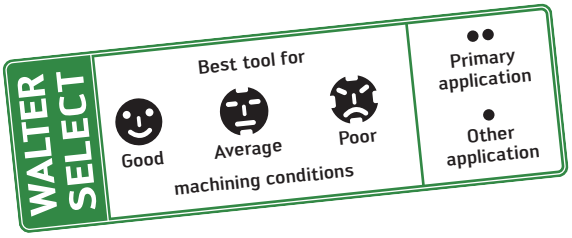
Shank DIN 6535 HA



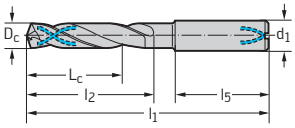
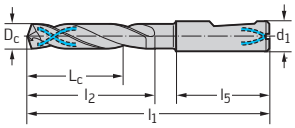
Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-03-10.800A1-	10,8		40	102	55	45	12	●●
DC160-03-10.900A1-	10,9		40	102	55	45	12	●●
DC160-03-11.000A1-	11		40	102	55	45	12	●●
DC160-03-11.100A1-	11,1		40	102	55	45	12	●●
DC160-03-11.113A1-	11,113	7/16"	40	102	55	45	12	●●
DC160-03-11.200A1-	11,2		40	102	55	45	12	●●
DC160-03-11.300A1-	11,3		40	102	55	45	12	●●
DC160-03-11.400A1-	11,4		40	102	55	45	12	●●
DC160-03-11.500A1-	11,5		40	102	55	45	12	●●
DC160-03-11.509A1-	11,509	29/64"	40	102	55	45	12	●●
DC160-03-11.550A1-	11,55		40	102	55	45	12	●●
DC160-03-11.600A1-	11,6		40	102	55	45	12	●●
DC160-03-11.700A1-	11,7		40	102	55	45	12	●●
DC160-03-11.800A1-	11,8		40	102	55	45	12	●●
DC160-03-11.900A1-	11,9		40	102	55	45	12	●●
DC160-03-11.906A1-	11,906	15/32"	40	102	55	45	12	●●
DC160-03-12.000A1-	12		40	102	55	45	12	●●
DC160-03-12.100A1-	12,1		43	107	60	45	14	●●
DC160-03-12.200A1-	12,2		43	107	60	45	14	●●
DC160-03-12.250A1-	12,25		43	107	60	45	14	●●
DC160-03-12.300A1-	12,3		43	107	60	45	14	●●
DC160-03-12.303A1-	12,303	31/64"	43	107	60	45	14	●●
DC160-03-12.400A1-	12,4		43	107	60	45	14	●●
DC160-03-12.500A1-	12,5		43	107	60	45	14	●●
DC160-03-12.600A1-	12,6		43	107	60	45	14	●●
DC160-03-12.700A1-	12,7	1/2"	43	107	60	45	14	●●
DC160-03-12.750A1-	12,75		43	107	60	45	14	●●
DC160-03-12.800A1-	12,8		43	107	60	45	14	●●
DC160-03-12.900A1-	12,9		43	107	60	45	14	●●
DC160-03-13.000A1-	13		43	107	60	45	14	●●
DC160-03-13.100A1-	13,1		43	107	60	45	14	●●
DC160-03-13.200A1-	13,2		43	107	60	45	14	●●
DC160-03-13.300A1-	13,3		43	107	60	45	14	●●
DC160-03-13.400A1-	13,4		43	107	60	45	14	●●
DC160-03-13.494A1-	13,494	17/32"	43	107	60	45	14	●●
DC160-03-13.500A1-	13,5		43	107	60	45	14	●●
DC160-03-13.600A1-	13,6		43	107	60	45	14	●●
DC160-03-13.700A1-	13,7		43	107	60	45	14	●●
DC160-03-13.800A1-	13,8		43	107	60	45	14	●●
DC160-03-13.900A1-	13,9		43	107	60	45	14	●●
DC160-03-14.000A1-	14		43	107	60	45	14	●●
DC160-03-14.100A1-	14,1		45	115	65	48	16	●●
DC160-03-14.200A1-	14,2		45	115	65	48	16	●●
DC160-03-14.288A1-	14,288	9/16"	45	115	65	48	16	●●
DC160-03-14.300A1-	14,3		45	115	65	48	16	●●
DC160-03-14.400A1-	14,4		45	115	65	48	16	●●
DC160-03-14.500A1-	14,5		45	115	65	48	16	●●
DC160-03-14.600A1-	14,6		45	115	65	48	16	●●
DC160-03-14.700A1-	14,7		45	115	65	48	16	●●
DC160-03-14.750A1-	14,75		45	115	65	48	16	●●
DC160-03-14.800A1-	14,8		45	115	65	48	16	●●
DC160-03-15.000A1-	15		45	115	65	48	16	●●
DC160-03-15.100A1-	15,1		45	115	65	48	16	●●
DC160-03-15.200A1-	15,2		45	115	65	48	16	●●
DC160-03-15.300A1-	15,3		45	115	65	48	16	●●
DC160-03-15.500A1-	15,5		45	115	65	48	16	●●
DC160-03-15.600A1-	15,6		45	115	65	48	16	●●

Ordering example for the WJ30ET grade: DC160-03-03.000A1-WJ30ET

Continued



Continued

	Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
Shank DIN 6535 HA 	DC160-03-15.700A1-	15,7		45	115	65	48	16	
	DC160-03-15.800A1-	15,8		45	115	65	48	16	
	DC160-03-15.875A1-	15,875	5/8“	45	115	65	48	16	
	DC160-03-15.900A1-	15,9		45	115	65	48	16	
	DC160-03-16.000A1-	16		45	115	65	48	16	
	DC160-03-16.100A1-	16,1		51	123	73	48	18	
	DC160-03-16.200A1-	16,2		51	123	73	48	18	
	DC160-03-16.300A1-	16,3		51	123	73	48	18	
	DC160-03-16.400A1-	16,4		51	123	73	48	18	
	DC160-03-16.500A1-	16,5		51	123	73	48	18	
	DC160-03-16.600A1-	16,6		51	123	73	48	18	
	DC160-03-16.700A1-	16,7		51	123	73	48	18	
	DC160-03-16.750A1-	16,75		51	123	73	48	18	
	DC160-03-16.800A1-	16,8		51	123	73	48	18	
	DC160-03-17.000A1-	17		51	123	73	48	18	
	DC160-03-17.200A1-	17,2		51	123	73	48	18	
	DC160-03-17.300A1-	17,3		51	123	73	48	18	
	DC160-03-17.500A1-	17,5		51	123	73	48	18	
	DC160-03-17.600A1-	17,6		51	123	73	48	18	
	DC160-03-17.700A1-	17,7		51	123	73	48	18	
	DC160-03-17.800A1-	17,8		51	123	73	48	18	
	DC160-03-18.000A1-	18		51	123	73	48	18	
	DC160-03-18.200A1-	18,2		55	131	79	50	20	
	DC160-03-18.500A1-	18,5		55	131	79	50	20	
	DC160-03-18.700A1-	18,7		55	131	79	50	20	
	DC160-03-18.800A1-	18,8		55	131	79	50	20	
	DC160-03-19.000A1-	19		55	131	79	50	20	
	DC160-03-19.050A1-	19,05	3/4“	55	131	79	50	20	
	DC160-03-19.500A1-	19,5		55	131	79	50	20	
	DC160-03-19.700A1-	19,7		55	131	79	50	20	
	DC160-03-19.800A1-	19,8		55	131	79	50	20	
	DC160-03-20.000A1-	20		55	131	79	50	20	
Shank DIN 6535 HE 	DC160-03-03.000F1-	3		14	62	20	36	6	
	DC160-03-03.100F1-	3,1		14	62	20	36	6	
	DC160-03-03.200F1-	3,2		14	62	20	36	6	
	DC160-03-03.250F1-	3,25		14	62	20	36	6	
	DC160-03-03.300F1-	3,3		14	62	20	36	6	
	DC160-03-03.400F1-	3,4		14	62	20	36	6	
	DC160-03-03.500F1-	3,5		14	62	20	36	6	
	DC160-03-03.600F1-	3,6		14	62	20	36	6	
	DC160-03-03.650F1-	3,65		14	62	20	36	6	
	DC160-03-03.700F1-	3,7		14	62	20	36	6	
	DC160-03-03.800F1-	3,8		17	66	24	36	6	
	DC160-03-03.900F1-	3,9		17	66	24	36	6	
	DC160-03-04.000F1-	4		17	66	24	36	6	
	DC160-03-04.100F1-	4,1		17	66	24	36	6	
	DC160-03-04.200F1-	4,2		17	66	24	36	6	
	DC160-03-04.300F1-	4,3		17	66	24	36	6	
	DC160-03-04.400F1-	4,4		17	66	24	36	6	
	DC160-03-04.500F1-	4,5		17	66	24	36	6	
	DC160-03-04.600F1-	4,6		17	66	24	36	6	
	DC160-03-04.650F1-	4,65		17	66	24	36	6	
	DC160-03-04.700F1-	4,7		17	66	24	36	6	
	DC160-03-04.800F1-	4,8		20	66	28	36	6	
	DC160-03-04.900F1-	4,9		20	66	28	36	6	
	DC160-03-05.000F1-	5		20	66	28	36	6	
	DC160-03-05.100F1-	5,1		20	66	28	36	6	
	DC160-03-05.200F1-	5,2		20	66	28	36	6	
	DC160-03-05.300F1-	5,3		20	66	28	36	6	
	DC160-03-05.400F1-	5,4		20	66	28	36	6	
	DC160-03-05.500F1-	5,5		20	66	28	36	6	

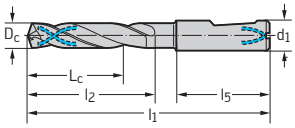
Ordering example for the WJ30ET grade: DC160-03-03.000A1-WJ30ET

Continued

/ ★ New addition to the product range

Continued

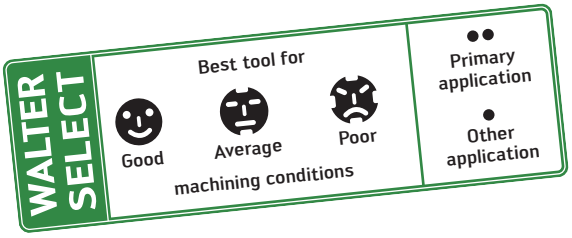
Shank DIN 6535 HE



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-03-05.550F1-	5,55		20	66	28	36	6	●●
DC160-03-05.600F1-	5,6		20	66	28	36	6	●●
DC160-03-05.700F1-	5,7		20	66	28	36	6	●●
DC160-03-05.800F1-	5,8		20	66	28	36	6	●●
DC160-03-05.900F1-	5,9		20	66	28	36	6	●●
DC160-03-06.000F1-	6		20	66	28	36	6	●●
DC160-03-06.100F1-	6,1		24	79	34	36	8	●●
DC160-03-06.200F1-	6,2		24	79	34	36	8	●●
DC160-03-06.300F1-	6,3		24	79	34	36	8	●●
DC160-03-06.400F1-	6,4		24	79	34	36	8	●●
DC160-03-06.500F1-	6,5		24	79	34	36	8	●●
DC160-03-06.600F1-	6,6		24	79	34	36	8	●●
DC160-03-06.700F1-	6,7		24	79	34	36	8	●●
DC160-03-06.800F1-	6,8		24	79	34	36	8	●●
DC160-03-06.900F1-	6,9		24	79	34	36	8	●●
DC160-03-07.000F1-	7		24	79	34	36	8	●●
DC160-03-07.100F1-	7,1		29	79	41	36	8	●●
DC160-03-07.200F1-	7,2		29	79	41	36	8	●●
DC160-03-07.300F1-	7,3		29	79	41	36	8	●●
DC160-03-07.400F1-	7,4		29	79	41	36	8	●●
DC160-03-07.500F1-	7,5		29	79	41	36	8	●●
DC160-03-07.550F1-	7,55		29	79	41	36	8	●●
DC160-03-07.600F1-	7,6		29	79	41	36	8	●●
DC160-03-07.700F1-	7,7		29	79	41	36	8	●●
DC160-03-07.800F1-	7,8		29	79	41	36	8	●●
DC160-03-07.900F1-	7,9		29	79	41	36	8	●●
DC160-03-08.000F1-	8		29	79	41	36	8	●●
DC160-03-08.100F1-	8,1		35	89	47	40	10	●●
DC160-03-08.200F1-	8,2		35	89	47	40	10	●●
DC160-03-08.300F1-	8,3		35	89	47	40	10	●●
DC160-03-08.400F1-	8,4		35	89	47	40	10	●●
DC160-03-08.500F1-	8,5		35	89	47	40	10	●●
DC160-03-08.600F1-	8,6		35	89	47	40	10	●●
DC160-03-08.700F1-	8,7		35	89	47	40	10	●●
DC160-03-08.800F1-	8,8		35	89	47	40	10	●●
DC160-03-08.900F1-	8,9		35	89	47	40	10	●●
DC160-03-09.000F1-	9		35	89	47	40	10	●●
DC160-03-09.100F1-	9,1		35	89	47	40	10	●●
DC160-03-09.200F1-	9,2		35	89	47	40	10	●●
DC160-03-09.300F1-	9,3		35	89	47	40	10	●●
DC160-03-09.400F1-	9,4		35	89	47	40	10	●●
DC160-03-09.500F1-	9,5		35	89	47	40	10	●●
DC160-03-09.550F1-	9,55		35	89	47	40	10	●●
DC160-03-09.600F1-	9,6		35	89	47	40	10	●●
DC160-03-09.700F1-	9,7		35	89	47	40	10	●●
DC160-03-09.800F1-	9,8		35	89	47	40	10	●●
DC160-03-09.900F1-	9,9		35	89	47	40	10	●●
DC160-03-10.000F1-	10		35	89	47	40	10	●●
DC160-03-10.100F1-	10,1		40	102	55	45	12	●●
DC160-03-10.200F1-	10,2		40	102	55	45	12	●●
DC160-03-10.300F1-	10,3		40	102	55	45	12	●●
DC160-03-10.400F1-	10,4		40	102	55	45	12	●●
DC160-03-10.500F1-	10,5		40	102	55	45	12	●●
DC160-03-10.600F1-	10,6		40	102	55	45	12	●●
DC160-03-10.700F1-	10,7		40	102	55	45	12	●●
DC160-03-10.800F1-	10,8		40	102	55	45	12	●●
DC160-03-10.900F1-	10,9		40	102	55	45	12	●●

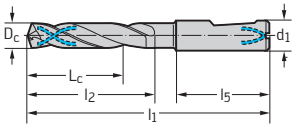
Ordering example for the WJ30ET grade: DC160-03-03.000A1-WJ30ET

Continued



Continued

Shank DIN 6535 HE



B1

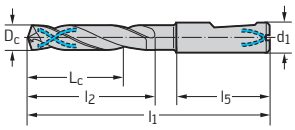
Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-03-11.000F1-	11		40	102	55	45	12	●
DC160-03-11.100F1-	11,1		40	102	55	45	12	●
DC160-03-11.200F1-	11,2		40	102	55	45	12	●
DC160-03-11.300F1-	11,3		40	102	55	45	12	●
DC160-03-11.400F1-	11,4		40	102	55	45	12	●
DC160-03-11.500F1-	11,5		40	102	55	45	12	●
DC160-03-11.550F1-	11,55		40	102	55	45	12	●
DC160-03-11.600F1-	11,6		40	102	55	45	12	●
DC160-03-11.700F1-	11,7		40	102	55	45	12	●
DC160-03-11.800F1-	11,8		40	102	55	45	12	●
DC160-03-11.900F1-	11,9		40	102	55	45	12	●
DC160-03-12.000F1-	12		40	102	55	45	12	●
DC160-03-12.100F1-	12,1		43	107	60	45	14	●
DC160-03-12.200F1-	12,2		43	107	60	45	14	●
DC160-03-12.250F1-	12,25		43	107	60	45	14	●
DC160-03-12.300F1-	12,3		43	107	60	45	14	●
DC160-03-12.400F1-	12,4		43	107	60	45	14	●
DC160-03-12.500F1-	12,5		43	107	60	45	14	●
DC160-03-12.600F1-	12,6		43	107	60	45	14	●
DC160-03-12.700F1-	12,7	1/2"	43	107	60	45	14	●
DC160-03-12.750F1-	12,75		43	107	60	45	14	●
DC160-03-12.800F1-	12,8		43	107	60	45	14	●
DC160-03-12.900F1-	12,9		43	107	60	45	14	●
DC160-03-13.000F1-	13		43	107	60	45	14	●
DC160-03-13.100F1-	13,1		43	107	60	45	14	●
DC160-03-13.200F1-	13,2		43	107	60	45	14	●
DC160-03-13.300F1-	13,3		43	107	60	45	14	●
DC160-03-13.400F1-	13,4		43	107	60	45	14	●
DC160-03-13.500F1-	13,5		43	107	60	45	14	●
DC160-03-13.600F1-	13,6		43	107	60	45	14	●
DC160-03-13.700F1-	13,7		43	107	60	45	14	●
DC160-03-13.800F1-	13,8		43	107	60	45	14	●
DC160-03-13.900F1-	13,9		43	107	60	45	14	●
DC160-03-14.000F1-	14		43	107	60	45	14	●
DC160-03-14.100F1-	14,1		45	115	65	48	16	●
DC160-03-14.200F1-	14,2		45	115	65	48	16	●
DC160-03-14.300F1-	14,3		45	115	65	48	16	●
DC160-03-14.400F1-	14,4		45	115	65	48	16	●
DC160-03-14.500F1-	14,5		45	115	65	48	16	●
DC160-03-14.600F1-	14,6		45	115	65	48	16	●
DC160-03-14.700F1-	14,7		45	115	65	48	16	●
DC160-03-14.750F1-	14,75		45	115	65	48	16	●
DC160-03-14.800F1-	14,8		45	115	65	48	16	●
DC160-03-15.000F1-	15		45	115	65	48	16	●
DC160-03-15.100F1-	15,1		45	115	65	48	16	●
DC160-03-15.200F1-	15,2		45	115	65	48	16	●
DC160-03-15.300F1-	15,3		45	115	65	48	16	●
DC160-03-15.500F1-	15,5		45	115	65	48	16	●
DC160-03-15.600F1-	15,6		45	115	65	48	16	●
DC160-03-15.700F1-	15,7		45	115	65	48	16	●
DC160-03-15.800F1-	15,8		45	115	65	48	16	●
DC160-03-15.900F1-	15,9		45	115	65	48	16	●
DC160-03-16.000F1-	16		45	115	65	48	16	●
DC160-03-16.100F1-	16,1		51	123	73	48	18	●
DC160-03-16.200F1-	16,2		51	123	73	48	18	●
DC160-03-16.300F1-	16,3		51	123	73	48	18	●
DC160-03-16.400F1-	16,4		51	123	73	48	18	●
DC160-03-16.500F1-	16,5		51	123	73	48	18	●
DC160-03-16.600F1-	16,6		51	123	73	48	18	●
DC160-03-16.700F1-	16,7		51	123	73	48	18	●
DC160-03-16.750F1-	16,75		51	123	73	48	18	●

Ordering example for the WJ30ET grade: DC160-03-03.000A1-WJ30ET

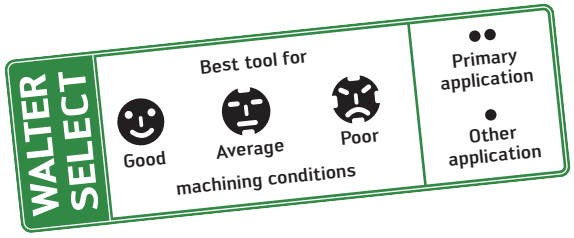
Continued

● / ★ New addition to the product range

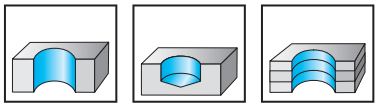
Continued

	Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
Shank DIN 6535 HE 	DC160-03-16.800F1-	16,8		51	123	73	48	18	
	DC160-03-17.000F1-	17		51	123	73	48	18	
	DC160-03-17.200F1-	17,2		51	123	73	48	18	
	DC160-03-17.300F1-	17,3		51	123	73	48	18	
	DC160-03-17.500F1-	17,5		51	123	73	48	18	
	DC160-03-17.600F1-	17,6		51	123	73	48	18	
	DC160-03-17.700F1-	17,7		51	123	73	48	18	
	DC160-03-17.800F1-	17,8		51	123	73	48	18	
	DC160-03-18.000F1-	18		51	123	73	48	18	
	DC160-03-18.200F1-	18,2		55	131	79	50	20	
	DC160-03-18.500F1-	18,5		55	131	79	50	20	
	DC160-03-18.700F1-	18,7		55	131	79	50	20	
	DC160-03-18.800F1-	18,8		55	131	79	50	20	
	DC160-03-19.000F1-	19		55	131	79	50	20	
	DC160-03-19.500F1-	19,5		55	131	79	50	20	
	DC160-03-19.700F1-	19,7		55	131	79	50	20	
	DC160-03-19.800F1-	19,8		55	131	79	50	20	
	DC160-03-20.000F1-	20		55	131	79	50	20	

Ordering example for the WJ30ET grade: DC160-03-03.000A1-WJ30ET



Solid carbide drills with coolant-through
DC150 Perform

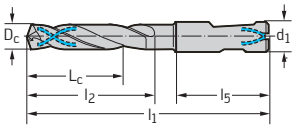


3×D_c | DIN 6537 K | 140°

	P	M	K	N	S	H	O
WJ30RE	●●	●	●●	●●	●●	●	●

B1

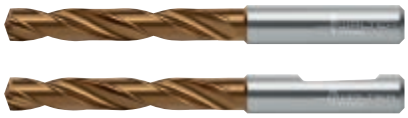
DIN 6535 HE,
turned 180°
DIN 6535 HB



Designation	D_c m7 mm	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30RE
DC150-03-03.000D1-	3	14	62	20	36	6	●
DC150-03-03.300D1-	3,3	14	62	20	36	6	●
DC150-03-03.400D1-	3,4	14	62	20	36	6	●
DC150-03-03.500D1-	3,5	14	62	20	36	6	●
DC150-03-03.700D1-	3,7	14	62	20	36	6	●
DC150-03-03.800D1-	3,8	17	66	24	36	6	●
DC150-03-04.000D1-	4	17	66	24	36	6	●
DC150-03-04.200D1-	4,2	17	66	24	36	6	●
DC150-03-04.300D1-	4,3	17	66	24	36	6	●
DC150-03-04.500D1-	4,5	17	66	24	36	6	●
DC150-03-04.800D1-	4,8	20	66	28	36	6	●
DC150-03-05.000D1-	5	20	66	28	36	6	●
DC150-03-05.100D1-	5,1	20	66	28	36	6	●
DC150-03-05.300D1-	5,3	20	66	28	36	6	●
DC150-03-05.500D1-	5,5	20	66	28	36	6	●
DC150-03-06.000D1-	6	20	66	28	36	6	●
DC150-03-06.500D1-	6,5	24	79	34	36	8	●
DC150-03-06.700D1-	6,7	24	79	34	36	8	●
DC150-03-06.800D1-	6,8	24	79	34	36	8	●
DC150-03-07.000D1-	7	24	79	34	36	8	●
DC150-03-07.500D1-	7,5	29	79	41	36	8	●
DC150-03-07.800D1-	7,8	29	79	41	36	8	●
DC150-03-08.000D1-	8	29	79	41	36	8	●
DC150-03-08.500D1-	8,5	35	89	47	40	10	●
DC150-03-08.600D1-	8,6	35	89	47	40	10	●
DC150-03-08.800D1-	8,8	35	89	47	40	10	●
DC150-03-09.000D1-	9	35	89	47	40	10	●
DC150-03-10.000D1-	10	35	89	47	40	10	●
DC150-03-10.200D1-	10,2	40	102	55	45	12	●
DC150-03-10.300D1-	10,3	40	102	55	45	12	●
DC150-03-10.500D1-	10,5	40	102	55	45	12	●
DC150-03-10.800D1-	10,8	40	102	55	45	12	●
DC150-03-11.000D1-	11	40	102	55	45	12	●
DC150-03-11.800D1-	11,8	40	102	55	45	12	●
DC150-03-12.000D1-	12	40	102	55	45	12	●
DC150-03-12.200D1-	12,2	43	107	60	45	14	●
DC150-03-12.500D1-	12,5	43	107	60	45	14	●
DC150-03-13.000D1-	13	43	107	60	45	14	●
DC150-03-14.000D1-	14	43	107	60	45	14	●
DC150-03-15.000D1-	15	45	115	65	48	16	●
DC150-03-15.500D1-	15,5	45	115	65	48	16	●
DC150-03-16.000D1-	16	45	115	65	48	16	●
DC150-03-16.500D1-	16,5	51	123	73	48	18	●
DC150-03-17.000D1-	17	51	123	73	48	18	●
DC150-03-17.500D1-	17,5	51	123	73	48	18	●
DC150-03-18.000D1-	18	51	123	73	48	18	●
DC150-03-19.000D1-	19	55	131	79	50	20	●
DC150-03-20.000D1-	20	55	131	79	50	20	●

Ordering example for the WJ30RE grade: DC150-03-03.000D1-WJ30RE

Solid carbide drills with coolant-through
DC160 Advance

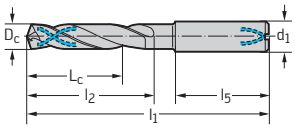


5×D_c | DIN 6537 L | 140°

	P	M	K	N	S	H	O
WJ30ET	●●	●	●●	●●	●●	●	●

B1

Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-03.000A1-	3		23	66	28	36	6	●
DC160-05-03.100A1-	3,1		23	66	28	36	6	●
DC160-05-03.175A1-	3,175	1/8"	23	66	28	36	6	●
DC160-05-03.200A1-	3,2		23	66	28	36	6	●
DC160-05-03.250A1-	3,25		23	66	28	36	6	●
DC160-05-03.300A1-	3,3		23	66	28	36	6	●
DC160-05-03.400A1-	3,4		23	66	28	36	6	●
DC160-05-03.500A1-	3,5		23	66	28	36	6	●
DC160-05-03.572A1-	3,572	9/64"	23	66	28	36	6	●
DC160-05-03.600A1-	3,6		23	66	28	36	6	●
DC160-05-03.650A1-	3,65		23	66	28	36	6	●
DC160-05-03.700A1-	3,7		23	66	28	36	6	●
DC160-05-03.800A1-	3,8		29	74	36	36	6	●
DC160-05-03.900A1-	3,9		29	74	36	36	6	●
DC160-05-03.969A1-	3,969	5/32"	29	74	36	36	6	●
DC160-05-04.000A1-	4		29	74	36	36	6	●
DC160-05-04.100A1-	4,1		29	74	36	36	6	●
DC160-05-04.200A1-	4,2		29	74	36	36	6	●
DC160-05-04.300A1-	4,3		29	74	36	36	6	●
DC160-05-04.366A1-	4,366	11/64"	29	74	36	36	6	●
DC160-05-04.400A1-	4,4		29	74	36	36	6	●
DC160-05-04.500A1-	4,5		29	74	36	36	6	●
DC160-05-04.600A1-	4,6		29	74	36	36	6	●
DC160-05-04.650A1-	4,65		29	74	36	36	6	●
DC160-05-04.700A1-	4,7		29	74	36	36	6	●
DC160-05-04.763A1-	4,763	3/16"	35	82	44	36	6	●
DC160-05-04.800A1-	4,8		35	82	44	36	6	●
DC160-05-04.900A1-	4,9		35	82	44	36	6	●
DC160-05-05.000A1-	5		35	82	44	36	6	●
DC160-05-05.100A1-	5,1		35	82	44	36	6	●
DC160-05-05.159A1-	5,159	13/64"	35	82	44	36	6	●
DC160-05-05.200A1-	5,2		35	82	44	36	6	●
DC160-05-05.300A1-	5,3		35	82	44	36	6	●
DC160-05-05.400A1-	5,4		35	82	44	36	6	●
DC160-05-05.500A1-	5,5		35	82	44	36	6	●
DC160-05-05.550A1-	5,55		35	82	44	36	6	●
DC160-05-05.556A1-	5,556	7/32"	35	82	44	36	6	●
DC160-05-05.600A1-	5,6		35	82	44	36	6	●
DC160-05-05.700A1-	5,7		35	82	44	36	6	●
DC160-05-05.800A1-	5,8		35	82	44	36	6	●
DC160-05-05.900A1-	5,9		35	82	44	36	6	●
DC160-05-05.953A1-	5,953	15/64"	35	82	44	36	6	●
DC160-05-06.000A1-	6		35	82	44	36	6	●

Ordering example for the WJ30ET grade: DC160-05-03.000A1-WJ30ET

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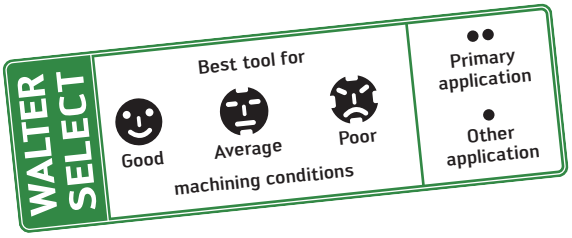

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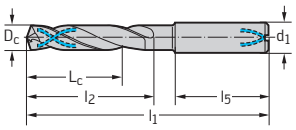
Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-06.100A1-	6,1		43	91	53	36	8	●
DC160-05-06.200A1-	6,2		43	91	53	36	8	●
DC160-05-06.300A1-	6,3		43	91	53	36	8	●
DC160-05-06.350A1-	6,35	1/4"	43	91	53	36	8	●
DC160-05-06.400A1-	6,4		43	91	53	36	8	●
DC160-05-06.500A1-	6,5		43	91	53	36	8	●
DC160-05-06.600A1-	6,6		43	91	53	36	8	●
DC160-05-06.700A1-	6,7		43	91	53	36	8	●
DC160-05-06.747A1-	6,747	17/64"	43	91	53	36	8	●
DC160-05-06.800A1-	6,8		43	91	53	36	8	●
DC160-05-06.900A1-	6,9		43	91	53	36	8	●
DC160-05-07.000A1-	7		43	91	53	36	8	●
DC160-05-07.100A1-	7,1		43	91	53	36	8	●
DC160-05-07.144A1-	7,144	9/32"	43	91	53	36	8	●
DC160-05-07.200A1-	7,2		43	91	53	36	8	●
DC160-05-07.300A1-	7,3		43	91	53	36	8	●
DC160-05-07.400A1-	7,4		43	91	53	36	8	●
DC160-05-07.500A1-	7,5		43	91	53	36	8	●
DC160-05-07.541A1-	7,541	19/64"	43	91	53	36	8	●
DC160-05-07.550A1-	7,55		43	91	53	36	8	●
DC160-05-07.600A1-	7,6		43	91	53	36	8	●
DC160-05-07.700A1-	7,7		43	91	53	36	8	●
DC160-05-07.800A1-	7,8		43	91	53	36	8	●
DC160-05-07.900A1-	7,9		43	91	53	36	8	●
DC160-05-07.938A1-	7,938	5/16"	43	91	53	36	8	●
DC160-05-08.000A1-	8		43	91	53	36	8	●
DC160-05-08.100A1-	8,1		49	103	61	40	10	●
DC160-05-08.200A1-	8,2		49	103	61	40	10	●
DC160-05-08.300A1-	8,3		49	103	61	40	10	●
DC160-05-08.334A1-	8,334	21/64"	49	103	61	40	10	●
DC160-05-08.400A1-	8,4		49	103	61	40	10	●
DC160-05-08.500A1-	8,5		49	103	61	40	10	●
DC160-05-08.600A1-	8,6		49	103	61	40	10	●
DC160-05-08.700A1-	8,7		49	103	61	40	10	●
DC160-05-08.731A1-	8,731	11/32"	49	103	61	40	10	●
DC160-05-08.800A1-	8,8		49	103	61	40	10	●
DC160-05-08.900A1-	8,9		49	103	61	40	10	●
DC160-05-09.000A1-	9		49	103	61	40	10	●
DC160-05-09.100A1-	9,1		49	103	61	40	10	●
DC160-05-09.128A1-	9,128	23/64"	49	103	61	40	10	●
DC160-05-09.200A1-	9,2		49	103	61	40	10	●
DC160-05-09.300A1-	9,3		49	103	61	40	10	●
DC160-05-09.400A1-	9,4		49	103	61	40	10	●
DC160-05-09.500A1-	9,5		49	103	61	40	10	●
DC160-05-09.525A1-	9,525	3/8"	49	103	61	40	10	●
DC160-05-09.550A1-	9,55		49	103	61	40	10	●
DC160-05-09.600A1-	9,6		49	103	61	40	10	●
DC160-05-09.700A1-	9,7		49	103	61	40	10	●
DC160-05-09.800A1-	9,8		49	103	61	40	10	●
DC160-05-09.900A1-	9,9		49	103	61	40	10	●
DC160-05-09.922A1-	9,922	25/64"	49	103	61	40	10	●
DC160-05-10.000A1-	10		49	103	61	40	10	●
DC160-05-10.100A1-	10,1		56	118	71	45	12	●
DC160-05-10.200A1-	10,2		56	118	71	45	12	●
DC160-05-10.300A1-	10,3		56	118	71	45	12	●
DC160-05-10.319A1-	10,319	13/32"	56	118	71	45	12	●
DC160-05-10.400A1-	10,4		56	118	71	45	12	●
DC160-05-10.500A1-	10,5		56	118	71	45	12	●
DC160-05-10.600A1-	10,6		56	118	71	45	12	●
DC160-05-10.700A1-	10,7		56	118	71	45	12	●
DC160-05-10.716A1-	10,716	27/64"	56	118	71	45	12	●

Ordering example for the WJ30ET grade: DC160-05-03.000A1-WJ30ET

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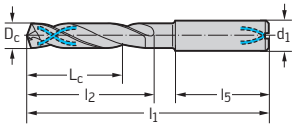
Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-10.800A1-	10,8		56	118	71	45	12	●●
DC160-05-10.900A1-	10,9		56	118	71	45	12	●●
DC160-05-11.000A1-	11		56	118	71	45	12	●●
DC160-05-11.100A1-	11,1		56	118	71	45	12	●●
DC160-05-11.113A1-	11,113	7/16"	56	118	71	45	12	●●
DC160-05-11.200A1-	11,2		56	118	71	45	12	●●
DC160-05-11.300A1-	11,3		56	118	71	45	12	●●
DC160-05-11.400A1-	11,4		56	118	71	45	12	●●
DC160-05-11.500A1-	11,5		56	118	71	45	12	●●
DC160-05-11.509A1-	11,509	29/64"	56	118	71	45	12	●●
DC160-05-11.550A1-	11,55		56	118	71	45	12	●●
DC160-05-11.600A1-	11,6		56	118	71	45	12	●●
DC160-05-11.700A1-	11,7		56	118	71	45	12	●●
DC160-05-11.800A1-	11,8		56	118	71	45	12	●●
DC160-05-11.900A1-	11,9		56	118	71	45	12	●●
DC160-05-11.906A1-	11,906	15/32"	56	118	71	45	12	●●
DC160-05-12.000A1-	12		56	118	71	45	12	●●
DC160-05-12.100A1-	12,1		60	124	77	45	14	●●
DC160-05-12.200A1-	12,2		60	124	77	45	14	●●
DC160-05-12.250A1-	12,25		60	124	77	45	14	●●
DC160-05-12.300A1-	12,3		60	124	77	45	14	●●
DC160-05-12.303A1-	12,303	31/64"	60	124	77	45	14	●●
DC160-05-12.400A1-	12,4		60	124	77	45	14	●●
DC160-05-12.500A1-	12,5		60	124	77	45	14	●●
DC160-05-12.600A1-	12,6		60	124	77	45	14	●●
DC160-05-12.700A1-	12,7	1/2"	60	124	77	45	14	●●
DC160-05-12.750A1-	12,75		60	124	77	45	14	●●
DC160-05-12.800A1-	12,8		60	124	77	45	14	●●
DC160-05-12.900A1-	12,9		60	124	77	45	14	●●
DC160-05-13.000A1-	13		60	124	77	45	14	●●
DC160-05-13.100A1-	13,1		60	124	77	45	14	●●
DC160-05-13.200A1-	13,2		60	124	77	45	14	●●
DC160-05-13.300A1-	13,3		60	124	77	45	14	●●
DC160-05-13.400A1-	13,4		60	124	77	45	14	●●
DC160-05-13.494A1-	13,494	17/32"	60	124	77	45	14	●●
DC160-05-13.500A1-	13,5		60	124	77	45	14	●●
DC160-05-13.600A1-	13,6		60	124	77	45	14	●●
DC160-05-13.700A1-	13,7		60	124	77	45	14	●●
DC160-05-13.800A1-	13,8		60	124	77	45	14	●●
DC160-05-13.900A1-	13,9		60	124	77	45	14	●●
DC160-05-14.000A1-	14		60	124	77	45	14	●●
DC160-05-14.100A1-	14,1		63	133	83	48	16	●●
DC160-05-14.200A1-	14,2		63	133	83	48	16	●●
DC160-05-14.288A1-	14,288	9/16"	63	133	83	48	16	●●
DC160-05-14.300A1-	14,3		63	133	83	48	16	●●
DC160-05-14.400A1-	14,4		63	133	83	48	16	●●
DC160-05-14.500A1-	14,5		63	133	83	48	16	●●
DC160-05-14.600A1-	14,6		63	133	83	48	16	●●
DC160-05-14.700A1-	14,7		63	133	83	48	16	●●
DC160-05-14.750A1-	14,75		63	133	83	48	16	●●
DC160-05-14.800A1-	14,8		63	133	83	48	16	●●
DC160-05-14.900A1-	14,9		63	133	83	48	16	●●
DC160-05-15.000A1-	15		63	133	83	48	16	●●
DC160-05-15.100A1-	15,1		63	133	83	48	16	●●
DC160-05-15.200A1-	15,2		63	133	83	48	16	●●
DC160-05-15.300A1-	15,3		63	133	83	48	16	●●
DC160-05-15.400A1-	15,4		63	133	83	48	16	●●

Ordering example for the WJ30ET grade: DC160-05-03.000A1-WJ30ET

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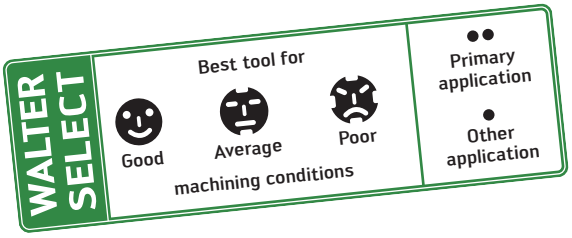

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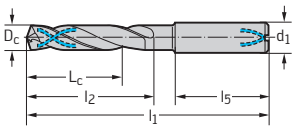
Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-15.500A1-	15,5		63	133	83	48	16	●
DC160-05-15.600A1-	15,6		63	133	83	48	16	●
DC160-05-15.700A1-	15,7		63	133	83	48	16	●
DC160-05-15.800A1-	15,8		63	133	83	48	16	●
DC160-05-15.875A1-	15,875	5/8“	63	133	83	48	16	●
DC160-05-15.900A1-	15,9		63	133	83	48	16	●
DC160-05-16.000A1-	16		63	133	83	48	16	●
DC160-05-16.100A1-	16,1		71	143	93	48	18	●
DC160-05-16.200A1-	16,2		71	143	93	48	18	●
DC160-05-16.300A1-	16,3		71	143	93	48	18	●
DC160-05-16.400A1-	16,4		71	143	93	48	18	●
DC160-05-16.500A1-	16,5		71	143	93	48	18	●
DC160-05-16.600A1-	16,6		71	143	93	48	18	●
DC160-05-16.700A1-	16,7		71	143	93	48	18	●
DC160-05-16.750A1-	16,75		71	143	93	48	18	●
DC160-05-16.800A1-	16,8		71	143	93	48	18	●
DC160-05-16.900A1-	16,9		71	143	93	48	18	●
DC160-05-17.000A1-	17		71	143	93	48	18	●
DC160-05-17.100A1-	17,1		71	143	93	48	18	●
DC160-05-17.200A1-	17,2		71	143	93	48	18	●
DC160-05-17.300A1-	17,3		71	143	93	48	18	●
DC160-05-17.400A1-	17,4		71	143	93	48	18	●
DC160-05-17.500A1-	17,5		71	143	93	48	18	●
DC160-05-17.600A1-	17,6		71	143	93	48	18	●
DC160-05-17.700A1-	17,7		71	143	93	48	18	●
DC160-05-17.800A1-	17,8		71	143	93	48	18	●
DC160-05-17.900A1-	17,9		71	143	93	48	18	●
DC160-05-18.000A1-	18		71	143	93	48	18	●
DC160-05-18.100A1-	18,1		77	153	101	50	20	●
DC160-05-18.200A1-	18,2		77	153	101	50	20	●
DC160-05-18.300A1-	18,3		77	153	101	50	20	●
DC160-05-18.400A1-	18,4		77	153	101	50	20	●
DC160-05-18.500A1-	18,5		77	153	101	50	20	●
DC160-05-18.600A1-	18,6		77	153	101	50	20	●
DC160-05-18.700A1-	18,7		77	153	101	50	20	●
DC160-05-18.800A1-	18,8		77	153	101	50	20	●
DC160-05-18.900A1-	18,9		77	153	101	50	20	●
DC160-05-19.000A1-	19		77	153	101	50	20	●
DC160-05-19.050A1-	19,05	3/4“	77	153	101	50	20	●
DC160-05-19.100A1-	19,1		77	153	101	50	20	●
DC160-05-19.200A1-	19,2		77	153	101	50	20	●
DC160-05-19.300A1-	19,3		77	153	101	50	20	●
DC160-05-19.400A1-	19,4		77	153	101	50	20	●
DC160-05-19.500A1-	19,5		77	153	101	50	20	●
DC160-05-19.600A1-	19,6		77	153	101	50	20	●
DC160-05-19.700A1-	19,7		77	153	101	50	20	●
DC160-05-19.800A1-	19,8		77	153	101	50	20	●
DC160-05-19.900A1-	19,9		77	153	101	50	20	●
DC160-05-20.000A1-	20		77	153	101	50	20	●
DC160-05-20.500A1-	20,5		86	166	108	56	25	●
DC160-05-21.000A1-	21		86	166	108	56	25	●
DC160-05-21.500A1-	21,5		86	166	108	56	25	●
DC160-05-22.000A1-	22		86	166	108	56	25	●
DC160-05-22.500A1-	22,5		91	173	115	56	25	●
DC160-05-23.000A1-	23		91	173	115	56	25	●
DC160-05-23.500A1-	23,5		91	173	115	56	25	●
DC160-05-24.000A1-	24		91	173	115	56	25	●
DC160-05-24.500A1-	24,5		97	180	122	56	25	●
DC160-05-25.000A1-	25		97	180	122	56	25	●

Ordering example for the WJ30ET grade: DC160-05-03.000A1-WJ30ET

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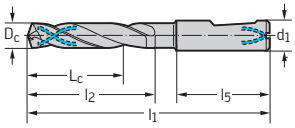
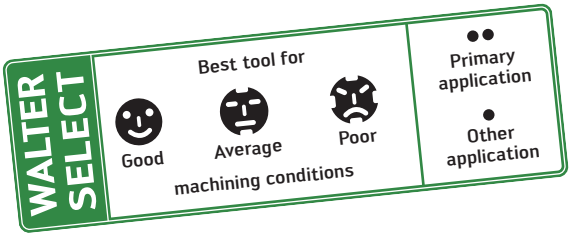
Shank DIN 6535 HE



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-03.000F1-	3		23	66	28	36	6	☹
DC160-05-03.100F1-	3,1		23	66	28	36	6	☹
DC160-05-03.200F1-	3,2		23	66	28	36	6	☹
DC160-05-03.250F1-	3,25		23	66	28	36	6	☹
DC160-05-03.300F1-	3,3		23	66	28	36	6	☹
DC160-05-03.400F1-	3,4		23	66	28	36	6	☹
DC160-05-03.500F1-	3,5		23	66	28	36	6	☹
DC160-05-03.600F1-	3,6		23	66	28	36	6	☹
DC160-05-03.650F1-	3,65		23	66	28	36	6	☹
DC160-05-03.700F1-	3,7		23	66	28	36	6	☹
DC160-05-03.800F1-	3,8		29	74	36	36	6	☹
DC160-05-03.900F1-	3,9		29	74	36	36	6	☹
DC160-05-04.000F1-	4		29	74	36	36	6	☹
DC160-05-04.100F1-	4,1		29	74	36	36	6	☹
DC160-05-04.200F1-	4,2		29	74	36	36	6	☹
DC160-05-04.300F1-	4,3		29	74	36	36	6	☹
DC160-05-04.400F1-	4,4		29	74	36	36	6	☹
DC160-05-04.500F1-	4,5		29	74	36	36	6	☹
DC160-05-04.600F1-	4,6		29	74	36	36	6	☹
DC160-05-04.650F1-	4,65		29	74	36	36	6	☹
DC160-05-04.700F1-	4,7		29	74	36	36	6	☹
DC160-05-04.800F1-	4,8		35	82	44	36	6	☹
DC160-05-04.900F1-	4,9		35	82	44	36	6	☹
DC160-05-05.000F1-	5		35	82	44	36	6	☹
DC160-05-05.100F1-	5,1		35	82	44	36	6	☹
DC160-05-05.200F1-	5,2		35	82	44	36	6	☹
DC160-05-05.300F1-	5,3		35	82	44	36	6	☹
DC160-05-05.400F1-	5,4		35	82	44	36	6	☹
DC160-05-05.500F1-	5,5		35	82	44	36	6	☹
DC160-05-05.550F1-	5,55		35	82	44	36	6	☹
DC160-05-05.600F1-	5,6		35	82	44	36	6	☹
DC160-05-05.700F1-	5,7		35	82	44	36	6	☹
DC160-05-05.800F1-	5,8		35	82	44	36	6	☹
DC160-05-05.900F1-	5,9		35	82	44	36	6	☹
DC160-05-06.000F1-	6		35	82	44	36	6	☹
DC160-05-06.100F1-	6,1		43	91	53	36	8	☹
DC160-05-06.200F1-	6,2		43	91	53	36	8	☹
DC160-05-06.300F1-	6,3		43	91	53	36	8	☹
DC160-05-06.400F1-	6,4		43	91	53	36	8	☹
DC160-05-06.500F1-	6,5		43	91	53	36	8	☹
DC160-05-06.600F1-	6,6		43	91	53	36	8	☹
DC160-05-06.700F1-	6,7		43	91	53	36	8	☹
DC160-05-06.800F1-	6,8		43	91	53	36	8	☹
DC160-05-06.900F1-	6,9		43	91	53	36	8	☹
DC160-05-07.000F1-	7		43	91	53	36	8	☹
DC160-05-07.100F1-	7,1		43	91	53	36	8	☹
DC160-05-07.200F1-	7,2		43	91	53	36	8	☹
DC160-05-07.300F1-	7,3		43	91	53	36	8	☹
DC160-05-07.400F1-	7,4		43	91	53	36	8	☹
DC160-05-07.500F1-	7,5		43	91	53	36	8	☹
DC160-05-07.550F1-	7,55		43	91	53	36	8	☹
DC160-05-07.600F1-	7,6		43	91	53	36	8	☹
DC160-05-07.700F1-	7,7		43	91	53	36	8	☹
DC160-05-07.800F1-	7,8		43	91	53	36	8	☹
DC160-05-07.900F1-	7,9		43	91	53	36	8	☹
DC160-05-08.000F1-	8		43	91	53	36	8	☹
DC160-05-08.100F1-	8,1		49	103	61	40	10	☹

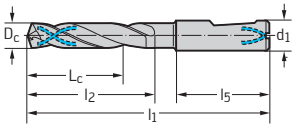
Ordering example for the WJ30ET grade: DC160-05-03.000A1-WJ30ET

Continued



Continued

Shank DIN 6535 HE



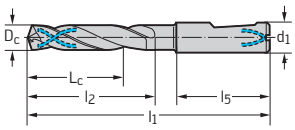
Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-08.200F1-	8,2		49	103	61	40	10	●
DC160-05-08.300F1-	8,3		49	103	61	40	10	●
DC160-05-08.400F1-	8,4		49	103	61	40	10	●
DC160-05-08.500F1-	8,5		49	103	61	40	10	●
DC160-05-08.600F1-	8,6		49	103	61	40	10	●
DC160-05-08.700F1-	8,7		49	103	61	40	10	●
DC160-05-08.800F1-	8,8		49	103	61	40	10	●
DC160-05-08.900F1-	8,9		49	103	61	40	10	●
DC160-05-09.000F1-	9		49	103	61	40	10	●
DC160-05-09.100F1-	9,1		49	103	61	40	10	●
DC160-05-09.200F1-	9,2		49	103	61	40	10	●
DC160-05-09.300F1-	9,3		49	103	61	40	10	●
DC160-05-09.400F1-	9,4		49	103	61	40	10	●
DC160-05-09.500F1-	9,5		49	103	61	40	10	●
DC160-05-09.550F1-	9,55		49	103	61	40	10	●
DC160-05-09.600F1-	9,6		49	103	61	40	10	●
DC160-05-09.700F1-	9,7		49	103	61	40	10	●
DC160-05-09.800F1-	9,8		49	103	61	40	10	●
DC160-05-09.900F1-	9,9		49	103	61	40	10	●
DC160-05-10.000F1-	10		49	103	61	40	10	●
DC160-05-10.100F1-	10,1		56	118	71	45	12	●
DC160-05-10.200F1-	10,2		56	118	71	45	12	●
DC160-05-10.300F1-	10,3		56	118	71	45	12	●
DC160-05-10.400F1-	10,4		56	118	71	45	12	●
DC160-05-10.500F1-	10,5		56	118	71	45	12	●
DC160-05-10.600F1-	10,6		56	118	71	45	12	●
DC160-05-10.700F1-	10,7		56	118	71	45	12	●
DC160-05-10.800F1-	10,8		56	118	71	45	12	●
DC160-05-10.900F1-	10,9		56	118	71	45	12	●
DC160-05-11.000F1-	11		56	118	71	45	12	●
DC160-05-11.100F1-	11,1		56	118	71	45	12	●
DC160-05-11.200F1-	11,2		56	118	71	45	12	●
DC160-05-11.300F1-	11,3		56	118	71	45	12	●
DC160-05-11.400F1-	11,4		56	118	71	45	12	●
DC160-05-11.500F1-	11,5		56	118	71	45	12	●
DC160-05-11.550F1-	11,55		56	118	71	45	12	●
DC160-05-11.600F1-	11,6		56	118	71	45	12	●
DC160-05-11.700F1-	11,7		56	118	71	45	12	●
DC160-05-11.800F1-	11,8		56	118	71	45	12	●
DC160-05-11.900F1-	11,9		56	118	71	45	12	●
DC160-05-12.000F1-	12		56	118	71	45	12	●
DC160-05-12.100F1-	12,1		60	124	77	45	14	●
DC160-05-12.200F1-	12,2		60	124	77	45	14	●
DC160-05-12.250F1-	12,25		60	124	77	45	14	●
DC160-05-12.300F1-	12,3		60	124	77	45	14	●
DC160-05-12.400F1-	12,4		60	124	77	45	14	●
DC160-05-12.500F1-	12,5		60	124	77	45	14	●
DC160-05-12.600F1-	12,6		60	124	77	45	14	●
DC160-05-12.700F1-	12,7	1/2"	60	124	77	45	14	●
DC160-05-12.750F1-	12,75		60	124	77	45	14	●
DC160-05-12.800F1-	12,8		60	124	77	45	14	●
DC160-05-12.900F1-	12,9		60	124	77	45	14	●
DC160-05-13.000F1-	13		60	124	77	45	14	●
DC160-05-13.100F1-	13,1		60	124	77	45	14	●
DC160-05-13.200F1-	13,2		60	124	77	45	14	●
DC160-05-13.300F1-	13,3		60	124	77	45	14	●
DC160-05-13.400F1-	13,4		60	124	77	45	14	●
DC160-05-13.500F1-	13,5		60	124	77	45	14	●
DC160-05-13.600F1-	13,6		60	124	77	45	14	●
DC160-05-13.700F1-	13,7		60	124	77	45	14	●
DC160-05-13.800F1-	13,8		60	124	77	45	14	●

Ordering example for the WJ30ET grade: DC160-05-03.000A1-WJ30ET

Continued

Continued

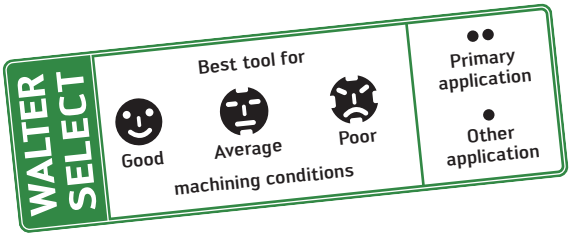
Shank DIN 6535 HE



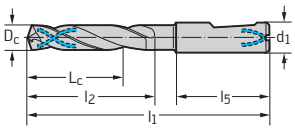
Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-05-13.900F1-	13,9		60	124	77	45	14	●●
DC160-05-14.000F1-	14		60	124	77	45	14	●●
DC160-05-14.100F1-	14,1		63	133	83	48	16	●●
DC160-05-14.200F1-	14,2		63	133	83	48	16	●●
DC160-05-14.300F1-	14,3		63	133	83	48	16	●●
DC160-05-14.400F1-	14,4		63	133	83	48	16	●●
DC160-05-14.500F1-	14,5		63	133	83	48	16	●●
DC160-05-14.600F1-	14,6		63	133	83	48	16	●●
DC160-05-14.700F1-	14,7		63	133	83	48	16	●●
DC160-05-14.750F1-	14,75		63	133	83	48	16	●●
DC160-05-14.800F1-	14,8		63	133	83	48	16	●●
DC160-05-14.900F1-	14,9		63	133	83	48	16	●●
DC160-05-15.000F1-	15		63	133	83	48	16	●●
DC160-05-15.100F1-	15,1		63	133	83	48	16	●●
DC160-05-15.200F1-	15,2		63	133	83	48	16	●●
DC160-05-15.300F1-	15,3		63	133	83	48	16	●●
DC160-05-15.400F1-	15,4		63	133	83	48	16	●●
DC160-05-15.500F1-	15,5		63	133	83	48	16	●●
DC160-05-15.600F1-	15,6		63	133	83	48	16	●●
DC160-05-15.700F1-	15,7		63	133	83	48	16	●●
DC160-05-15.800F1-	15,8		63	133	83	48	16	●●
DC160-05-15.900F1-	15,9		63	133	83	48	16	●●
DC160-05-16.000F1-	16		63	133	83	48	16	●●
DC160-05-16.100F1-	16,1		71	143	93	48	18	●●
DC160-05-16.200F1-	16,2		71	143	93	48	18	●●
DC160-05-16.300F1-	16,3		71	143	93	48	18	●●
DC160-05-16.400F1-	16,4		71	143	93	48	18	●●
DC160-05-16.500F1-	16,5		71	143	93	48	18	●●
DC160-05-16.600F1-	16,6		71	143	93	48	18	●●
DC160-05-16.700F1-	16,7		71	143	93	48	18	●●
DC160-05-16.750F1-	16,75		71	143	93	48	18	●●
DC160-05-16.800F1-	16,8		71	143	93	48	18	●●
DC160-05-16.900F1-	16,9		71	143	93	48	18	●●
DC160-05-17.000F1-	17		71	143	93	48	18	●●
DC160-05-17.100F1-	17,1		71	143	93	48	18	●●
DC160-05-17.200F1-	17,2		71	143	93	48	18	●●
DC160-05-17.300F1-	17,3		71	143	93	48	18	●●
DC160-05-17.400F1-	17,4		71	143	93	48	18	●●
DC160-05-17.500F1-	17,5		71	143	93	48	18	●●
DC160-05-17.600F1-	17,6		71	143	93	48	18	●●
DC160-05-17.700F1-	17,7		71	143	93	48	18	●●
DC160-05-17.800F1-	17,8		71	143	93	48	18	●●
DC160-05-17.900F1-	17,9		71	143	93	48	18	●●
DC160-05-18.000F1-	18		71	143	93	48	18	●●
DC160-05-18.100F1-	18,1		77	153	101	50	20	●●
DC160-05-18.200F1-	18,2		77	153	101	50	20	●●
DC160-05-18.300F1-	18,3		77	153	101	50	20	●●
DC160-05-18.400F1-	18,4		77	153	101	50	20	●●
DC160-05-18.500F1-	18,5		77	153	101	50	20	●●
DC160-05-18.600F1-	18,6		77	153	101	50	20	●●
DC160-05-18.700F1-	18,7		77	153	101	50	20	●●
DC160-05-18.800F1-	18,8		77	153	101	50	20	●●
DC160-05-18.900F1-	18,9		77	153	101	50	20	●●
DC160-05-19.000F1-	19		77	153	101	50	20	●●
DC160-05-19.100F1-	19,1		77	153	101	50	20	●●
DC160-05-19.200F1-	19,2		77	153	101	50	20	●●
DC160-05-19.300F1-	19,3		77	153	101	50	20	●●

Ordering example for the WJ30ET grade: DC160-05-03.000A1-WJ30ET

Continued

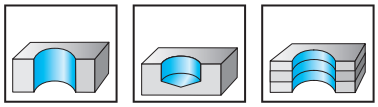


Continued

	Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
Shank DIN 6535 HE 	DC160-05-19.400F1-	19,4		77	153	101	50	20	●
	DC160-05-19.500F1-	19,5		77	153	101	50	20	●
	DC160-05-19.600F1-	19,6		77	153	101	50	20	●
	DC160-05-19.700F1-	19,7		77	153	101	50	20	●
	DC160-05-19.800F1-	19,8		77	153	101	50	20	●
	DC160-05-19.900F1-	19,9		77	153	101	50	20	●
	DC160-05-20.000F1-	20		77	153	101	50	20	●
	DC160-05-20.500F1-	20,5		86	166	108	56	25	●
	DC160-05-21.000F1-	21		86	166	108	56	25	●
	DC160-05-21.500F1-	21,5		86	166	108	56	25	●
	DC160-05-22.000F1-	22		86	166	108	56	25	●
	DC160-05-22.500F1-	22,5		91	173	115	56	25	●
	DC160-05-23.000F1-	23		91	173	115	56	25	●
	DC160-05-23.500F1-	23,5		91	173	115	56	25	●
	DC160-05-24.000F1-	24		91	173	115	56	25	●
	DC160-05-24.500F1-	24,5		97	180	122	56	25	●
	DC160-05-25.000F1-	25		97	180	122	56	25	●

Ordering example for the WJ30ET grade: DC160-05-03.000A1-WJ30ET

Solid carbide drills with coolant-through
DC150 Perform

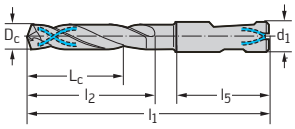


5×D_c | DIN 6537 L | 140°

	P	M	K	N	S	H	O
WJ30RE	●●	●	●●	●●	●●	●	●

B1

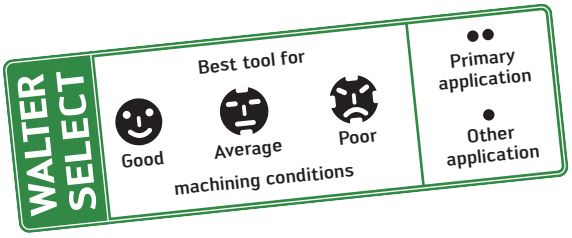
DIN 6535 HE,
turned 180°
DIN 6535 HB



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30RE
DC150-05-03.000D1-	3		23	66	28	36	6	●●
DC150-05-03.100D1-	3,1		23	66	28	36	6	●●
DC150-05-03.200D1-	3,2		23	66	28	36	6	●●
DC150-05-03.300D1-	3,3		23	66	28	36	6	●●
DC150-05-03.400D1-	3,4		23	66	28	36	6	●●
DC150-05-03.500D1-	3,5		23	66	28	36	6	●●
DC150-05-03.600D1-	3,6		23	66	28	36	6	●●
DC150-05-03.700D1-	3,7		23	66	28	36	6	●●
DC150-05-03.800D1-	3,8		29	74	36	36	6	●●
DC150-05-03.900D1-	3,9		29	74	36	36	6	●●
DC150-05-04.000D1-	4		29	74	36	36	6	●●
DC150-05-04.100D1-	4,1		29	74	36	36	6	●●
DC150-05-04.200D1-	4,2		29	74	36	36	6	●●
DC150-05-04.300D1-	4,3		29	74	36	36	6	●●
DC150-05-04.400D1-	4,4		29	74	36	36	6	●●
DC150-05-04.500D1-	4,5		29	74	36	36	6	●●
DC150-05-04.600D1-	4,6		29	74	36	36	6	●●
DC150-05-04.650D1-	4,65		29	74	36	36	6	●●
DC150-05-04.700D1-	4,7		29	74	36	36	6	●●
DC150-05-04.800D1-	4,8		35	82	44	36	6	●●
DC150-05-04.900D1-	4,9		35	82	44	36	6	●●
DC150-05-05.000D1-	5		35	82	44	36	6	●●
DC150-05-05.100D1-	5,1		35	82	44	36	6	●●
DC150-05-05.200D1-	5,2		35	82	44	36	6	●●
DC150-05-05.300D1-	5,3		35	82	44	36	6	●●
DC150-05-05.400D1-	5,4		35	82	44	36	6	●●
DC150-05-05.500D1-	5,5		35	82	44	36	6	●●
DC150-05-05.550D1-	5,55		35	82	44	36	6	●●
DC150-05-05.600D1-	5,6		35	82	44	36	6	●●
DC150-05-05.700D1-	5,7		35	82	44	36	6	●●
DC150-05-05.800D1-	5,8		35	82	44	36	6	●●
DC150-05-05.900D1-	5,9		35	82	44	36	6	●●
DC150-05-06.000D1-	6		35	82	44	36	6	●●
DC150-05-06.100D1-	6,1		43	91	53	36	8	●●
DC150-05-06.200D1-	6,2		43	91	53	36	8	●●
DC150-05-06.300D1-	6,2		43	91	53	36	8	●●
DC150-05-06.400D1-	6,4		43	91	53	36	8	●●
DC150-05-06.500D1-	6,5		43	91	53	36	8	●●
DC150-05-06.600D1-	6,6		43	91	53	36	8	●●
DC150-05-06.700D1-	6,7		43	91	53	36	8	●●
DC150-05-06.800D1-	6,8		43	91	53	36	8	●●
DC150-05-06.900D1-	6,9		43	91	53	36	8	●●
DC150-05-07.000D1-	7		43	91	53	36	8	●●

Ordering example for the WJ30RE grade: DC150-05-03.000D1-WJ30RE

Continued



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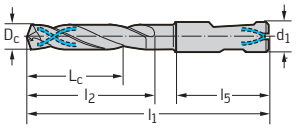
DIN 6535 HE,
turned 180°
DIN 6535 HB



B1

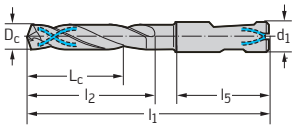
Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30RE
DC150-05-07.100D1-	7,1		43	91	53	36	8	●
DC150-05-07.200D1-	7,2		43	91	53	36	8	●
DC150-05-07.300D1-	7,3		43	91	53	36	8	●
DC150-05-07.400D1-	7,4		43	91	53	36	8	●
DC150-05-07.500D1-	7,5		43	91	53	36	8	●
DC150-05-07.600D1-	7,6		43	91	53	36	8	●
DC150-05-07.700D1-	7,7		43	91	53	36	8	●
DC150-05-07.800D1-	7,8		43	91	53	36	8	●
DC150-05-07.900D1-	7,9		43	91	53	36	8	●
DC150-05-08.000D1-	8		43	91	53	36	8	●
DC150-05-08.100D1-	8,1		49	103	61	40	10	●
DC150-05-08.200D1-	8,2		49	103	61	40	10	●
DC150-05-08.300D1-	8,3		49	103	61	40	10	●
DC150-05-08.400D1-	8,4		49	103	61	40	10	●
DC150-05-08.500D1-	8,5		49	103	61	40	10	●
DC150-05-08.600D1-	8,6		49	103	61	40	10	●
DC150-05-08.700D1-	8,7		49	103	61	40	10	●
DC150-05-08.800D1-	8,8		49	103	61	40	10	●
DC150-05-09.000D1-	9		49	103	61	40	10	●
DC150-05-09.100D1-	9,1		49	103	61	40	10	●
DC150-05-09.200D1-	9,2		49	103	61	40	10	●
DC150-05-09.300D1-	9,3		49	103	61	40	10	●
DC150-05-09.400D1-	9,4		49	103	61	40	10	●
DC150-05-09.500D1-	9,5		49	103	61	40	10	●
DC150-05-09.600D1-	9,6		49	103	61	40	10	●
DC150-05-09.700D1-	9,7		49	103	61	40	10	●
DC150-05-09.800D1-	9,8		49	103	61	40	10	●
DC150-05-09.900D1-	9,9		49	103	61	40	10	●
DC150-05-10.000D1-	10		49	103	61	40	10	●
DC150-05-10.100D1-	10,1		56	118	71	45	12	●
DC150-05-10.200D1-	10,2		56	118	71	45	12	●
DC150-05-10.300D1-	10,3		56	118	71	45	12	●
DC150-05-10.400D1-	10,4		56	118	71	45	12	●
DC150-05-10.500D1-	10,5		56	118	71	45	12	●
DC150-05-10.600D1-	10,6		56	118	71	45	12	●
DC150-05-10.800D1-	10,8		56	118	71	45	12	●
DC150-05-11.000D1-	11		56	118	71	45	12	●
DC150-05-11.100D1-	11,1		56	118	71	45	12	●
DC150-05-11.200D1-	11,2		56	118	71	45	12	●
DC150-05-11.300D1-	11,3		56	118	71	45	12	●
DC150-05-11.500D1-	11,5		56	118	71	45	12	●
DC150-05-11.600D1-	11,6		56	118	71	45	12	●
DC150-05-11.700D1-	11,7		56	118	71	45	12	●
DC150-05-11.800D1-	11,8		56	118	71	45	12	●
DC150-05-11.900D1-	11,9		56	118	71	45	12	●
DC150-05-12.000D1-	12		56	118	71	45	12	●
DC150-05-12.100D1-	12,1		60	124	77	45	14	●
DC150-05-12.200D1-	12,2		60	124	77	45	14	●
DC150-05-12.300D1-	12,3		60	124	77	45	14	●
DC150-05-12.400D1-	12,4		60	124	77	45	14	●
DC150-05-12.500D1-	12,5		60	124	77	45	14	●
DC150-05-12.700D1-	12,7	1/2“	60	124	77	45	14	●
DC150-05-12.800D1-	12,8		60	124	77	45	14	●
DC150-05-13.000D1-	13		60	124	77	45	14	●
DC150-05-13.100D1-	13,1		60	124	77	45	14	●
DC150-05-13.200D1-	13,2		60	124	77	45	14	●
DC150-05-13.500D1-	13,5		60	124	77	45	14	●
DC150-05-13.800D1-	13,8		60	124	77	45	14	●
DC150-05-14.000D1-	14		60	124	77	45	14	●
DC150-05-14.100D1-	14,1		63	133	83	48	16	●
DC150-05-14.200D1-	14,2		63	133	83	48	16	●

Ordering example for the WJ30RE grade: DC150-05-03.000D1-WJ30RE

Continued

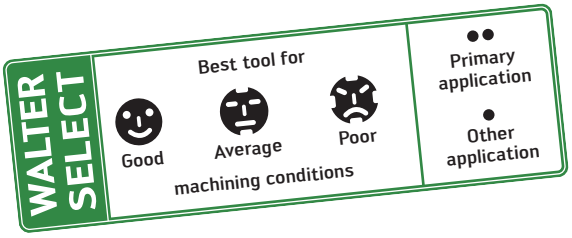
Continued

DIN 6535 HE,
turned 180°
DIN 6535 HB

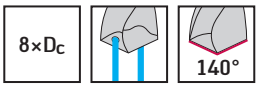


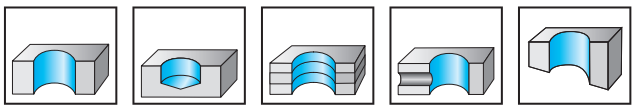
Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30RE
DC150-05-14.300D1-	14,3		63	133	83	48	16	☹
DC150-05-14.500D1-	14,5		63	133	83	48	16	☹
DC150-05-14.600D1-	14,6		63	133	83	48	16	☹
DC150-05-14.800D1-	14,8		63	133	83	48	16	☹
DC150-05-15.000D1-	15		63	133	83	48	16	☹
DC150-05-15.100D1-	15,1		63	133	83	48	16	☹
DC150-05-15.200D1-	15,2		63	133	83	48	16	☹
DC150-05-15.300D1-	15,3		63	133	83	48	16	☹
DC150-05-15.500D1-	15,5		63	133	83	48	16	☹
DC150-05-15.600D1-	15,6		63	133	83	48	16	☹
DC150-05-15.700D1-	15,7		63	133	83	48	16	☹
DC150-05-15.800D1-	15,8		63	133	83	48	16	☹
DC150-05-16.000D1-	16		63	133	83	48	16	☹
DC150-05-16.500D1-	16,5		71	143	93	48	18	☹
DC150-05-16.600D1-	16,6		71	143	93	48	18	☹
DC150-05-17.000D1-	17		71	143	93	48	18	☹
DC150-05-17.200D1-	17,2		71	143	93	48	18	☹
DC150-05-17.300D1-	17,3		71	143	93	48	18	☹
DC150-05-17.500D1-	17,5		71	143	93	48	18	☹
DC150-05-17.700D1-	17,7		71	143	93	48	18	☹
DC150-05-17.800D1-	17,8		71	143	93	48	18	☹
DC150-05-18.000D1-	18		71	143	93	48	18	☹
DC150-05-18.100D1-	18,1		77	153	101	50	20	☹
DC150-05-18.500D1-	18,5		77	153	101	50	20	☹
DC150-05-18.800D1-	18,8		77	153	101	50	20	☹
DC150-05-19.000D1-	19		77	153	101	50	20	☹
DC150-05-19.500D1-	19,5		77	153	101	50	20	☹
DC150-05-19.700D1-	19,7		77	153	101	50	20	☹
DC150-05-20.000D1-	20		77	153	101	50	20	☹

Ordering example for the WJ30RE grade: DC150-05-03.000D1-WJ30RE



Solid carbide drills with coolant-through
DC160 Advance

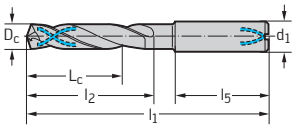




	P	M	K	N	S	H	O
WJ30ET	●●	●	●●	●●	●●	●	●

B1

Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-08-03.000A1-	3		28	74	34	36	6	●
DC160-08-03.100A1-	3,1		28	74	34	36	6	●
DC160-08-03.175A1-	3,175	1/8"	28	74	34	36	6	●
DC160-08-03.200A1-	3,2		28	74	34	36	6	●
DC160-08-03.300A1-	3,3		28	74	34	36	6	●
DC160-08-03.400A1-	3,4		28	74	34	36	6	●
DC160-08-03.500A1-	3,5		28	74	34	36	6	●
DC160-08-03.572A1-	3,572	9/64"	28	74	34	36	6	●
DC160-08-03.600A1-	3,6		28	74	34	36	6	●
DC160-08-03.700A1-	3,7		28	74	34	36	6	●
DC160-08-03.800A1-	3,8		37	85	45	36	6	●
DC160-08-03.900A1-	3,9		37	85	45	36	6	●
DC160-08-03.969A1-	3,969	5/32"	37	85	45	36	6	●
DC160-08-04.000A1-	4		37	85	45	36	6	●
DC160-08-04.100A1-	4,1		37	85	45	36	6	●
DC160-08-04.200A1-	4,2		37	85	45	36	6	●
DC160-08-04.300A1-	4,3		37	85	45	36	6	●
DC160-08-04.366A1-	4,366	11/64"	37	85	45	36	6	●
DC160-08-04.400A1-	4,4		37	85	45	36	6	●
DC160-08-04.500A1-	4,5		37	85	45	36	6	●
DC160-08-04.600A1-	4,6		37	85	45	36	6	●
DC160-08-04.700A1-	4,7		37	85	45	36	6	●
DC160-08-04.763A1-	4,763	3/16"	48	97	57	36	6	●
DC160-08-04.800A1-	4,8		48	97	57	36	6	●
DC160-08-04.900A1-	4,9		48	97	57	36	6	●
DC160-08-05.000A1-	5		48	97	57	36	6	●
DC160-08-05.100A1-	5,1		48	97	57	36	6	●
DC160-08-05.159A1-	5,159	13/64"	48	97	57	36	6	●
DC160-08-05.200A1-	5,2		48	97	57	36	6	●
DC160-08-05.300A1-	5,3		48	97	57	36	6	●
DC160-08-05.400A1-	5,4		48	97	57	36	6	●
DC160-08-05.500A1-	5,5		48	97	57	36	6	●
DC160-08-05.556A1-	5,556	7/32"	48	97	57	36	6	●
DC160-08-05.600A1-	5,6		48	97	57	36	6	●
DC160-08-05.700A1-	5,7		48	97	57	36	6	●
DC160-08-05.800A1-	5,8		48	97	57	36	6	●
DC160-08-05.900A1-	5,9		48	97	57	36	6	●
DC160-08-05.953A1-	5,953	15/64"	48	97	57	36	6	●
DC160-08-06.000A1-	6		48	97	57	36	6	●
DC160-08-06.100A1-	6,1		55	106	66	36	8	●
DC160-08-06.200A1-	6,2		55	106	66	36	8	●
DC160-08-06.300A1-	6,3		55	106	66	36	8	●
DC160-08-06.350A1-	6,35	1/4"	55	106	66	36	8	●
DC160-08-06.400A1-	6,4		55	106	66	36	8	●
DC160-08-06.500A1-	6,5		55	106	66	36	8	●
DC160-08-06.600A1-	6,6		55	106	66	36	8	●
DC160-08-06.700A1-	6,7		55	106	66	36	8	●

Ordering example for the WJ30ET grade: DC160-08-03.000A1-WJ30ET

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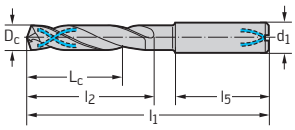
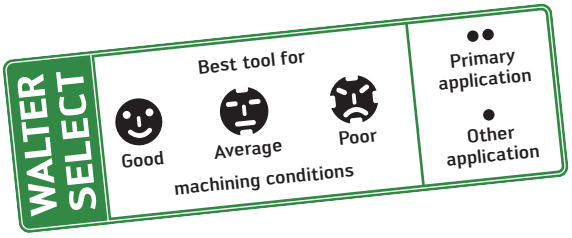
Shank DIN 6535 HA



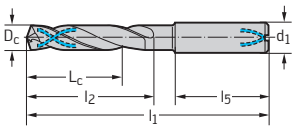
Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-08-06.747A1-	6,747	17/64"	55	106	66	36	8	☹
DC160-08-06.800A1-	6,8		55	106	66	36	8	☹
DC160-08-06.900A1-	6,9		55	106	66	36	8	☹
DC160-08-07.000A1-	7		55	106	66	36	8	☹
DC160-08-07.100A1-	7,1		64	116	76	36	8	☹
DC160-08-07.144A1-	7,144	9/32"	64	116	76	36	8	☹
DC160-08-07.200A1-	7,2		64	116	76	36	8	☹
DC160-08-07.300A1-	7,3		64	116	76	36	8	☹
DC160-08-07.400A1-	7,4		64	116	76	36	8	☹
DC160-08-07.500A1-	7,5		64	116	76	36	8	☹
DC160-08-07.541A1-	7,541	19/64"	64	116	76	36	8	☹
DC160-08-07.600A1-	7,6		64	116	76	36	8	☹
DC160-08-07.700A1-	7,7		64	116	76	36	8	☹
DC160-08-07.800A1-	7,8		64	116	76	36	8	☹
DC160-08-07.900A1-	7,9		64	116	76	36	8	☹
DC160-08-07.938A1-	7,938	5/16"	64	116	76	36	8	☹
DC160-08-08.000A1-	8		64	116	76	36	8	☹
DC160-08-08.100A1-	8,1		80	139	95	40	10	☹
DC160-08-08.200A1-	8,2		80	139	95	40	10	☹
DC160-08-08.300A1-	8,3		80	139	95	40	10	☹
DC160-08-08.334A1-	8,334	21/64"	80	139	95	40	10	☹
DC160-08-08.400A1-	8,4		80	139	95	40	10	☹
DC160-08-08.500A1-	8,5		80	139	95	40	10	☹
DC160-08-08.600A1-	8,6		80	139	95	40	10	☹
DC160-08-08.700A1-	8,7		80	139	95	40	10	☹
DC160-08-08.731A1-	8,731	11/32"	80	139	95	40	10	☹
DC160-08-08.800A1-	8,8		80	139	95	40	10	☹
DC160-08-08.900A1-	8,9		80	139	95	40	10	☹
DC160-08-09.000A1-	9		80	139	95	40	10	☹
DC160-08-09.100A1-	9,1		80	139	95	40	10	☹
DC160-08-09.128A1-	9,128	23/64"	80	139	95	40	10	☹
DC160-08-09.200A1-	9,2		80	139	95	40	10	☹
DC160-08-09.300A1-	9,3		80	139	95	40	10	☹
DC160-08-09.400A1-	9,4		80	139	95	40	10	☹
DC160-08-09.500A1-	9,5		80	139	95	40	10	☹
DC160-08-09.525A1-	9,525	3/8"	80	139	95	40	10	☹
DC160-08-09.600A1-	9,6		80	139	95	40	10	☹
DC160-08-09.700A1-	9,7		80	139	95	40	10	☹
DC160-08-09.800A1-	9,8		80	139	95	40	10	☹
DC160-08-09.900A1-	9,9		80	139	95	40	10	☹
DC160-08-09.922A1-	9,922	25/64"	80	139	95	40	10	☹
DC160-08-10.000A1-	10		80	139	95	40	10	☹
DC160-08-10.100A1-	10,1		96	163	114	45	12	☹
DC160-08-10.200A1-	10,2		96	163	114	45	12	☹
DC160-08-10.300A1-	10,3		96	163	114	45	12	☹
DC160-08-10.319A1-	10,319	13/32"	96	163	114	45	12	☹
DC160-08-10.400A1-	10,4		96	163	114	45	12	☹
DC160-08-10.500A1-	10,5		96	163	114	45	12	☹
DC160-08-10.600A1-	10,6		96	163	114	45	12	☹
DC160-08-10.700A1-	10,7		96	163	114	45	12	☹
DC160-08-10.716A1-	10,716	27/64"	96	163	114	45	12	☹
DC160-08-10.800A1-	10,8		96	163	114	45	12	☹
DC160-08-10.900A1-	10,9		96	163	114	45	12	☹
DC160-08-11.000A1-	11		96	163	114	45	12	☹
DC160-08-11.100A1-	11,1		96	163	114	45	12	☹
DC160-08-11.113A1-	11,113	7/16"	96	163	114	45	12	☹
DC160-08-11.200A1-	11,2		96	163	114	45	12	☹

Ordering example for the WJ30ET grade: DC160-08-03.000A1-WJ30ET

Continued

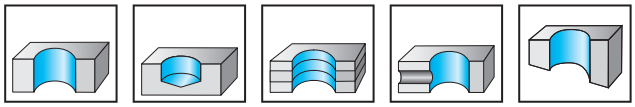


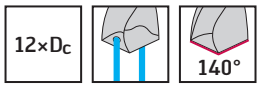
Continued

	Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
Shank DIN 6535 HA	DC160-08-11.300A1-	11,3		96	163	114	45	12	
	DC160-08-11.400A1-	11,4		96	163	114	45	12	
	DC160-08-11.500A1-	11,5		96	163	114	45	12	
	DC160-08-11.509A1-	11,509	29/64"	96	163	114	45	12	
	DC160-08-11.600A1-	11,6		96	163	114	45	12	
	DC160-08-11.700A1-	11,7		96	163	114	45	12	
	DC160-08-11.800A1-	11,8		96	163	114	45	12	
	DC160-08-11.900A1-	11,9		96	163	114	45	12	
	DC160-08-11.906A1-	11,906	15/32"	96	163	114	45	12	
	DC160-08-12.000A1-	12		96	163	114	45	12	
	DC160-08-12.303A1-	12,303	31/64"	119	182	133	45	14	
	DC160-08-12.500A1-	12,5		119	182	133	45	14	
	DC160-08-12.700A1-	12,7	1/2"	119	182	133	45	14	
	DC160-08-13.000A1-	13		119	182	133	45	14	
	DC160-08-13.494A1-	13,494	17/32"	119	182	133	45	14	
	DC160-08-13.500A1-	13,5		119	182	133	45	14	
	DC160-08-14.000A1-	14		119	182	133	45	14	
	DC160-08-14.288A1-	14,288	9/16"	136	204	152	48	16	
	DC160-08-14.500A1-	14,5		136	204	152	48	16	
	DC160-08-15.000A1-	15		136	204	152	48	16	
	DC160-08-15.500A1-	15,5		136	204	152	48	16	
	DC160-08-15.875A1-	15,875	5/8"	136	204	152	48	16	
	DC160-08-16.000A1-	16		136	204	152	48	16	
	DC160-08-16.500A1-	16,5		153	223	171	48	18	
	DC160-08-17.000A1-	17		153	223	171	48	18	
	DC160-08-17.500A1-	17,5		153	223	171	48	18	
	DC160-08-18.000A1-	18		153	223	171	48	18	
	DC160-08-18.500A1-	18,5		170	244	190	50	20	
	DC160-08-19.000A1-	19		170	244	190	50	20	
	DC160-08-19.050A1-	19,05	3/4"	170	244	190	50	20	
	DC160-08-19.500A1-	19,5		170	244	190	50	20	
	DC160-08-20.000A1-	20		170	244	190	50	20	

Ordering example for the WJ30ET grade: DC160-08-03.000A1-WJ30ET

Solid carbide drills with coolant-through
DC160 Advance





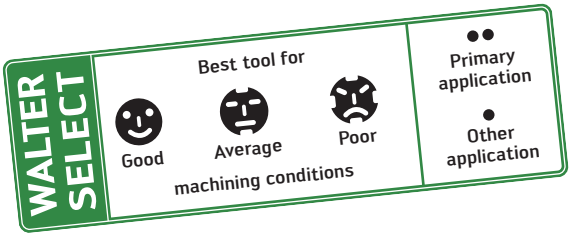
	P	M	K	N	S	H	O
WJ30EU	●●	●	●●	●●	●●	●	●

B1

	Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30EU
Shank DIN 6535 HA	DC160-12-03.000A1-	3		48	92	54	36	6	
	DC160-12-03.100A1-	3,1		48	92	54	36	6	
	DC160-12-03.175A1-	3,175	1/8"	48	92	54	36	6	
	DC160-12-03.200A1-	3,2		48	92	54	36	6	
	DC160-12-03.300A1-	3,3		48	92	54	36	6	
	DC160-12-03.400A1-	3,4		48	92	54	36	6	
	DC160-12-03.500A1-	3,5		48	92	54	36	6	
	DC160-12-03.572A1-	3,572	9/64"	48	92	54	36	6	
	DC160-12-03.600A1-	3,6		48	92	54	36	6	
	DC160-12-03.700A1-	3,7		48	92	54	36	6	
	DC160-12-03.800A1-	3,8		56	102	64	36	6	
	DC160-12-03.900A1-	3,9		56	102	64	36	6	
	DC160-12-03.969A1-	3,969	5/32"	56	102	64	36	6	
	DC160-12-04.000A1-	4		56	102	64	36	6	
	DC160-12-04.100A1-	4,1		56	102	64	36	6	
	DC160-12-04.200A1-	4,2		56	102	64	36	6	
	DC160-12-04.300A1-	4,3		56	102	64	36	6	
	DC160-12-04.366A1-	4,366	11/64"	56	102	64	36	6	
	DC160-12-04.400A1-	4,4		56	102	64	36	6	
	DC160-12-04.500A1-	4,5		56	102	64	36	6	
	DC160-12-04.600A1-	4,6		56	102	64	36	6	
	DC160-12-04.700A1-	4,7		56	102	64	36	6	
	DC160-12-04.763A1-	4,763	3/16"	74	121	83	36	6	
	DC160-12-04.800A1-	4,8		74	121	83	36	6	
	DC160-12-04.900A1-	4,9		74	121	83	36	6	
	DC160-12-05.000A1-	5		74	121	83	36	6	
	DC160-12-05.100A1-	5,1		74	121	83	36	6	
	DC160-12-05.159A1-	5,159	13/64"	74	121	83	36	6	
	DC160-12-05.200A1-	5,2		74	121	83	36	6	
	DC160-12-05.300A1-	5,3		74	121	83	36	6	
	DC160-12-05.400A1-	5,4		74	121	83	36	6	
	DC160-12-05.500A1-	5,5		74	121	83	36	6	
	DC160-12-05.550A1-	5,55		74	121	83	36	6	
	DC160-12-05.556A1-	5,556	7/32"	74	121	83	36	6	
	DC160-12-05.600A1-	5,6		74	121	83	36	6	
	DC160-12-05.700A1-	5,7		74	121	83	36	6	
	DC160-12-05.800A1-	5,8		74	121	83	36	6	
	DC160-12-05.900A1-	5,9		74	121	83	36	6	
	DC160-12-06.000A1-	6		74	121	83	36	6	
	DC160-12-06.100A1-	6,1		98	148	110	36	8	
	DC160-12-06.200A1-	6,2		98	148	110	36	8	
	DC160-12-06.300A1-	6,3		98	148	110	36	8	
	DC160-12-06.350A1-	6,35	1/4"	98	148	110	36	8	

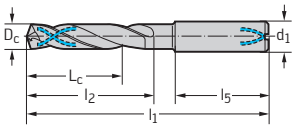
Ordering example for the WJ30EU grade: DC160-12-03.000A1-WJ30EU

Continued



Continued

Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30EU
DC160-12-06.400A1-	6,4		98	148	110	36	8	●
DC160-12-06.500A1-	6,5		98	148	110	36	8	●
DC160-12-06.600A1-	6,6		98	148	110	36	8	●
DC160-12-06.700A1-	6,7		98	148	110	36	8	●
DC160-12-06.747A1-	6,747	17/64"	98	148	110	36	8	●
DC160-12-06.800A1-	6,8		98	148	110	36	8	●
DC160-12-06.900A1-	6,9		98	148	110	36	8	●
DC160-12-07.000A1-	7		98	148	110	36	8	●
DC160-12-07.100A1-	7,1		98	148	110	36	8	●
DC160-12-07.144A1-	7,144	9/32"	98	148	110	36	8	●
DC160-12-07.200A1-	7,2		98	148	110	36	8	●
DC160-12-07.300A1-	7,3		98	148	110	36	8	●
DC160-12-07.400A1-	7,4		98	148	110	36	8	●
DC160-12-07.500A1-	7,5		98	148	110	36	8	●
DC160-12-07.541A1-	7,541	19/64"	98	148	110	36	8	●
DC160-12-07.800A1-	7,8		98	148	110	36	8	●
DC160-12-07.900A1-	7,9		98	148	110	36	8	●
DC160-12-07.938A1-	7,938	5/16"	98	148	110	36	8	●
DC160-12-08.000A1-	8		98	148	110	36	8	●
DC160-12-08.100A1-	8,1		123	180	138	40	10	●
DC160-12-08.200A1-	8,2		123	180	138	40	10	●
DC160-12-08.300A1-	8,3		123	180	138	40	10	●
DC160-12-08.400A1-	8,4		123	180	138	40	10	●
DC160-12-08.500A1-	8,5		123	180	138	40	10	●
DC160-12-08.600A1-	8,6		123	180	138	40	10	●
DC160-12-08.700A1-	8,7		123	180	138	40	10	●
DC160-12-08.731A1-	8,731	11/32"	123	180	138	40	10	●
DC160-12-08.800A1-	8,8		123	180	138	40	10	●
DC160-12-09.000A1-	9		123	180	138	40	10	●
DC160-12-09.128A1-	9,128	23/64"	123	180	138	40	10	●
DC160-12-09.200A1-	9,2		123	180	138	40	10	●
DC160-12-09.300A1-	9,3		123	180	138	40	10	●
DC160-12-09.500A1-	9,5		123	180	138	40	10	●
DC160-12-09.525A1-	9,525	3/8"	123	180	138	40	10	●
DC160-12-09.600A1-	9,6		123	180	138	40	10	●
DC160-12-09.700A1-	9,7		123	180	138	40	10	●
DC160-12-09.800A1-	9,8		123	180	138	40	10	●
DC160-12-09.922A1-	9,922	25/64"	123	180	138	40	10	●
DC160-12-10.000A1-	10		123	180	138	40	10	●
DC160-12-10.100A1-	10,1		140	206	158	45	12	●
DC160-12-10.200A1-	10,2		140	206	158	45	12	●
DC160-12-10.300A1-	10,3		140	206	158	45	12	●
DC160-12-10.319A1-	10,319	13/32"	140	206	158	45	12	●
DC160-12-10.400A1-	10,4		140	206	158	45	12	●
DC160-12-10.500A1-	10,5		140	206	158	45	12	●
DC160-12-10.716A1-	10,716	27/64"	140	206	158	45	12	●
DC160-12-10.800A1-	10,8		140	206	158	45	12	●
DC160-12-11.000A1-	11		140	206	158	45	12	●
DC160-12-11.100A1-	11,1		140	206	158	45	12	●
DC160-12-11.113A1-	11,113	7/16"	140	206	158	45	12	●
DC160-12-11.200A1-	11,2		140	206	158	45	12	●
DC160-12-11.500A1-	11,5		140	206	158	45	12	●
DC160-12-11.509A1-	11,509	29/64"	140	206	158	45	12	●
DC160-12-11.700A1-	11,7		140	206	158	45	12	●
DC160-12-11.800A1-	11,8		140	206	158	45	12	●
DC160-12-11.906A1-	11,906	15/32"	140	206	158	45	12	●
DC160-12-12.000A1-	12		140	206	158	45	12	●
DC160-12-12.100A1-	12,1		168	230	182	45	14	●
DC160-12-12.200A1-	12,2		168	230	182	45	14	●
DC160-12-12.300A1-	12,3		168	230	182	45	14	●
DC160-12-12.303A1-	12,303	31/64"	168	230	182	45	14	●

Ordering example for the WJ30EU grade: DC160-12-03.000A1-WJ30EU

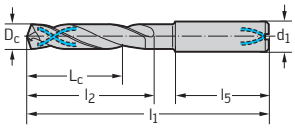
Continued

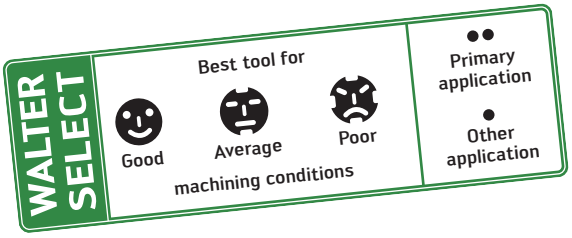
● / ★ New addition to the product range

Continued

	Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30EU
Shank DIN 6535 HA	DC160-12-12.500A1-	12,5		168	230	182	45	14	
	DC160-12-12.600A1-	12,6		168	230	182	45	14	
	DC160-12-12.700A1-	12,7	1/2"	168	230	182	45	14	
	DC160-12-13.000A1-	13		168	230	182	45	14	
	DC160-12-13.494A1-	13,494	17/32"	168	230	182	45	14	
	DC160-12-13.500A1-	13,5		168	230	182	45	14	
	DC160-12-14.000A1-	14		168	230	182	45	14	
	DC160-12-14.288A1-	14,288	9/16"	192	260	208	48	16	
	DC160-12-14.500A1-	14,5		192	260	208	48	16	
	DC160-12-15.000A1-	15		192	260	208	48	16	
	DC160-12-15.500A1-	15,5		192	260	208	48	16	
	DC160-12-15.875A1-	15,875	5/8"	192	260	208	48	16	
	DC160-12-16.000A1-	16		192	260	208	48	16	
	DC160-12-16.500A1-	16,5		216	285	234	48	18	
	DC160-12-17.000A1-	17		216	285	234	48	18	
	DC160-12-17.500A1-	17,5		216	285	234	48	18	
	DC160-12-18.000A1-	18		216	285	234	48	18	
	DC160-12-18.500A1-	18,5		238	310	258	50	20	
	DC160-12-19.000A1-	19		238	310	258	50	20	
	DC160-12-19.500A1-	19,5		238	310	258	50	20	
	DC160-12-20.000A1-	20		238	310	258	50	20	

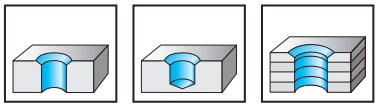
Ordering example for the WJ30EU grade: DC160-12-03.000A1-WJ30EU

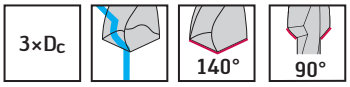




Solid carbide chamfer drills
DC260 Advance

– Step length in accordance with DIN 8378
– For threaded core hole drilling

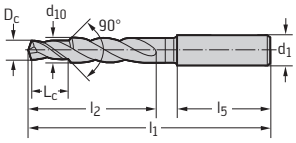


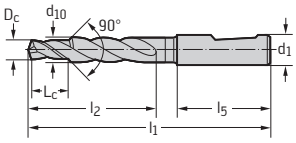


	P	M	K	N	S	H	O
WJ30ET	●●		●●	●	●	●	●

B1

	Designation	For thread	D_c m7 mm	d_{10} h7 mm	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
Shank DIN 6535 HA	DC260-03-03.300A0-	M 4	3,3	5	11	66	28	36	6	
	DC260-03-04.200A0-	M 5	4,2	6	14	66	28	36	6	
	DC260-03-05.000A0-	M 6	5	8	17	79	41	36	8	
	DC260-03-06.800A0-	M 8	6,8	10	21	89	47	40	10	
	DC260-03-08.500A0-	M 10	8,5	12	26	102	55	45	12	
	DC260-03-10.200A0-	M 12	10,2	14	30	107	60	45	14	
	DC260-03-12.000A0-	M 14	12	16	35	115	65	48	16	
	DC260-03-14.000A0-	M 16	14	18	39	123	73	48	18	
Shank DIN 6535 HE	DC260-03-03.300F0-	M 4	3,3	5	11	66	28	36	6	
	DC260-03-04.200F0-	M 5	4,2	6	14	66	28	36	6	
	DC260-03-05.000F0-	M 6	5	8	17	79	41	36	8	
	DC260-03-06.800F0-	M 8	6,8	10	21	89	47	40	10	
	DC260-03-07.000F0-	M 8 X 1	7	10	21	89	47	40	10	
	DC260-03-08.500F0-	M 10	8,5	12	26	102	55	45	12	
	DC260-03-09.000F0-	M 10 X 1	9	12	26	102	55	45	12	
	DC260-03-10.200F0-	M 12	10,2	14	30	107	60	45	14	
	DC260-03-10.500F0-	M 12 X 1,5	10,5	14	30	107	60	45	14	
	DC260-03-12.000F0-	M 14	12	16	35	115	65	48	16	
	DC260-03-12.500F0-	M 14 X 1,5	12,5	16	35	115	65	48	16	
	DC260-03-14.000F0-	M 16	14	18	39	123	73	48	18	
	DC260-03-14.500F0-	M 16 X 1,5	14,5	18	39	123	73	48	18	

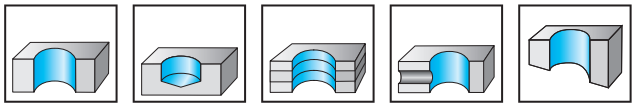




Ordering example for the WJ30ET grade: DC260-03-03.300A0-WJ30ET

● ● ● / ★ New addition to the product range

Solid carbide twist drills
DC160 Advance

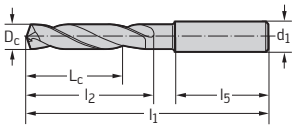


3×D_c | DIN 6537 K | 140°

	P	M	K	N	S	H	O
WJ30ET	●●		●●	●	●	●	●

B1

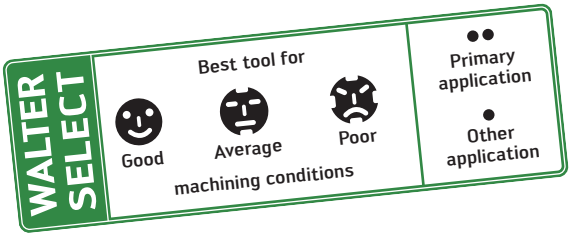
Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-03-03.000A0-	3		14	62	20	36	6	●●
DC160-03-03.100A0-	3,1		14	62	20	36	6	●●
DC160-03-03.175A0-	3,175	1/8"	14	62	20	36	6	●●
DC160-03-03.200A0-	3,2		14	62	20	36	6	●●
DC160-03-03.250A0-	3,25		14	62	20	36	6	●●
DC160-03-03.300A0-	3,3		14	62	20	36	6	●●
DC160-03-03.400A0-	3,4		14	62	20	36	6	●●
DC160-03-03.500A0-	3,5		14	62	20	36	6	●●
DC160-03-03.572A0-	3,572	9/64"	14	62	20	36	6	●●
DC160-03-03.600A0-	3,6		14	62	20	36	6	●●
DC160-03-03.650A0-	3,65		14	62	20	36	6	●●
DC160-03-03.700A0-	3,7		14	62	20	36	6	●●
DC160-03-03.800A0-	3,8		17	66	24	36	6	●●
DC160-03-03.900A0-	3,9		17	66	24	36	6	●●
DC160-03-03.969A0-	3,969	5/32"	17	66	24	36	6	●●
DC160-03-04.000A0-	4		17	66	24	36	6	●●
DC160-03-04.100A0-	4,1		17	66	24	36	6	●●
DC160-03-04.200A0-	4,2		17	66	24	36	6	●●
DC160-03-04.300A0-	4,3		17	66	24	36	6	●●
DC160-03-04.366A0-	4,366	11/64"	17	66	24	36	6	●●
DC160-03-04.400A0-	4,4		17	66	24	36	6	●●
DC160-03-04.500A0-	4,5		17	66	24	36	6	●●
DC160-03-04.600A0-	4,6		17	66	24	36	6	●●
DC160-03-04.650A0-	4,65		17	66	24	36	6	●●
DC160-03-04.700A0-	4,7		17	66	24	36	6	●●
DC160-03-04.763A0-	4,763	3/16"	20	66	28	36	6	●●
DC160-03-04.800A0-	4,8		20	66	28	36	6	●●
DC160-03-04.900A0-	4,9		20	66	28	36	6	●●
DC160-03-05.000A0-	5		20	66	28	36	6	●●
DC160-03-05.100A0-	5,1		20	66	28	36	6	●●
DC160-03-05.159A0-	5,159	13/64"	20	66	28	36	6	●●
DC160-03-05.200A0-	5,2		20	66	28	36	6	●●
DC160-03-05.300A0-	5,3		20	66	28	36	6	●●
DC160-03-05.400A0-	5,4		20	66	28	36	6	●●
DC160-03-05.500A0-	5,5		20	66	28	36	6	●●
DC160-03-05.550A0-	5,55		20	66	28	36	6	●●
DC160-03-05.556A0-	5,556	7/32"	20	66	28	36	6	●●
DC160-03-05.600A0-	5,6		20	66	28	36	6	●●
DC160-03-05.700A0-	5,7		20	66	28	36	6	●●
DC160-03-05.800A0-	5,8		20	66	28	36	6	●●
DC160-03-05.900A0-	5,9		20	66	28	36	6	●●
DC160-03-05.953A0-	5,953	15/64"	20	66	28	36	6	●●
DC160-03-06.000A0-	6		20	66	28	36	6	●●

Ordering example for the WJ30ET grade: DC160-03-03.000A0-WJ30ET

Continued



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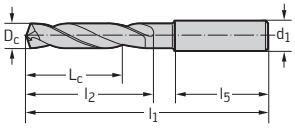
Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-03-06.100A0-	6,1		24	79	34	36	8	●
DC160-03-06.200A0-	6,2		24	79	34	36	8	●
DC160-03-06.300A0-	6,3		24	79	34	36	8	●
DC160-03-06.350A0-	6,35	1/4"	24	79	34	36	8	●
DC160-03-06.400A0-	6,4		24	79	34	36	8	●
DC160-03-06.500A0-	6,5		24	79	34	36	8	●
DC160-03-06.600A0-	6,6		24	79	34	36	8	●
DC160-03-06.700A0-	6,7		24	79	34	36	8	●
DC160-03-06.747A0-	6,747	17/64"	24	79	34	36	8	●
DC160-03-06.800A0-	6,8		24	79	34	36	8	●
DC160-03-06.900A0-	6,9		24	79	34	36	8	●
DC160-03-07.000A0-	7		24	79	34	36	8	●
DC160-03-07.100A0-	7,1		29	79	41	36	8	●
DC160-03-07.144A0-	7,144	9/32"	29	79	41	36	8	●
DC160-03-07.200A0-	7,2		29	79	41	36	8	●
DC160-03-07.300A0-	7,3		29	79	41	36	8	●
DC160-03-07.400A0-	7,4		29	79	41	36	8	●
DC160-03-07.500A0-	7,5		29	79	41	36	8	●
DC160-03-07.541A0-	7,541	19/64"	29	79	41	36	8	●
DC160-03-07.550A0-	7,55		29	79	41	36	8	●
DC160-03-07.600A0-	7,6		29	79	41	36	8	●
DC160-03-07.700A0-	7,7		29	79	41	36	8	●
DC160-03-07.800A0-	7,8		29	79	41	36	8	●
DC160-03-07.900A0-	7,9		29	79	41	36	8	●
DC160-03-07.938A0-	7,938	5/16"	29	79	41	36	8	●
DC160-03-08.000A0-	8		29	79	41	36	8	●
DC160-03-08.100A0-	8,1		35	89	47	40	10	●
DC160-03-08.200A0-	8,2		35	89	47	40	10	●
DC160-03-08.300A0-	8,3		35	89	47	40	10	●
DC160-03-08.334A0-	8,334	21/64"	35	89	47	40	10	●
DC160-03-08.400A0-	8,4		35	89	47	40	10	●
DC160-03-08.500A0-	8,5		35	89	47	40	10	●
DC160-03-08.600A0-	8,6		35	89	47	40	10	●
DC160-03-08.700A0-	8,7		35	89	47	40	10	●
DC160-03-08.731A0-	8,731	11/32"	35	89	47	40	10	●
DC160-03-08.800A0-	8,8		35	89	47	40	10	●
DC160-03-08.900A0-	8,9		35	89	47	40	10	●
DC160-03-09.000A0-	9		35	89	47	40	10	●
DC160-03-09.100A0-	9,1		35	89	47	40	10	●
DC160-03-09.128A0-	9,128	23/64"	35	89	47	40	10	●
DC160-03-09.200A0-	9,2		35	89	47	40	10	●
DC160-03-09.300A0-	9,3		35	89	47	40	10	●
DC160-03-09.400A0-	9,4		35	89	47	40	10	●
DC160-03-09.500A0-	9,5		35	89	47	40	10	●
DC160-03-09.525A0-	9,525	3/8"	35	89	47	40	10	●
DC160-03-09.550A0-	9,55		35	89	47	40	10	●
DC160-03-09.600A0-	9,6		35	89	47	40	10	●
DC160-03-09.700A0-	9,7		35	89	47	40	10	●
DC160-03-09.800A0-	9,8		35	89	47	40	10	●
DC160-03-09.900A0-	9,9		35	89	47	40	10	●
DC160-03-09.922A0-	9,922	25/64"	35	89	47	40	10	●
DC160-03-10.000A0-	10		35	89	47	40	10	●
DC160-03-10.100A0-	10,1		40	102	55	45	12	●
DC160-03-10.200A0-	10,2		40	102	55	45	12	●
DC160-03-10.300A0-	10,3		40	102	55	45	12	●
DC160-03-10.319A0-	10,319	13/32"	40	102	55	45	12	●
DC160-03-10.400A0-	10,4		40	102	55	45	12	●
DC160-03-10.500A0-	10,5		40	102	55	45	12	●
DC160-03-10.600A0-	10,6		40	102	55	45	12	●
DC160-03-10.700A0-	10,7		40	102	55	45	12	●
DC160-03-10.716A0-	10,716	27/64"	40	102	55	45	12	●

Ordering example for the WJ30ET grade: DC160-03-03.000A0-WJ30ET

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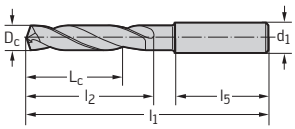
Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-03-10.800A0-	10,8		40	102	55	45	12	☹
DC160-03-10.900A0-	10,9		40	102	55	45	12	☹
DC160-03-11.000A0-	11		40	102	55	45	12	☹
DC160-03-11.100A0-	11,1		40	102	55	45	12	☹
DC160-03-11.113A0-	11,113	7/16"	40	102	55	45	12	☹
DC160-03-11.200A0-	11,2		40	102	55	45	12	☹
DC160-03-11.300A0-	11,3		40	102	55	45	12	☹
DC160-03-11.400A0-	11,4		40	102	55	45	12	☹
DC160-03-11.500A0-	11,5		40	102	55	45	12	☹
DC160-03-11.509A0-	11,509	29/64"	40	102	55	45	12	☹
DC160-03-11.550A0-	11,55		40	102	55	45	12	☹
DC160-03-11.600A0-	11,6		40	102	55	45	12	☹
DC160-03-11.700A0-	11,7		40	102	55	45	12	☹
DC160-03-11.800A0-	11,8		40	102	55	45	12	☹
DC160-03-11.900A0-	11,9		40	102	55	45	12	☹
DC160-03-11.906A0-	11,906	15/32"	40	102	55	45	12	☹
DC160-03-12.000A0-	12		40	102	55	45	12	☹
DC160-03-12.100A0-	12,1		43	107	60	45	14	☹
DC160-03-12.200A0-	12,2		43	107	60	45	14	☹
DC160-03-12.250A0-	12,25		43	107	60	45	14	☹
DC160-03-12.300A0-	12,3		43	107	60	45	14	☹
DC160-03-12.303A0-	12,303	31/64"	43	107	60	45	14	☹
DC160-03-12.400A0-	12,4		43	107	60	45	14	☹
DC160-03-12.500A0-	12,5		43	107	60	45	14	☹
DC160-03-12.600A0-	12,6		43	107	60	45	14	☹
DC160-03-12.700A0-	12,7	1/2"	43	107	60	45	14	☹
DC160-03-12.750A0-	12,75		43	107	60	45	14	☹
DC160-03-12.800A0-	12,8		43	107	60	45	14	☹
DC160-03-12.900A0-	12,9		43	107	60	45	14	☹
DC160-03-13.000A0-	13		43	107	60	45	14	☹
DC160-03-13.100A0-	13,1		43	107	60	45	14	☹
DC160-03-13.200A0-	13,2		43	107	60	45	14	☹
DC160-03-13.300A0-	13,3		43	107	60	45	14	☹
DC160-03-13.400A0-	13,4		43	107	60	45	14	☹
DC160-03-13.494A0-	13,494	17/32"	43	107	60	45	14	☹
DC160-03-13.500A0-	13,5		43	107	60	45	14	☹
DC160-03-13.600A0-	13,6		43	107	60	45	14	☹
DC160-03-13.700A0-	13,7		43	107	60	45	14	☹
DC160-03-13.800A0-	13,8		43	107	60	45	14	☹
DC160-03-13.900A0-	13,9		43	107	60	45	14	☹
DC160-03-14.000A0-	14		43	107	60	45	14	☹
DC160-03-14.100A0-	14,1		45	115	65	48	16	☹
DC160-03-14.200A0-	14,2		45	115	65	48	16	☹
DC160-03-14.288A0-	14,288	9/16"	45	115	65	48	16	☹
DC160-03-14.300A0-	14,3		45	115	65	48	16	☹
DC160-03-14.400A0-	14,4		45	115	65	48	16	☹
DC160-03-14.500A0-	14,5		45	115	65	48	16	☹
DC160-03-14.600A0-	14,6		45	115	65	48	16	☹
DC160-03-14.700A0-	14,7		45	115	65	48	16	☹
DC160-03-14.750A0-	14,75		45	115	65	48	16	☹
DC160-03-14.800A0-	14,8		45	115	65	48	16	☹
DC160-03-15.000A0-	15		45	115	65	48	16	☹
DC160-03-15.100A0-	15,1		45	115	65	48	16	☹
DC160-03-15.200A0-	15,2		45	115	65	48	16	☹
DC160-03-15.300A0-	15,3		45	115	65	48	16	☹
DC160-03-15.500A0-	15,5		45	115	65	48	16	☹
DC160-03-15.600A0-	15,6		45	115	65	48	16	☹

Ordering example for the WJ30ET grade: DC160-03-03.000A0-WJ30ET

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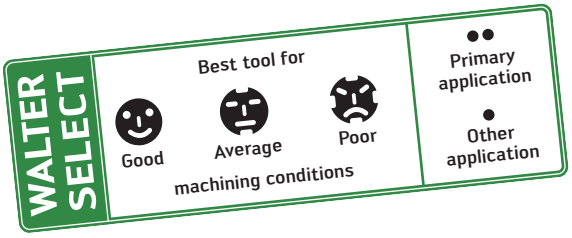

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	Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
Shank DIN 6535 HA	DC160-03-15.700A0-	15,7		45	115	65	48	16	●
	DC160-03-15.800A0-	15,8		45	115	65	48	16	●
	DC160-03-15.875A0-	15,875	5/8“	45	115	65	48	16	●
	DC160-03-15.900A0-	15,9		45	115	65	48	16	●
	DC160-03-16.000A0-	16		45	115	65	48	16	●
	DC160-03-16.100A0-	16,1		51	123	73	48	18	●
	DC160-03-16.200A0-	16,2		51	123	73	48	18	●
	DC160-03-16.300A0-	16,3		51	123	73	48	18	●
	DC160-03-16.400A0-	16,4		51	123	73	48	18	●
	DC160-03-16.500A0-	16,5		51	123	73	48	18	●
	DC160-03-16.600A0-	16,6		51	123	73	48	18	●
	DC160-03-16.700A0-	16,7		51	123	73	48	18	●
	DC160-03-16.750A0-	16,75		51	123	73	48	18	●
	DC160-03-16.800A0-	16,8		51	123	73	48	18	●
	DC160-03-17.000A0-	17		51	123	73	48	18	●
	DC160-03-17.200A0-	17,2		51	123	73	48	18	●
	DC160-03-17.300A0-	17,3		51	123	73	48	18	●
	DC160-03-17.500A0-	17,5		51	123	73	48	18	●
	DC160-03-17.600A0-	17,6		51	123	73	48	18	●
	DC160-03-17.700A0-	17,7		51	123	73	48	18	●
	DC160-03-17.800A0-	17,8		51	123	73	48	18	●
	DC160-03-18.000A0-	18		51	123	73	48	18	●
	DC160-03-18.200A0-	18,2		55	131	79	50	20	●
	DC160-03-18.500A0-	18,5		55	131	79	50	20	●
	DC160-03-18.700A0-	18,7		55	131	79	50	20	●
	DC160-03-18.800A0-	18,8		55	131	79	50	20	●
	DC160-03-19.000A0-	19		55	131	79	50	20	●
	DC160-03-19.050A0-	19,05	3/4“	55	131	79	50	20	●
	DC160-03-19.500A0-	19,5		55	131	79	50	20	●
	DC160-03-19.700A0-	19,7		55	131	79	50	20	●
	DC160-03-19.800A0-	19,8		55	131	79	50	20	●
	DC160-03-20.000A0-	20		55	131	79	50	20	●
Shank DIN 6535 HE	DC160-03-03.000F0-	3		14	62	20	36	6	●
	DC160-03-03.100F0-	3,1		14	62	20	36	6	●
	DC160-03-03.200F0-	3,2		14	62	20	36	6	●
	DC160-03-03.250F0-	3,25		14	62	20	36	6	●
	DC160-03-03.300F0-	3,3		14	62	20	36	6	●
	DC160-03-03.400F0-	3,4		14	62	20	36	6	●
	DC160-03-03.500F0-	3,5		14	62	20	36	6	●
	DC160-03-03.600F0-	3,6		14	62	20	36	6	●
	DC160-03-03.650F0-	3,65		14	62	20	36	6	●
	DC160-03-03.700F0-	3,7		14	62	20	36	6	●
	DC160-03-03.800F0-	3,8		17	66	24	36	6	●
	DC160-03-03.900F0-	3,9		17	66	24	36	6	●
	DC160-03-04.000F0-	4		17	66	24	36	6	●
	DC160-03-04.100F0-	4,1		17	66	24	36	6	●
	DC160-03-04.200F0-	4,2		17	66	24	36	6	●
	DC160-03-04.300F0-	4,3		17	66	24	36	6	●
	DC160-03-04.400F0-	4,4		17	66	24	36	6	●
	DC160-03-04.500F0-	4,5		17	66	24	36	6	●
	DC160-03-04.600F0-	4,6		17	66	24	36	6	●
	DC160-03-04.650F0-	4,65		17	66	24	36	6	●
	DC160-03-04.700F0-	4,7		17	66	24	36	6	●
	DC160-03-04.800F0-	4,8		20	66	28	36	6	●
	DC160-03-04.900F0-	4,9		20	66	28	36	6	●
	DC160-03-05.000F0-	5		20	66	28	36	6	●
	DC160-03-05.100F0-	5,1		20	66	28	36	6	●
	DC160-03-05.200F0-	5,2		20	66	28	36	6	●
	DC160-03-05.300F0-	5,3		20	66	28	36	6	●
	DC160-03-05.400F0-	5,4		20	66	28	36	6	●
	DC160-03-05.500F0-	5,5		20	66	28	36	6	●

Ordering example for the WJ30ET grade: DC160-03-03.000A0-WJ30ET

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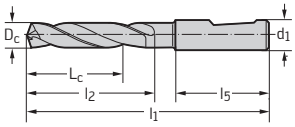
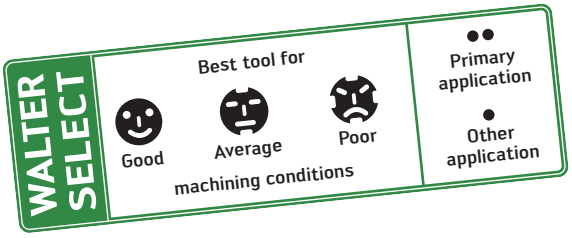
Shank DIN 6535 HE



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-03-05.550F0-	5,55		20	66	28	36	6	☹
DC160-03-05.600F0-	5,6		20	66	28	36	6	☹
DC160-03-05.700F0-	5,7		20	66	28	36	6	☹
DC160-03-05.800F0-	5,8		20	66	28	36	6	☹
DC160-03-05.900F0-	5,9		20	66	28	36	6	☹
DC160-03-06.000F0-	6		20	66	28	36	6	☹
DC160-03-06.100F0-	6,1		24	79	34	36	8	☹
DC160-03-06.200F0-	6,2		24	79	34	36	8	☹
DC160-03-06.300F0-	6,3		24	79	34	36	8	☹
DC160-03-06.400F0-	6,4		24	79	34	36	8	☹
DC160-03-06.500F0-	6,5		24	79	34	36	8	☹
DC160-03-06.600F0-	6,6		24	79	34	36	8	☹
DC160-03-06.700F0-	6,7		24	79	34	36	8	☹
DC160-03-06.800F0-	6,8		24	79	34	36	8	☹
DC160-03-06.900F0-	6,9		24	79	34	36	8	☹
DC160-03-07.000F0-	7		24	79	34	36	8	☹
DC160-03-07.100F0-	7,1		29	79	41	36	8	☹
DC160-03-07.200F0-	7,2		29	79	41	36	8	☹
DC160-03-07.300F0-	7,3		29	79	41	36	8	☹
DC160-03-07.400F0-	7,4		29	79	41	36	8	☹
DC160-03-07.500F0-	7,5		29	79	41	36	8	☹
DC160-03-07.550F0-	7,55		29	79	41	36	8	☹
DC160-03-07.600F0-	7,6		29	79	41	36	8	☹
DC160-03-07.700F0-	7,7		29	79	41	36	8	☹
DC160-03-07.800F0-	7,8		29	79	41	36	8	☹
DC160-03-07.900F0-	7,9		29	79	41	36	8	☹
DC160-03-08.000F0-	8		29	79	41	36	8	☹
DC160-03-08.100F0-	8,1		35	89	47	40	10	☹
DC160-03-08.200F0-	8,2		35	89	47	40	10	☹
DC160-03-08.300F0-	8,3		35	89	47	40	10	☹
DC160-03-08.400F0-	8,4		35	89	47	40	10	☹
DC160-03-08.500F0-	8,5		35	89	47	40	10	☹
DC160-03-08.600F0-	8,6		35	89	47	40	10	☹
DC160-03-08.700F0-	8,7		35	89	47	40	10	☹
DC160-03-08.800F0-	8,8		35	89	47	40	10	☹
DC160-03-08.900F0-	8,9		35	89	47	40	10	☹
DC160-03-09.000F0-	9		35	89	47	40	10	☹
DC160-03-09.100F0-	9,1		35	89	47	40	10	☹
DC160-03-09.200F0-	9,2		35	89	47	40	10	☹
DC160-03-09.300F0-	9,3		35	89	47	40	10	☹
DC160-03-09.400F0-	9,4		35	89	47	40	10	☹
DC160-03-09.500F0-	9,5		35	89	47	40	10	☹
DC160-03-09.550F0-	9,55		35	89	47	40	10	☹
DC160-03-09.600F0-	9,6		35	89	47	40	10	☹
DC160-03-09.700F0-	9,7		35	89	47	40	10	☹
DC160-03-09.800F0-	9,8		35	89	47	40	10	☹
DC160-03-09.900F0-	9,9		35	89	47	40	10	☹
DC160-03-10.000F0-	10		35	89	47	40	10	☹
DC160-03-10.100F0-	10,1		40	102	55	45	12	☹
DC160-03-10.200F0-	10,2		40	102	55	45	12	☹
DC160-03-10.300F0-	10,3		40	102	55	45	12	☹
DC160-03-10.400F0-	10,4		40	102	55	45	12	☹
DC160-03-10.500F0-	10,5		40	102	55	45	12	☹
DC160-03-10.600F0-	10,6		40	102	55	45	12	☹
DC160-03-10.700F0-	10,7		40	102	55	45	12	☹
DC160-03-10.800F0-	10,8		40	102	55	45	12	☹
DC160-03-10.900F0-	10,9		40	102	55	45	12	☹

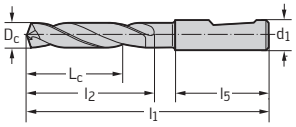
Ordering example for the WJ30ET grade: DC160-03-03.000A0-WJ30ET

Continued



Continued

Shank DIN 6535 HE

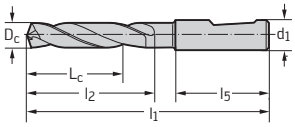


Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
DC160-03-11.000F0-	11		40	102	55	45	12	●
DC160-03-11.100F0-	11,1		40	102	55	45	12	●
DC160-03-11.200F0-	11,2		40	102	55	45	12	●
DC160-03-11.300F0-	11,3		40	102	55	45	12	●
DC160-03-11.400F0-	11,4		40	102	55	45	12	●
DC160-03-11.500F0-	11,5		40	102	55	45	12	●
DC160-03-11.550F0-	11,55		40	102	55	45	12	●
DC160-03-11.600F0-	11,6		40	102	55	45	12	●
DC160-03-11.700F0-	11,7		40	102	55	45	12	●
DC160-03-11.800F0-	11,8		40	102	55	45	12	●
DC160-03-11.900F0-	11,9		40	102	55	45	12	●
DC160-03-12.000F0-	12		40	102	55	45	12	●
DC160-03-12.100F0-	12,1		43	107	60	45	14	●
DC160-03-12.200F0-	12,2		43	107	60	45	14	●
DC160-03-12.250F0-	12,25		43	107	60	45	14	●
DC160-03-12.300F0-	12,3		43	107	60	45	14	●
DC160-03-12.400F0-	12,4		43	107	60	45	14	●
DC160-03-12.500F0-	12,5		43	107	60	45	14	●
DC160-03-12.600F0-	12,6		43	107	60	45	14	●
DC160-03-12.700F0-	12,7	1/2"	43	107	60	45	14	●
DC160-03-12.750F0-	12,75		43	107	60	45	14	●
DC160-03-12.800F0-	12,8		43	107	60	45	14	●
DC160-03-12.900F0-	12,9		43	107	60	45	14	●
DC160-03-13.000F0-	13		43	107	60	45	14	●
DC160-03-13.100F0-	13,1		43	107	60	45	14	●
DC160-03-13.200F0-	13,2		43	107	60	45	14	●
DC160-03-13.300F0-	13,3		43	107	60	45	14	●
DC160-03-13.400F0-	13,4		43	107	60	45	14	●
DC160-03-13.500F0-	13,5		43	107	60	45	14	●
DC160-03-13.600F0-	13,6		43	107	60	45	14	●
DC160-03-13.700F0-	13,7		43	107	60	45	14	●
DC160-03-13.800F0-	13,8		43	107	60	45	14	●
DC160-03-13.900F0-	13,9		43	107	60	45	14	●
DC160-03-14.000F0-	14		43	107	60	45	14	●
DC160-03-14.100F0-	14,1		45	115	65	48	16	●
DC160-03-14.200F0-	14,2		45	115	65	48	16	●
DC160-03-14.300F0-	14,3		45	115	65	48	16	●
DC160-03-14.400F0-	14,4		45	115	65	48	16	●
DC160-03-14.500F0-	14,5		45	115	65	48	16	●
DC160-03-14.600F0-	14,6		45	115	65	48	16	●
DC160-03-14.700F0-	14,7		45	115	65	48	16	●
DC160-03-14.750F0-	14,75		45	115	65	48	16	●
DC160-03-14.800F0-	14,8		45	115	65	48	16	●
DC160-03-15.000F0-	15		45	115	65	48	16	●
DC160-03-15.100F0-	15,1		45	115	65	48	16	●
DC160-03-15.200F0-	15,2		45	115	65	48	16	●
DC160-03-15.300F0-	15,3		45	115	65	48	16	●
DC160-03-15.500F0-	15,5		45	115	65	48	16	●
DC160-03-15.600F0-	15,6		45	115	65	48	16	●
DC160-03-15.700F0-	15,7		45	115	65	48	16	●
DC160-03-15.800F0-	15,8		45	115	65	48	16	●
DC160-03-15.900F0-	15,9		45	115	65	48	16	●
DC160-03-16.000F0-	16		45	115	65	48	16	●
DC160-03-16.100F0-	16,1		51	123	73	48	18	●
DC160-03-16.200F0-	16,2		51	123	73	48	18	●
DC160-03-16.300F0-	16,3		51	123	73	48	18	●
DC160-03-16.400F0-	16,4		51	123	73	48	18	●
DC160-03-16.500F0-	16,5		51	123	73	48	18	●
DC160-03-16.600F0-	16,6		51	123	73	48	18	●
DC160-03-16.700F0-	16,7		51	123	73	48	18	●
DC160-03-16.750F0-	16,75		51	123	73	48	18	●

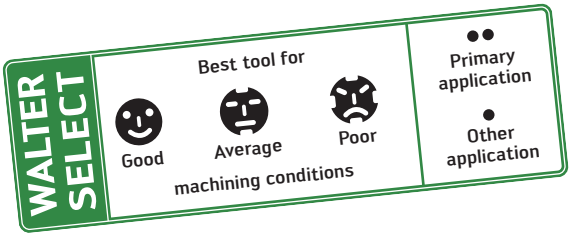
Ordering example for the WJ30ET grade: DC160-03-03.000A0-WJ30ET

Continued

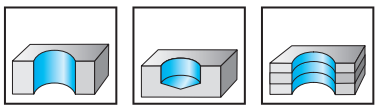
Continued

	Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ET
Shank DIN 6535 HE	DC160-03-16.800F0-	16,8		51	123	73	48	18	☹
	DC160-03-17.000F0-	17		51	123	73	48	18	☹
	DC160-03-17.200F0-	17,2		51	123	73	48	18	☹
	DC160-03-17.300F0-	17,3		51	123	73	48	18	☹
	DC160-03-17.500F0-	17,5		51	123	73	48	18	☹
	DC160-03-17.600F0-	17,6		51	123	73	48	18	☹
	DC160-03-17.700F0-	17,7		51	123	73	48	18	☹
	DC160-03-17.800F0-	17,8		51	123	73	48	18	☹
	DC160-03-18.000F0-	18		51	123	73	48	18	☹
	DC160-03-18.200F0-	18,2		55	131	79	50	20	☹
	DC160-03-18.500F0-	18,5		55	131	79	50	20	☹
	DC160-03-18.700F0-	18,7		55	131	79	50	20	☹
	DC160-03-18.800F0-	18,8		55	131	79	50	20	☹
	DC160-03-19.000F0-	19		55	131	79	50	20	☹
	DC160-03-19.500F0-	19,5		55	131	79	50	20	☹
	DC160-03-19.700F0-	19,7		55	131	79	50	20	☹
	DC160-03-19.800F0-	19,8		55	131	79	50	20	☹
	DC160-03-20.000F0-	20		55	131	79	50	20	☹

Ordering example for the WJ30ET grade: DC160-03-03.000A0-WJ30ET



Solid carbide twist drills
DC150 Perform

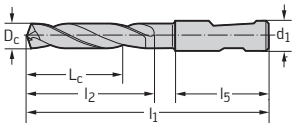


3×D_c | DIN 6537 K | 140°

B1

	P	M	K	N	S	H	O
WJ30RE	●●	●	●●	●	●	●	●

DIN 6535 HE,
turned 180°
DIN 6535 HB



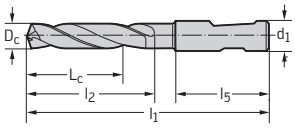
Designation	D_c m7 mm	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30RE
DC150-03-03.000D0-	3	14	62	20	36	6	●
DC150-03-03.100D0-	3,1	14	62	20	36	6	●
DC150-03-03.200D0-	3,2	14	62	20	36	6	●
DC150-03-03.300D0-	3,3	14	62	20	36	6	●
DC150-03-03.400D0-	3,4	14	62	20	36	6	●
DC150-03-03.500D0-	3,5	14	62	20	36	6	●
DC150-03-03.600D0-	3,6	14	62	20	36	6	●
DC150-03-03.700D0-	3,7	14	62	20	36	6	●
DC150-03-03.800D0-	3,8	17	66	24	36	6	●
DC150-03-03.900D0-	3,9	17	66	24	36	6	●
DC150-03-04.000D0-	4	17	66	24	36	6	●
DC150-03-04.200D0-	4,2	17	66	24	36	6	●
DC150-03-04.300D0-	4,3	17	66	24	36	6	●
DC150-03-04.500D0-	4,5	17	66	24	36	6	●
DC150-03-04.650D0-	4,65	17	66	24	36	6	●
DC150-03-04.700D0-	4,7	17	66	24	36	6	●
DC150-03-04.800D0-	4,8	20	66	28	36	6	●
DC150-03-05.000D0-	5	20	66	28	36	6	●
DC150-03-05.100D0-	5,1	20	66	28	36	6	●
DC150-03-05.300D0-	5,3	20	66	28	36	6	●
DC150-03-05.500D0-	5,5	20	66	28	36	6	●
DC150-03-05.550D0-	5,55	20	66	28	36	6	●
DC150-03-05.600D0-	5,6	20	66	28	36	6	●
DC150-03-05.800D0-	5,8	20	66	28	36	6	●
DC150-03-06.000D0-	6	20	66	28	36	6	●
DC150-03-06.100D0-	6,1	24	79	34	36	8	●
DC150-03-06.200D0-	6,2	24	79	34	36	8	●
DC150-03-06.300D0-	6,3	24	79	34	36	8	●
DC150-03-06.500D0-	6,5	24	79	34	36	8	●
DC150-03-06.600D0-	6,6	24	79	34	36	8	●
DC150-03-06.700D0-	6,7	24	79	34	36	8	●
DC150-03-06.800D0-	6,8	24	79	34	36	8	●
DC150-03-07.000D0-	7	24	79	34	36	8	●
DC150-03-07.100D0-	7,1	29	79	41	36	8	●
DC150-03-07.400D0-	7,4	29	79	41	36	8	●
DC150-03-07.500D0-	7,5	29	79	41	36	8	●
DC150-03-07.600D0-	7,6	29	79	41	36	8	●
DC150-03-07.800D0-	7,8	29	79	41	36	8	●
DC150-03-08.000D0-	8	29	79	41	36	8	●
DC150-03-08.100D0-	8,1	35	89	47	40	10	●
DC150-03-08.200D0-	8,2	35	89	47	40	10	●
DC150-03-08.300D0-	8,3	35	89	47	40	10	●
DC150-03-08.400D0-	8,4	35	89	47	40	10	●
DC150-03-08.500D0-	8,5	35	89	47	40	10	●
DC150-03-08.600D0-	8,6	35	89	47	40	10	●
DC150-03-08.700D0-	8,7	35	89	47	40	10	●
DC150-03-08.800D0-	8,8	35	89	47	40	10	●

Ordering example for the WJ30RE grade: DC150-03-03.000D0-WJ30RE

Continued

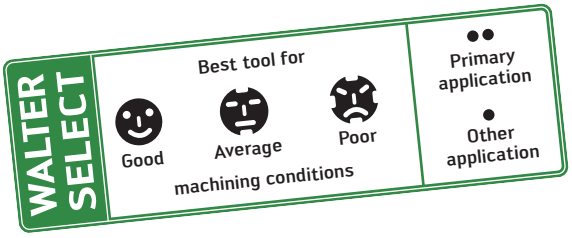
Continued

DIN 6535 HE,
turned 180°
DIN 6535 HB

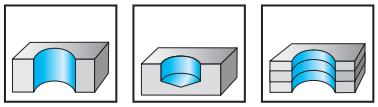


Designation	D_c m7 mm	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30RE
DC150-03-09.000D0-	9	35	89	47	40	10	☹
DC150-03-09.100D0-	9,1	35	89	47	40	10	☹
DC150-03-09.500D0-	9,5	35	89	47	40	10	☹
DC150-03-09.700D0-	9,5	35	89	47	40	10	☹
DC150-03-09.800D0-	9,8	35	89	47	40	10	☹
DC150-03-10.000D0-	10	35	89	47	40	10	☹
DC150-03-10.100D0-	10,1	40	102	55	45	12	☹
DC150-03-10.200D0-	10,2	40	102	55	45	12	☹
DC150-03-10.300D0-	10,3	40	102	55	45	12	☹
DC150-03-10.400D0-	10,4	40	102	55	45	12	☹
DC150-03-10.500D0-	10,5	40	102	55	45	12	☹
DC150-03-10.600D0-	10,6	40	102	55	45	12	☹
DC150-03-10.800D0-	10,8	40	102	55	45	12	☹
DC150-03-10.900D0-	10,9	40	102	55	45	12	☹
DC150-03-11.000D0-	11	40	102	55	45	12	☹
DC150-03-11.100D0-	11,1	40	102	55	45	12	☹
DC150-03-11.200D0-	11,2	40	102	55	45	12	☹
DC150-03-11.300D0-	11,3	40	102	55	45	12	☹
DC150-03-11.500D0-	11,5	40	102	55	45	12	☹
DC150-03-11.600D0-	11,6	40	102	55	45	12	☹
DC150-03-11.800D0-	11,8	40	102	55	45	12	☹
DC150-03-12.000D0-	12	40	102	55	45	12	☹
DC150-03-12.200D0-	12,2	43	107	60	45	14	☹
DC150-03-12.300D0-	12,3	43	107	60	45	14	☹
DC150-03-12.500D0-	12,5	43	107	60	45	14	☹
DC150-03-13.000D0-	13	43	107	60	45	14	☹
DC150-03-13.200D0-	13,2	43	107	60	45	14	☹
DC150-03-13.300D0-	13,3	43	107	60	45	14	☹
DC150-03-13.400D0-	13,4	43	107	60	45	14	☹
DC150-03-13.500D0-	13,5	43	107	60	45	14	☹
DC150-03-13.600D0-	13,6	43	107	60	45	14	☹
DC150-03-13.800D0-	13,8	43	107	60	45	14	☹
DC150-03-14.000D0-	14	43	107	60	45	14	☹
DC150-03-14.500D0-	14,5	45	115	65	48	16	☹
DC150-03-15.000D0-	15	45	115	65	48	16	☹
DC150-03-15.100D0-	15,1	45	115	65	48	16	☹
DC150-03-16.000D0-	16	45	115	65	48	16	☹
DC150-03-16.500D0-	16,5	51	123	73	48	18	☹
DC150-03-17.000D0-	17	51	123	73	48	18	☹
DC150-03-17.500D0-	17,5	51	123	73	48	18	☹
DC150-03-18.000D0-	18	51	123	73	48	18	☹
DC150-03-18.500D0-	18,5	55	131	79	50	20	☹
DC150-03-19.000D0-	19	55	131	79	50	20	☹
DC150-03-20.000D0-	20	55	131	79	50	20	☹

Ordering example for the WJ30RE grade: DC150-03-03.000D0-WJ30RE



Solid carbide micro twist drills
DB130 Advance

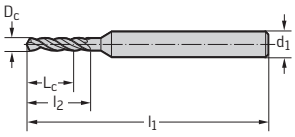


5×D_c | DIN 1899 |  |  118°

	P	M	K	N	S	H	O
WJ30UU	●●	●●	●●	●●	●●		●●

B1

Parallel shank



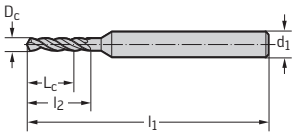
Designation	D_c 0-0,004 mm	L_c mm	l_1 mm	l_2 mm	d_1 h8 mm	WJ30UU
DB130-05-00.100U0-	0,1	0,3	25	0,5	1	●
DB130-05-00.110U0-	0,11	0,3	25	0,5	1	●
DB130-05-00.120U0-	0,12	0,3	25	0,5	1	●
DB130-05-00.130U0-	0,13	0,5	25	0,8	1	●
DB130-05-00.140U0-	0,14	0,5	25	0,8	1	●
DB130-05-00.150U0-	0,15	0,5	25	0,8	1	●
DB130-05-00.160U0-	0,16	0,8	25	1,1	1	●
DB130-05-00.170U0-	0,17	0,8	25	1,1	1	●
DB130-05-00.180U0-	0,18	0,8	25	1,1	1	●
DB130-05-00.190U0-	0,19	0,8	25	1,1	1	●
DB130-05-00.200U0-	0,2	1,1	25	1,5	1	●
DB130-05-00.210U0-	0,21	1,1	25	1,5	1	●
DB130-05-00.220U0-	0,22	1,1	25	1,5	1	●
DB130-05-00.230U0-	0,23	1,1	25	1,5	1	●
DB130-05-00.240U0-	0,24	1,1	25	1,5	1	●
DB130-05-00.250U0-	0,25	1,4	25	1,9	1	●
DB130-05-00.260U0-	0,26	1,4	25	1,9	1	●
DB130-05-00.270U0-	0,27	1,4	25	1,9	1	●
DB130-05-00.280U0-	0,28	1,4	25	1,9	1	●
DB130-05-00.290U0-	0,29	1,4	25	1,9	1	●
DB130-05-00.300U0-	0,3	1,4	25	1,9	1	●
DB130-05-00.310U0-	0,31	1,8	25	2,4	1	●
DB130-05-00.320U0-	0,32	1,8	25	2,4	1	●
DB130-05-00.330U0-	0,33	1,8	25	2,4	1	●
DB130-05-00.340U0-	0,34	1,8	25	2,4	1	●
DB130-05-00.350U0-	0,35	1,8	25	2,4	1	●
DB130-05-00.360U0-	0,36	1,8	25	2,4	1	●
DB130-05-00.370U0-	0,37	1,8	25	2,4	1	●
DB130-05-00.380U0-	0,38	1,8	25	2,4	1	●
DB130-05-00.390U0-	0,39	2,2	25	3	1	●
DB130-05-00.400U0-	0,4	2,2	25	3	1	●
DB130-05-00.410U0-	0,41	2,2	25	3	1	●
DB130-05-00.420U0-	0,42	2,2	25	3	1	●
DB130-05-00.430U0-	0,43	2,2	25	3	1	●
DB130-05-00.440U0-	0,44	2,2	25	3	1	●
DB130-05-00.450U0-	0,45	2,2	25	3	1	●
DB130-05-00.460U0-	0,46	2,2	25	3	1	●
DB130-05-00.470U0-	0,47	2,2	25	3	1	●
DB130-05-00.480U0-	0,48	2,2	25	3	1	●
DB130-05-00.490U0-	0,49	2,6	25	3,4	1	●
DB130-05-00.500U0-	0,5	2,6	25	3,4	1	●
DB130-05-00.510U0-	0,51	2,6	25	3,4	1	●
DB130-05-00.520U0-	0,52	2,6	25	3,4	1	●
DB130-05-00.530U0-	0,53	2,6	25	3,4	1	●
DB130-05-00.540U0-	0,54	3	25	3,9	1	●
DB130-05-00.550U0-	0,55	3	25	3,9	1	●
DB130-05-00.560U0-	0,56	3	25	3,9	1	●

Ordering example for the WJ30UU grade: DB130-05-00.100U0-WJ30UU

Continued

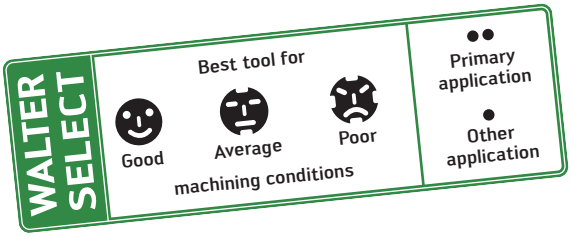
Continued

Parallel shank

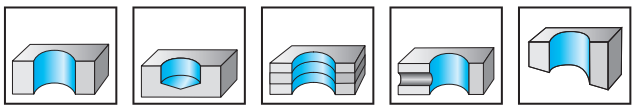


Designation	D_c 0-0,004 mm	L_c mm	l_1 mm	l_2 mm	d_1 h8 mm	WJ30UU
DB130-05-00.570U0-	0,57	3	25	3,9	1	●●
DB130-05-00.580U0-	0,58	3	25	3,9	1	●●
DB130-05-00.590U0-	0,59	3	25	3,9	1	●●
DB130-05-00.600U0-	0,6	3	25	3,9	1	●●
DB130-05-00.610U0-	0,61	3,1	25	4,2	1	●●
DB130-05-00.620U0-	0,62	3,1	25	4,2	1	●●
DB130-05-00.630U0-	0,63	3,1	25	4,2	1	●●
DB130-05-00.640U0-	0,64	3,1	25	4,2	1	●●
DB130-05-00.650U0-	0,65	3,1	25	4,2	1	●●
DB130-05-00.660U0-	0,66	3,1	25	4,2	1	●●
DB130-05-00.670U0-	0,67	3,1	25	4,2	1	●●
DB130-05-00.680U0-	0,68	3,6	25	4,8	1	●●
DB130-05-00.690U0-	0,69	3,6	25	4,8	1	●●
DB130-05-00.700U0-	0,7	3,6	25	4,8	1	●●
DB130-05-00.710U0-	0,71	3,6	25	4,8	1	●●
DB130-05-00.720U0-	0,72	3,6	25	4,8	1	●●
DB130-05-00.730U0-	0,73	3,6	25	4,8	1	●●
DB130-05-00.740U0-	0,74	3,6	25	4,8	1	●●
DB130-05-00.750U0-	0,75	3,6	25	4,8	1	●●
DB130-05-00.760U0-	0,76	4,1	25	5,3	1	●●
DB130-05-00.770U0-	0,77	4,1	25	5,3	1	●●
DB130-05-00.780U0-	0,78	4,1	25	5,3	1	●●
DB130-05-00.790U0-	0,79	4,1	25	5,3	1	●●
DB130-05-00.800U0-	0,8	4	25	5,3	1,5	●●
DB130-05-00.810U0-	0,81	4	25	5,3	1,5	●●
DB130-05-00.820U0-	0,82	4	25	5,3	1,5	●●
DB130-05-00.830U0-	0,83	4	25	5,3	1,5	●●
DB130-05-00.840U0-	0,84	4	25	5,3	1,5	●●
DB130-05-00.850U0-	0,85	4	25	5,3	1,5	●●
DB130-05-00.860U0-	0,86	4,5	25	6	1,5	●●
DB130-05-00.870U0-	0,87	4,5	25	6	1,5	●●
DB130-05-00.880U0-	0,88	4,5	25	6	1,5	●●
DB130-05-00.890U0-	0,89	4,5	25	6	1,5	●●
DB130-05-00.900U0-	0,9	4,5	25	6	1,5	●●
DB130-05-00.910U0-	0,91	4,5	25	6	1,5	●●
DB130-05-00.920U0-	0,92	4,5	25	6	1,5	●●
DB130-05-00.930U0-	0,93	4,5	25	6	1,5	●●
DB130-05-00.940U0-	0,94	4,5	25	6	1,5	●●
DB130-05-00.950U0-	0,95	4,5	25	6	1,5	●●
DB130-05-00.960U0-	0,96	5	25	6,8	1,5	●●
DB130-05-00.970U0-	0,97	5	25	6,8	1,5	●●
DB130-05-00.980U0-	0,98	5	25	6,8	1,5	●●
DB130-05-00.990U0-	0,99	5	25	6,8	1,5	●●
DB130-05-01.000U0-	1	5	25	6,8	1,5	●●
DB130-05-01.050U0-	1,05	5	25	6,8	1,5	●●
DB130-05-01.100U0-	1,1	5	25	7,6	1,5	●●
DB130-05-01.150U0-	1,15	5	25	7,6	1,5	●●
DB130-05-01.200U0-	1,2	6	25	8,5	1,5	●●
DB130-05-01.250U0-	1,25	6	25	8,5	1,5	●●
DB130-05-01.300U0-	1,3	6	25	8,5	1,5	●●
DB130-05-01.350U0-	1,35	7	25	9,5	1,5	●●
DB130-05-01.400U0-	1,4	7	25	9,5	1,5	●●
DB130-05-01.450U0-	1,45	7	25	9,5	1,5	●●

Ordering example for the WJ30UU grade: DB130-05-00.100U0-WJ30UU



Solid carbide twist drills
DC160 Advance

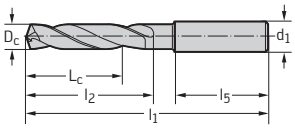


5×D_c | DIN 6537 L | 140°

	P	M	K	N	S	H	O
WJ30ET	●●		●●	●	●	●	●

B1

Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-05-03.000A0-	3		23	66	28	36	6	●
DC160-05-03.100A0-	3,1		23	66	28	36	6	●
DC160-05-03.175A0-	3,175	1/8"	23	66	28	36	6	●
DC160-05-03.200A0-	3,2		23	66	28	36	6	●
DC160-05-03.250A0-	3,25		23	66	28	36	6	●
DC160-05-03.300A0-	3,3		23	66	28	36	6	●
DC160-05-03.400A0-	3,4		23	66	28	36	6	●
DC160-05-03.500A0-	3,5		23	66	28	36	6	●
DC160-05-03.572A0-	3,572	9/64"	23	66	28	36	6	●
DC160-05-03.600A0-	3,6		23	66	28	36	6	●
DC160-05-03.650A0-	3,65		23	66	28	36	6	●
DC160-05-03.700A0-	3,7		23	66	28	36	6	●
DC160-05-03.800A0-	3,8		29	74	36	36	6	●
DC160-05-03.900A0-	3,9		29	74	36	36	6	●
DC160-05-03.969A0-	3,969	5/32"	29	74	36	36	6	●
DC160-05-04.000A0-	4		29	74	36	36	6	●
DC160-05-04.100A0-	4,1		29	74	36	36	6	●
DC160-05-04.200A0-	4,2		29	74	36	36	6	●
DC160-05-04.300A0-	4,3		29	74	36	36	6	●
DC160-05-04.366A0-	4,366	11/64"	29	74	36	36	6	●
DC160-05-04.400A0-	4,4		29	74	36	36	6	●
DC160-05-04.500A0-	4,5		29	74	36	36	6	●
DC160-05-04.600A0-	4,6		29	74	36	36	6	●
DC160-05-04.650A0-	4,65		29	74	36	36	6	●
DC160-05-04.700A0-	4,7		29	74	36	36	6	●
DC160-05-04.763A0-	4,763	3/16"	35	82	44	36	6	●
DC160-05-04.800A0-	4,8		35	82	44	36	6	●
DC160-05-04.900A0-	4,9		35	82	44	36	6	●
DC160-05-05.000A0-	5		35	82	44	36	6	●
DC160-05-05.100A0-	5,1		35	82	44	36	6	●
DC160-05-05.159A0-	5,159	13/64"	35	82	44	36	6	●
DC160-05-05.200A0-	5,2		35	82	44	36	6	●
DC160-05-05.300A0-	5,3		35	82	44	36	6	●
DC160-05-05.400A0-	5,4		35	82	44	36	6	●
DC160-05-05.500A0-	5,5		35	82	44	36	6	●
DC160-05-05.550A0-	5,55		35	82	44	36	6	●
DC160-05-05.556A0-	5,556	7/32"	35	82	44	36	6	●
DC160-05-05.600A0-	5,6		35	82	44	36	6	●
DC160-05-05.700A0-	5,7		35	82	44	36	6	●
DC160-05-05.800A0-	5,8		35	82	44	36	6	●
DC160-05-05.900A0-	5,9		35	82	44	36	6	●
DC160-05-05.953A0-	5,953	15/64"	35	82	44	36	6	●
DC160-05-06.000A0-	6		35	82	44	36	6	●
DC160-05-06.100A0-	6,1		43	91	53	36	8	●
DC160-05-06.200A0-	6,2		43	91	53	36	8	●
DC160-05-06.300A0-	6,3		43	91	53	36	8	●
DC160-05-06.350A0-	6,35	1/4"	43	91	53	36	8	●

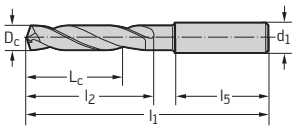
Ordering example for the WJ30ET grade: DC160-05-03.000A0-WJ30ET

Continued

● / ★ New addition to the product range

Continued

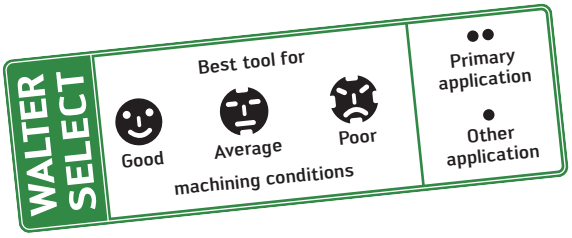
Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-05-06.400A0-	6,4		43	91	53	36	8	●●
DC160-05-06.500A0-	6,5		43	91	53	36	8	●●
DC160-05-06.600A0-	6,6		43	91	53	36	8	●●
DC160-05-06.700A0-	6,7		43	91	53	36	8	●●
DC160-05-06.747A0-	6,747	17/64"	43	91	53	36	8	●●
DC160-05-06.800A0-	6,8		43	91	53	36	8	●●
DC160-05-06.900A0-	6,9		43	91	53	36	8	●●
DC160-05-07.000A0-	7		43	91	53	36	8	●●
DC160-05-07.100A0-	7,1		43	91	53	36	8	●●
DC160-05-07.144A0-	7,144	9/32"	43	91	53	36	8	●●
DC160-05-07.200A0-	7,2		43	91	53	36	8	●●
DC160-05-07.300A0-	7,3		43	91	53	36	8	●●
DC160-05-07.400A0-	7,4		43	91	53	36	8	●●
DC160-05-07.500A0-	7,5		43	91	53	36	8	●●
DC160-05-07.541A0-	7,541	19/64"	43	91	53	36	8	●●
DC160-05-07.550A0-	7,55		43	91	53	36	8	●●
DC160-05-07.600A0-	7,6		43	91	53	36	8	●●
DC160-05-07.700A0-	7,7		43	91	53	36	8	●●
DC160-05-07.800A0-	7,8		43	91	53	36	8	●●
DC160-05-07.900A0-	7,9		43	91	53	36	8	●●
DC160-05-07.938A0-	7,938	5/16"	43	91	53	36	8	●●
DC160-05-08.000A0-	8		43	91	53	36	8	●●
DC160-05-08.100A0-	8,1		49	103	61	40	10	●●
DC160-05-08.200A0-	8,2		49	103	61	40	10	●●
DC160-05-08.300A0-	8,3		49	103	61	40	10	●●
DC160-05-08.334A0-	8,334	21/64"	49	103	61	40	10	●●
DC160-05-08.400A0-	8,4		49	103	61	40	10	●●
DC160-05-08.500A0-	8,5		49	103	61	40	10	●●
DC160-05-08.600A0-	8,6		49	103	61	40	10	●●
DC160-05-08.700A0-	8,7		49	103	61	40	10	●●
DC160-05-08.731A0-	8,731	11/32"	49	103	61	40	10	●●
DC160-05-08.800A0-	8,8		49	103	61	40	10	●●
DC160-05-08.900A0-	8,9		49	103	61	40	10	●●
DC160-05-09.000A0-	9		49	103	61	40	10	●●
DC160-05-09.100A0-	9,1		49	103	61	40	10	●●
DC160-05-09.128A0-	9,128	23/64"	49	103	61	40	10	●●
DC160-05-09.200A0-	9,2		49	103	61	40	10	●●
DC160-05-09.300A0-	9,3		49	103	61	40	10	●●
DC160-05-09.400A0-	9,4		49	103	61	40	10	●●
DC160-05-09.500A0-	9,5		49	103	61	40	10	●●
DC160-05-09.525A0-	9,525	3/8"	49	103	61	40	10	●●
DC160-05-09.550A0-	9,55		49	103	61	40	10	●●
DC160-05-09.600A0-	9,6		49	103	61	40	10	●●
DC160-05-09.700A0-	9,7		49	103	61	40	10	●●
DC160-05-09.800A0-	9,8		49	103	61	40	10	●●
DC160-05-09.900A0-	9,9		49	103	61	40	10	●●
DC160-05-09.922A0-	9,922	25/64"	49	103	61	40	10	●●
DC160-05-10.000A0-	10		49	103	61	40	10	●●
DC160-05-10.100A0-	10,1		56	118	71	45	12	●●
DC160-05-10.200A0-	10,2		56	118	71	45	12	●●
DC160-05-10.300A0-	10,3		56	118	71	45	12	●●
DC160-05-10.319A0-	10,319	13/32"	56	118	71	45	12	●●
DC160-05-10.400A0-	10,4		56	118	71	45	12	●●
DC160-05-10.500A0-	10,5		56	118	71	45	12	●●
DC160-05-10.600A0-	10,6		56	118	71	45	12	●●
DC160-05-10.700A0-	10,7		56	118	71	45	12	●●
DC160-05-10.716A0-	10,716	27/64"	56	118	71	45	12	●●

Ordering example for the WJ30ET grade: DC160-05-03.000A0-WJ30ET

Continued



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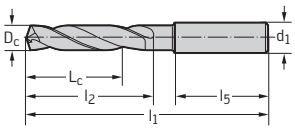
Shank DIN 6535 HA



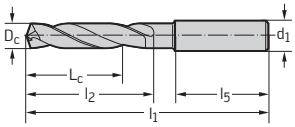
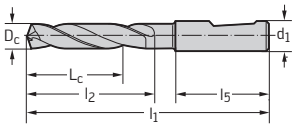
Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-05-10.800A0-	10,8		56	118	71	45	12	
DC160-05-10.900A0-	10,9		56	118	71	45	12	
DC160-05-11.000A0-	11		56	118	71	45	12	
DC160-05-11.100A0-	11,1		56	118	71	45	12	
DC160-05-11.113A0-	11,113	7/16"	56	118	71	45	12	
DC160-05-11.200A0-	11,2		56	118	71	45	12	
DC160-05-11.300A0-	11,3		56	118	71	45	12	
DC160-05-11.400A0-	11,4		56	118	71	45	12	
DC160-05-11.500A0-	11,5		56	118	71	45	12	
DC160-05-11.509A0-	11,509	29/64"	56	118	71	45	12	
DC160-05-11.550A0-	11,55		56	118	71	45	12	
DC160-05-11.600A0-	11,6		56	118	71	45	12	
DC160-05-11.700A0-	11,7		56	118	71	45	12	
DC160-05-11.800A0-	11,8		56	118	71	45	12	
DC160-05-11.900A0-	11,9		56	118	71	45	12	
DC160-05-11.906A0-	11,906	15/32"	56	118	71	45	12	
DC160-05-12.000A0-	12		56	118	71	45	12	
DC160-05-12.100A0-	12,1		60	124	77	45	14	
DC160-05-12.200A0-	12,2		60	124	77	45	14	
DC160-05-12.250A0-	12,25		60	124	77	45	14	
DC160-05-12.300A0-	12,3		60	124	77	45	14	
DC160-05-12.303A0-	12,303	31/64"	60	124	77	45	14	
DC160-05-12.400A0-	12,4		60	124	77	45	14	
DC160-05-12.500A0-	12,5		60	124	77	45	14	
DC160-05-12.600A0-	12,6		60	124	77	45	14	
DC160-05-12.700A0-	12,7	1/2"	60	124	77	45	14	
DC160-05-12.750A0-	12,75		60	124	77	45	14	
DC160-05-12.800A0-	12,8		60	124	77	45	14	
DC160-05-12.900A0-	12,9		60	124	77	45	14	
DC160-05-13.000A0-	13		60	124	77	45	14	
DC160-05-13.100A0-	13,1		60	124	77	45	14	
DC160-05-13.200A0-	13,2		60	124	77	45	14	
DC160-05-13.300A0-	13,3		60	124	77	45	14	
DC160-05-13.400A0-	13,4		60	124	77	45	14	
DC160-05-13.494A0-	13,494	17/32"	60	124	77	45	14	
DC160-05-13.500A0-	13,5		60	124	77	45	14	
DC160-05-13.600A0-	13,6		60	124	77	45	14	
DC160-05-13.700A0-	13,7		60	124	77	45	14	
DC160-05-13.800A0-	13,8		60	124	77	45	14	
DC160-05-13.900A0-	13,9		60	124	77	45	14	
DC160-05-14.000A0-	14		60	124	77	45	14	
DC160-05-14.100A0-	14,1		63	133	83	48	16	
DC160-05-14.200A0-	14,2		63	133	83	48	16	
DC160-05-14.288A0-	14,288	9/16"	63	133	83	48	16	
DC160-05-14.300A0-	14,3		63	133	83	48	16	
DC160-05-14.400A0-	14,4		63	133	83	48	16	
DC160-05-14.500A0-	14,5		63	133	83	48	16	
DC160-05-14.600A0-	14,6		63	133	83	48	16	
DC160-05-14.700A0-	14,7		63	133	83	48	16	
DC160-05-14.750A0-	14,75		63	133	83	48	16	
DC160-05-14.800A0-	14,8		63	133	83	48	16	
DC160-05-15.000A0-	15		63	133	83	48	16	
DC160-05-15.100A0-	15,1		63	133	83	48	16	
DC160-05-15.200A0-	15,2		63	133	83	48	16	
DC160-05-15.300A0-	15,3		63	133	83	48	16	
DC160-05-15.500A0-	15,5		63	133	83	48	16	
DC160-05-15.600A0-	15,6		63	133	83	48	16	
DC160-05-15.700A0-	15,7		63	133	83	48	16	
DC160-05-15.800A0-	15,8		63	133	83	48	16	
DC160-05-15.875A0-	15,875	5/8"	63	133	83	48	16	
DC160-05-15.900A0-	15,9		63	133	83	48	16	

Ordering example for the WJ30ET grade: DC160-05-03.000A0-WJ30ET

Continued

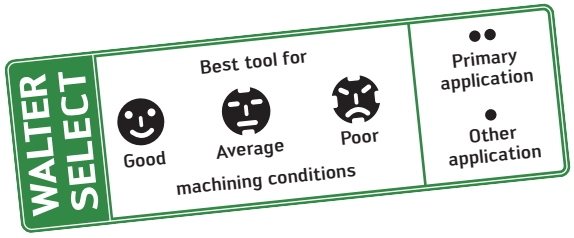
/ ★ New addition to the product range

Continued

	Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
Shank DIN 6535 HA 	DC160-05-16.000A0-	16		63	133	83	48	16	●●
	DC160-05-16.100A0-	16,1		71	143	93	48	18	●●
	DC160-05-16.200A0-	16,2		71	143	93	48	18	●●
	DC160-05-16.300A0-	16,3		71	143	93	48	18	●●
	DC160-05-16.400A0-	16,4		71	143	93	48	18	●●
	DC160-05-16.500A0-	16,5		71	143	93	48	18	●●
	DC160-05-16.600A0-	16,6		71	143	93	48	18	●●
	DC160-05-16.700A0-	16,7		71	143	93	48	18	●●
	DC160-05-16.750A0-	16,75		71	143	93	48	18	●●
	DC160-05-16.800A0-	16,8		71	143	93	48	18	●●
	DC160-05-17.000A0-	17		71	143	93	48	18	●●
	DC160-05-17.200A0-	17,2		71	143	93	48	18	●●
	DC160-05-17.300A0-	17,3		71	143	93	48	18	●●
	DC160-05-17.500A0-	17,5		71	143	93	48	18	●●
	DC160-05-17.600A0-	17,6		71	143	93	48	18	●●
	DC160-05-17.700A0-	17,7		71	143	93	48	18	●●
	DC160-05-17.800A0-	17,8		71	143	93	48	18	●●
	DC160-05-18.000A0-	18		71	143	93	48	18	●●
	DC160-05-18.200A0-	18,2		77	153	101	50	20	●●
	DC160-05-18.500A0-	18,5		77	153	101	50	20	●●
	DC160-05-18.700A0-	18,7		77	153	101	50	20	●●
	DC160-05-18.800A0-	18,8		77	153	101	50	20	●●
	DC160-05-19.000A0-	19		77	153	101	50	20	●●
	DC160-05-19.050A0-	19,05	3/4“	77	153	101	50	20	●●
	DC160-05-19.500A0-	19,5		77	153	101	50	20	●●
	DC160-05-19.700A0-	19,7		77	153	101	50	20	●●
	DC160-05-19.800A0-	19,8		77	153	101	50	20	●●
	DC160-05-20.000A0-	20		77	153	101	50	20	●●
	DC160-05-20.500A0-	20,5		86	166	108	56	25	●●
	DC160-05-21.000A0-	21		86	166	108	56	25	●●
	DC160-05-21.500A0-	21,5		86	166	108	56	25	●●
	DC160-05-22.000A0-	22		86	166	108	56	25	●●
	DC160-05-22.500A0-	22,5		91	173	115	56	25	●●
	DC160-05-23.000A0-	23		91	173	115	56	25	●●
	DC160-05-23.500A0-	23,5		91	173	115	56	25	●●
	DC160-05-24.000A0-	24		91	173	115	56	25	●●
	DC160-05-24.500A0-	24,5		97	180	122	56	25	●●
	DC160-05-25.000A0-	25		97	180	122	56	25	●●
Shank DIN 6535 HE 	DC160-05-03.000F0-	3		23	66	28	36	6	●●
	DC160-05-03.100F0-	3,1		23	66	28	36	6	●●
	DC160-05-03.200F0-	3,2		23	66	28	36	6	●●
	DC160-05-03.250F0-	3,25		23	66	28	36	6	●●
	DC160-05-03.300F0-	3,3		23	66	28	36	6	●●
	DC160-05-03.400F0-	3,4		23	66	28	36	6	●●
	DC160-05-03.500F0-	3,5		23	66	28	36	6	●●
	DC160-05-03.600F0-	3,6		23	66	28	36	6	●●
	DC160-05-03.650F0-	3,65		23	66	28	36	6	●●
	DC160-05-03.700F0-	3,7		23	66	28	36	6	●●
	DC160-05-03.800F0-	3,8		29	74	36	36	6	●●
	DC160-05-03.900F0-	3,9		29	74	36	36	6	●●
	DC160-05-04.000F0-	4		29	74	36	36	6	●●
	DC160-05-04.100F0-	4,1		29	74	36	36	6	●●
	DC160-05-04.200F0-	4,2		29	74	36	36	6	●●
	DC160-05-04.300F0-	4,3		29	74	36	36	6	●●
	DC160-05-04.400F0-	4,4		29	74	36	36	6	●●
	DC160-05-04.500F0-	4,5		29	74	36	36	6	●●
	DC160-05-04.600F0-	4,6		29	74	36	36	6	●●

Ordering example for the WJ30ET grade: DC160-05-03.000A0-WJ30ET

Continued



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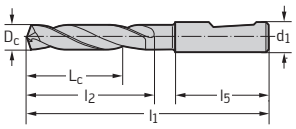
Shank DIN 6535 HE



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-05-04.650F0-	4,65		29	74	36	36	6	●
DC160-05-04.700F0-	4,7		29	74	36	36	6	●
DC160-05-04.800F0-	4,8		35	82	44	36	6	●
DC160-05-04.900F0-	4,9		35	82	44	36	6	●
DC160-05-05.000F0-	5		35	82	44	36	6	●
DC160-05-05.100F0-	5,1		35	82	44	36	6	●
DC160-05-05.200F0-	5,2		35	82	44	36	6	●
DC160-05-05.300F0-	5,3		35	82	44	36	6	●
DC160-05-05.400F0-	5,4		35	82	44	36	6	●
DC160-05-05.500F0-	5,5		35	82	44	36	6	●
DC160-05-05.550F0-	5,55		35	82	44	36	6	●
DC160-05-05.600F0-	5,6		35	82	44	36	6	●
DC160-05-05.700F0-	5,7		35	82	44	36	6	●
DC160-05-05.800F0-	5,8		35	82	44	36	6	●
DC160-05-05.900F0-	5,9		35	82	44	36	6	●
DC160-05-06.000F0-	6		35	82	44	36	6	●
DC160-05-06.100F0-	6,1		43	91	53	36	8	●
DC160-05-06.200F0-	6,2		43	91	53	36	8	●
DC160-05-06.300F0-	6,3		43	91	53	36	8	●
DC160-05-06.400F0-	6,4		43	91	53	36	8	●
DC160-05-06.500F0-	6,5		43	91	53	36	8	●
DC160-05-06.600F0-	6,6		43	91	53	36	8	●
DC160-05-06.700F0-	6,7		43	91	53	36	8	●
DC160-05-06.800F0-	6,8		43	91	53	36	8	●
DC160-05-06.900F0-	6,9		43	91	53	36	8	●
DC160-05-07.000F0-	7		43	91	53	36	8	●
DC160-05-07.100F0-	7,1		43	91	53	36	8	●
DC160-05-07.200F0-	7,2		43	91	53	36	8	●
DC160-05-07.300F0-	7,3		43	91	53	36	8	●
DC160-05-07.400F0-	7,4		43	91	53	36	8	●
DC160-05-07.500F0-	7,5		43	91	53	36	8	●
DC160-05-07.550F0-	7,55		43	91	53	36	8	●
DC160-05-07.600F0-	7,6		43	91	53	36	8	●
DC160-05-07.700F0-	7,7		43	91	53	36	8	●
DC160-05-07.800F0-	7,8		43	91	53	36	8	●
DC160-05-07.900F0-	7,9		43	91	53	36	8	●
DC160-05-08.000F0-	8		43	91	53	36	8	●
DC160-05-08.100F0-	8,1		49	103	61	40	10	●
DC160-05-08.200F0-	8,2		49	103	61	40	10	●
DC160-05-08.300F0-	8,3		49	103	61	40	10	●
DC160-05-08.400F0-	8,4		49	103	61	40	10	●
DC160-05-08.500F0-	8,5		49	103	61	40	10	●
DC160-05-08.600F0-	8,6		49	103	61	40	10	●
DC160-05-08.700F0-	8,7		49	103	61	40	10	●
DC160-05-08.800F0-	8,8		49	103	61	40	10	●
DC160-05-08.900F0-	8,9		49	103	61	40	10	●
DC160-05-09.000F0-	9		49	103	61	40	10	●
DC160-05-09.100F0-	9,1		49	103	61	40	10	●
DC160-05-09.200F0-	9,2		49	103	61	40	10	●
DC160-05-09.300F0-	9,3		49	103	61	40	10	●
DC160-05-09.400F0-	9,4		49	103	61	40	10	●
DC160-05-09.500F0-	9,5		49	103	61	40	10	●
DC160-05-09.550F0-	9,55		49	103	61	40	10	●
DC160-05-09.600F0-	9,6		49	103	61	40	10	●
DC160-05-09.700F0-	9,7		49	103	61	40	10	●
DC160-05-09.800F0-	9,8		49	103	61	40	10	●
DC160-05-09.900F0-	9,9		49	103	61	40	10	●
DC160-05-10.000F0-	10		49	103	61	40	10	●
DC160-05-10.100F0-	10,1		56	118	71	45	12	●
DC160-05-10.200F0-	10,2		56	118	71	45	12	●
DC160-05-10.300F0-	10,3		56	118	71	45	12	●

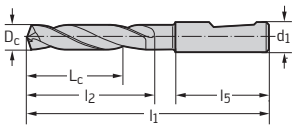
Ordering example for the WJ30ET grade: DC160-05-03.000A0-WJ30ET

Continued

● / ★ New addition to the product range

Continued

Shank DIN 6535 HE



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-05-10.400F0-	10,4		56	118	71	45	12	●●
DC160-05-10.500F0-	10,5		56	118	71	45	12	●●
DC160-05-10.600F0-	10,6		56	118	71	45	12	●●
DC160-05-10.700F0-	10,7		56	118	71	45	12	●●
DC160-05-10.800F0-	10,8		56	118	71	45	12	●●
DC160-05-10.900F0-	10,9		56	118	71	45	12	●●
DC160-05-11.000F0-	11		56	118	71	45	12	●●
DC160-05-11.100F0-	11,1		56	118	71	45	12	●●
DC160-05-11.200F0-	11,2		56	118	71	45	12	●●
DC160-05-11.300F0-	11,3		56	118	71	45	12	●●
DC160-05-11.400F0-	11,4		56	118	71	45	12	●●
DC160-05-11.500F0-	11,5		56	118	71	45	12	●●
DC160-05-11.550F0-	11,55		56	118	71	45	12	●●
DC160-05-11.600F0-	11,6		56	118	71	45	12	●●
DC160-05-11.700F0-	11,7		56	118	71	45	12	●●
DC160-05-11.800F0-	11,8		56	118	71	45	12	●●
DC160-05-11.900F0-	11,9		56	118	71	45	12	●●
DC160-05-12.000F0-	12		56	118	71	45	12	●●
DC160-05-12.100F0-	12,1		60	124	77	45	14	●●
DC160-05-12.200F0-	12,2		60	124	77	45	14	●●
DC160-05-12.250F0-	12,25		60	124	77	45	14	●●
DC160-05-12.300F0-	12,3		60	124	77	45	14	●●
DC160-05-12.400F0-	12,4		60	124	77	45	14	●●
DC160-05-12.500F0-	12,5		60	124	77	45	14	●●
DC160-05-12.600F0-	12,6		60	124	77	45	14	●●
DC160-05-12.700F0-	12,7	1/2"	60	124	77	45	14	●●
DC160-05-12.750F0-	12,75		60	124	77	45	14	●●
DC160-05-12.800F0-	12,8		60	124	77	45	14	●●
DC160-05-12.900F0-	12,9		60	124	77	45	14	●●
DC160-05-13.000F0-	13		60	124	77	45	14	●●
DC160-05-13.100F0-	13,1		60	124	77	45	14	●●
DC160-05-13.200F0-	13,2		60	124	77	45	14	●●
DC160-05-13.300F0-	13,3		60	124	77	45	14	●●
DC160-05-13.400F0-	13,4		60	124	77	45	14	●●
DC160-05-13.500F0-	13,5		60	124	77	45	14	●●
DC160-05-13.600F0-	13,6		60	124	77	45	14	●●
DC160-05-13.700F0-	13,7		60	124	77	45	14	●●
DC160-05-13.800F0-	13,8		60	124	77	45	14	●●
DC160-05-13.900F0-	13,9		60	124	77	45	14	●●
DC160-05-14.000F0-	14		60	124	77	45	14	●●
DC160-05-14.100F0-	14,1		63	133	83	48	16	●●
DC160-05-14.200F0-	14,2		63	133	83	48	16	●●
DC160-05-14.300F0-	14,3		63	133	83	48	16	●●
DC160-05-14.400F0-	14,4		63	133	83	48	16	●●
DC160-05-14.500F0-	14,5		63	133	83	48	16	●●
DC160-05-14.600F0-	14,6		63	133	83	48	16	●●
DC160-05-14.700F0-	14,7		63	133	83	48	16	●●
DC160-05-14.750F0-	14,75		63	133	83	48	16	●●
DC160-05-14.800F0-	14,8		63	133	83	48	16	●●
DC160-05-15.000F0-	15		63	133	83	48	16	●●
DC160-05-15.100F0-	15,1		63	133	83	48	16	●●
DC160-05-15.200F0-	15,2		63	133	83	48	16	●●
DC160-05-15.300F0-	15,3		63	133	83	48	16	●●
DC160-05-15.500F0-	15,5		63	133	83	48	16	●●
DC160-05-15.600F0-	15,6		63	133	83	48	16	●●
DC160-05-15.700F0-	15,7		63	133	83	48	16	●●
DC160-05-15.800F0-	15,8		63	133	83	48	16	●●

Ordering example for the WJ30ET grade: DC160-05-03.000A0-WJ30ET

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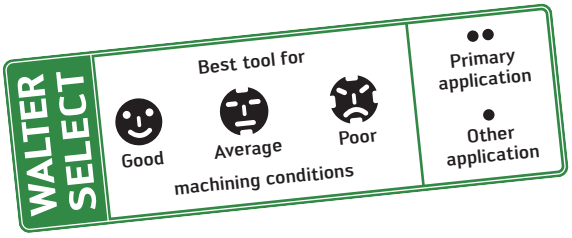

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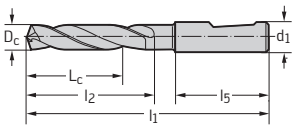
Shank DIN 6535 HE

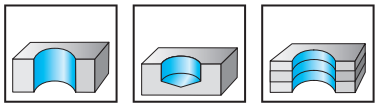


Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h8 mm	WJ30ET
DC160-05-15.900F0-	15,9		63	133	83	48	16	●
DC160-05-16.000F0-	16		63	133	83	48	16	●
DC160-05-16.100F0-	16,1		71	143	93	48	18	●
DC160-05-16.200F0-	16,2		71	143	93	48	18	●
DC160-05-16.300F0-	16,3		71	143	93	48	18	●
DC160-05-16.400F0-	16,4		71	143	93	48	18	●
DC160-05-16.500F0-	16,5		71	143	93	48	18	●
DC160-05-16.600F0-	16,6		71	143	93	48	18	●
DC160-05-16.700F0-	16,7		71	143	93	48	18	●
DC160-05-16.750F0-	16,75		71	143	93	48	18	●
DC160-05-16.800F0-	16,8		71	143	93	48	18	●
DC160-05-17.000F0-	17		71	143	93	48	18	●
DC160-05-17.200F0-	17,2		71	143	93	48	18	●
DC160-05-17.300F0-	17,3		71	143	93	48	18	●
DC160-05-17.500F0-	17,5		71	143	93	48	18	●
DC160-05-17.600F0-	17,6		71	143	93	48	18	●
DC160-05-17.700F0-	17,7		71	143	93	48	18	●
DC160-05-17.800F0-	17,8		71	143	93	48	18	●
DC160-05-18.000F0-	18		71	143	93	48	18	●
DC160-05-18.200F0-	18,2		77	153	101	50	20	●
DC160-05-18.500F0-	18,5		77	153	101	50	20	●
DC160-05-18.700F0-	18,7		77	153	101	50	20	●
DC160-05-18.800F0-	18,8		77	153	101	50	20	●
DC160-05-19.000F0-	19		77	153	101	50	20	●
DC160-05-19.500F0-	19,5		77	153	101	50	20	●
DC160-05-19.700F0-	19,7		77	153	101	50	20	●
DC160-05-19.800F0-	19,8		77	153	101	50	20	●
DC160-05-20.000F0-	20		77	153	101	50	20	●
DC160-05-20.500F0-	20,5		86	166	108	56	25	●
DC160-05-21.000F0-	21		86	166	108	56	25	●
DC160-05-21.500F0-	21,5		86	166	108	56	25	●
DC160-05-22.000F0-	22		86	166	108	56	25	●
DC160-05-22.500F0-	22,5		91	173	115	56	25	●
DC160-05-23.000F0-	23		91	173	115	56	25	●
DC160-05-23.500F0-	23,5		91	173	115	56	25	●
DC160-05-24.000F0-	24		91	173	115	56	25	●
DC160-05-24.500F0-	24,5		97	180	122	56	25	●
DC160-05-25.000F0-	25		97	180	122	56	25	●

Ordering example for the WJ30ET grade: DC160-05-03.000A0-WJ30ET

● / ★ New addition to the product range

Solid carbide twist drills
DC150 Perform

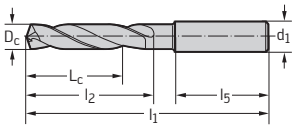


5×D_c | DIN 6537 L | 140°

	P	M	K	N	S	H	O
WJ30TA	●●	●	●●	●	●	●	●

B1

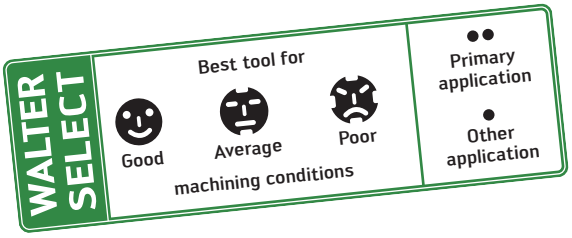
Shank DIN 6535 HA



Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30TA
DC150-05-03.000A0-	3		23	66	28	36	6	●●
DC150-05-03.100A0-	3,1		23	66	28	36	6	●●
DC150-05-03.175A0-	3,175	1/8"	23	66	28	36	6	●●
DC150-05-03.200A0-	3,2		23	66	28	36	6	●●
DC150-05-03.250A0-	3,25		23	66	28	36	6	●●
DC150-05-03.300A0-	3,3		23	66	28	36	6	●●
DC150-05-03.400A0-	3,4		23	66	28	36	6	●●
DC150-05-03.500A0-	3,5		23	66	28	36	6	●●
DC150-05-03.600A0-	3,6		23	66	28	36	6	●●
DC150-05-03.650A0-	3,65		23	66	28	36	6	●●
DC150-05-03.700A0-	3,7		23	66	28	36	6	●●
DC150-05-03.800A0-	3,8		29	74	36	36	6	●●
DC150-05-03.900A0-	3,9		29	74	36	36	6	●●
DC150-05-03.969A0-	3,969	5/32"	29	74	36	36	6	●●
DC150-05-04.000A0-	4		29	74	36	36	6	●●
DC150-05-04.100A0-	4,1		29	74	36	36	6	●●
DC150-05-04.200A0-	4,2		29	74	36	36	6	●●
DC150-05-04.300A0-	4,3		29	74	36	36	6	●●
DC150-05-04.366A0-	4,366	11/64"	29	74	36	36	6	●●
DC150-05-04.400A0-	4,4		29	74	36	36	6	●●
DC150-05-04.500A0-	4,5		29	74	36	36	6	●●
DC150-05-04.600A0-	4,6		29	74	36	36	6	●●
DC150-05-04.650A0-	4,65		29	74	36	36	6	●●
DC150-05-04.700A0-	4,7		29	74	36	36	6	●●
DC150-05-04.763A0-	4,763	3/16"	35	82	44	36	6	●●
DC150-05-04.800A0-	4,8		35	82	44	36	6	●●
DC150-05-04.900A0-	4,9		35	82	44	36	6	●●
DC150-05-05.000A0-	5		35	82	44	36	6	●●
DC150-05-05.100A0-	5,1		35	82	44	36	6	●●
DC150-05-05.159A0-	5,159	13/64"	35	82	44	36	6	●●
DC150-05-05.200A0-	5,2		35	82	44	36	6	●●
DC150-05-05.300A0-	5,3		35	82	44	36	6	●●
DC150-05-05.400A0-	5,4		35	82	44	36	6	●●
DC150-05-05.500A0-	5,5		35	82	44	36	6	●●
DC150-05-05.550A0-	5,55		35	82	44	36	6	●●
DC150-05-05.556A0-	5,556	7/32"	35	82	44	36	6	●●
DC150-05-05.600A0-	5,6		35	82	44	36	6	●●
DC150-05-05.700A0-	5,7		35	82	44	36	6	●●
DC150-05-05.800A0-	5,8		35	82	44	36	6	●●
DC150-05-05.900A0-	5,9		35	82	44	36	6	●●
DC150-05-05.953A0-	5,953	15/64"	35	82	44	36	6	●●
DC150-05-06.000A0-	6		35	82	44	36	6	●●
DC150-05-06.100A0-	6,1		43	91	53	36	8	●●

Ordering example for the WJ30TA grade: DC150-05-03.000A0-WJ30TA

Continued



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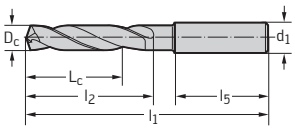
Shank DIN 6535 HA



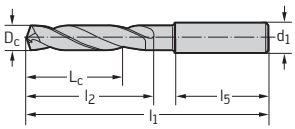
Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30TA
DC150-05-06.200A0-	6,2		43	91	53	36	8	●
DC150-05-06.300A0-	6,3		43	91	53	36	8	●
DC150-05-06.350A0-	6,35	1/4"	43	91	53	36	8	●
DC150-05-06.400A0-	6,4		43	91	53	36	8	●
DC150-05-06.500A0-	6,5		43	91	53	36	8	●
DC150-05-06.600A0-	6,6		43	91	53	36	8	●
DC150-05-06.700A0-	6,7		43	91	53	36	8	●
DC150-05-06.747A0-	6,747	17/64"	43	91	53	36	8	●
DC150-05-06.800A0-	6,8		43	91	53	36	8	●
DC150-05-06.900A0-	6,9		43	91	53	36	8	●
DC150-05-07.000A0-	7		43	91	53	36	8	●
DC150-05-07.100A0-	7,1		43	91	53	36	8	●
DC150-05-07.144A0-	7,144	9/32"	43	91	53	36	8	●
DC150-05-07.200A0-	7,2		43	91	53	36	8	●
DC150-05-07.300A0-	7,3		43	91	53	36	8	●
DC150-05-07.400A0-	7,4		43	91	53	36	8	●
DC150-05-07.500A0-	7,5		43	91	53	36	8	●
DC150-05-07.600A0-	7,6		43	91	53	36	8	●
DC150-05-07.700A0-	7,7		43	91	53	36	8	●
DC150-05-07.800A0-	7,8		43	91	53	36	8	●
DC150-05-07.900A0-	7,9		43	91	53	36	8	●
DC150-05-07.938A0-	7,938	5/16"	43	91	53	36	8	●
DC150-05-08.000A0-	8		43	91	53	36	8	●
DC150-05-08.100A0-	8,1		49	103	61	40	10	●
DC150-05-08.200A0-	8,2		49	103	61	40	10	●
DC150-05-08.300A0-	8,3		49	103	61	40	10	●
DC150-05-08.334A0-	8,334	21/64"	49	103	61	40	10	●
DC150-05-08.400A0-	8,4		49	103	61	40	10	●
DC150-05-08.500A0-	8,5		49	103	61	40	10	●
DC150-05-08.600A0-	8,6		49	103	61	40	10	●
DC150-05-08.700A0-	8,7		49	103	61	40	10	●
DC150-05-08.731A0-	8,731	11/32"	49	103	61	40	10	●
DC150-05-08.800A0-	8,8		49	103	61	40	10	●
DC150-05-08.900A0-	8,9		49	103	61	40	10	●
DC150-05-09.000A0-	9		49	103	61	40	10	●
DC150-05-09.100A0-	9,1		49	103	61	40	10	●
DC150-05-09.128A0-	9,128	23/64"	49	103	61	40	10	●
DC150-05-09.200A0-	9,2		49	103	61	40	10	●
DC150-05-09.300A0-	9,3		49	103	61	40	10	●
DC150-05-09.400A0-	9,4		49	103	61	40	10	●
DC150-05-09.500A0-	9,5		49	103	61	40	10	●
DC150-05-09.525A0-	9,525	3/8"	49	103	61	40	10	●
DC150-05-09.600A0-	9,6		49	103	61	40	10	●
DC150-05-09.700A0-	9,7		49	103	61	40	10	●
DC150-05-09.800A0-	9,8		49	103	61	40	10	●
DC150-05-09.900A0-	9,9		49	103	61	40	10	●
DC150-05-09.922A0-	9,922	25/64"	49	103	61	40	10	●
DC150-05-10.000A0-	10		49	103	61	40	10	●
DC150-05-10.100A0-	10,1		56	118	71	45	12	●
DC150-05-10.200A0-	10,2		56	118	71	45	12	●
DC150-05-10.300A0-	10,3		56	118	71	45	12	●
DC150-05-10.319A0-	10,319	13/32"	56	118	71	45	12	●
DC150-05-10.400A0-	10,4		56	118	71	45	12	●
DC150-05-10.500A0-	10,5		56	118	71	45	12	●
DC150-05-10.600A0-	10,6		56	118	71	45	12	●
DC150-05-10.700A0-	10,7		56	118	71	45	12	●
DC150-05-10.716A0-	10,716	27/64"	56	118	71	45	12	●
DC150-05-10.800A0-	10,8		56	118	71	45	12	●
DC150-05-11.000A0-	11		56	118	71	45	12	●
DC150-05-11.113A0-	11,113	7/16"	56	118	71	45	12	●
DC150-05-11.200A0-	11,2		56	118	71	45	12	●

Ordering example for the WJ30TA grade: DC150-05-03.000A0-WJ30TA

Continued

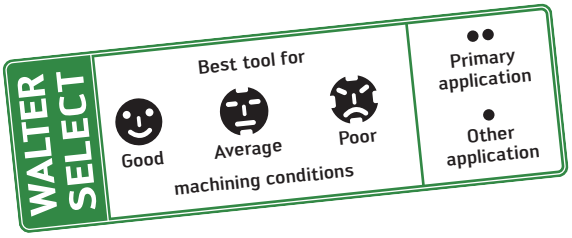
Continued

Shank DIN 6535 HA

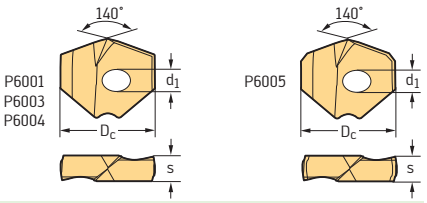


Designation	D_c m7 mm	D_c Inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30TA
DC150-05-11.500A0-	11,5		56	118	71	45	12	●●
DC150-05-11.800A0-	11,8		56	118	71	45	12	●●
DC150-05-11.906A0-	11,906	15/32"	56	118	71	45	12	●●
DC150-05-12.000A0-	12		56	118	71	45	12	●●
DC150-05-12.200A0-	12,2		60	124	77	45	14	●●
DC150-05-12.300A0-	12,3		60	124	77	45	14	●●
DC150-05-12.400A0-	12,4		60	124	77	45	14	●●
DC150-05-12.500A0-	12,5		60	124	77	45	14	●●
DC150-05-12.600A0-	12,6		60	124	77	45	14	●●
DC150-05-12.700A0-	12,7	1/2"	60	124	77	45	14	●●
DC150-05-13.000A0-	13		60	124	77	45	14	●●
DC150-05-13.200A0-	13,2		60	124	77	45	14	●●
DC150-05-13.494A0-	13,494	17/32"	60	124	77	45	14	●●
DC150-05-13.500A0-	13,5		60	124	77	45	14	●●
DC150-05-13.800A0-	13,8		60	124	77	45	14	●●
DC150-05-14.000A0-	14		60	124	77	45	14	●●
DC150-05-14.200A0-	14,2		63	133	83	48	16	●●
DC150-05-14.288A0-	14,288	9/16"	63	133	83	48	16	●●
DC150-05-14.500A0-	14,5		63	133	83	48	16	●●
DC150-05-15.000A0-	15		63	133	83	48	16	●●
DC150-05-15.500A0-	15,5		63	133	83	48	16	●●
DC150-05-15.800A0-	15,8		63	133	83	48	16	●●
DC150-05-16.000A0-	16		63	133	83	48	16	●●
DC150-05-16.500A0-	16,5		71	143	93	48	18	●●
DC150-05-17.000A0-	17		71	143	93	48	18	●●
DC150-05-17.500A0-	17,5		71	143	93	48	18	●●
DC150-05-18.000A0-	18		71	143	93	48	18	●●
DC150-05-19.000A0-	19		77	153	101	50	20	●●
DC150-05-19.500A0-	19,5		77	153	101	50	20	●●
DC150-05-20.000A0-	20		77	153	101	50	20	●●

Ordering example for the WJ30TA grade: DC150-05-03.000A0-WJ30TA



Drill inserts
P6001 / P6003 / P6004 / P6005



Drill inserts

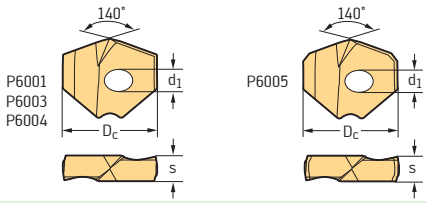
B1

	Designation	Number of cutting edges	D_c mm	D_c Inch/ no.	Seat size	d_1 mm	s mm	P6001 P HC WPP45C	P6003 P HC WMP35	P6003 M HC WMP35	P6005 K HC WKK45C	P6004 N HC WNN25	P6003 S HC WMP35
P6001	P60..-D12,00R	2	12		A	3	3,6	●	●	●	●	●	●
	P60..-D12,10R	2	12,1		A	3	3,6	●	●	●	●		●
	P60..-D12,20R	2	12,2		A	3	3,6	●	●	●	●		●
	P60..-D12,30R	2	12,3		A	3	3,6	●	●	●	●		●
	P60..-D12,40R	2	12,4		A	3	3,6	●	●	●	●		●
	P60..-D12,50R	2	12,5		A	3	3,6	●	●	●	●	●	●
P6003	P60..-D12,60R	2	12,6		A	3	3,6	●	●	●	●		●
	P60..-D12,70R	2	12,7	1/2"	A	3	3,6	●	●	●	●		●
	P60..-D12,80R	2	12,8		A	3	3,6	●	●	●	●		●
	P60..-D12,90R	2	12,9		A	3	3,6	●	●	●	●		●
	P60..-D12,95R	2	12,95		A	3	3,6	●	●	●	●		●
	P60..-D13,00R	2	13		A	3	3,6	●	●	●	●	●	●
P6004	P60..-D13,10R	2	13,1		A	3	3,6				●		
	P60..-D13,11R	2	13,11		A	3	3,6	●	●	●	●		●
	P60..-D13,20R	2	13,2		A	3	3,6	●	●	●	●		●
	P60..-D13,25R	2	13,25		A	3	3,6	●	●	●	●		●
	P60..-D13,30R	2	13,3		A	3	3,6	●	●	●	●		●
	P60..-D13,40R	2	13,4		A	3	3,6	●	●	●	●		●
P6005	P60..-D13,49R	2	13,49		A	3	3,6				●		
	P60..-D13,50R	2	13,5		A	3	3,6	●	●	●	●	●	●
	P60..-D13,60R	2	13,6		A	3	3,6	●	●	●	●		●
	P60..-D13,70R	2	13,7		A	3	3,6	●	●	●	●		●
	P60..-D13,80R	2	13,8		A	3	3,6	●	●	●	●		●
	P60..-D13,89R	2	13,89	35/64"	A	3	3,6	●	●	●	●		●
	P60..-D13,90R	2	13,9		A	3	3,6				●		
	P60..-D14,00R	2	14		B	3	4	●	●	●	●	●	●
	P60..-D14,10R	2	14,1		B	3	4	●	●	●	●		●
	P60..-D14,20R	2	14,2		B	3	4	●	●	●	●		●
	P60..-D14,29R	2	14,29		B	3	4				●		
	P60..-D14,30R	2	14,3		B	3	4	●	●	●	●		●
	P60..-D14,40R	2	14,4		B	3	4	●	●	●	●		●
	P60..-D14,50R	2	14,5		B	3	4	●	●	●	●	●	●
	P60..-D14,60R	2	14,6		B	3	4	●	●	●	●		●
	P60..-D14,68R	2	14,68		B	3	4	●	●	●	●		●
	P60..-D14,70R	2	14,7		B	3	4				●		
	P60..-D14,80R	2	14,8		B	3	4	●	●	●	●	●	●
	P60..-D14,90R	2	14,9		B	3	4	●	●	●	●		●
	P60..-D15,00R	2	15		B	3	4	●	●	●	●	●	●
	P60..-D15,08R	2	15,08		B	3	4				●		
	P60..-D15,09R	2	15,09		B	3	4	●	●	●	●		●
	P60..-D15,10R	2	15,1		B	3	4				●		
	P60..-D15,20R	2	15,2		B	3	4	●	●	●	●		●
	P60..-D15,30R	2	15,3		B	3	4	●	●	●	●		●

Ordering example: P60.. -D13.00R is available as
P6003 in grade WMP35 (ISO P, ISO M and ISO S): P6003-D13.00R WMP35 or as
P6001 in grade WPP45C (ISO P): P6001-D13.00R WPP45C

HC = Coated carbide

Drill inserts
P6001 / P6003 / P6004 / P6005

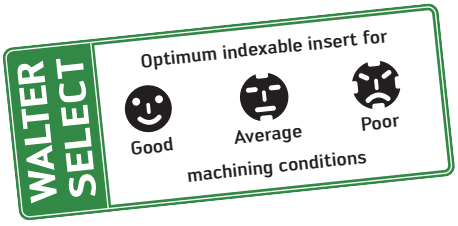


Drill inserts

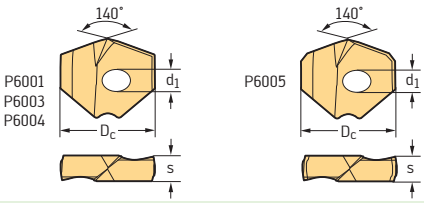
	Designation	Number of cutting edges	D_c mm	D_c Inch/ no.	Seat size	d_1 mm	s mm	P6001 P HC WPP45C	P6003 P HC WMP35	P6003 M HC WMP35	P6005 K HC WKK45C	P6004 N HC WNN25	P6003 S HC WMP35
P6001	P60..-D15,40R	2	15,4		B	3	4	☺	😐	☺	☹		☺
	P60..-D15,47R	2	15,47		B	3	4	☺	😐	☺	☹		☺
	P60..-D15,48R	2	15,48		B	3	4				☹		
	P60..-D15,50R	2	15,5		B	3	4	☺	😐	☺	☹	☺	☺
	P60..-D15,60R	2	15,6		B	3	4	☺	😐	☺	☹		☺
	P60..-D15,70R	2	15,7		B	3	4	☺	😐	☺	☹		☺
P6003	P60..-D15,80R	2	15,8		B	3	4	☺	😐	☺	☹		☺
	P60..-D15,87R	2	15,87		B	3	4	☺	😐	☺	☹		☺
	P60..-D15,88R	2	15,88		B	3	4				☹		
	P60..-D15,90R	2	15,9		B	3	4				☹		
	P60..-D16,00R	2	16		C	4	4,5	☺	😐	☺	☹	☺	☺
	P60..-D16,13R	2	16,13		C	4	4,5	☺	😐	☺	☹		☺
	P60..-D16,26R	2	16,26		C	4	4,5	☺	😐	☺	☹		☺
P6004	P60..-D16,27R	2	16,27		C	4	4,5				☹		
	P60..-D16,43R	2	16,43		C	4	4,5	☺	😐	☺	☹		☺
	P60..-D16,50R	2	16,5		C	4	4,5	☺	😐	☺	☹	☺	☺
	P60..-D16,66R	2	16,66		C	4	4,5	☺	😐	☺	☹	☺	☺
	P60..-D16,67R	2	16,67		C	4	4,5				☹		
P6005	P60..-D16,70R	2	16,7		C	4	4,5	☺	😐	☺	☹		☺
	P60..-D16,80R	2	16,8		C	4	4,5				☹		
	P60..-D17,00R	2	17		C	4	4,5	☺	😐	☺	☹	☺	☺
	P60..-D17,07R	2	17,07		C	4	4,5	☺	😐	☺	☹		☺
	P60..-D17,20R	2	17,2		C	4	4,5	☺	😐	☺	☹		☺
	P60..-D17,45R	2	17,45		C	4	4,5	☺	😐	☺	☹		☺
	P60..-D17,46R	2	17,46		C	4	4,5				☹		
	P60..-D17,50R	2	17,5		C	4	4,5	☺	😐	☺	☹	☺	☺
	P60..-D17,70R	2	17,7		C	4	4,5	☺	😐	☺	☹	☺	☺
	P60..-D17,80R	2	17,8		C	4	4,5				☹		
	P60..-D17,86R	2	17,86	45/64"	C	4	4,5	☺	😐	☺	☹		☺
	P60..-D18,00R	2	18		D	4	5	☺	😐	☺	☹	☺	☺
	P60..-D18,24R	2	18,24		D	4	5	☺	😐	☺	☹		☺
	P60..-D18,26R	2	18,26		D	4	5				☹		
	P60..-D18,50R	2	18,5		D	4	5	☺	😐	☺	☹	☺	☺
	P60..-D18,65R	2	18,65		D	4	5	☺	😐	☺	☹	☺	☺
	P60..-D18,70R	2	18,7		D	4	5	☺	😐	☺	☹		☺
	P60..-D18,80R	2	18,8		D	4	5	☺	😐	☺	☹		☺
	P60..-D19,00R	2	19		D	4	5	☺	😐	☺	☹	☺	☺
	P60..-D19,05R	2	19,05	3/4"	D	4	5	☺	😐	☺	☹		☺
	P60..-D19,20R	2	19,2		D	4	5	☺	😐	☺	☹		☺

Ordering example: P60.. -D13.00R is available as
P6003 in grade WMP35 (ISO P, ISO M and ISO S): P6003-D13.00R WMP35 or as
P6001 in grade WPP45C (ISO P): P6001-D13.00R WPP45C

HC = Coated carbide



Drill inserts
P6001 / P6003 / P6004 / P6005



Drill inserts

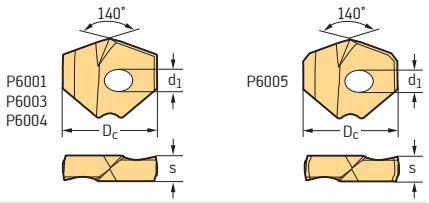
B1

	Designation	Number of cutting edges	D_c mm	D_c Inch/ no.	Seat size	d_1 mm	s mm	P6001 P HC WPP45C	P6003 P HC WMP35	P6003 M HC WMP35	P6005 K HC WKK45C	P6004 N HC WNN25	P6003 S HC WMP35
P6001	P60..-D19,25R	2	19,25		D	4	5	●	●	●	●		●
	P60..-D19,30R	2	19,3		D	4	5	●	●	●	●		●
	P60..-D19,43R	2	19,43		D	4	5	●	●	●	●		●
	P60..-D19,45R	2	19,45		D	4	5				●		
	P60..-D19,50R	2	19,5		D	4	5	●	●	●	●	●	●
	P60..-D19,60R	2	19,6		D	4	5	●	●	●	●		●
P6003	P60..-D19,70R	2	19,7		D	4	5	●	●	●	●	●	●
	P60..-D19,80R	2	19,8		D	4	5				●		
	P60..-D19,84R	2	19,84		D	4	5	●	●	●	●	●	●
	P60..-D20,00R	2	20		E	5	5,5	●	●	●	●	●	●
	P60..-D20,20R	2	20,2		E	5	5,5	●	●	●	●		●
	P60..-D20,24R	2	20,24	51/64"	E	5	5,5	●	●	●	●		●
P6004	P60..-D20,50R	2	20,5		E	5	5,5	●	●	●	●	●	●
	P60..-D20,62R	2	20,62		E	5	5,5	●	●	●	●		●
	P60..-D20,64R	2	20,64		E	5	5,5				●		
	P60..-D20,70R	2	20,7		E	5	5,5	●	●	●	●		●
	P60..-D21,00R	2	21		E	5	5,5	●	●	●	●	●	●
	P60..-D21,41R	2	21,41		E	5	5,5	●	●	●	●		●
P6005	P60..-D21,43R	2	21,43		E	5	5,5				●		
	P60..-D21,50R	2	21,5		E	5	5,5	●	●	●	●	●	●
	P60..-D21,70R	2	21,7		E	5	5,5	●	●	●	●	●	●
	P60..-D21,83R	2	21,83		E	5	5,5	●	●	●	●		●
	P60..-D22,00R	2	22		F	5	6	●	●	●	●	●	●
	P60..-D22,22R	2	22,22		F	5	6	●	●	●	●		●
	P60..-D22,23R	2	22,23		F	5	6				●		
	P60..-D22,42R	2	22,42		F	5	6	●	●	●	●		●
	P60..-D22,47R	2	22,47		F	5	6	●	●	●	●		●
	P60..-D22,50R	2	22,5		F	5	6	●	●	●	●	●	●
	P60..-D22,62R	2	22,62		F	5	6	●	●	●	●		●
	P60..-D22,70R	2	22,7		F	5	6	●	●	●	●		●
	P60..-D22,77R	2	22,77		F	5	6	●	●	●	●		●
	P60..-D23,00R	2	23		F	5	6	●	●	●	●	●	●
	P60..-D23,02R	2	23,02		F	5	6				●		
	P60..-D23,39R	2	23,39		F	5	6	●	●	●	●		●
	P60..-D23,50R	2	23,5		F	5	6	●	●	●	●	●	●
	P60..-D23,70R	2	23,7		F	5	6	●	●	●	●		●
	P60..-D23,80R	2	23,8		F	5	6	●	●	●	●		●
	P60..-D23,81R	2	23,81		F	5	6				●		
	P60..-D24,00R	2	24		G	5	6,5	●	●	●	●	●	●
	P60..-D24,21R	2	24,21	61/64"	G	5	6,5	●	●	●	●		●
	P60..-D24,50R	2	24,5		G	5	6,5	●	●	●	●	●	●
	P60..-D24,59R	2	24,59		G	5	6,5	●	●	●	●		●
	P60..-D24,61R	2	24,61		G	5	6,5				●		

Ordering example: P60.. -D13.00R is available as
P6003 in grade WMP35 (ISO P, ISO M and ISO S): P6003-D13.00R WMP35 or as
P6001 in grade WPP45C (ISO P): P6001-D13.00R WPP45C

HC = Coated carbide

Drill inserts
P6001 / P6003 / P6004 / P6005

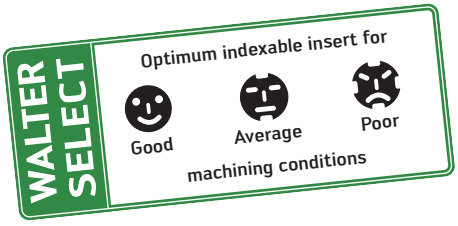


Drill inserts

	Designation	Number of cutting edges	D_c mm	D_c Inch/ no.	Seat size	d_1 mm	s mm	P6001 P HC WPP45C	P6003 P HC WMP35	P6003 M HC WMP35	P6005 K HC WKK45C	P6004 N HC WNN25	P6003 S HC WMP35
P6001	P60..-D24,70R	2	24,7		G	5	6,5	☺	☹	☺	☹		☺
	P60..-D25,00R	2	25		G	5	6,5	☺	☹	☺	☹	☺	☺
	P60..-D25,25R	2	25,25		G	5	6,5	☺	☹	☺	☹		☺
	P60..-D25,40R	2	25,4	1"	G	5	6,5	☺	☹	☺	☹		☺
	P60..-D25,50R	2	25,5		G	5	6,5	☺	☹	☺	☹	☺	☺
	P60..-D25,65R	2	25,65		G	5	6,5	☺	☹	☺	☹		☺
P6003	P60..-D25,70R	2	25,7		G	5	6,5	☺	☹	☺	☹		☺
	P60..-D25,80R	2	25,8		G	5	6,5	☺	☹	☺	☹		☺
	P60..-D26,00R	2	26		H	6	7,1	☺	☹	☺	☹	☺	☺
	P60..-D26,25R	2	26,25		H	6	7,1	☺	☹	☺	☹		☺
	P60..-D26,50R	2	26,5		H	6	7,1	☺	☹	☺	☹	☺	☺
	P60..-D26,59R	2	26,59	1 3/64"	H	6	7,1	☺	☹	☺	☹		☺
P6004	P60..-D27,00R	2	27		H	6	7,1	☺	☹	☺	☹	☺	☺
	P60..-D27,38R	2	27,38		H	6	7,1	☺	☹	☺	☹		☺
	P60..-D27,50R	2	27,5		H	6	7,1	☺	☹	☺	☹	☺	☺
	P60..-D27,78R	2	27,78		H	6	7,1	☺	☹	☺	☹		☺
	P60..-D28,00R	2	28		J	6	7,7	☺	☹	☺	☹	☺	☺
	P60..-D28,17R	2	28,17		J	6	7,7	☺	☹	☺	☹		☺
P6005	P60..-D28,50R	2	28,5		J	6	7,7	☺	☹	☺	☹	☺	☺
	P60..-D28,57R	2	28,57		J	6	7,7	☺	☹	☺	☹		☺
	P60..-D29,00R	2	29		J	6	7,7	☺	☹	☺	☹	☺	☺
	P60..-D29,37R	2	29,37		J	6	7,7	☺	☹	☺	☹		☺
	P60..-D29,50R	2	29,5		J	6	7,7	☺	☹	☺	☹	☺	☺
	P60..-D29,77R	2	29,77		J	6	7,7	☺	☹	☺	☹		☺
	P60..-D30,00R	2	30		K	6	8	☺	☹	☺	☹	☺	☺
	P60..-D30,15R	2	30,15		K	6	8	☺	☹	☺	☹		☺
	P60..-D30,50R	2	30,5		K	6	8	☺	☹	☺	☹	☺	☺
	P60..-D31,00R	2	31		K	6	8	☺	☹	☺	☹	☺	☺
	P60..-D31,50R	2	31,5		K	6	8	☺	☹	☺	☹	☺	☺
	P60..-D31,75R	2	31,75	1 1/4"	K	6	8	☺	☹	☺	☹		☺
	P60..-D31,99R	2	31,99		K	6	8	☺	☹	☺	☹		☺
	P60..-D32,00R	2	32		M	6	8,3	☺	☹	☺	☹		☺
	P60..-D32,10R	2	32,1		M	6	8,3	☺	☹	☺	☹		☺
	P60..-D33,00R	2	33		M	6	8,3	☺	☹	☺	☹		☺
	P60..-D34,00R	2	34		N	6	8,6	☺	☹	☺	☹		☺
	P60..-D35,00R	2	35		N	6	8,6	☺	☹	☺	☹		☺
	P60..-D36,00R	2	36		P	6	8,9	☺	☹	☺	☹		☺
	P60..-D37,00R	2	37		P	6	8,9	☺	☹	☺	☹		☺
	P60..-D37,99R	2	37,99		P	6	8,9	☺	☹	☺	☹		☺

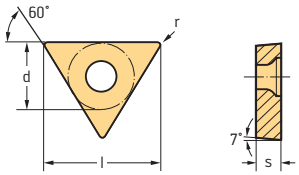
Ordering example: P60.. -D13.00R is available as
P6003 in grade WMP35 (ISO P, ISO M and ISO S): P6003-D13.00R WMP35 or as
P6001 in grade WPP45C (ISO P): P6001-D13.00R WPP45C

HC = Coated carbide



B1

Positive triangular 60°
TCMT
Tiger·tec® Silver



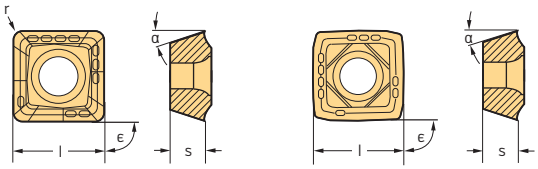
Indexable inserts

	Designation	l mm	r mm	P HE WEP10	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	M HC WSM21	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM10S	S HC WSM20S	S HC WSM30S
	TCMT06T102-FM4	6,62	0,2										●						
	TCMT06T104-FM4	6,62	0,4										●						
	TCMT090202-FM4	9,37	0,2							●	●	●					●	●	●
	TCMT090204-FM4	9,37	0,4							●	●	●					●	●	●
	TCMT090208-FM4	9,37	0,8							●	●						●	●	
	TCMT110202-FM4	10,74	0,2							●	●	●					●	●	●
	TCMT110204-FM4	10,74	0,4					●	●	●	●	●					●	●	●
	TCMT110208-FM4	10,74	0,8							●	●	●					●	●	●
	TCMT16T302-FM4	16,50	0,2							●	●	●					●	●	●
	TCMT16T304-FM4	16,50	0,4					●	●	●	●	●					●	●	●
	TCMT16T308-FM4	16,50	0,8					●	●	●	●	●					●	●	●
	TCMT06T102-FP4	6,62	0,2			●													
	TCMT06T104-FP4	6,62	0,4	●		●													
	TCMT090202-FP4	9,37	0,2			●													
	TCMT090204-FP4	9,37	0,4	●	●	●													
	TCMT090208-FP4	9,37	0,8			●													
	TCMT110202-FP4	10,74	0,2		●	●													
	TCMT110204-FP4	10,74	0,4	●	●	●													
	TCMT110208-FP4	10,74	0,8		●	●													
	TCMT16T302-FP4	16,50	0,2			●													
	TCMT16T304-FP4	16,50	0,4		●	●													
	TCMT16T308-FP4	16,50	0,8	●	●	●													
	TCMT090204-MP4	9,37	0,4		●	●													
	TCMT090208-MP4	9,37	0,8		●	●													
	TCMT110204-MP4	10,74	0,4		●	●													
	TCMT110208-MP4	10,74	0,8		●	●													
	TCMT16T304-MP4	16,50	0,4		●	●													
	TCMT16T308-MP4	16,50	0,8		●	●													
	TCMT220408-MP4	22,00	0,8			●													

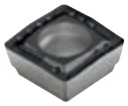
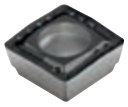
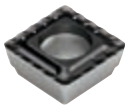
See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide

Square
P484..
Tiger·tec® Silver

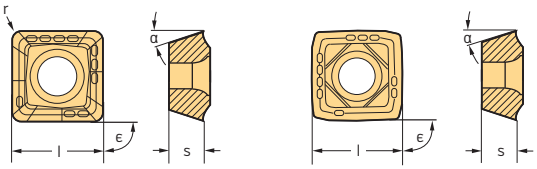


Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	r mm	α	ε	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45	N HC WXP40	S HC WSP45	S HC WSP45S	S HC WXP40
	P4840P-1R-A57	4	4,55	1,96	0,29	11°	90°	●	●	●			○				●	●				○		
	P4840P-2R-A57	4	5,52	2,28	0,34	11°	90°	●	●	●			○				●	●				○		
	P4840P-3R-A57	4	6,5	2,8	0,4	11°	90°	●	●	●			○				●	●				○		
	P4840P-4R-A57	4	7,8	3,36	0,48	11°	90°	●	●	●			○				●	●				○		
	P4840P-5R-A57	4	9,56	4,12	0,59	11°	90°	●	●	●			○				●	●				○		
	P4840P-6R-A57	4	11,75	4,87	0,7	11°	90°	●	●	●			○				●	●				○		
	P4840P-7R-A57	4	14,03	5,53	0,8	11°	90°	●	●	●			○				●	●				○		
	P4840P-8R-A57	4	16,5	5,53	1	11°	90°	●	●	●			○				●	●				○		
	P4840P-1R-E57	4	4,55	1,96	0,29	11°	90°	●	●	●			○				●	●				○		
	P4840P-2R-E57	4	5,52	2,28	0,34	11°	90°	●	●	●			○				●	●				○		
	P4840P-3R-E57	4	6,5	2,8	0,4	11°	90°	●	●	●			○				●	●				○		
	P4840P-4R-E57	4	7,8	3,36	0,48	11°	90°	●	●	●			○				●	●				○		
	P4840P-5R-E57	4	9,56	4,12	0,59	11°	90°	●	●	●			○				●	●				○		
	P4840P-6R-E57	4	11,75	4,87	0,7	11°	90°	●	●	●			○				●	●				○		
	P4840P-7R-E57	4	14,03	5,53	0,8	11°	90°	●	●	●			○				●	●				○		
	P4840P-8R-E57	4	16,5	5,53	1	11°	90°	●	●	●			○				●	●				○		
	P4840P-1R-E67	4	4,55	1,96	0,29	11°	90°	●	●	●			○				●	●	●			○		
	P4840P-2R-E67	4	5,52	2,28	0,34	11°	90°	●	●	●			○				●	●	●			○		
	P4840P-3R-E67	4	6,5	2,8	0,4	11°	90°	●	●	●			○				●	●	●			○		
	P4840P-4R-E67	4	7,8	3,36	0,48	11°	90°	●	●	●			○				●	●	●			○		
	P4840P-5R-E67	4	9,56	4,12	0,59	11°	90°	●	●	●			○				●	●	●			○		
	P4840P-6R-E67	4	11,75	4,87	0,7	11°	90°	●	●	●			○				●	●	●			○		
	P4840P-7R-E67	4	14,03	5,53	0,8	11°	90°	●	●	●			○				●	●	●			○		
	P4840P-8R-E67	4	16,5	5,53	1	11°	90°	●	●	●			○				●	●	●			○		
	P4841P-1R-A57	4	4,55	1,96	0,29	11°	90°	●	●	●			○				●	●				○		
	P4841P-2R-A57	4	5,52	2,28	0,34	11°	90°	●	●	●			○				●	●				○		
	P4841P-3R-A57	4	6,5	2,8	0,4	11°	90°	●	●	●			○				●	●				○		
	P4841P-4R-A57	4	7,8	3,36	0,48	11°	90°	●	●	●			○				●	●				○		
	P4841P-5R-A57	4	9,56	4,12	0,59	11°	90°	●	●	●			○				●	●				○		
	P4841P-6R-A57	4	11,75	4,87	0,7	11°	90°	●	●	●			○				●	●				○		
	P4841P-7R-A57	4	14,03	5,53	0,8	11°	90°	●	●	●			○				●	●				○		
	P4841P-8R-A57	4	16,5	5,53	1	11°	90°	●	●	●			○				●	●				○		
	P4841P-1R-E57	4	4,55	1,96	0,29	11°	90°	●	●	●			○				●	●				○		
	P4841P-2R-E57	4	5,52	2,28	0,34	11°	90°	●	●	●			○				●	●				○		
	P4841P-3R-E57	4	6,5	2,8	0,4	11°	90°	●	●	●			○				●	●				○		
	P4841P-4R-E57	4	7,8	3,36	0,48	11°	90°	●	●	●			○				●	●				○		
	P4841P-5R-E57	4	9,56	4,12	0,59	11°	90°	●	●	●			○				●	●				○		
	P4841P-6R-E57	4	11,75	4,87	0,7	11°	90°	●	●	●			○				●	●				○		
	P4841P-7R-E57	4	14,03	5,53	0,8	11°	90°	●	●	●			○				●	●				○		
	P4841P-8R-E57	4	16,5	5,53	1	11°	90°	●	●	●			○				●	●				○		

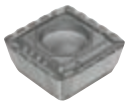
HC = Coated carbide

Square
P484..
Tiger·tec® Silver



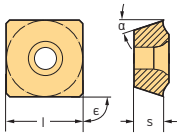
Indexable inserts

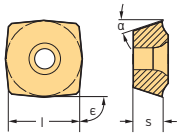
B1

	Designation	Number of cutting edges	l mm	s mm	r mm	α	ε	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45	N HC WXP40	S HC WSP45	S HC WSP45S	S HC WXP40
	P4841C-1R-A57	4	4,9	1,96	0,29	11°	90°		☺			☹			☹			☹	☹					☹
	P4841C-2R-A57	4	5,95	2,38	0,34	11°	90°		☺			☹			☹			☹	☹					☹
	P4841C-3R-A57	4	7	2,8	0,4	11°	90°		☺			☹			☹			☹	☹					☹
	P4841C-4R-A57	4	8,4	3,36	0,48	11°	90°		☺			☹			☹			☹	☹					☹
	P4841C-5R-A57	4	10,29	4,12	0,59	11°	90°		☺			☹			☹			☹	☹					☹
	P4841C-6R-A57	4	12,24	4,87	0,7	11°	90°		☺			☹			☹			☹	☹					☹
	P4841C-7R-A57	4	14,69	5,53	0,8	11°	90°		☺			☹			☹			☹	☹					☹
	P4841C-8R-A57	4	17,49	5,53	1	11°	90°		☺			☹			☹			☹	☹					☹
	P4841C-1R-E57	4	4,9	1,96	0,29	11°	90°		☺			☹			☹			☺	☹					☹
	P4841C-2R-E57	4	5,95	2,38	0,34	11°	90°		☺			☹			☹			☺	☹					☹
	P4841C-3R-E57	4	7	2,8	0,4	11°	90°		☺			☹			☹			☺	☹					☹
	P4841C-4R-E57	4	8,4	3,36	0,48	11°	90°		☺			☹			☹			☺	☹					☹
	P4841C-5R-E57	4	10,29	4,12	0,59	11°	90°		☺			☹			☹			☺	☹					☹
	P4841C-6R-E57	4	12,24	4,87	0,7	11°	90°		☺			☹			☹			☺	☹					☹
	P4841C-7R-E57	4	14,69	5,53	0,8	11°	90°		☺			☹			☹			☺	☹					☹
	P4841C-8R-E57	4	17,49	5,53	1	11°	90°		☺			☹			☹			☺	☹					☹
	P4840C-1R-E67	4	4,9	1,96	0,29	11°	90°		☺			☹			☹			☺	☹	☺				☹
	P4840C-2R-E67	4	5,95	2,38	0,34	11°	90°		☺			☹			☹			☺	☹	☺				☹
	P4840C-3R-E67	4	7	2,8	0,4	11°	90°		☺			☹			☹			☺	☹	☺				☹
	P4840C-4R-E67	4	8,4	3,36	0,48	11°	90°		☺			☹			☹			☺	☹	☺				☹
	P4840C-5R-E67	4	10,29	4,12	0,59	11°	90°		☺			☹			☹			☺	☹	☺				☹
	P4840C-6R-E67	4	12,24	4,87	0,7	11°	90°		☺			☹			☹			☺	☹	☺				☹
	P4840C-7R-E67	4	14,69	5,53	0,8	11°	90°		☺			☹			☹			☺	☹	☺				☹
	P4840C-8R-E67	4	17,49	5,53	1	11°	90°		☺			☹			☹			☺	☹	☺				☹

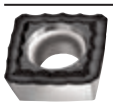
HC = Coated carbide

Square
P284..





Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	α	ε	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WK40	S HC WK40	S HC WSP45	S HC WSP45S	S HC WXP40
	P2840S-1N-A57	4	6,35	2,38	14°	90°	☺	☺		☹	☹		☺	☹		☺	☺	☺				☺	☹
	P2840S-2N-A57	4	7,8	3,18	14°	90°	☺	☺		☹	☹		☺	☹		☺	☺	☺				☺	☹
	P2840S-3N-A57	4	9,52	3,97	11°	96°	☺	☺		☹	☹		☺	☹		☺	☹	☹				☺	☹
	P2840S-4N-A57	4	11	3,97	11°	96°	☺	☺		☹	☹		☺	☹		☺	☹	☹				☺	☹
	P2840S-5N-A57	4	12,7	4,76	11°	96°	☺	☺		☹	☹		☺	☹		☺	☹	☹				☺	☹
	P2840S-6N-A57	4	15	4,76	11°	96°		☹									☹						
	P2840S-7N-A57	4	17,6	5,56	11°	96°		☹									☹						
	P2840S-1N-E67	4	6,35	2,38	14°	90°		☹		☹	☹		☹	☹			☹	☹	☹	☹		☹	☹
	P2840S-2N-E67	4	7,8	3,18	14°	90°		☹		☹	☹		☹	☹			☹	☹	☹	☹		☹	☹
	P2840S-3N-E67	4	9,52	3,97	11°	96°		☹		☹	☹		☹	☹			☹	☹	☹	☹		☹	☹
	P2840S-4N-E67	4	11	3,97	11°	96°		☹		☹	☹		☹	☹			☹	☹	☹	☹		☹	☹
	P2840S-5N-E67	4	12,7	4,76	11°	96°		☹		☹	☹		☹	☹			☹	☹	☹	☹		☹	☹
	P2840S-6N-E67	4	15	4,76	11°	96°		☹		☹			☹				☹		☹	☹		☹	
	P2840S-7N-E67	4	17,6	5,56	11°	96°		☹		☹			☹				☹		☹	☹		☹	
	P2841S-1N-A57	4	6,35	2,38	14°	90°	☺	☺		☹	☹		☺	☹		☺	☹	☹				☺	☹
	P2841S-2N-A57	4	7,8	3,18	14°	90°	☺	☺		☹	☹		☺	☹		☺	☹	☹				☺	☹
	P2841S-3N-A57	4	9,52	3,97	11°	96°	☺	☺		☹	☹		☺	☹		☺	☹	☹				☺	☹
	P2841S-4N-A57	4	11	3,97	11°	96°	☺	☺		☹	☹		☺	☹		☺	☹	☹				☺	☹
	P2841S-5N-A57	4	12,7	4,76	11°	96°	☺	☺		☹	☹		☺	☹		☺	☹	☹				☺	☹
	P2841S-6N-A57	4	15	4,76	11°	96°	☺	☺			☹			☹		☺	☹	☹					☹
	P2841S-7N-A57	4	17,6	5,56	11°	96°	☺	☺			☹			☹		☺	☹	☹					☹
	P2841S-1N-E57	4	6,35	2,38	14°	90°	☺	☺		☹	☹		☹	☹		☺	☹	☹				☹	☹
	P2841S-2N-E57	4	7,8	3,18	14°	90°	☺	☺		☹	☹		☹	☹		☺	☹	☹				☹	☹
	P2841S-3N-E57	4	9,52	3,97	11°	96°	☺	☺		☹	☹		☹	☹		☺	☹	☹				☹	☹
	P2841S-4N-E57	4	11	3,97	11°	96°	☺	☺		☹	☹		☹	☹		☺	☹	☹				☹	☹
	P2841S-5N-E57	4	12,7	4,76	11°	96°	☺	☺		☹	☹		☹	☹		☺	☹	☹				☹	☹
	P2841S-6N-E57	4	15	4,76	11°	96°		☺			☹			☹			☹	☹					☹
	P2841S-7N-E57	4	17,6	5,56	11°	96°		☺			☹			☹			☹	☹					☹
	P2841S-1N-E67	4	6,35	2,38	14°	90°		☺		☹	☹		☹	☹			☹	☹				☹	☹
	P2841S-2N-E67	4	7,8	3,18	14°	90°		☺		☹	☹		☹	☹			☹	☹				☹	☹
	P2841S-3N-E67	4	9,52	3,97	11°	96°		☺		☹	☹		☹	☹			☹	☹				☹	☹
	P2841S-4N-E67	4	11	3,97	11°	96°		☺		☹	☹		☹	☹			☹	☹				☹	☹
	P2841S-5N-E67	4	12,7	4,76	11°	96°		☺		☹	☹		☹	☹			☹	☹				☹	☹
	P2841S-6N-E67	4	15	4,76	11°	96°		☺			☹			☹			☹	☹					☹
	P2841S-7N-E67	4	17,6	5,56	11°	96°		☺			☹			☹			☹	☹					☹

HC = Coated carbide

WALTER SELECT

Optimum indexable insert for

☺ Good ☹ Average ☹ Poor

machining conditions

B1

Product range overview
Exchangeable insert drills/indexable insert drills

Drilling depth	**2,5 × D_c**	**1,3 × D_c**	**3 × D_c**	**5 × D_c**	**7 × D_c**	**10 × D_c**
Designation	**D4240-02**	**D4140-01**	**D4140-03**	**D4140-05**	**D4140-07**	**D4140-10**
Dia. range [mm]	12–29.99	12–25.99	12–37.99	12–37.99	12–37.99	18–24.99
Page	210	212	214	220	228	236
						

Drilling depth	**2 × D_c**	**3 × D_c**	**4 × D_c**	**5 × D_c**
Designation	**D4120-02**	**D4120-03**	**D4120-04**	**D4120-05**
Dia. range [mm]	14–42	14–42	17–42	17–42
Page	238	242	246	250
				

Drilling depth	**2 × D_c**	**3 × D_c**	**4 × D_c**
Designation	**D3120-02**	**D3120-03**	**D3120-04**
Dia. range [mm]	16–42	16–42	16–42
Page	254	256	258
			

Designation key for Walter drilling tools with indexable inserts

D	4	1	40	–	03	–	12.00	F16	–	A
1	2	3	4	5	6		7	8		9

1 – Tool group

D	Drilling

2 – Generation

3 – Tool type

1	Cylindrical drill
2	Chamfer drills
5	Chamfering tool

4 – Tool type

20	Indexable insert drill with square indexable insert
40	Indexable insert drill with P600x exchangeable insert
80	Compact chamfering tool

5 – 1. Delimiters

–	Metric
.	Inch

6 – Drilling depth/ chamfer angle

01	$1,3 \times D_c$
02	$2 \times D_c$ / $2,5 \times D_c$
03	$3 \times D_c$
04	$4 \times D_c$
05	$5 \times D_c$
07	$7 \times D_c$
10	$10 \times D_c$
45	45° chamfer angle

7 – Cutting diameter/clamping diameter of the chamfering tool

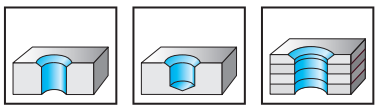
8 – Shank type and size, cylindrical

F16	16 mm
F20	20 mm
F25	25 mm
F32	32 mm
F40	40 mm
A12	12 mm
A16	16 mm
A20	20 mm
A25	25 mm
A13	0.500 inch
A15	0.625 inch
A19	0.750 inch
A26	1.000 inch

9 – Insert size/ interface size

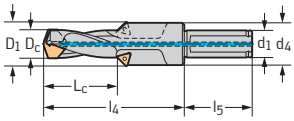
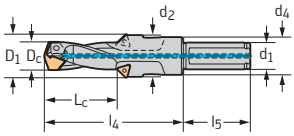
Solid drills
D4240-02 mm

D_c 12–29,99	2,5×D_c	90°	140°	Z=2



	P	M	K	N	S	H	O
D4240-02	●●	●●	●●	●●	●●		

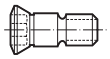
B1

Tool	Designation	D_c mm	D_1 mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of index-able inserts	Seat size	Type
Parallel shank with flat 	★ D4240-02-12.00F20-A	12	23,7	35,2	68	50	20	30	0,22	1 2	A	P600 . -D12, .. TC .. 11020 ..
	★ D4240-02-14.00F20-B	14	25,7	40,6	76	50	20	30	0,26	1 2	B	P600 . -D14, .. TC .. 11020 ..
	★ D4240-02-15.00F20-B	15	26,7	46,7	80	50	20	30	0,25	1 2	B	P600 . -D15, .. TC .. 11020 ..
	★ D4240-02-17.00F20-C	17	28,7	48,6	88	50	20	30	0,30	1 2	C	P600 . -D17, .. TC .. 11020 ..
	★ D4240-02-19.00F20-D	19	30,7	52,5	96	50	20	30	0,34	1 2	D	P600 . -D19, .. TC .. 11020 ..
Parallel shank with flat 	★ D4240-02-21.00F20-E	21	32,7	55,3	104	50	20	30	0,37	1 2	E	P600 . -D21, .. TC .. 11020 ..
	★ D4240-02-24.00F25-G	24	43,4	61,4	117	56	25	35	0,06	1 2	G	P600 . -D24, .. TC .. 16T3 ..
	★ D4240-02-26.00F25-H	26	45,4	66,7	125	56	25	35	0,68	1 2	H	P600 . -D26, .. TC .. 16T3 ..
	★ D4240-02-29.00F32-J	29	48,4	72,3	138	60	32	42	1,08	1 2	J	P600 . -D29, .. TC .. 16T3 ..

Bodies and assembly parts are included in the scope of delivery.

●●● / ★ New addition to the product range

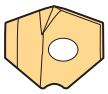
Assembly parts

	D_c [mm]	12	14–15	17	19	21	24	26	29
	Clamping screw for P600. drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm
	Clamping screw for TC.. chamfering insert Tightening torque	FS2061 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS2063 (Torx 15IP) 3,0 Nm	FS2063 (Torx 15IP) 3,0 Nm	FS2063 (Torx 15IP) 3,0 Nm

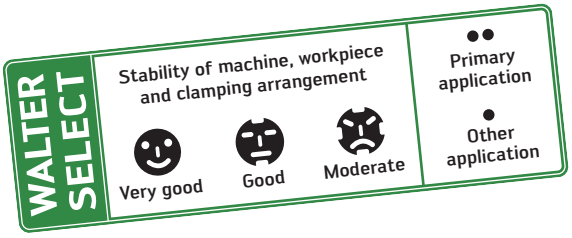
Accessories

	D_c [mm]	12	14–17	19	21–24	26–29
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2041 4,5–14 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

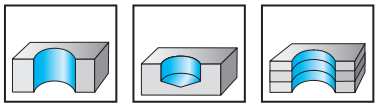
Drill inserts

	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–29,77	A–J	●●	●●						
	P6003-D..	12–29,77	A–J			●	●●				●●
	P6004-D..	12–29,5	A–J							●●	
	P6005-D..	12–29,77	A–J						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-01 mm



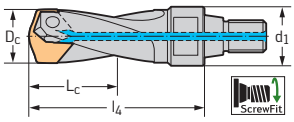
D_c 12–25,99	1,3×D_c	140°	Z=2

	P	M	K	N	S	H	O
D4140-01	●●	●●	●●	●●	●●		

B1

Tool

ScrewFit

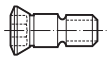


Designation	D_c mm	L_c mm	l_4 mm	d_1	Z	kg	No. of indexable inserts	Seat size	Type
★ D4140-01-12.00T14-A	12	18	47,6	T14	2	0,1	1	A	P600 . -D12, ..
★ D4140-01-13.00T14-A	13	19	49,9	T14	2	0,1	1	A	P600 . -D13, ..
★ D4140-01-14.00T14-B	14	21	52,2	T14	2	0,1	1	B	P600 . -D14, ..
★ D4140-01-15.00T18-B	15	22	54,5	T18	2	0,1	1	B	P600 . -D15, ..
★ D4140-01-16.00T18-C	16	24	56,8	T18	2	0,1	1	C	P600 . -D16, ..
★ D4140-01-17.00T18-C	17	25	59,1	T18	2	0,1	1	C	P600 . -D17, ..
★ D4140-01-18.00T18-D	18	27	61,4	T18	2	0,1	1	D	P600 . -D18, ..
★ D4140-01-19.00T22-D	19	28	63,7	T22	2	0,1	1	D	P600 . -D19, ..
★ D4140-01-20.00T22-E	20	30	66,0	T22	2	0,1	1	E	P600 . -D20, ..
★ D4140-01-21.00T22-E	21	31	68,3	T22	2	0,1	1	E	P600 . -D21, ..
★ D4140-01-22.00T22-F	22	33	71,6	T22	2	0,2	1	F	P600 . -D22, ..
★ D4140-01-23.00T28-F	23	34	73,9	T28	2	0,2	1	F	P600 . -D23, ..
★ D4140-01-24.00T28-G	24	36	76,2	T28	2	0,2	1	G	P600 . -D24, ..
★ D4140-01-25.00T28-G	25	37	78,6	T28	2	0,3	1	G	P600 . -D25, ..

Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

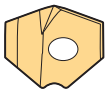
Assembly parts

	D_c [mm]	12–13	14–15	16–17	18–19	20–21	22–23	24–25
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm

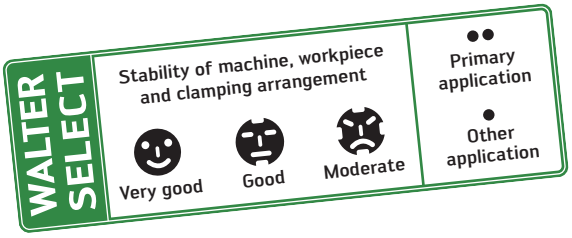
Accessories

	D_c [mm]	12–13	14–17	18–19	20–25
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

Drill inserts

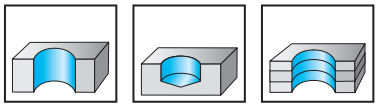
	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–25,8	A–G	●●	●●						
	P6003-D..	12–25,8	A–G			●	●●				●●
	P6004-D..	12–25,5	A–G							●●	
	P6005-D..	12–25,8	A–G						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-03 mm

3×D_c | 140° | Z=2

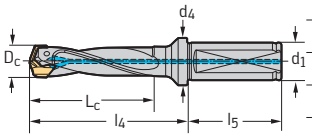


	P	M	K	N	S	H	O
D4140-03	●●	●●	●●	●●	●●		

B1

Tool

Parallel shank with flat

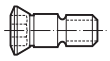


Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Seat size	Type
D4140-03-12.00F16-A	12	36	68	48	16	20	0,14	1	A	P600 . -D12, ..
D4140-03-13.00F16-A	13	41	72	48	16	20	0,15	1	A	P600 . -D13, ..
D4140-03-14.00F16-B	14	45	76	48	16	20	0,15	1	B	P600 . -D14, ..
D4140-03-15.00F16-B	15	48	80	48	16	20	0,16	1	B	P600 . -D15, ..
D4140-03-16.00F20-C	16	51	84	50	20	25	0,25	1	C	P600 . -D16, ..
D4140-03-17.00F20-C	17	54	88	50	20	25	0,24	1	C	P600 . -D17, ..
D4140-03-18.00F20-D	18	57	92	50	20	25	0,25	1	D	P600 . -D18, ..
D4140-03-19.00F20-D	19	61	96	50	20	25	0,26	1	D	P600 . -D19, ..
D4140-03-20.00F20-E	20	64	100	50	20	25	0,28	1	E	P600 . -D20, ..
D4140-03-21.00F20-E	21	67	104	50	20	25	0,3	1	E	P600 . -D21, ..
D4140-03-22.00F25-F	22	70	109	56	25	32	0,44	1	F	P600 . -D22, ..
D4140-03-23.00F25-F	23	73	113	56	25	32	0,46	1	F	P600 . -D23, ..
D4140-03-24.00F25-G	24	76	117	56	25	32	0,48	1	G	P600 . -D24, ..
D4140-03-25.00F25-G	25	80	121	56	25	32	0,50	1	G	P600 . -D25, ..
D4140-03-26.00F25-H	26	83	125	56	25	32	0,52	1	H	P600 . -D26, ..
D4140-03-27.00F25-H	27	86	129	56	25	32	0,53	1	H	P600 . -D27, ..
D4140-03-28.00F32-J	28	89	134	60	32	40	0,80	1	J	P600 . -D28, ..
D4140-03-29.00F32-J	29	92	138	60	32	40	0,86	1	J	P600 . -D29, ..
D4140-03-30.00F32-K	30	95	142	60	32	40	0,89	1	K	P600 . -D30, ..
D4140-03-31.00F32-K	31	99	146	60	32	40	0,92	1	K	P600 . -D31, ..
★ D4140-03-32.00F40-M	32	102	150	70	40	50	1,39	1	M	P600 . -D32, ..
★ D4140-03-33.00F40-M	33	105	154	70	40	50	1,46	1	M	P600 . -D33,0 ..
★ D4140-03-34.00F40-N	34	108	158	70	40	50	1,51	1	N	P600 . -D34,0 ..
★ D4140-03-35.00F40-N	35	111	162	70	40	50	1,58	1	N	P600 . -D35,0 ..
★ D4140-03-36.00F40-P	36	115	166	70	40	50	1,58	1	P	P600 . -D36,0 ..
★ D4140-03-37.00F40-P	37	118	170	70	40	50	1,66	1	P	P600 . -D37, ..

Bodies and assembly parts are included in the scope of delivery.

● ● ● / ★ New addition to the product range

Assembly parts

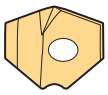
	D_c [mm]	12–13	14–15	16–17	18–19	20–21	22–23	24–25	26–27	28–33	34–37
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm	FS2159 (Torx 25IP) 5,5 Nm

Accessories

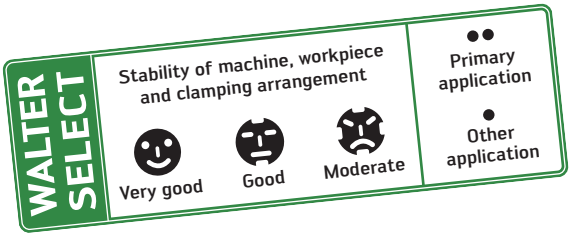
	D_c [mm]	12–13	14–17	18–19	20–25	26–37
	Torque T-handle Tightening torque					FS2041 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

B1

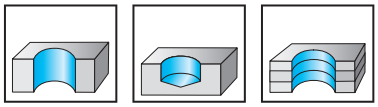
Drill inserts

	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–37,99	A–P	●●	●●						
	P6003-D..	12–37,99	A–P			●	●●				●●
	P6004-D..	12–31,5	A–K							●●	
	P6005-D..	12–37,99	A–P						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-03 inch



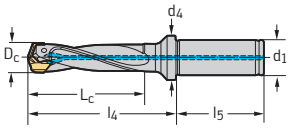
3×D_C | 140° | Z=2

	P	M	K	N	S	H	O
D4140-03	●●	●●	●●	●●	●●		

B1

Tool

Parallel shank with collar

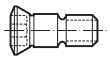


Designation	D_c Inch	L_c Inch	l_4 Inch	l_5 Inch	d_1 Inch	d_4 Inch	lbs	No. of indexable inserts	Type
★ D4140.03-12.00A15-A	0,472	1,496	2,677	1,890	0,625	0,787	0,48	1	P600 . -D12, ..
★ D4140.03-13.00A15-A	0,512	1,614	2,834	1,890	0,625	0,787	0,42	1	P600 . -D13, ..
★ D4140.03-14.00A15-B	0,551	1,772	2,992	1,890	0,625	0,787	0,44	1	P600 . -D14, ..
★ D4140.03-15.00A15-B	0,591	1,890	3,149	1,890	0,625	0,787	0,46	1	P600 . -D15, ..
★ D4140.03-16.00A19-C	0,630	2,008	3,308	2,031	0,750	0,984	0,51	1	P600 . -D16, ..
★ D4140.03-17.00A19-C	0,669	2,126	3,465	2,031	0,750	0,984	0,66	1	P600 . -D17, ..
★ D4140.03-18.00A19-D	0,709	2,244	3,622	2,031	0,750	0,984	0,55	1	P600 . -D18, ..
★ D4140.03-19.00A19-D	0,748	2,362	3,779	2,031	0,750	0,984	0,60	1	P600 . -D19, ..
★ D4140.03-20.00A19-E	0,787	2,480	3,937	2,031	0,750	0,984	0,64	1	P600 . -D20, ..
★ D4140.03-21.00A19-E	0,827	2,598	4,094	2,031	0,750	0,984	0,68	1	P600 . -D21, ..
★ D4140.03-22.00A26-F	0,866	2,756	4,292	2,281	1,000	1,260	1,04	1	P600 . -D22, ..
★ D4140.03-24.00A26-G	0,945	2,992	4,606	2,281	1,000	1,260	1,26	1	P600 . -D24, ..
★ D4140.03-26.00A26-H	1,024	3,268	4,921	2,281	1,000	1,260	1,32	1	P600 . -D26, ..
★ D4140.03-28.00A31-J	1,102	3,504	5,276	2,281	1,250	1,575	1,79	1	P600 . -D28, ..
★ D4140.03-30.00A31-K	1,181	3,740	5,591	2,281	1,250	1,575	1,96	1	P600 . -D30, ..

Bodies and assembly parts are included in the scope of delivery.

● ● ● / ★ New addition to the product range

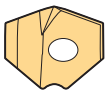
Assembly parts

	D_c [Inch]	0,472–0,512	0,551–0,591	0,630–0,669	0,709–0,748	0,787–0,827	0,866	0,945	1,024	1,102–1,181
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm

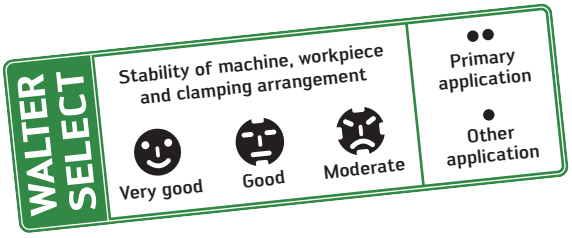
Accessories

	D_c [Inch]	0,472–0,512	0,551–0,669	0,709–0,748	0,787–0,945	1,024–1,181
	Torque T-handle Tightening torque					FS2042 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

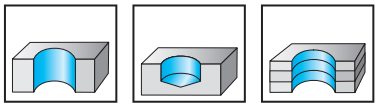
Drill inserts

	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–30,5	A–K	●●	●●						
	P6003-D..	12–30,5	A–K			●	●●				●●
	P6004-D..	12–30,5	A–K							●●	
	P6005-D..	12–30,5	A–K						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-03 inch



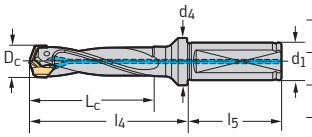
3×D_c | 140° | Z=2

	P	M	K	N	S	H	O
D4140-03	●●	●●	●●	●●	●●		

B1

Tool

Parallel shank with flat

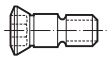


Designation	D_c Inch	L_c Inch	l_4 Inch	l_5 Inch	d_1 Inch	d_4 Inch	lbs	No. of indexable inserts	Type
D4140.03-12.00F15-A	0,472	1,496	2,677	1,890	0,625	0,787	0,31	1	P600 . -D12, ..
D4140.03-13.00F15-A	0,512	1,614	2,834	1,890	0,625	0,787	0,32	1	P600 . -D13, ..
D4140.03-14.00F15-B	0,551	1,772	2,992	1,890	0,625	0,787	0,32	1	P600 . -D14, ..
D4140.03-15.00F15-B	0,591	1,890	3,149	1,890	0,625	0,787	0,36	1	P600 . -D15, ..
D4140.03-16.00F19-C	0,630	2,008	3,307	2,031	0,750	0,984	0,49	1	P600 . -D16, ..
D4140.03-17.00F19-C	0,669	2,126	3,465	2,031	0,750	0,984	0,51	1	P600 . -D17, ..
D4140.03-18.00F19-D	0,709	2,244	3,622	2,031	0,750	0,984	0,54	1	P600 . -D18, ..
D4140.03-19.00F19-D	0,748	2,362	3,779	2,031	0,750	0,984	0,57	1	P600 . -D19, ..
D4140.03-20.00F19-E	0,787	2,520	3,937	2,031	0,750	0,984	0,60	1	P600 . -D20, ..
D4140.03-21.00F19-E	0,827	2,638	4,094	2,031	0,750	0,984	0,63	1	P600 . -D21, ..
D4140.03-22.00F26-F	0,866	2,756	4,291	2,281	1,000	1,260	1,00	1	P600 . -D22, ..
D4140.03-23.00F26-F	0,906	2,874	4,449	2,281	1,000	1,260	1,04	1	P600 . -D23, ..
D4140.03-24.00F26-G	0,945	2,992	4,607	2,281	1,000	1,260	1,08	1	P600 . -D24, ..
D4140.03-25.00F26-G	0,984	3,150	4,764	2,281	1,000	1,260	1,13	1	P600 . -D25, ..
D4140.03-26.00F26-H	1,024	3,268	4,921	2,281	1,000	1,260	1,18	1	P600 . -D26, ..
D4140.03-27.00F26-H	1,063	3,386	5,078	2,281	1,000	1,260	1,27	1	P600 . -D27, ..
D4140.03-28.00F31-J	1,102	3,504	5,276	2,281	1,250	1,575	1,71	1	P600 . -D28, ..
D4140.03-29.00F31-J	1,142	3,622	5,433	2,281	1,250	1,575	1,84	1	P600 . -D29, ..
D4140.03-30.00F31-K	1,181	3,740	5,591	2,281	1,250	1,575	1,90	1	P600 . -D30, ..
D4140.03-31.00F31-K	1,220	3,898	5,748	2,281	1,250	1,575	1,97	1	P600 . -D31, ..
★ D4140.03-32.00F31-M	1,260	4,016	5,905	2,281	1,250	1,575	2,20	1	P600 . -D32, ..
★ D4140.03-33.00F31-M	1,299	4,134	6,062	2,281	1,250	1,575	2,29	1	P600 . -D33,0 ..
★ D4140.03-34.00F38-N	1,339	4,252	6,221	2,688	1,500	1,969	3,04	1	P600 . -D34,0 ..
★ D4140.03-35.00F38-N	1,378	4,370	6,378	2,688	1,500	1,969	3,17	1	P600 . -D35,0 ..
★ D4140.03-36.00F38-P	1,417	4,528	6,536	2,688	1,500	1,969	3,06	1	P600 . -D36,0 ..
★ D4140.03-37.00F38-P	1,457	4,646	6,693	2,688	1,500	1,969	3,43	1	P600 . -D37, ..

Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

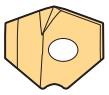
Assembly parts

	D_c [Inch]	0,472–0,512	0,551–0,591	0,630–0,669	0,709–0,748	0,787–0,827	0,866–0,906	0,945–0,984	1,024–1,063	1,102–1,299	1,339–1,457
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm	FS2159 (Torx 25IP) 5,5 Nm

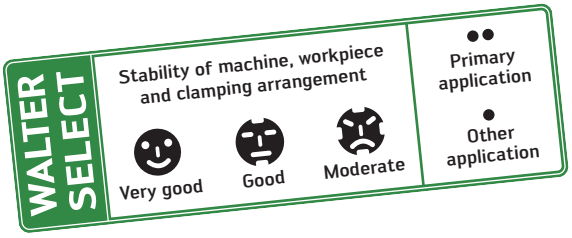
Accessories

	D_c [Inch]	0,472–0,512	0,551–0,669	0,709–0,748	0,787–0,984	1,024–1,457
	Torque T-handle Tightening torque					FS2042 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

Drill inserts

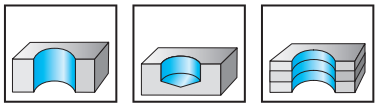
	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–37,99	A–P	●●	●●						
	P6003-D..	12–37,99	A–P			●	●●				●●
	P6004-D..	12–31,5	A–K							●●	
	P6005-D..	12–37,99	A–P						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-05 mm

5×D_c | 140° | Z=2

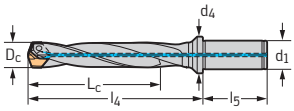


	P	M	K	N	S	H	O
D4140-05	●●	●●	●●	●●	●		

B1

Tool

Parallel shank with collar

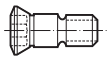


Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Seat size	Type
★ D4140-05-12.00A16-A	12	62	92	48	16	20	0,23	1	A	P600 . -D12, ..
★ D4140-05-13.00A16-A	13	67	98	48	16	20	0,24	1	A	P600 . -D13, ..
★ D4140-05-14.00A16-B	14	73	104	48	16	20	0,25	1	B	P600 . -D14, ..
★ D4140-05-15.00A16-B	15	78	110	48	16	20	0,27	1	B	P600 . -D15, ..
★ D4140-05-16.00A20-C	16	83	116	50	20	25	0,28	1	C	P600 . -D16, ..
★ D4140-05-17.00A20-C	17	88	122	50	20	25	0,30	1	C	P600 . -D17, ..
★ D4140-05-18.00A20-D	18	93	128	50	20	25	0,32	1	D	P600 . -D18, ..
★ D4140-05-19.00A20-D	19	98	134	50	20	25	0,34	1	D	P600 . -D19, ..
★ D4140-05-20.00A20-E	20	104	140	50	20	25	0,37	1	E	P600 . -D20, ..
★ D4140-05-21.00A20-E	21	109	146	50	20	25	0,39	1	E	P600 . -D21, ..
★ D4140-05-22.00A25-F	22	114	153	56	25	32	0,58	1	F	P600 . -D22, ..
★ D4140-05-23.00A25-F	23	119	159	56	25	32	0,58	1	F	P600 . -D23, ..
★ D4140-05-24.00A25-G	24	124	165	56	25	32	0,63	1	G	P600 . -D24, ..
★ D4140-05-25.00A25-G	25	130	171	56	25	32	0,67	1	G	P600 . -D25, ..
★ D4140-05-26.00A25-H	26	135	177	56	25	32	0,73	1	H	P600 . -D26, ..
★ D4140-05-27.00A25-H	27	140	183	56	25	32	0,76	1	H	P600 . -D27, ..
★ D4140-05-28.00A32-J	28	145	190	60	32	40	1,05	1	J	P600 . -D28, ..
★ D4140-05-29.00A32-J	29	150	196	60	32	40	1,06	1	J	P600 . -D29, ..
★ D4140-05-30.00A32-K	30	155	202	60	32	40	1,17	1	K	P600 . -D30, ..
★ D4140-05-31.00A32-K	31	161	208	60	32	40	1,2	1	K	P600 . -D31, ..

Bodies and assembly parts are included in the scope of delivery.

●●● / ★ New addition to the product range

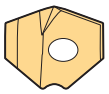
Assembly parts

	D_c [mm]	12–13	14–15	16–17	18–19	20–21	22–23	24–25	26–27	28–31	32–37
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm	FS2159 (Torx 25IP) 5,5 Nm

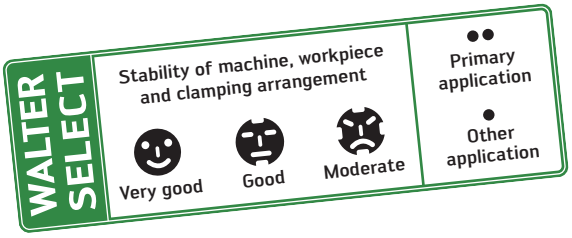
Accessories

	D_c [mm]	12–13	14–17	18–19	20–25	26–37
	Torque T-handle Tightening torque					FS2041 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

Drill inserts

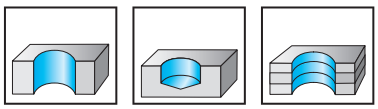
	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–31,99	A–K	●●	●●						
	P6003-D..	12–31,99	A–K			●●	●●				●●
	P6004-D..	12–31,5	A–K							●●	
	P6005-D..	12–31,99	A–K						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-05 mm

5×D_c | 140° | Z=2

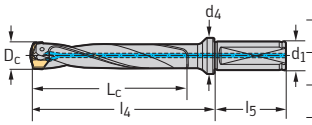


	P	M	K	N	S	H	O
D4140-05	●●	●●	●●	●●	●		

B1

Tool

Parallel shank with flat

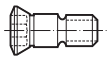


Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Seat size	Type
D4140-05-12.00F16-A	12	62	92	48	16	20	0,15	1	A	P600 . -D12, ..
D4140-05-13.00F16-A	13	67	98	48	16	20	0,15	1	A	P600 . -D13, ..
D4140-05-14.00F16-B	14	73	104	48	16	20	0,17	1	B	P600 . -D14, ..
D4140-05-15.00F16-B	15	78	110	48	16	20	0,18	1	B	P600 . -D15, ..
D4140-05-16.00F20-C	16	83	116	50	20	25	0,26	1	C	P600 . -D16, ..
D4140-05-17.00F20-C	17	88	122	50	20	25	0,28	1	C	P600 . -D17, ..
D4140-05-18.00F20-D	18	93	128	50	20	25	0,29	1	D	P600 . -D18, ..
D4140-05-19.00F20-D	19	98	134	50	20	25	0,31	1	D	P600 . -D19, ..
D4140-05-20.00F20-E	20	104	140	50	20	25	0,3	1	E	P600 . -D20, ..
D4140-05-21.00F20-E	21	109	146	50	20	25	0,37	1	E	P600 . -D21, ..
D4140-05-22.00F25-F	22	114	153	56	25	32	0,53	1	F	P600 . -D22, ..
D4140-05-23.00F25-F	23	119	159	56	25	32	0,56	1	F	P600 . -D23, ..
D4140-05-24.00F25-G	24	124	165	56	25	32	0,59	1	G	P600 . -D24, ..
D4140-05-25.00F25-G	25	130	171	56	25	32	0,62	1	G	P600 . -D25, ..
D4140-05-26.00F25-H	26	135	177	56	25	32	0,65	1	H	P600 . -D26, ..
D4140-05-27.00F25-H	27	140	183	56	25	32	0,69	1	H	P600 . -D27, ..
D4140-05-28.00F32-J	28	145	190	60	32	40	0,97	1	J	P600 . -D28, ..
D4140-05-29.00F32-J	29	150	196	60	32	40	1,00	1	J	P600 . -D29, ..
D4140-05-30.00F32-K	30	155	202	60	32	40	1,06	1	K	P600 . -D30, ..
D4140-05-31.00F32-K	31	161	208	60	32	40	1,12	1	K	P600 . -D31, ..
★ D4140-05-32.00F40-M	32	166	214	70	40	50	1,58	1	M	P600 . -D32, ..
★ D4140-05-33.00F40-M	33	171	220	70	40	50	1,64	1	M	P600 . -D33,0 ..
★ D4140-05-34.00F40-N	34	176	226	70	40	50	1,77	1	N	P600 . -D34,0 ..
★ D4140-05-35.00F40-N	35	181	232	70	40	50	1,84	1	N	P600 . -D35,0 ..
★ D4140-05-36.00F40-P	36	187	238	70	40	50	1,75	1	P	P600 . -D36,0 ..
★ D4140-05-37.00F40-P	37	192	244	70	40	50	2	1	P	P600 . -D37, ..

Bodies and assembly parts are included in the scope of delivery.

★ New addition to the product range

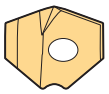
Assembly parts

	D_c [mm]	12–13	14–15	16–17	18–19	20–21	22–23	24–25	26–27	28–31	32–37
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm	FS2159 (Torx 25IP) 5,5 Nm

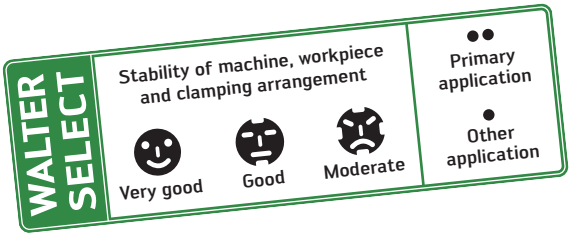
Accessories

	D_c [mm]	12–13	14–17	18–19	20–25	26–37
	Torque T-handle Tightening torque					FS2041 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

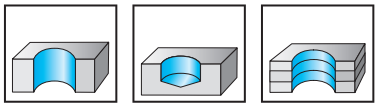
Drill inserts

	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–37,99	A–P	●●	●●						
	P6003-D..	12–37,99	A–P			●	●●				●●
	P6004-D..	12–31,5	A–K							●●	
	P6005-D..	12–37,99	A–P						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-05 inch



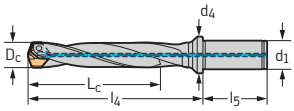
5×D_C | 140° | Z=2

	P	M	K	N	S	H	O
D4140-05	●●	●●	●●	●●	●		

B1

Tool

Parallel shank with collar

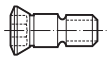


Designation	D_C Inch	L_C Inch	l_4 Inch	l_5 Inch	d_1 Inch	d_4 Inch	lbs	No. of indexable inserts	Type
★ D4140.05-12.00A15-A	0,472	2,441	3,622	1,890	0,625	0,787	0,49	1	P600 . -D12, ..
★ D4140.05-13.00A15-A	0,512	2,638	3,858	1,890	0,625	0,787	0,51	1	P600 . -D13, ..
★ D4140.05-14.00A15-B	0,551	2,874	4,094	1,890	0,625	0,787	0,55	1	P600 . -D14, ..
★ D4140.05-15.00A15-B	0,591	3,071	4,330	1,890	0,625	0,787	0,57	1	P600 . -D15, ..
★ D4140.05-16.00A19-C	0,630	3,268	4,567	2,031	0,750	0,984	0,61	1	P600 . -D16, ..
★ D4140.05-17.00A19-C	0,669	3,465	4,803	2,031	0,750	0,984	0,57	1	P600 . -D17, ..
★ D4140.05-18.00A19-D	0,709	3,661	5,039	2,031	0,750	0,984	0,66	1	P600 . -D18, ..
★ D4140.05-19.00A19-D	0,748	3,858	5,275	2,031	0,750	0,984	0,71	1	P600 . -D19, ..
★ D4140.05-20.00A19-E	0,787	4,094	5,512	2,031	0,750	0,984	0,77	1	P600 . -D20, ..
★ D4140.05-21.00A19-E	0,827	4,291	5,748	2,031	0,750	0,984	0,84	1	P600 . -D21, ..
★ D4140.05-22.00A26-F	0,866	4,488	6,024	2,281	1,000	1,260	1,21	1	P600 . -D22, ..
★ D4140.05-24.00A26-G	0,945	4,882	6,496	2,281	1,000	1,260	1,32	1	P600 . -D24, ..
★ D4140.05-26.00A26-H	1,024	5,315	6,968	2,281	1,000	1,260	1,54	1	P600 . -D26, ..
★ D4140.05-28.00A31-J	1,102	5,709	7,481	2,281	1,250	1,575	2,18	1	P600 . -D28, ..
★ D4140.05-30.00A31-K	1,181	6,102	7,953	2,281	1,250	1,575	2,43	1	P600 . -D30, ..

Bodies and assembly parts are included in the scope of delivery.

★ New addition to the product range

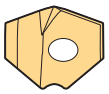
Assembly parts

	D_c [Inch]	0,472–0,512	0,551–0,591	0,630–0,669	0,709–0,748	0,787–0,827	0,866	0,945	1,024	1,102–1,181
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm

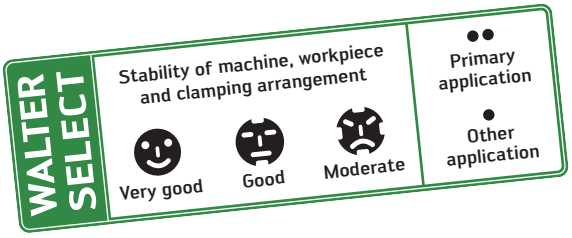
Accessories

	D_c [Inch]	0,472–0,512	0,551–0,669	0,709–0,748	0,787–0,945	1,024–1,181
	Torque T-handle Tightening torque					FS2042 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

Drill inserts

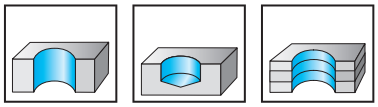
	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–30,5	A–K	●●	●●						
	P6003-D..	12–30,5	A–K			●	●●				●●
	P6004-D..	12–30,5	A–K							●●	
	P6005-D..	12–30,5	A–K						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-05 inch

5×D_C | 140° | Z=2

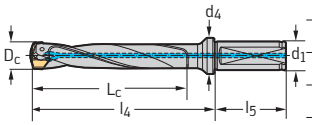


	P	M	K	N	S	H	O
D4140-05	●●	●●	●●	●●	●		

B1

Tool

Parallel shank with flat

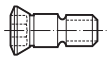


Designation	D_C Inch	L_C Inch	l_4 Inch	l_5 Inch	d_1 Inch	d_4 Inch	lbs	No. of indexable inserts	Type
D4140.05-12.00F15-A	0,472	2,441	3,622	1,890	0,625	0,787	0,34	1	P600 . -D12, ..
D4140.05-13.00F15-A	0,512	2,638	3,858	1,890	0,625	0,787	0,36	1	P600 . -D13, ..
D4140.05-14.00F15-B	0,551	2,874	4,094	1,890	0,625	0,787	0,38	1	P600 . -D14, ..
D4140.05-15.00F15-B	0,591	3,071	4,330	1,890	0,625	0,787	0,41	1	P600 . -D15, ..
D4140.05-16.00F19-C	0,630	3,268	4,567	2,031	0,750	0,984	0,55	1	P600 . -D16, ..
D4140.05-17.00F19-C	0,669	3,465	4,803	2,031	0,750	0,984	0,60	1	P600 . -D17, ..
D4140.05-18.00F19-D	0,709	3,661	5,039	2,031	0,750	0,984	0,62	1	P600 . -D18, ..
D4140.05-19.00F19-D	0,748	3,858	5,275	2,031	0,750	0,984	0,67	1	P600 . -D19, ..
D4140.05-20.00F19-E	0,787	4,094	5,512	2,031	0,750	0,984	0,75	1	P600 . -D20, ..
D4140.05-21.00F19-E	0,827	4,291	5,748	2,031	0,750	0,984	0,80	1	P600 . -D21, ..
D4140.05-22.00F26-F	0,866	4,488	6,024	2,281	1,000	1,260	1,19	1	P600 . -D22, ..
D4140.05-23.00F26-F	0,906	4,685	6,260	2,281	1,000	1,260	1,26	1	P600 . -D23, ..
D4140.05-24.00F26-G	0,945	4,882	6,496	2,281	1,000	1,260	1,32	1	P600 . -D24, ..
D4140.05-25.00F26-G	0,984	5,118	6,732	2,281	1,000	1,260	1,46	1	P600 . -D25, ..
D4140.05-26.00F26-H	1,024	5,315	6,968	2,281	1,000	1,260	1,46	1	P600 . -D26, ..
D4140.05-27.00F26-H	1,063	5,512	7,204	2,281	1,000	1,260	1,54	1	P600 . -D27, ..
D4140.05-28.00F31-J	1,102	5,709	7,481	2,281	1,250	1,575	2,08	1	P600 . -D28, ..
D4140.05-29.00F31-J	1,142	5,906	7,717	2,281	1,250	1,575	2,18	1	P600 . -D29, ..
D4140.05-30.00F31-K	1,181	6,339	7,953	2,281	1,250	1,575	2,28	1	P600 . -D30, ..
D4140.05-31.00F31-K	1,220	6,339	8,189	2,281	1,250	1,575	2,39	1	P600 . -D31, ..
★ D4140.05-32.00F31-M	1,260	6,535	8,425	2,281	1,250	1,575	2,58	1	P600 . -D32, ..
★ D4140.05-33.00F31-M	1,299	6,732	8,661	2,281	1,250	1,575	2,69	1	P600 . -D33,0 ..
★ D4140.05-34.00F38-N	1,339	6,929	8,898	2,688	1,500	1,969	3,48	1	P600 . -D34,0 ..
★ D4140.05-35.00F38-N	1,378	7,126	9,134	2,688	1,500	1,969	3,68	1	P600 . -D35,0 ..
★ D4140.05-36.00F38-P	1,417	7,362	9,370	2,688	1,500	1,969	3,81	1	P600 . -D36,0 ..
★ D4140.05-37.00F38-P	1,457	7,559	9,606	2,688	1,500	1,969	4,01	1	P600 . -D37, ..

Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

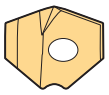
Assembly parts

	D_c [Inch]	0,472–0,512	0,551–0,591	0,630–0,669	0,709–0,748	0,787–0,827	0,866–0,906	0,945–0,984	1,024–1,063	1,102–1,299	1,339–1,457
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm	FS2159 (Torx 25IP) 5,5 Nm

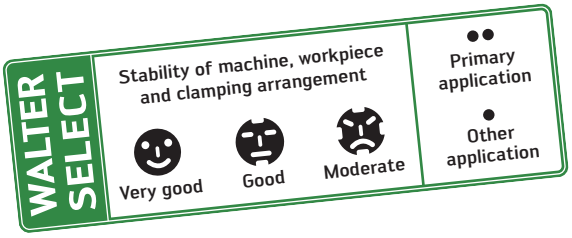
Accessories

	D_c [Inch]	0,472–0,512	0,551–0,669	0,709–0,748	0,787–0,984	1,024–1,457
	Torque T-handle Tightening torque					FS2042 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

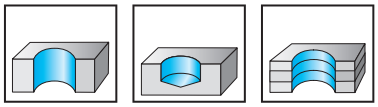
Drill inserts

	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–37,99	A–P	●●	●●						
	P6003-D..	12–37,99	A–P			●	●●				●●
	P6004-D..	12–31,5	A–K							●●	
	P6005-D..	12–37,99	A–P						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-07 mm



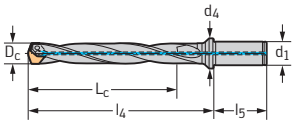
7×D_c | 140° | Z=2

	P	M	K	N	S	H	O
D4140-07	●●	●	●●	●●	●		

B1

Tool

Parallel shank with collar

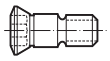


Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Seat size	Type
★ D4140-07-12.00A16-A	12	86	116	48	16	20	0,24	1	A	P600 . -D12, ..
★ D4140-07-13.00A16-A	13	93	124	48	16	20	0,25	1	A	P600 . -D13, ..
★ D4140-07-14.00A16-B	14	101	132	48	16	20	0,27	1	B	P600 . -D14, ..
★ D4140-07-15.00A16-B	15	108	140	48	16	20	0,29	1	B	P600 . -D15, ..
★ D4140-07-16.00A20-C	16	115	148	50	20	25	0,34	1	C	P600 . -D16, ..
★ D4140-07-17.00A20-C	17	122	156	50	20	25	0,34	1	C	P600 . -D17, ..
★ D4140-07-18.00A20-D	18	133	164	50	20	25	0,38	1	D	P600 . -D18, ..
★ D4140-07-19.00A20-D	19	136	172	50	20	25	0,40	1	D	P600 . -D19, ..
★ D4140-07-20.00A20-E	20	144	180	50	20	25	0,44	1	E	P600 . -D20, ..
★ D4140-07-21.00A20-E	21	151	188	50	20	25	0,48	1	E	P600 . -D21, ..
★ D4140-07-22.00A25-F	22	158	197	56	25	32	0,65	1	F	P600 . -D22, ..
★ D4140-07-23.00A25-F	23	165	205	56	25	32	0,06	1	F	P600 . -D23, ..
★ D4140-07-24.00A25-G	24	172	213	56	25	32	0,76	1	G	P600 . -D24, ..
★ D4140-07-25.00A25-G	25	180	221	56	25	32	0,79	1	G	P600 . -D25, ..
★ D4140-07-26.00A25-H	26	187	229	56	25	32	0,85	1	H	P600 . -D26, ..
★ D4140-07-27.00A25-H	27	194	237	56	25	32	0,89	1	H	P600 . -D27, ..
★ D4140-07-28.00A32-J	28	201	246	60	32	40	1,20	1	J	P600 . -D28, ..
★ D4140-07-29.00A32-J	29	208	254	60	32	40	0,28	1	J	P600 . -D29, ..
★ D4140-07-30.00A32-K	30	215	262	60	32	40	1,36	1	K	P600 . -D30, ..
★ D4140-07-31.00A32-K	31	223	270	60	32	40	1,43	1	K	P600 . -D31, ..

Bodies and assembly parts are included in the scope of delivery.

★ New addition to the product range

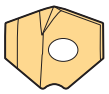
Assembly parts

	D_c [mm]	12–13	14–15	16–17	18–19	20–21	22–23	24–25	26–27	28–31	32–37
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm	FS2159 (Torx 25IP) 5,5 Nm

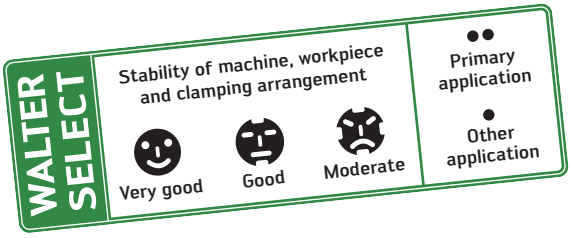
Accessories

	D_c [mm]	12–13	14–17	18–19	20–25	26–37
	Torque T-handle Tightening torque					FS2041 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

Drill inserts

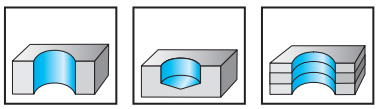
	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–31,99	A–K	●●	●●						
	P6003-D..	12–31,99	A–K			●	●●				●●
	P6004-D..	12–31,5	A–K							●●	
	P6005-D..	12–31,99	A–K						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-07 mm

7×D_c | 140° | Z=2

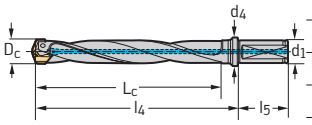


	P	M	K	N	S	H	O
D4140-07	●●	●	●●	●●	●		

B1

Tool

Parallel shank with flat

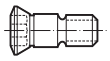


Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Seat size	Type
D4140-07-12.00F16-A	12	86	116	48	16	20	0,16	1	A	P600 . -D12, ..
D4140-07-13.00F16-A	13	93	124	48	16	20	0,17	1	A	P600 . -D13, ..
D4140-07-14.00F16-B	14	101	132	48	16	20	0,19	1	B	P600 . -D14, ..
D4140-07-15.00F16-B	15	108	140	48	16	20	0,20	1	B	P600 . -D15, ..
D4140-07-16.00F20-C	16	115	148	50	20	25	0,30	1	C	P600 . -D16, ..
D4140-07-17.00F20-C	17	122	156	50	20	25	0,32	1	C	P600 . -D17, ..
D4140-07-18.00F20-D	18	126	164	50	20	25	0,34	1	D	P600 . -D18, ..
D4140-07-19.00F20-D	19	136	172	50	20	25	0,37	1	D	P600 . -D19, ..
D4140-07-20.00F20-E	20	144	180	50	20	25	0,39	1	E	P600 . -D20, ..
D4140-07-21.00F20-E	21	151	188	50	20	25	0,43	1	E	P600 . -D21, ..
D4140-07-22.00F25-F	22	158	197	56	25	32	0,6	1	F	P600 . -D22, ..
D4140-07-23.00F25-F	23	165	205	56	25	32	0,63	1	F	P600 . -D23, ..
D4140-07-24.00F25-G	24	172	213	56	25	32	0,68	1	G	P600 . -D24, ..
D4140-07-25.00F25-G	25	180	221	56	25	32	0,71	1	G	P600 . -D25, ..
D4140-07-26.00F25-H	26	187	229	56	25	32	0,80	1	H	P600 . -D26, ..
D4140-07-27.00F25-H	27	194	237	56	25	32	0,82	1	H	P600 . -D27, ..
D4140-07-28.00F32-J	28	201	246	60	32	40	1,11	1	J	P600 . -D28, ..
D4140-07-29.00F32-J	29	208	254	60	32	40	1,14	1	J	P600 . -D29, ..
D4140-07-30.00F32-K	30	215	262	60	32	40	1,24	1	K	P600 . -D30, ..
D4140-07-31.00F32-K	31	223	270	60	32	40	1,30	1	K	P600 . -D31, ..
★ D4140-07-32.00F40-M	32	230	278	70	40	50	1,80	1	M	P600 . -D32, ..
★ D4140-07-33.00F40-M	33	237	286	70	40	50	1,91	1	M	P600 . -D33,0 ..
★ D4140-07-34.00F40-N	34	244	294	70	40	50	2,1	1	N	P600 . -D34,0 ..
★ D4140-07-35.00F40-N	35	251	302	70	40	50	2,2	1	N	P600 . -D35,0 ..
★ D4140-07-36.00F40-P	36	259	310	70	40	50	2,33	1	P	P600 . -D36,0 ..
★ D4140-07-37.00F40-P	37	266	318	70	40	50	2,47	1	P	P600 . -D37, ..

Bodies and assembly parts are included in the scope of delivery.

★ New addition to the product range

Assembly parts

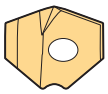
	D_c [mm]	12–13	14–15	16–17	18–19	20–21	22–23	24–25	26–27	28–31	32–37
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm	FS2159 (Torx 25IP) 5,5 Nm

Accessories

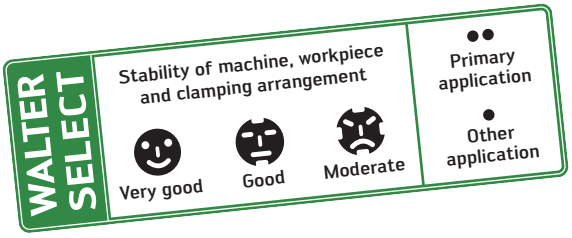
	D_c [mm]	12–13	14–17	18–19	20–25	26–37
	Torque T-handle Tightening torque					FS2041 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

B1

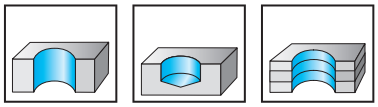
Drill inserts

	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–37,99	A–P	●●	●●						
	P6003-D..	12–37,99	A–P			●	●●				●●
	P6004-D..	12–31,5	A–K							●●	
	P6005-D..	12–37,99	A–P						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-07 inch



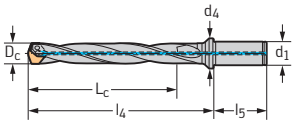
7×D_c | 140° | Z=2

	P	M	K	N	S	H	O
D4140-07	●●	●	●●	●●	●		

B1

Tool

Parallel shank with collar

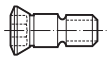


Designation	D_c Inch	L_c Inch	l_4 Inch	l_5 Inch	d_1 Inch	d_4 Inch	lbs	No. of indexable inserts	Type
★ D4140.07-12.00A15-A	0,472	3,386	4,567	1,890	0,625	0,787	0,51	1	P600 . -D12, ..
★ D4140.07-13.00A15-A	0,512	3,661	4,882	1,890	0,625	0,787	0,51	1	P600 . -D13, ..
★ D4140.07-14.00A15-B	0,551	3,976	5,196	1,890	0,625	0,787	0,60	1	P600 . -D14, ..
★ D4140.07-15.00A15-B	0,591	4,252	5,511	1,890	0,625	0,787	0,62	1	P600 . -D15, ..
★ D4140.07-16.00A19-C	0,630	4,528	5,827	2,031	0,750	0,984	0,68	1	P600 . -D16, ..
★ D4140.07-17.00A19-C	0,669	4,803	6,142	2,031	0,750	0,984	0,77	1	P600 . -D17, ..
★ D4140.07-18.00A19-D	0,709	5,079	6,457	2,031	0,750	0,984	0,75	1	P600 . -D18, ..
★ D4140.07-19.00A19-D	0,748	5,354	6,771	2,031	0,750	0,984	0,82	1	P600 . -D19, ..
★ D4140.07-20.00A19-E	0,787	5,669	7,086	2,031	0,750	0,984	0,88	1	P600 . -D20, ..
★ D4140.07-21.00A19-E	0,827	5,945	7,401	2,031	0,750	0,984	0,95	1	P600 . -D21, ..
★ D4140.07-22.00A26-F	0,866	6,220	7,756	2,281	1,000	1,260	1,39	1	P600 . -D22, ..
★ D4140.07-24.00A26-G	0,945	6,772	8,386	2,281	1,000	1,260	1,59	1	P600 . -D24, ..
★ D4140.07-26.00A26-H	1,024	7,362	9,016	2,281	1,000	1,260	1,83	1	P600 . -D26, ..
★ D4140.07-28.00A31-J	1,102	7,913	9,685	2,281	1,250	1,575	2,49	1	P600 . -D28, ..
★ D4140.07-30.00A31-K	1,181	8,465	10,315	2,281	1,250	1,575	2,87	1	P600 . -D30, ..

Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

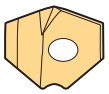
Assembly parts

	D_c [Inch]	0,472–0,512	0,551–0,591	0,630–0,669	0,709–0,748	0,787–0,866	0,945	1,024	1,102–1,181
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm

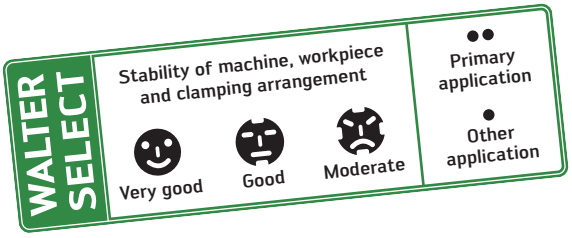
Accessories

	D_c [Inch]	0,472–0,512	0,551–0,669	0,709–0,748	0,787–0,945	1,024–1,181
	Torque T-handle Tightening torque					FS2042 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

Drill inserts

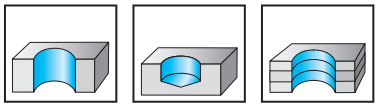
	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–30,5	A–K	●●	●●						
	P6003-D..	12–30,5	A–K			●	●●				●●
	P6004-D..	12–30,5	A–K							●●	
	P6005-D..	12–30,5	A–K						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-07 inch

7×D_c | 140° | Z=2

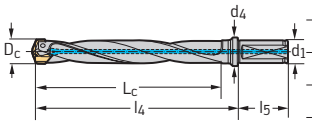


	P	M	K	N	S	H	O
D4140-07	●●	●	●●	●●	●		

B1

Tool

Parallel shank with flat

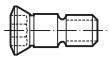


Designation	D_c Inch	L_c Inch	l_4 Inch	l_5 Inch	d_1 Inch	d_4 Inch	lbs	No. of indexable inserts	Type
D4140.07-12.00F15-A	0,472	3,386	4,567	1,890	0,625	0,787	0,37	1	P600 . -D12, ..
D4140.07-13.00F15-A	0,512	3,661	4,882	1,890	0,625	0,787	0,39	1	P600 . -D13, ..
D4140.07-14.00F15-B	0,551	3,976	5,197	1,890	0,625	0,787	0,42	1	P600 . -D14, ..
D4140.07-15.00F15-B	0,591	4,252	5,511	1,890	0,625	0,787	0,45	1	P600 . -D15, ..
D4140.07-18.00F19-D	0,630	5,079	6,457	2,031	0,750	0,984	0,73	1	P600 . -D16, ..
D4140.07-19.00F19-D	0,669	5,354	6,772	2,031	0,750	0,984	0,79	1	P600 . -D17, ..
D4140.07-20.00F19-E	0,709	5,669	7,086	2,031	0,750	0,984	0,86	1	P600 . -D18, ..
D4140.07-21.00F19-E	0,748	5,945	7,401	2,031	0,750	0,984	0,93	1	P600 . -D19, ..
D4140.07-22.00F26-F	0,787	6,220	7,755	2,281	1,000	1,260	1,35	1	P600 . -D20, ..
D4140.07-23.00F26-F	0,827	6,496	8,071	2,281	1,000	1,260	1,43	1	P600 . -D21, ..
D4140.07-24.00F26-G	0,866	6,772	8,386	2,281	1,000	1,260	1,52	1	P600 . -D22, ..
D4140.07-25.00F26-G	0,906	7,087	8,699	2,281	1,000	1,260	1,61	1	P600 . -D23, ..
D4140.07-16.00F19-C	0,945	4,528	5,827	2,031	0,750	0,984	0,62	1	P600 . -D24, ..
D4140.07-17.00F19-C	0,984	4,803	6,142	2,031	0,750	0,984	0,70	1	P600 . -D25, ..
D4140.07-26.00F26-H	1,024	7,362	9,016	2,281	1,000	1,260	1,78	1	P600 . -D26, ..
D4140.07-27.00F26-H	1,063	7,638	9,330	2,281	1,000	1,260	1,80	1	P600 . -D27, ..
D4140.07-28.00F31-J	1,102	7,913	9,685	2,281	1,250	1,575	2,38	1	P600 . -D28, ..
D4140.07-29.00F31-J	1,142	8,189	10,000	2,281	1,250	1,575	2,43	1	P600 . -D29, ..
D4140.07-30.00F31-K	1,181	8,465	10,315	2,281	1,250	1,575	2,84	1	P600 . -D30, ..
D4140.07-31.00F31-K	1,220	8,780	10,630	2,281	1,250	1,575	2,81	1	P600 . -D31, ..
★ D4140.07-32.00F31-M	1,260	9,055	10,945	2,281	1,250	1,575	3,06	1	P600 . -D32, ..
★ D4140.07-33.00F31-M	1,299	9,331	11,259	2,281	1,250	1,575	3,26	1	P600 . -D33,0 ..
★ D4140.07-34.00F38-N	1,339	9,606	11,575	2,688	1,500	1,969	4,08	1	P600 . -D34,0 ..
★ D4140.07-35.00F38-N	1,378	9,882	11,890	2,688	1,500	1,969	4,34	1	P600 . -D35,0 ..
★ D4140.07-36.00F38-P	1,417	10,197	12,205	2,688	1,500	1,969	4,54	1	P600 . -D36,0 ..
★ D4140.07-37.00F38-P	1,457	10,433	12,520	2,688	1,500	1,969	4,81	1	P600 . -D37, ..

Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

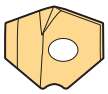
Assembly parts

	D_c [Inch]	0,472–0,512	0,551–0,591	0,630–0,669	0,709–0,748	0,787–0,827	0,866–0,906	0,945–0,984	1,024–1,063	1,102–1,299	1,339–1,457
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1398 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm	FS1403 (Torx 25IP) 5,5 Nm	FS1404 (Torx 25IP) 5,5 Nm	FS2159 (Torx 25IP) 5,5 Nm

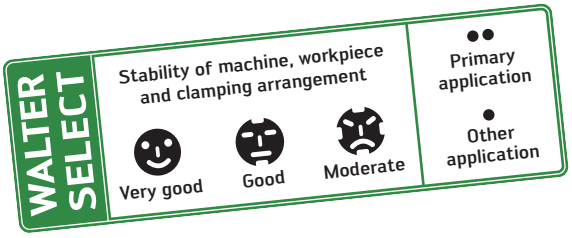
Accessories

	D_c [Inch]	0,472–0,512	0,551–0,669	0,709–0,748	0,787–0,984	1,024–1,457
	Torque T-handle Tightening torque					FS2042 4,5–14 Nm
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2049 (Torx 25IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1487 (Torx 25IP)

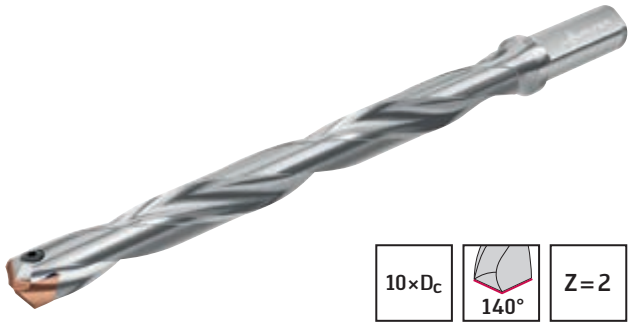
Drill inserts

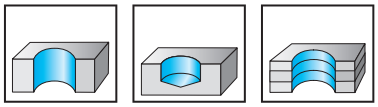
	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WXK25	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–37,99	A–P	●●	●●						
	P6003-D..	12–37,99	A–P			●	●●				●●
	P6004-D..	12–31,5	A–K							●●	
	P6005-D..	12–37,99	A–P						●		
	P6002-D..	14–19	B–D					●			

HC = Coated carbide



Solid drills
D4140-10 mm



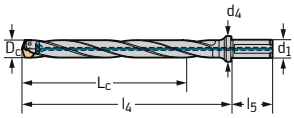


10×D_c | 140° | Z=2

	P	M	K	N	S	H	O
D4140-10	●●	●	●●	●●	●		

Tool

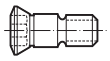
Parallel shank with flat



Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Seat size	Type
D4140-10-18.00F20-D	18	183	218	50	20	25	0,40	1	D	P600 . -D18, ..
D4140-10-20.00F20-E	20	204	240	50	20	25	0,48	1	E	P600 . -D20, ..
D4140-10-22.00F25-F	22	224	263	56	25	32	0,71	1	F	P600 . -D22, ..
D4140-10-24.00F25-G	24	244	285	56	25	32	0,83	1	G	P600 . -D24, ..

Bodies and assembly parts are included in the scope of delivery.

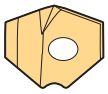
Assembly parts

	D_c [mm]	18	20	22	24
	Clamping screw for drill insert Tightening torque	FS1399 (Torx 15IP) 4,0 Nm	FS1400 (Torx 20IP) 5,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm

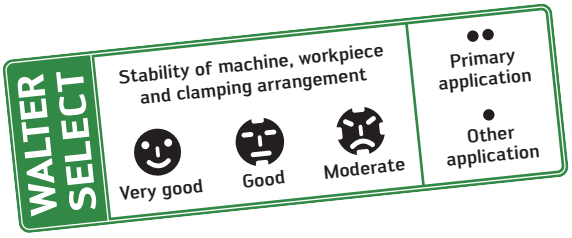
Accessories

	D_c [mm]	18	20–24
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

Drill inserts

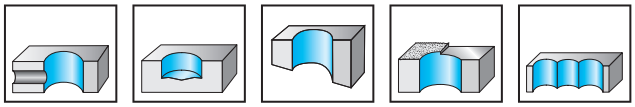
	Designation	D_c mm	Seat size	P HC WXP45	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	18–24,7	D–G	●●	●●					
	P6003-D..	18–24,7	D–G			●	●●			●●
	P6004-D..	18–24,5	D–G						●●	
	P6005-D..	18–24,7	D–G					●		

HC = Coated carbide



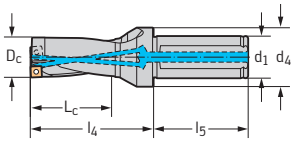
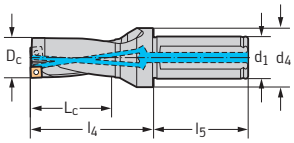
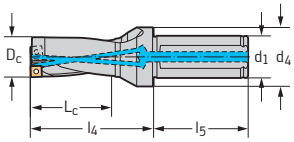
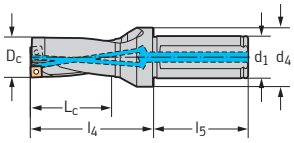
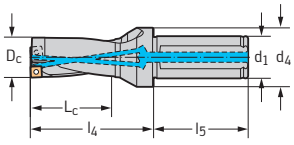
Solid drills
D4120-02 mm

2×D_c | Z=1



	P	M	K	N	S	H	O
D4120-02	●●	●●	●●	●	●●		

B1

Tool	Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
Parallel shank with flat 	★ D4120-02-14.00F20-P41	14	28	48	50	20	25	0,24	1 1	
	★ D4120-02-15.00F20-P41	15	30	50	50	20	25	0,24	1 1	P484 . P-1R- .. P484 . C-1R- ..
	★ D4120-02-16.00F25-P41	16	32	57	56	25	35	0,47	1 1	
Parallel shank with flat 	★ D4120-02-17.00F25-P42	17	34	59	56	25	35	0,43	1 1	
	★ D4120-02-18.00F25-P42	18	36	61	56	25	35	0,43	1 1	P484 . P-2R- .. P484 . C-2R- ..
	★ D4120-02-19.00F25-P42	19	38	63	56	25	35	0,42	1 1	
	★ D4120-02-20.00F25-P42	20	40	65	56	25	35	0,44	1 1	
Parallel shank with flat 	★ D4120-02-21.00F25-P43	21	42	67	56	25	35	0,45	1 1	
	★ D4120-02-22.00F25-P43	22	44	69	56	25	35	0,47	1 1	P484 . P-3R- .. P484 . C-3R- ..
	★ D4120-02-23.00F25-P43	23	46	71	56	25	35	0,48	1 1	
	★ D4120-02-24.00F25-P43	24	48	73	56	25	35	0,48	1 1	
Parallel shank with flat 	★ D4120-02-25.00F25-P44	25	50	75	56	25	35	0,51	1 1	
	★ D4120-02-26.00F32-P44	26	52	84	60	32	42	0,72	1 1	
	★ D4120-02-27.00F32-P44	27	54	86	60	32	42	0,78	1 1	P484 . P-4R- .. P484 . C-4R- ..
	★ D4120-02-28.00F32-P44	28	56	88	60	32	42	0,81	1 1	
	★ D4120-02-29.00F32-P44	29	58	90	60	32	42	0,81	1 1	
Parallel shank with flat 	★ D4120-02-30.00F32-P45	30	60	92	60	32	42	0,84	1 1	
	★ D4120-02-31.00F32-P45	31	62	94	60	32	42	0,87	1 1	
	★ D4120-02-32.00F32-P45	32	64	96	60	32	42	0,88	1 1	P484 . P-5R- .. P484 . C-5R- ..
	★ D4120-02-33.00F32-P45	33	66	98	60	32	42	0,91	1 1	
	★ D4120-02-34.00F32-P45	34	68	100	60	32	42	0,94	1 1	
	★ D4120-02-35.00F32-P45	35	70	102	60	32	42	0,97	1 1	

Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

Assembly parts

	D_c [mm]	14–16	17–20	21–24	25–29	30–35	36–42
	Clamping screw for insert Tightening torque	FS2120 (Torx 6IP) 0,4 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

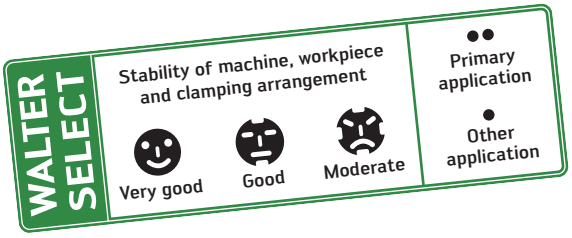
Accessories

	D_c [mm]	14–16	17–20	21–24	25–29	30–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

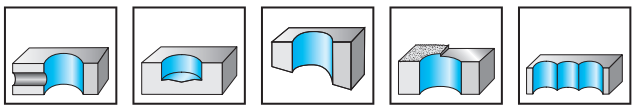
	Designation	Size	P HC					M HC			K HC					N HC		S HC		
			WKP25S	WKP35S	WSP45	WSP45S	WXP40	WSP45	WSP45S	WXP40	WAK15	WKP25S	WKP35S	WXP40		WSP45	WXP40	WSP45	WSP45S	WXP40
	P4840P-.R-A57	1–5	●●	●●	●●			●				●●	●●					●		
	P4840P-.R-E57	1–5	●	●●	●●			●				●●	●●					●		
	P4840P-.R-E67	1–5	●	●●	●●			●				●●	●●			●●		●		
	P4841P-.R-A57	1–5	●●	●●	●●			●				●●	●●					●		
	P4841P-.R-E57	1–5	●	●●	●●			●				●●	●●					●		
	P4840C-.R-E67	1–5		●			●			●			●	●			●●			●
	P4841C-.R-A57	1–5		●●			●			●			●	●						●
	P4841C-.R-E57	1–5		●●			●			●			●●	●						●

HC = Coated carbide



Solid drills
D4120-02 mm

2×D_c | Z=1

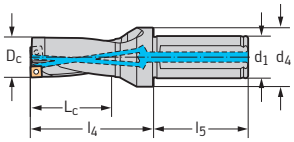


	P	M	K	N	S	H	O
D4120-02	●●	●●	●●	●	●●		

B1

Tool

Parallel shank with flat



Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
★ D4120-02-36.00F32-P46	36	72	104	60	32	42	0,96	1 1	P484 . P-6R- .. P484 . C-6R- ..
★ D4120-02-37.00F40-P46	37	74	114	70	40	50	1,48	1 1	
★ D4120-02-38.00F40-P46	38	76	116	70	40	50	1,52	1 1	
★ D4120-02-39.00F40-P46	39	78	118	70	40	50	1,55	1 1	
★ D4120-02-40.00F40-P46	40	80	120	70	40	50	1,45	1 1	
★ D4120-02-41.00F40-P46	41	82	122	70	40	50	1,68	1 1	
★ D4120-02-42.00F40-P46	42	84	124	70	40	50	1,73	1 1	

Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

Assembly parts

	D_c [mm]	14–16	17–20	21–24	25–29	30–35	36–42
	Clamping screw for insert Tightening torque	FS2120 (Torx 6IP) 0,4 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

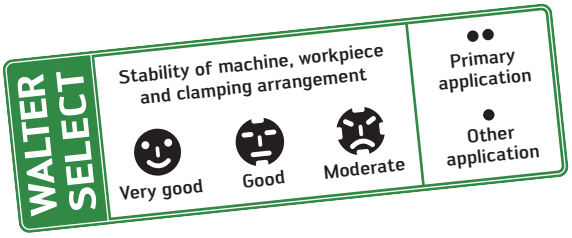
Accessories

	D_c [mm]	14–16	17–20	21–24	25–29	30–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

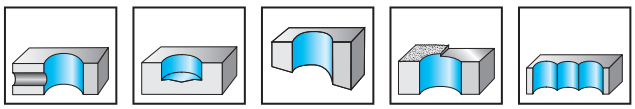
	Designation	Size	P HC					M HC			K HC					N HC		S HC		
			WKP25S	WKP35S	WSP45	WSP45S	WXP40	WSP45	WSP45S	WXP40	WAK15	WKP25S	WKP35S	WXP40		WSP45	WXP40	WSP45	WSP45S	WXP40
	P4840P-.R-A57	6–6	☺	☹	☹			☹				☺	☹					☹		
	P4840P-.R-E57	6–6	☺	☺	☹			☹				☺	☹					☹		
	P4840P-.R-E67	6–6	☺	☺	☹			☹				☺	☹			☺		☹		
	P4841P-.R-A57	6–6	☺	☹	☹			☹				☺	☹					☹		
	P4841P-.R-E57	6–6	☺	☺	☹			☹				☺	☹					☹		
	P4840C-.R-E67	6–6		☺			☹			☹			☺	☹		☺				☹
	P4841C-.R-A57	6–6		☺			☹			☹			☹	☹						☹
	P4841C-.R-E57	6–6		☺			☹			☹			☺	☹						☹

HC = Coated carbide



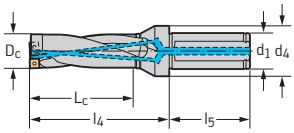
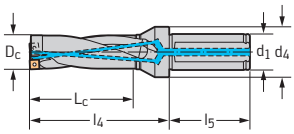
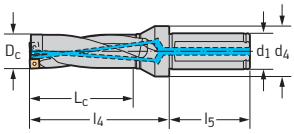
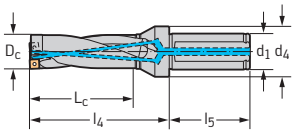
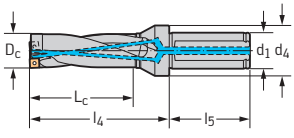
Solid drills
D4120-03 mm

3×D_c | Z=1



	P	M	K	N	S	H	O
D4120-03	●●	●●	●●	●	●●		

B1

Tool	Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
Parallel shank with flat 	★ D4120-03-14.00F20-P41	14	42	62	50	20	25	0,17	1 1	P484 . P-1R- .. P484 . C-1R- ..
	★ D4120-03-15.00F20-P41	15	45	65	50	20	25	0,25	1 1	
	★ D4120-03-16.00F25-P41	16	48	73	56	25	35	0,40	1 1	
Parallel shank with flat 	★ D4120-03-17.00F25-P42	17	51	76	56	25	35	0,35	1 1	P484 . P-2R- .. P484 . C-2R- ..
	★ D4120-03-18.00F25-P42	18	54	79	56	25	35	0,44	1 1	
	★ D4120-03-19.00F25-P42	19	57	82	56	25	35	0,46	1 1	
	★ D4120-03-20.00F25-P42	20	60	85	56	25	35	0,47	1 1	
Parallel shank with flat 	★ D4120-03-21.00F25-P43	21	63	88	56	25	35	0,39	1 1	P484 . P-3R- .. P484 . C-3R- ..
	★ D4120-03-22.00F25-P43	22	66	91	56	25	35	0,50	1 1	
	★ D4120-03-23.00F25-P43	23	69	94	56	25	35	0,52	1 1	
	★ D4120-03-24.00F25-P43	24	72	97	56	25	35	0,53	1 1	
Parallel shank with flat 	★ D4120-03-25.00F25-P44	25	75	100	56	25	35	0,43	1 1	P484 . P-4R- .. P484 . C-4R- ..
	★ D4120-03-26.00F32-P44	26	78	110	60	32	42	0,84	1 1	
	★ D4120-03-27.00F32-P44	27	81	113	60	32	42	0,87	1 1	
	★ D4120-03-28.00F32-P44	28	84	116	60	32	42	0,90	1 1	
	★ D4120-03-29.00F32-P44	29	87	119	60	32	42	0,92	1 1	
Parallel shank with flat 	★ D4120-03-30.00F32-P45	30	90	122	60	32	42	0,82	1 1	P484 . P-5R- .. P484 . C-5R- ..
	★ D4120-03-31.00F32-P45	31	93	125	60	32	42	0,95	1 1	
	★ D4120-03-32.00F32-P45	32	96	128	60	32	42	1	1 1	
	★ D4120-03-33.00F32-P45	33	99	131	60	32	42	1,03	1 1	
	★ D4120-03-34.00F32-P45	34	102	134	60	32	42	1,07	1 1	
	★ D4120-03-35.00F32-P45	35	105	137	60	32	42	1,12	1 1	

Bodies and assembly parts are included in the scope of delivery.

●●● / ★ New addition to the product range

Assembly parts

	D_c [mm]	14–16	17–20	21–24	25–29	30–35	36–42
	Clamping screw for insert Tightening torque	FS2120 (Torx 6IP) 0,4 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

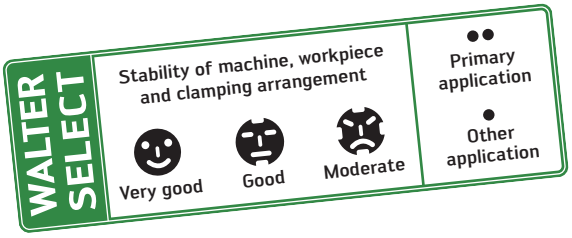
Accessories

	D_c [mm]	14–16	17–20	21–24	25–29	30–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

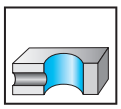
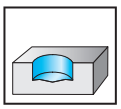
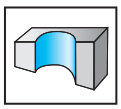
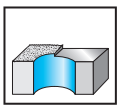
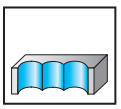
	Designation	Size	P HC					M HC			K HC					N HC		S HC		
			WKP25S	WKP35S	WSP45	WSP45S	WXP40	WSP45	WSP45S	WXP40	WAK15	WKP25S	WKP35S	WXP40		WSP45	WXP40	WSP45	WSP45S	WXP40
	P4840P-.R-A57	1–5	●●	●●	●●			●				●●	●●					●		
	P4840P-.R-E57	1–5	●	●●	●●			●				●●	●●					●		
	P4840P-.R-E67	1–5	●	●●	●●			●				●●	●●			●●		●		
	P4841P-.R-A57	1–5	●●	●●	●●			●				●●	●●					●		
	P4841P-.R-E57	1–5	●	●●	●●			●				●●	●●					●		
	P4840C-.R-E67	1–5		●			●			●			●	●			●●			●
	P4841C-.R-A57	1–5		●●			●			●			●	●						●
	P4841C-.R-E57	1–5		●●			●			●			●●	●						●

HC = Coated carbide



Solid drills
D4120-03 mm

3×D_c | Z=1

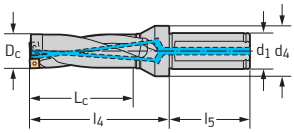






	P	M	K	N	S	H	O
D4120-03	●●	●●	●●	●	●●		

B1

Tool

Parallel shank with flat



Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
★ D4120-03-36.00F32-P46	36	108	140	60	32	42	1,02	1 1	P484 . P-6R- .. P484 . C-6R- ..
★ D4120-03-37.00F40-P46	37	111	151	70	40	50	1,68	1 1	
★ D4120-03-38.00F40-P46	38	114	154	70	40	50	1,75	1 1	
★ D4120-03-39.00F40-P46	39	117	157	70	40	50	1,80	1 1	
★ D4120-03-40.00F40-P46	40	120	160	70	40	50	1,86	1 1	
★ D4120-03-41.00F40-P46	41	123	163	70	40	50	1,92	1 1	
★ D4120-03-42.00F40-P46	42	126	166	70	40	50	1,95	1 1	

Bodies and assembly parts are included in the scope of delivery.

● ● ● / ★ New addition to the product range

Assembly parts

	D_c [mm]	14–16	17–20	21–24	25–29	30–35	36–42
	Clamping screw for insert Tightening torque	FS2120 (Torx 6IP) 0,4 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

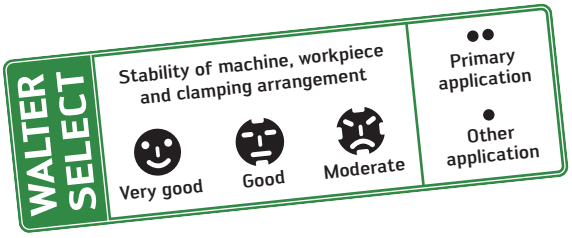
Accessories

	D_c [mm]	14–16	17–20	21–24	25–29	30–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

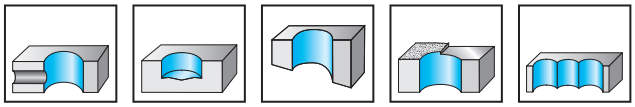
	Designation	Size	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45	N HC WXP40	S HC WSP45	S HC WSP45S	S HC WXP40
	P4840P-.R-A57	6–6	●●	●●	●●			●●				●●	●●				●●		
	P4840P-.R-E57	6–6	●	●●	●●			●●				●●	●●				●●		
	P4840P-.R-E67	6–6	●	●●	●●			●●				●●	●●		●●		●●		
	P4841P-.R-A57	6–6	●●	●●	●●			●●				●●	●●				●●		
	P4841P-.R-E57	6–6	●	●●	●●			●●				●●	●●				●●		
	P4840C-.R-E67	6–6		●			●●			●●			●	●●		●●			●●
	P4841C-.R-A57	6–6		●●			●●			●●			●●	●●					●●
	P4841C-.R-E57	6–6		●●			●●			●●			●●	●●					●●

HC = Coated carbide



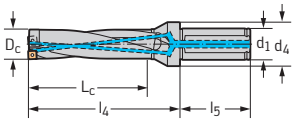
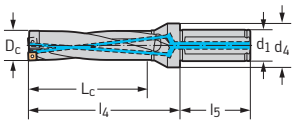
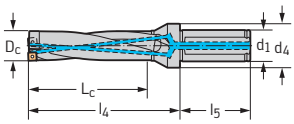
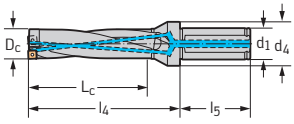
Solid drills
D4120-04 mm

4×D_c | Z=1



	P	M	K	N	S	H	O
D4120-04	●●	●	●●	●	●		

B1

Tool	Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
Parallel shank with flat 	★ D4120-04-17.00F25-P42	17	68	93	56	25	35	0,46	1 1	P484 . P-2R- .. P484 . C-2R- ..
	★ D4120-04-18.00F25-P42	18	72	97	56	25	35	0,49	1 1	
	★ D4120-04-19.00F25-P42	19	76	101	56	25	35	0,48	1 1	
	★ D4120-04-20.00F25-P42	20	80	105	56	25	35	0,50	1 1	
Parallel shank with flat 	★ D4120-04-21.00F25-P43	21	84	109	56	25	35	0,51	1 1	P484 . P-3R- .. P484 . C-3R- ..
	★ D4120-04-22.00F25-P43	22	88	113	56	25	35	0,53	1 1	
	★ D4120-04-23.00F25-P43	23	92	117	56	25	35	0,55	1 1	
	★ D4120-04-24.00F25-P43	24	96	121	56	25	35	0,59	1 1	
Parallel shank with flat 	★ D4120-04-25.00F25-P44	25	100	125	56	25	35	0,62	1 1	P484 . P-4R- .. P484 . C-4R- ..
	★ D4120-04-26.00F32-P44	26	104	136	60	32	42	0,89	1 1	
	★ D4120-04-27.00F32-P44	27	108	140	60	32	42	0,93	1 1	
	★ D4120-04-28.00F32-P44	28	112	144	60	32	42	0,97	1 1	
	★ D4120-04-29.00F32-P44	29	116	148	60	32	42	1,01	1 1	
Parallel shank with flat 	★ D4120-04-30.00F32-P45	30	120	152	60	32	42	1,02	1 1	P484 . P-5R- .. P484 . C-5R- ..
	★ D4120-04-31.00F32-P45	31	124	156	60	32	42	1,07	1 1	
	★ D4120-04-32.00F32-P45	32	128	160	60	32	42	1,10	1 1	
	★ D4120-04-33.00F32-P45	33	132	164	60	32	42	1,17	1 1	
	★ D4120-04-34.00F32-P45	34	136	168	60	32	42	1,18	1 1	
	★ D4120-04-35.00F32-P45	35	140	172	60	32	42	1,28	1 1	

Bodies and assembly parts are included in the scope of delivery.

●●● / ★ New addition to the product range

Assembly parts

	D_c [mm]	17–20	21–24	25–29	30–35	36–42
	Clamping screw for insert Tightening torque	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

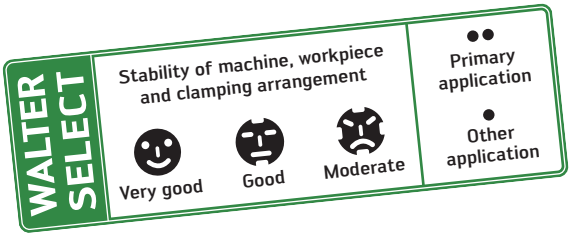
Accessories

	D_c [mm]	17–20	21–24	25–29	30–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

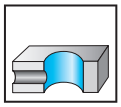
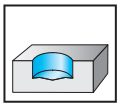
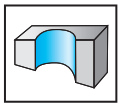
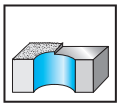
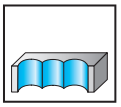
	Designation	Size	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45	N HC WXP40	S HC WSP45	S HC WSP45S	S HC WXP40
	P4840P-.R-A57	2–5	●●	●	○			○				●●	●				○		
	P4840P-.R-E57	2–5	●	●●	○			○				●●	●				○		
	P4840P-.R-E67	2–5	●	●●	○			○				●●	●		●●		○		
	P4841P-.R-A57	2–5	●●	●	○			○				●●	●				○		
	P4841P-.R-E57	2–5	●	●●	○			○				●●	●				○		
	P4840C-.R-E67	2–5		●			○			○			●	○		●			○
	P4841C-.R-A57	2–5		●●			○			○			○	○					○
	P4841C-.R-E57	2–5		●●			○			○			●●	○					○

HC = Coated carbide



Solid drills
D4120-04 mm

4×D_c | Z=1

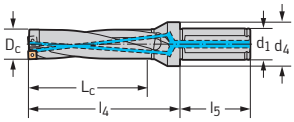






	P	M	K	N	S	H	O
D4120-04	●●	●	●●	●	●		

B1

Tool

Parallel shank with flat



Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
★ D4120-04-36.00F32-P46	36	144	176	60	32	42	1,26	1 1	P484 . P-6R- .. P484 . C-6R- ..
★ D4120-04-37.00F40-P46	37	148	188	70	40	50	1,86	1 1	
★ D4120-04-38.00F40-P46	38	152	192	70	40	50	1,93	1 1	
★ D4120-04-39.00F40-P46	39	156	196	70	40	50	2,05	1 1	
★ D4120-04-40.00F40-P46	40	160	200	70	40	50	2,07	1 1	
★ D4120-04-41.00F40-P46	41	164	204	70	40	50	2,21	1 1	
★ D4120-04-42.00F40-P46	42	168	208	70	40	50	2,23	1 1	

Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

Assembly parts

	D_c [mm]	17–20	21–24	25–29	30–35	36–42
	Clamping screw for insert Tightening torque	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

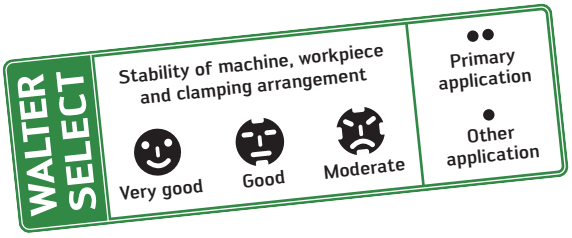
Accessories

	D_c [mm]	17–20	21–24	25–29	30–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

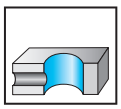
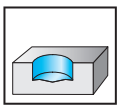
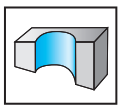
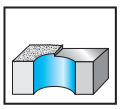
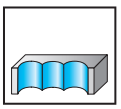
	Designation	Size	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45	N HC WXP40	S HC WSP45	S HC WSP45S	S HC WXP40
	P4840P-.R-A57	6–6	☺	☹	☹			☹				☺	☹				☹		
	P4840P-.R-E57	6–6	☺	☺	☹			☹				☺	☹				☹		
	P4840P-.R-E67	6–6	☺	☺	☹			☹				☺	☹		☺		☹		
	P4841P-.R-A57	6–6	☺	☹	☹			☹				☺	☹				☹		
	P4841P-.R-E57	6–6	☺	☺	☹			☹				☺	☹				☹		
	P4840C-.R-E67	6–6		☺			☹			☹			☺	☹		☺			☹
	P4841C-.R-A57	6–6		☺			☹			☹			☹	☹					☹
	P4841C-.R-E57	6–6		☺			☹			☹			☺	☹					☹

HC = Coated carbide



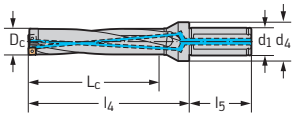
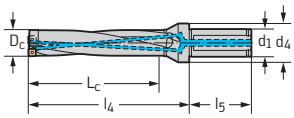
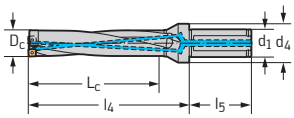
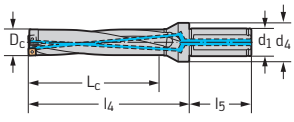
Solid drills
D4120-05 mm

5×D_c | Z=1

	P	M	K	N	S	H	O
D4120-05	●●		●●	●			

B1

Tool	Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
Parallel shank with flat 	★ D4120-05-17.00F25-P42	17	85	110	56	25	35	0,39	1 1	P484 . P-2R- .. P484 . C-2R- ..
	★ D4120-05-18.00F25-P42	18	90	115	56	25	35	0,47	1 1	
	★ D4120-05-19.00F25-P42	19	95	120	56	25	35	0,50	1 1	
	★ D4120-05-20.00F25-P42	20	100	125	56	25	35	0,52	1 1	
Parallel shank with flat 	★ D4120-05-21.00F25-P43	21	105	130	56	25	35	0,45	1 1	P484 . P-3R- .. P484 . C-3R- ..
	★ D4120-05-22.00F25-P43	22	110	135	56	25	35	0,58	1 1	
	★ D4120-05-23.00F25-P43	23	115	140	56	25	35	0,62	1 1	
	★ D4120-05-24.00F25-P43	24	120	145	56	25	35	0,63	1 1	
Parallel shank with flat 	★ D4120-05-25.00F25-P44	25	125	150	56	25	35	0,54	1 1	P484 . P-4R- .. P484 . C-4R- ..
	★ D4120-05-26.00F32-P44	26	130	162	60	32	42	0,97	1 1	
	★ D4120-05-27.00F32-P44	27	135	167	60	32	42	1,02	1 1	
	★ D4120-05-28.00F32-P44	28	140	172	60	32	42	1,06	1 1	
	★ D4120-05-29.00F32-P44	29	145	177	60	32	42	1,10	1 1	
Parallel shank with flat 	★ D4120-05-30.00F32-P45	30	150	182	60	32	42	1,01	1 1	P484 . P-5R- .. P484 . C-5R- ..
	★ D4120-05-31.00F32-P45	31	155	187	60	32	42	1,18	1 1	
	★ D4120-05-32.00F32-P45	32	160	192	60	32	42	1,23	1 1	
	★ D4120-05-33.00F32-P45	33	165	197	60	32	42	1,30	1 1	
	★ D4120-05-34.00F32-P45	34	170	202	60	32	42	1,37	1 1	
	★ D4120-05-35.00F32-P45	35	175	207	60	32	42	1,45	1 1	

Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

Assembly parts

	D_c [mm]	17–20	21–24	25–29	30–35	36–42
	Clamping screw for insert Tightening torque	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

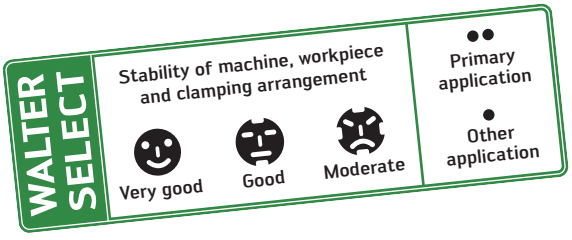
Accessories

	D_c [mm]	17–20	21–24	25–29	30–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

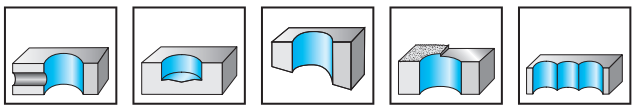
	Designation	Size	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45	N HC WXP40	S HC WSP45	S HC WSP45S	S HC WXP40
	P4840P-.R-A57	2–5	●●	●	○			○				●●	●				○		
	P4840P-.R-E57	2–5	●	●●	○			○				●●	●				○		
	P4840P-.R-E67	2–5	●	●●	○			○				●●	○		●●		○		
	P4841P-.R-A57	2–5	●●	○	○			○				●●	○				○		
	P4841P-.R-E57	2–5	●	●●	○			○				●●	○				○		
	P4840C-.R-E67	2–5		●			○			○			●	○		●●			○
	P4841C-.R-A57	2–5		●●			○			○			○	○					○
	P4841C-.R-E57	2–5		●●			○			○			●●	○					○

HC = Coated carbide



Solid drills
D4120-05 mm

5×D_C | Z=1

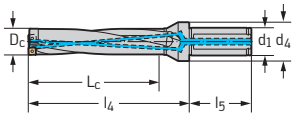


	P	M	K	N	S	H	O
D4120-05	●●		●●	●			

B1

Tool

Parallel shank with flat



Designation	D_C mm	L_C mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
★ D4120-05-36.00F32-P46	36	180	212	60	32	42	1,32	1 1	P484 . P-6R- .. P484 . C-6R- ..
★ D4120-05-37.00F40-P46	37	185	225	70	40	50	1,45	1 1	
★ D4120-05-38.00F40-P46	38	190	230	70	40	50	2,02	1 1	
★ D4120-05-39.00F40-P46	39	195	235	70	40	50	2,09	1 1	
★ D4120-05-40.00F40-P46	40	200	240	70	40	50	2,17	1 1	
★ D4120-05-41.00F40-P46	41	205	245	70	40	50	2,26	1 1	
★ D4120-05-42.00F40-P46	42	210	250	70	40	50	2,37	1 1	

Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

Assembly parts

	D_c [mm]	17–20	21–24	25–29	30–35	36–42
	Clamping screw for insert Tightening torque	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

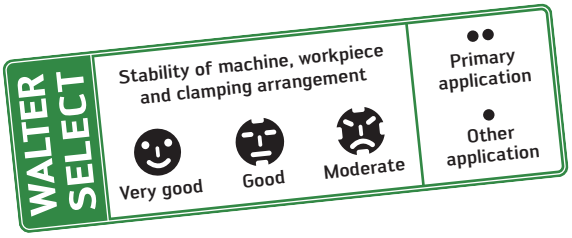
Accessories

	D_c [mm]	17–20	21–24	25–29	30–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

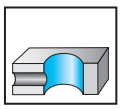
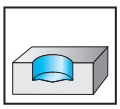
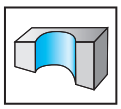
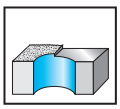
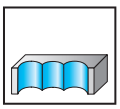
Indexable inserts

	Designation	Size	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45	N HC WXP40	S HC WSP45	S HC WSP45S	S HC WXP40
	P4840P-.R-A57	6–6	☺	☹	☹			☹				☺	☹				☹		
	P4840P-.R-E57	6–6	☺	☺	☹			☹				☺	☹				☹		
	P4840P-.R-E67	6–6	☺	☺	☹			☹				☺	☹		☺		☹		
	P4841P-.R-A57	6–6	☺	☹	☹			☹				☺	☹				☹		
	P4841P-.R-E57	6–6	☺	☺	☹			☹				☺	☹				☹		
	P4840C-.R-E67	6–6		☺			☹			☹			☺	☹		☺			☹
	P4841C-.R-A57	6–6		☺			☹			☹			☹	☹					☹
	P4841C-.R-E57	6–6		☺			☹			☹			☺	☹					☹

HC = Coated carbide

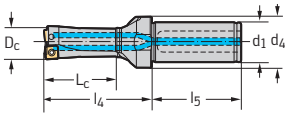
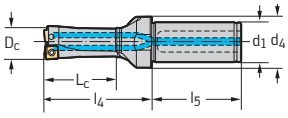
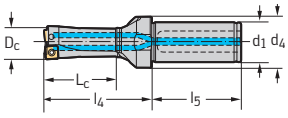
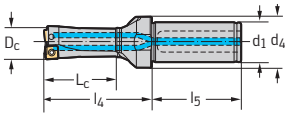
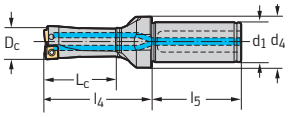


Solid drills
D3120-02 mm

D_c 16–42	2×D_c	Z=1

	P	M	K	N	S	H	O
D3120-02	●●	●	●●	●●	●		

Tool	Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
Parallel shank with flat 	D3120-02-16.00F25-P21	16	32	57	56	25	32	0,30	2	P284 . S-1N- ..
	D3120-02-17.00F25-P21	17	34	59	56	25	32	0,31	2	
	D3120-02-18.00F25-P21	18	36	61	56	25	32	0,31	2	
	D3120-02-19.00F25-P21	19	38	63	56	25	32	0,32	2	
	D3120-02-20.00F25-P21	20	40	65	56	25	32	0,34	2	
Parallel shank with flat 	D3120-02-21.00F25-P22	21	42	67	56	25	32	0,36	2	P284 . S-2N- ..
	D3120-02-22.00F25-P22	22	44	69	56	25	32	0,35	2	
	D3120-02-23.00F25-P22	23	46	71	56	25	32	0,36	2	
	D3120-02-24.00F25-P22	24	48	73	56	25	32	0,37	2	
	D3120-02-25.00F25-P22	25	50	75	56	25	32	0,39	2	
Parallel shank with flat 	D3120-02-26.00F32-P23	26	52	84	60	32	40	0,62	2	P284 . S-3N- ..
	D3120-02-27.00F32-P23	27	54	86	60	32	40	0,68	2	
	D3120-02-28.00F32-P23	28	56	88	60	32	40	0,66	2	
	D3120-02-29.00F32-P23	29	58	90	60	32	40	0,69	2	
	D3120-02-30.00F32-P23	30	60	92	60	32	40	0,71	2	
Parallel shank with flat 	D3120-02-31.00F32-P24	31	62	94	60	32	40	0,69	2	P284 . S-4N- ..
	D3120-02-32.00F32-P24	32	64	96	60	32	40	0,72	2	
	D3120-02-33.00F32-P24	33	66	98	60	32	40	0,75	2	
	D3120-02-34.00F32-P24	34	68	100	60	32	40	0,78	2	
	D3120-02-35.00F32-P24	35	70	102	60	32	40	0,81	2	
	D3120-02-36.00F32-P24	36	72	104	60	32	40	0,85	2	
Parallel shank with flat 	D3120-02-37.00F40-P25	37	74	114	70	40	50	1,28	2	P284 . S-5N- ..
	D3120-02-38.00F40-P25	38	76	116	70	40	50	1,32	2	
	D3120-02-39.00F40-P25	39	78	118	70	40	50	1,36	2	
	D3120-02-40.00F40-P25	40	80	120	70	40	50	1,39	2	
	D3120-02-41.00F40-P25	41	82	122	70	40	50	1,44	2	
	D3120-02-42.00F40-P25	42	84	124	70	40	50	1,48	2	

Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	D_c [mm]	16–20	21–25	26–30	31–36	37–42
	Clamping screw for insert Tightening torque	FS1454 (Torx 8IP) 1,2 Nm	FS1456 (Torx 9IP) 2,0 Nm	FS2181 (Torx 15IP) 3,0 Nm	FS2119 (Torx 15IP) 3,0 Nm	FS2139 (Torx 20IP) 5,0 Nm

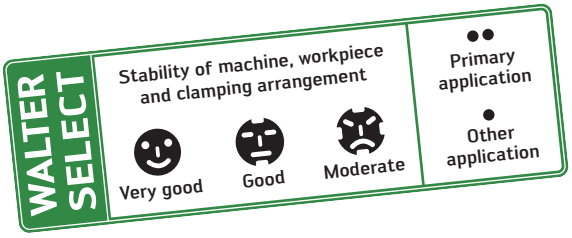
Accessories

	D_c [mm]	16–20	21–25	26–36	37–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

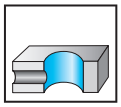
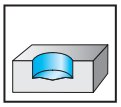
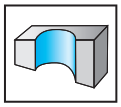
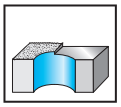
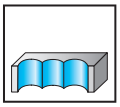
Indexable inserts

	Designation	Size	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WK40	S HC WK40	S HC WSP45	S HC WSP45S	S HC WXP40
	P2840S-.N-A57	1–5	●●	●		○	○		●●	○		●●	○	○				●●	○
	P2840S-.N-E67	1–5		●		○	○		○	○			○	○	●	●		○	○
	P2841S-.N-A57	1–5	●●	●●		○	○		●●	○		●●	○	○				●●	○
	P2841S-.N-E57	1–5	●●	●●		○	○		○	○		●●	○	○				○	○
	P2841S-.N-E67	1–5		●●		○	○		○	○			○	○				○	○

HC = Coated carbide



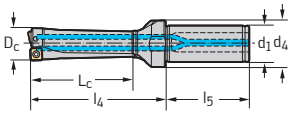
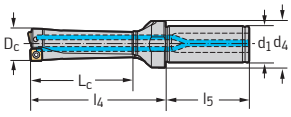
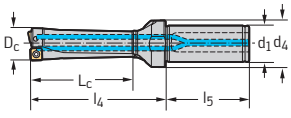
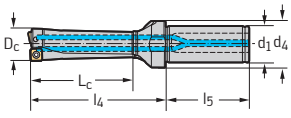
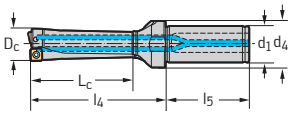
Solid drills
D3120-03 mm

D_c 16–42	3×D_c	Z=1

	P	M	K	N	S	H	O
D3120-03	●●	●	●●	●●	●		

B1

Tool	Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
Parallel shank with flat 	D3120-03-16.00F25-P21	16	48	73	56	25	32	0,31	2	P284 . S-1N- ..
	D3120-03-17.00F25-P21	17	51	76	56	25	32	0,32	2	
	D3120-03-18.00F25-P21	18	54	79	56	25	32	0,33	2	
	D3120-03-19.00F25-P21	19	57	82	56	25	32	0,34	2	
	D3120-03-20.00F25-P21	20	60	85	56	25	32	0,40	2	
Parallel shank with flat 	D3120-03-21.00F25-P22	21	63	88	56	25	32	0,36	2	P284 . S-2N- ..
	D3120-03-22.00F25-P22	22	66	91	56	25	32	0,42	2	
	D3120-03-23.00F25-P22	23	69	94	56	25	32	0,37	2	
	D3120-03-24.00F25-P22	24	72	97	56	25	32	0,42	2	
	D3120-03-25.00F25-P22	25	75	100	56	25	32	0,44	2	
Parallel shank with flat 	D3120-03-26.00F32-P23	26	78	110	60	32	40	0,67	2	P284 . S-3N- ..
	D3120-03-27.00F32-P23	27	81	113	60	32	40	0,74	2	
	D3120-03-28.00F32-P23	28	84	116	60	32	40	0,73	2	
	D3120-03-29.00F32-P23	29	87	119	60	32	40	0,76	2	
	D3120-03-30.00F32-P23	30	90	122	60	32	40	0,84	2	
Parallel shank with flat 	D3120-03-31.00F32-P24	31	93	125	60	32	40	0,78	2	P284 . S-4N- ..
	D3120-03-32.00F32-P24	32	96	128	60	32	40	0,86	2	
	D3120-03-33.00F32-P24	33	99	131	60	32	40	0,86	2	
	D3120-03-34.00F32-P24	34	102	134	60	32	40	0,9	2	
	D3120-03-35.00F32-P24	35	105	137	60	32	40	0,95	2	
	D3120-03-36.00F32-P24	36	108	140	60	32	40	1,00	2	
Parallel shank with flat 	D3120-03-37.00F40-P25	37	111	151	70	40	50	1,43	2	P284 . S-5N- ..
	D3120-03-38.00F40-P25	38	114	154	70	40	50	1,49	2	
	D3120-03-39.00F40-P25	39	117	157	70	40	50	1,64	2	
	D3120-03-40.00F40-P25	40	120	160	70	40	50	1,60	2	
	D3120-03-41.00F40-P25	41	123	163	70	40	50	1,67	2	
	D3120-03-42.00F40-P25	42	126	166	70	40	50	1,83	2	

Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	D_c [mm]	16–20	21–25	26–30	31–36	37–42
	Clamping screw for insert Tightening torque	FS1454 (Torx 8IP) 1,2 Nm	FS1456 (Torx 9IP) 2,0 Nm	FS2181 (Torx 15IP) 3,0 Nm	FS2119 (Torx 15IP) 3,0 Nm	FS2139 (Torx 20IP) 5,0 Nm

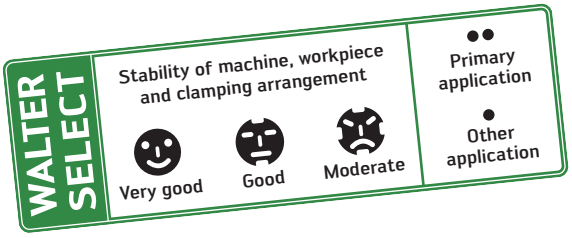
Accessories

	D_c [mm]	16–20	21–25	26–36	37–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

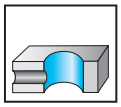
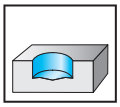
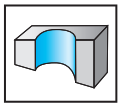
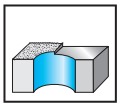
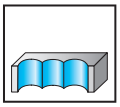
Indexable inserts

	Designation	Size	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WK40	S HC WK40	S HC WSP45	S HC WSP45S	S HC WXP40
	P2840S-.N-A57	1–5	●●	●		○	○		●●	○		●●	○	○				●●	○
	P2840S-.N-E67	1–5		●		○	○		○	○			○	○	●	●		○	○
	P2841S-.N-A57	1–5	●●	●●		○	○		●●	○		●●	○	○				●●	○
	P2841S-.N-E57	1–5	●●	●●		○	○		○	○		●●	○	○				○	○
	P2841S-.N-E67	1–5		●●		○	○		○	○			○	○				○	○

HC = Coated carbide



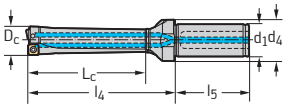
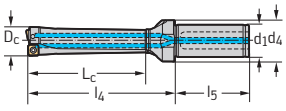
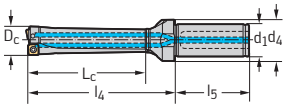
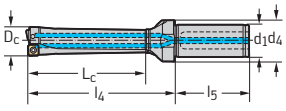
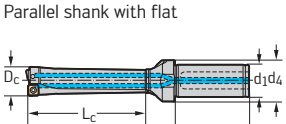
Solid drills
D3120-04 mm

D_c 16–42	4×D_c	Z=1

	P	M	K	N	S	H	O
D3120-04	●●	●	●●	●●	●		

B1

Tool	Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Type
Parallel shank with flat 	D3120-04-16.00F25-P21	16	64	89	56	25	32	0,35	2	P284 . S-1N- ..
	D3120-04-17.00F25-P21	17	68	93	56	25	32	0,33	2	
	D3120-04-18.00F25-P21	18	72	97	56	25	32	0,35	2	
	D3120-04-19.00F25-P21	19	76	101	56	25	32	0,36	2	
	D3120-04-20.00F25-P21	20	80	105	56	25	32	0,38	2	
Parallel shank with flat 	D3120-04-21.00F25-P22	21	84	109	56	25	32	0,38	2	P284 . S-2N- ..
	D3120-04-22.00F25-P22	22	88	113	56	25	32	0,43	2	
	D3120-04-23.00F25-P22	23	92	117	56	25	32	0,43	2	
	D3120-04-24.00F25-P22	24	96	121	56	25	32	0,46	2	
	D3120-04-25.00F25-P22	25	100	125	56	25	32	0,49	2	
Parallel shank with flat 	D3120-04-26.00F32-P23	26	104	136	60	32	40	0,72	2	P284 . S-3N- ..
	D3120-04-27.00F32-P23	27	108	140	60	32	40	0,76	2	
	D3120-04-28.00F32-P23	28	112	144	60	32	40	0,80	2	
	D3120-04-29.00F32-P23	29	116	148	60	32	40	0,84	2	
	D3120-04-30.00F32-P23	30	120	152	60	32	40	0,88	2	
Parallel shank with flat 	D3120-04-31.00F32-P24	31	124	156	60	32	40	0,86	2	P284 . S-4N- ..
	D3120-04-32.00F32-P24	32	128	160	60	32	40	0,91	2	
	D3120-04-33.00F32-P24	33	132	164	60	32	40	0,96	2	
	D3120-04-34.00F32-P24	34	136	168	60	32	40	1,09	2	
	D3120-04-35.00F32-P24	35	140	172	60	32	40	1,08	2	
	D3120-04-36.00F32-P24	36	144	176	60	32	40	1,15	2	
Parallel shank with flat 	D3120-04-37.00F40-P25	37	148	188	70	40	50	1,59	2	P284 . S-5N- ..
	D3120-04-38.00F40-P25	38	152	192	70	40	50	1,66	2	
	D3120-04-39.00F40-P25	39	156	196	70	40	50	1,74	2	
	D3120-04-40.00F40-P25	40	160	200	70	40	50	1,89	2	
	D3120-04-41.00F40-P25	41	164	204	70	40	50	1,90	2	
	D3120-04-42.00F40-P25	42	168	208	70	40	50	1,99	2	

Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	D_c [mm]	16–20	21–25	26–30	31–36	37–42
	Clamping screw for insert Tightening torque	FS1454 (Torx 8IP) 1,2 Nm	FS1456 (Torx 9IP) 2,0 Nm	FS2181 (Torx 15IP) 3,0 Nm	FS2119 (Torx 15IP) 3,0 Nm	FS2139 (Torx 20IP) 5,0 Nm

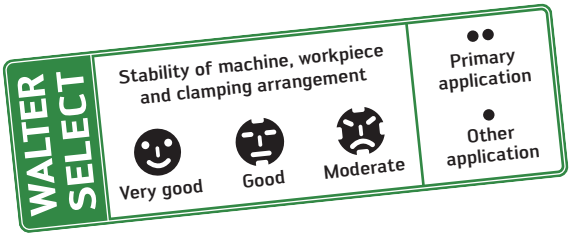
Accessories

	D_c [mm]	16–20	21–25	26–36	37–42
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

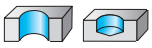
Indexable inserts

	Designation	Size	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45S	P HC WXP40	M HC WSP45	M HC WSP45S	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WK40	S HC WK40	S HC WSP45	S HC WSP45S	S HC WXP40
	P2840S-.N-A57	1–5	●●	●		○	○		●●	○		●●	○	○				●●	○
	P2840S-.N-E67	1–5		○		○	○		○	○			○	○	○	○		○	○
	P2841S-.N-A57	1–5	●	●●		○	○		●	○		●●	○	○				●	○
	P2841S-.N-E57	1–5	●	●●		○	○		○	○		●●	○	○				○	○
	P2841S-.N-E67	1–5		●●		○	○		○	○			○	○				○	○

HC = Coated carbide



Product range overview
HSS drills

Machining		
Drilling depth	**~8 × D_c**	**Twist drill set**
Designation	**DA110 Perform**	**DA110 Perform**
Standard	DIN 338	DIN 338
Dia. range [mm]	1–16	1–10,5 1–13
Page	261	264
		

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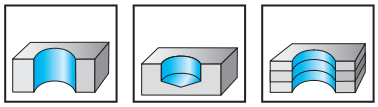
HSS twist drills
DA110 Perform

– Available as set
– Type N

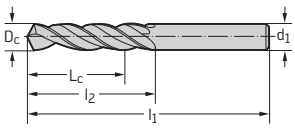


~8×D_c | DIN 338 | 118°

	P	M	K	N	S	H	O
WZ90AJ	●●	●	●●	●			●

B1

Parallel shank



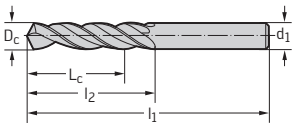
Designation	D_c h8 mm	L_c mm	l_1 mm	l_2 mm	d_1 f11 mm	WZ90AJ
DA110-08-01.000U0-	1	10	34	12	1	●
DA110-08-01.100U0-	1,1	12	36	14	1,1	●
DA110-08-01.200U0-	1,2	14	38	16	1,2	●
DA110-08-01.300U0-	1,3	14	38	16	1,3	●
DA110-08-01.400U0-	1,4	15	40	18	1,4	●
DA110-08-01.500U0-	1,5	15	40	18	1,5	●
DA110-08-01.600U0-	1,6	17	43	20	1,6	●
DA110-08-01.700U0-	1,7	17	43	20	1,7	●
DA110-08-01.800U0-	1,8	19	46	22	1,8	●
DA110-08-01.900U0-	1,9	19	46	22	1,9	●
DA110-08-02.000U0-	2	20	49	24	2	●
DA110-08-02.100U0-	2,1	20	49	24	2,1	●
DA110-08-02.200U0-	2,2	23	53	27	2,2	●
DA110-08-02.300U0-	2,3	23	53	27	2,3	●
DA110-08-02.400U0-	2,4	26	57	30	2,4	●
DA110-08-02.500U0-	2,5	26	57	30	2,5	●
DA110-08-02.600U0-	2,6	26	57	30	2,6	●
DA110-08-02.700U0-	2,7	28	61	33	2,7	●
DA110-08-02.800U0-	2,8	28	61	33	2,8	●
DA110-08-02.900U0-	2,9	28	61	33	2,9	●
DA110-08-03.000U0-	3	28	61	33	3	●
DA110-08-03.100U0-	3,1	30	65	36	3,1	●
DA110-08-03.200U0-	3,2	30	65	36	3,2	●
DA110-08-03.300U0-	3,3	30	65	36	3,3	●
DA110-08-03.400U0-	3,4	33	70	39	3,4	●
DA110-08-03.500U0-	3,5	33	70	39	3,5	●
DA110-08-03.600U0-	3,6	33	70	39	3,6	●
DA110-08-03.700U0-	3,7	33	70	39	3,7	●
DA110-08-03.800U0-	3,8	36	75	43	3,8	●
DA110-08-03.900U0-	3,9	36	75	43	3,9	●
DA110-08-04.000U0-	4	36	75	43	4	●
DA110-08-04.100U0-	4,1	36	75	43	4,1	●
DA110-08-04.200U0-	4,2	36	75	43	4,2	●
DA110-08-04.300U0-	4,3	39	80	47	4,3	●
DA110-08-04.400U0-	4,4	39	80	47	4,4	●
DA110-08-04.500U0-	4,5	39	80	47	4,5	●
DA110-08-04.600U0-	4,6	39	80	47	4,6	●
DA110-08-04.700U0-	4,7	39	80	47	4,7	●
DA110-08-04.800U0-	4,8	44	86	52	4,8	●
DA110-08-04.900U0-	4,9	44	86	52	4,9	●
DA110-08-05.000U0-	5	44	86	52	5	●
DA110-08-05.100U0-	5,1	44	86	52	5,1	●
DA110-08-05.200U0-	5,2	44	86	52	5,2	●
DA110-08-05.300U0-	5,3	44	86	52	5,3	●
DA110-08-05.400U0-	5,4	48	93	57	5,4	●
DA110-08-05.500U0-	5,5	48	93	57	5,5	●
DA110-08-05.600U0-	5,6	48	93	57	5,6	●

Ordering example for the WZ90AJ grade: DA110-08-01.000U0-WZ90AJ

Continued

Continued

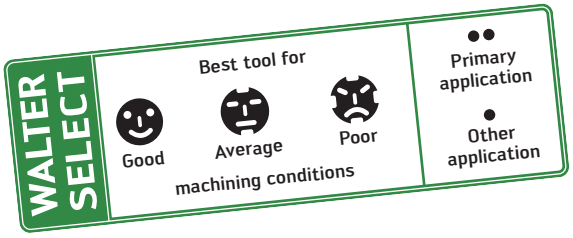
Parallel shank



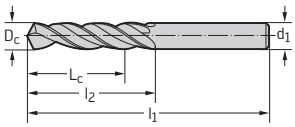
Designation	D_c h8 mm	L_c mm	l_1 mm	l_2 mm	d_1 f11 mm	WZ90AJ
DA110-08-05.700U0-	5,7	48	93	57	5,7	✱
DA110-08-05.800U0-	5,8	48	93	57	5,8	✱
DA110-08-05.900U0-	5,9	48	93	57	5,9	✱
DA110-08-06.000U0-	6	48	93	57	6	✱
DA110-08-06.100U0-	6,1	52	101	63	6,1	✱
DA110-08-06.200U0-	6,2	52	101	63	6,2	✱
DA110-08-06.300U0-	6,3	52	101	63	6,3	✱
DA110-08-06.400U0-	6,4	52	101	63	6,4	✱
DA110-08-06.500U0-	6,5	52	101	63	6,5	✱
DA110-08-06.600U0-	6,6	52	101	63	6,6	✱
DA110-08-06.700U0-	6,7	52	101	63	6,7	✱
DA110-08-06.800U0-	6,8	57	109	69	6,8	✱
DA110-08-06.900U0-	6,9	57	109	69	6,9	✱
DA110-08-07.000U0-	7	57	109	69	7	✱
DA110-08-07.100U0-	7,1	57	109	69	7,1	✱
DA110-08-07.200U0-	7,2	57	109	69	7,2	✱
DA110-08-07.300U0-	7,3	57	109	69	7,3	✱
DA110-08-07.400U0-	7,4	57	109	69	7,4	✱
DA110-08-07.500U0-	7,5	57	109	69	7,5	✱
DA110-08-07.600U0-	7,6	62	117	75	7,6	✱
DA110-08-07.700U0-	7,7	62	117	75	7,7	✱
DA110-08-07.800U0-	7,8	62	117	75	7,8	✱
DA110-08-07.900U0-	7,9	62	117	75	7,9	✱
DA110-08-08.000U0-	8	62	117	75	8	✱
DA110-08-08.100U0-	8,1	62	117	75	8,1	✱
DA110-08-08.200U0-	8,2	62	117	75	8,2	✱
DA110-08-08.300U0-	8,3	62	117	75	8,3	✱
DA110-08-08.400U0-	8,4	62	117	75	8,4	✱
DA110-08-08.500U0-	8,5	62	117	75	8,5	✱
DA110-08-08.600U0-	8,6	66	125	81	8,6	✱
DA110-08-08.700U0-	8,7	66	125	81	8,7	✱
DA110-08-08.800U0-	8,8	66	125	81	8,8	✱
DA110-08-08.900U0-	8,9	66	125	81	8,9	✱
DA110-08-09.000U0-	9	66	125	81	9	✱
DA110-08-09.100U0-	9,1	66	125	81	9,1	✱
DA110-08-09.200U0-	9,2	66	125	81	9,2	✱
DA110-08-09.300U0-	9,3	66	125	81	9,3	✱
DA110-08-09.400U0-	9,4	66	125	81	9,4	✱
DA110-08-09.500U0-	9,5	66	125	81	9,5	✱
DA110-08-09.600U0-	9,6	71	133	87	9,6	✱
DA110-08-09.700U0-	9,7	71	133	87	9,7	✱
DA110-08-09.800U0-	9,8	71	133	87	9,8	✱
DA110-08-09.900U0-	9,9	71	133	87	9,9	✱
DA110-08-10.000U0-	10	71	133	87	10	✱
DA110-08-10.100U0-	10,1	71	133	87	10,1	✱
DA110-08-10.200U0-	10,2	71	133	87	10,2	✱
DA110-08-10.300U0-	10,3	71	133	87	10,3	✱
DA110-08-10.400U0-	10,4	71	133	87	10,4	✱
DA110-08-10.500U0-	10,5	71	133	87	10,5	✱
DA110-08-10.700U0-	10,7	76	142	94	10,7	✱
DA110-08-10.800U0-	10,8	76	142	94	10,8	✱
DA110-08-11.000U0-	11	76	142	94	11	✱
DA110-08-11.100U0-	11,1	76	142	94	11,1	✱
DA110-08-11.300U0-	11,3	76	142	94	11,3	✱
DA110-08-11.500U0-	11,5	76	142	94	11,5	✱
DA110-08-11.800U0-	11,8	76	142	94	11,8	✱
DA110-08-12.000U0-	12	87	151	101	12	✱

Ordering example for the WZ90AJ grade: DA110-08-01.000U0-WZ90AJ

Continued



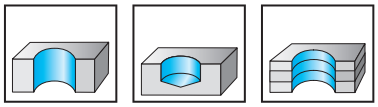
Continued

	Designation	D_c h8 mm	L_c mm	l_1 mm	l_2 mm	d_1 f11 mm	WZ90AJ
Parallel shank 	DA110-08-12.100U0-	12,1	87	151	101	12,1	✓
	DA110-08-12.200U0-	12,2	87	151	101	12,2	✓
	DA110-08-12.500U0-	12,5	87	151	101	12,5	✓
	DA110-08-13.000U0-	13	87	151	101	13	✓
	DA110-08-13.500U0-	13,5	94	160	108	13,5	✓
	DA110-08-13.700U0-	13,7	94	160	108	13,7	✓
	DA110-08-14.000U0-	14	94	160	108	14	✓
	DA110-08-14.500U0-	14,5	99	169	114	14,5	✓
	DA110-08-15.000U0-	15	99	169	114	15	✓
	DA110-08-15.500U0-	15,5	104	178	120	15,5	✓
	DA110-08-16.000U0-	16	104	178	120	16	✓

Ordering example for the WZ90AJ grade: DA110-08-01.000U0-WZ90AJ

HSS – DA110 Perform twist drill – set
DA110-SET-1-10.5-WZ90AJ
DA110-SET-1-13-WZ90AJ

– Type N



~8×D_C | DIN 338 | 118°

	P	M	K	N	S	H	O
WZ90AJ	●●	●	●●	●			

	Designation	Sets Ø [mm]	Including core-hole drill [mm]	Pitch	Quantity
	DA110-SET-1-10.5-WZ90AJ	1,0–10,5	3,3 4,2 6,8 10,2	0,5	24

	Designation	Sets Ø [mm]	Pitch	Quantity
	DA110-SET-1-13-WZ90AJ	1,0–13,0	0,5	25

For the dimensions for the DA110 Perform twist drill, please see the ordering page.

Cutting data
Solid carbide drills with internal coolant

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

B1

= Wet machining (E = emulsion, O = oil)

= Dry machining possible (M = MQL, L = dry)
Cutting data must be selected from Walter GPS

v_c = Cutting speed
VRR = Feed rate chart from page 271 onwards

VCRR = v_c rate chart from page 270 onwards

* The classification of the machining groups can be found in the material group comparison table

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *	Drilling depth 3 × Dc Designation DC260 Advance Standard Walter Cooling Internal coolant Grade WJ30ET Dia. range [mm] 3,3–14  vc	VRR		
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	135	12	**E O**	
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	135	12	**E O**	
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	135	12	**E O**	
		C > 0.55%	Annealed	190	640	P4	135	10	**E O**	
		C > 0.55%	Heat-treated	300	1010	P5	112	10	**E O**	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	157	12	**E O**	
	Low-alloy steel	Annealed		175	590	P7	135	12	**E O**	M
		Heat-treated		285	960	P8	101	10	**E O**	M
		Heat-treated		380	1280	P9	58	8	**E O**	M
		Heat-treated		430	1480	P10	63	6	**E O**	M
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	88	10	**E O**	
		Hardened and tempered		300	1010	P12	112	10	**E O**	
		Hardened and tempered		380	1280	P13	52	8	**E O**	
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	123	12	**E O**	
		Martensitic, heat-treated		330	1110	P15	63	9	**E O**	
M	Stainless steel	Austenitic, quench hardened		200	680	M1	55	6	E O	
		Austenitic, precipitation hardened (PH)		300	1010	M2	49	6	E O	
		Austenitic/ferritic, duplex		230	780	M3	39	4	E O	
K	Malleable cast iron	Ferritic		200	400	K1	112	16	**E O**	M
		Pearlitic		260	700	K2	103	16	**E O**	M
	Grey cast iron	Low tensile strength		180	200	K3	135	16	**E O**	M
		High tensile strength/austenitic		245	350	K4	112	16	**E O**	M
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	157	16	**E O**	M
		Pearlitic		265	700	K6	102	16	**E O**	M
	GGV (CGI)			230	400	K7	112	16	**E O**	M
N	Wrought aluminium alloys	Not hardenable		30	-	N1	420	16	E O	
		Hardenable, hardened		100	340	N2	420	16	E O	
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	265	16	**E O**	M
		≤ 12% Si, hardenable, hardened		90	310	N4	235	16	**E O**	M
		> 12% Si, not hardenable		130	450	N5	195	16	**E O**	M
	Magnesium alloys			70	250	N6				
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7	185	8	**E O**	
		Brass, bronze, red brass		90	310	N8	168	10	**E O**	
		Cu alloys, short-chipping		110	380	N9	185	12	**E O**	
		High-tensile, Ampco		300	1010	N10	78	6	**E O**	
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	43	4	E O	
			Hardened	280	940	S2	30	4	E O	
		Ni- or Co-based	Annealed	250	840	S3	33	5	E O	
			Hardened	350	1180	S4	13	4	E O	
			Cast	320	1080	S5	27	4	E O	
	Titanium alloys	Pure titanium		200	680	S6	52	6	**E O**	
		α and β alloys, hardened		375	1260	S7	38	4	**E O**	
		β alloys		410	1400	S8	33	4	**E O**	
	Tungsten alloys			300	1010	S9	46	5	E O	
	Molybdenum alloys			300	1010	S10	46	5	E O	
H	Hardened steel	Hardened and tempered		50 HRC	-	H1	43	3	**O E**	M
		Hardened and tempered		55 HRC	-	H2				
		Hardened and tempered		60 HRC	-	H3				
	Hardened cast iron	Hardened and tempered		55 HRC	-	H4				
O	Thermoplastics	Without abrasive fillers				O1	115	16	**E O**	
	Thermosets	Without abrasive fillers				O2				
	Plastic, glass-fibre-reinforced	GFRP				O3				
	Plastic, carbon-fibre-reinforced	CFRP				O4				
	Plastic, aramid-fibre-reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

B1

	3 × Dc				5 × Dc				8 × Dc				12 × Dc			
	DC160 Advance				DC160 Advance				DC160 Advance				DC160 Advance			
	DIN 6537 short				DIN 6537 long				Walter				Walter			
	Internal coolant				Internal coolant				Internal coolant				Internal coolant			
	WJ30ET				WJ30ET				WJ30ET				WJ30EU			
	3–20				3–25				3–20				3–20			
																
	vc	VRR			vc	VRR			vc	VRR			vc	VRR		
	135	12	**E O**		130	12	**E O**		124	12	**E O**		120	12	**E O**	
	135	12	**E O**		130	12	**E O**		124	10	**E O**		120	10	**E O**	
	135	12	**E O**		130	12	**E O**		124	10	**E O**		120	10	**E O**	
	135	10	**E O**		130	10	**E O**		124	10	**E O**		120	10	**E O**	
	112	10	**E O**		108	10	**E O**		103	10	**E O**		99	10	**E O**	
	157	12	**E O**		151	12	**E O**		144	12	**E O**		139	12	**E O**	
	135	12	**E O**	M	130	12	**E O**	M	124	12	**E O**	M	120	12	**E O**	M
	101	10	**E O**	M	97	10	**E O**	M	93	10	**E O**	M	90	10	**E O**	M
	58	8	**E O**	M	56	8	**E O**	M	54	8	**E O**	M	52	8	**E O**	M
	63	6	**E O**	M	60	6	**E O**	M	57	6	**E O**	M	55	6	**E O**	M
	88	10	**E O**		85	10	**E O**		81	9	**E O**		79	9	**E O**	
	112	10	**E O**		108	10	**E O**		103	10	**E O**		99	10	**E O**	
	52	8	**E O**		50	8	**E O**		48	7	**E O**		46	7	**E O**	
	123	12	**E O**		118	12	**E O**		113	12	**E O**		110	12	**E O**	
	63	9	**E O**		61	9	**E O**		58	9	**E O**		56	9	**E O**	
	55	6	E O		53	6	**E O**		51	6	**E O**		49	6	**E O**	
	49	6	E O		47	6	**E O**		45	6	**E O**		43	6	**E O**	
	39	4	E O		38	4	**E O**		37	4	**E O**		35	4	**E O**	
	112	16	**E O**	M	108	16	**E O**	M	103	16	**E O**	M	99	16	**E O**	M
	103	16	**E O**	M	98	16	**E O**	M	94	16	**E O**	M	91	16	**E O**	M
	135	16	**E O**	M	130	16	**E O**	M	124	16	**E O**	M	120	16	**E O**	M
	112	16	**E O**	M	108	16	**E O**	M	103	16	**E O**	M	99	16	**E O**	M
	157	16	**E O**	M	151	16	**E O**	M	144	16	**E O**	M	139	16	**E O**	M
	102	16	**E O**	M	98	16	**E O**	M	94	16	**E O**	M	91	16	**E O**	M
	112	16	**E O**	M	108	16	**E O**	M	103	16	**E O**	M	99	16	**E O**	M
	420	16	E O		400	16	**E O**		380	16	**E O**		360	16	**E O**	
	420	16	E O		400	16	**E O**		380	16	**E O**		360	16	**E O**	
	265	16	**E O**	M	250	16	**E O**	M	238	16	**E O**	M	215	16	**E O**	M
	235	16	**E O**	M	220	16	**E O**	M	209	16	**E O**	M	200	16	**E O**	M
	195	16	**E O**	M	180	16	**E O**	M	171	16	**E O**	M	160	16	**E O**	M
	185	8	**E O**		180	8	**E O**		171	8	**E O**		160	8	**E O**	
	168	10	**E O**		160	10	**E O**		152	10	**E O**		145	10	**E O**	
	185	12	**E O**		180	12	**E O**		171	12	**E O**		160	12	**E O**	
	78	6	**E O**		71	6	**E O**		68	6	**E O**		66	6	**E O**	
	43	4	E O		42	4	**E O**		40	4	**E O**		38	4	**E O**	
	30	4	E O		29	4	**E O**		28	4	**E O**		27	4	**E O**	
	33	5	E O		33	5	**E O**		32	5	**E O**		31	5	**E O**	
	13	4	E O		13	4	**E O**		13	4	**E O**		12	4	**E O**	
	27	4	E O		27	4	**E O**		26	4	**E O**		25	4	**E O**	
	52	6	**E O**		52	6	**E O**		50	6	**E O**		49	6	**E O**	
	38	4	**E O**		37	4	**E O**		36	4	**E O**		35	4	**E O**	
	33	4	**E O**		33	4	**E O**		32	4	**E O**		31	4	**E O**	
	46	5	E O		46	5	**E O**		44	5	**E O**		42	5	**E O**	
	46	5	E O		46	5	**E O**		44	5	**E O**		42	5	**E O**	
	43	3	**O E**	M	42	3	**O E**	M	40	3	**O E**		39	3	**O E**	
	115	16	**E O**		110	16	**E O**		105	16	**E O**		100	16	**E O**	

Cutting data
Solid carbide drills without internal coolant

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

B1

= Wet machining (E = emulsion, O = oil)

= Dry machining possible (M = MQL, L = dry)
Cutting data must be selected from Walter GPS

v_c = Cutting speed
VRR = Feed rate chart from page 271 onwards

VCRR = v_c rate chart from page 270 onwards

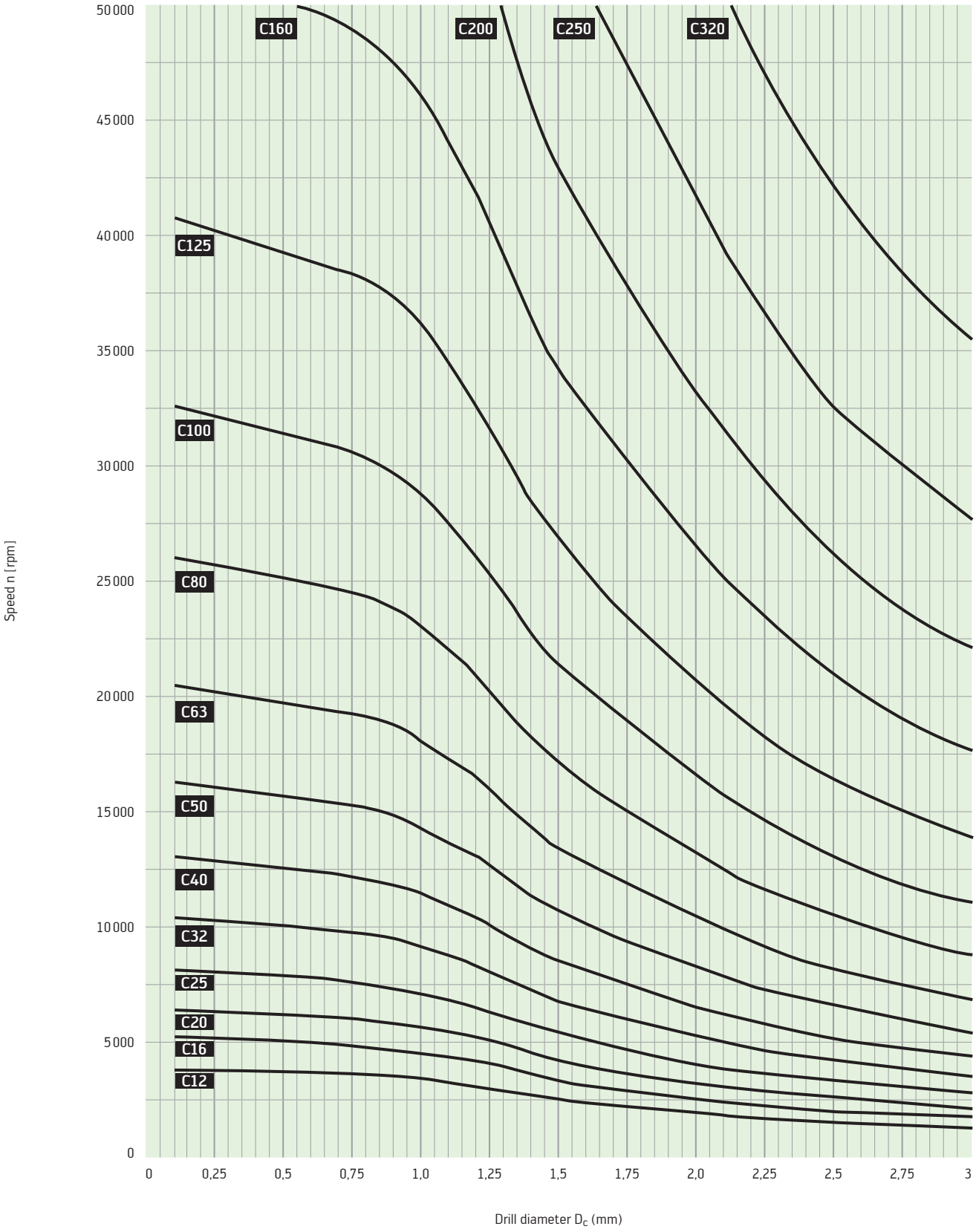
* The classification of the machining groups can be found in the material group comparison table

				Drilling depth			3 × Dc				
				Designation			DC260 Advance				
				Standard			Walter				
				Cooling			External coolant				
				Grade			WJ30ET				
				Dia. range [mm]			3,3–14,5				
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *	 vc	VRR			
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	110	12	E O		
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	121	12	E O		
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	110	12	E O		
		C > 0.55%	Annealed	190	640	P4	110	10	E O		
		C > 0.55%	Heat-treated	300	1010	P5	78	10	E O		
		Free-machining steel (short-chipping)	Annealed	220	750	P6	110	12	E O		
	Low-alloy steel	Annealed		175	590	P7	121	12	E O		
		Heat-treated		285	960	P8	69	10	E O		
		Heat-treated		380	1280	P9	55	7	E O		
		Heat-treated		430	1480	P10	44	5	E O		
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	78	9	E O		
		Hardened and tempered		300	1010	P12	78	10	E O		
		Hardened and tempered		380	1280	P13	44	7	E O		
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	99	12	E O		
		Martensitic, heat-treated		330	1110	P15	55	10	E O		
M	Stainless steel	Austenitic, quench hardened		200	680	M1					
		Austenitic, precipitation hardened (PH)		300	1010	M2					
		Austenitic/ferritic, duplex		230	780	M3					
K	Malleable cast iron	Ferritic		200	400	K1	88	16	E O		
		Pearlitic		260	700	K2	88	12	E O		
	Grey cast iron	Low tensile strength		180	200	K3	110	16	E O		
		High tensile strength/austenitic		245	350	K4	88	16	E O		
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	110	16	E O		
		Pearlitic		265	700	K6	88	12	E O		
	GGV (CGI)			230	400	K7	99	2	E O		
N	Wrought aluminium alloys	Not hardenable		30	-	N1					
		Hardenable, hardened		100	340	N2					
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	225	16	E O	M	
		≤ 12% Si, hardenable, hardened		90	310	N4	225	16	E O	M	
		> 12% Si, not hardenable		130	450	N5	190	12	E O	M	
	Magnesium alloys			70	250	N6					
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7	185	6	E O		
		Brass, bronze, red brass		90	310	N8	165	10	E O		
		Cu alloys, short-chipping		110	380	N9	205	16	E O		
		High-tensile, Ampco		300	1010	N10	68	5	E O		
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1					
			Hardened	280	940	S2					
		Ni- or Co-based	Annealed	250	840	S3					
			Hardened	350	1180	S4					
			Cast	320	1080	S5					
	Titanium alloys	Pure titanium		200	680	S6	35	5	E O		
		α and β alloys, hardened		375	1260	S7	27	3	E O		
		β alloys		410	1400	S8	22	3	E O		
	Tungsten alloys			300	1010	S9					
	Molybdenum alloys			300	1010	S10					
H	Hardened steel	Hardened and tempered		50 HRC	-	H1	30	3	O E		
		Hardened and tempered		55 HRC	-	H2					
		Hardened and tempered		60 HRC	-	H3					
	Hardened cast iron	Hardened and tempered		55 HRC	-	H4					
O	Thermoplastics	Without abrasive fillers				O1	110	16	E O		
	Thermosets	Without abrasive fillers				O2					
	Plastic, glass-fibre-reinforced	GFRP				O3					
	Plastic, carbon-fibre-reinforced	CFRP				O4					
	Plastic, aramid-fibre-reinforced	AFRP				O5					
	Graphite (technical)			80 Shore		O6					

B1

	3 × Dc				5 × D_c				5 × Dc				5 × Dc			
	DC160 Advance				**DB130 Advance**				**DC160 Advance**				**DC150 Perform**			
	DIN 6537 short				DIN 1899				DIN 6537 long				DIN 6537 long			
	External coolant				External coolant				External coolant				External coolant			
	WJ30ET				WJ30UU				WJ30ET				WJ30TA			
	3–20				0,1–1,45				3–25				3–20			
																
	VCRR	VRR			vc	VRR			vc	VRR			vc	VRR		
	110	12	**E O**		C63	5	**E O**		102	12	**E O**		81	12	**E O**	
	121	12	**E O**		C63	6	**E O**		112	12	**E O**		72	10	**E O**	
	110	12	**E O**		C63	6	**E O**		102	12	**E O**		72	10	**E O**	
	110	10	**E O**		C50	5	**E O**		102	10	**E O**		65	9	**E O**	
	78	10	**E O**		C40	5	**E O**		73	10	**E O**		51	8	**E O**	
	110	12	**E O**		C63	6	**E O**		102	12	**E O**		81	12	**E O**	
	121	12	**E O**		C63	6	**E O**		112	12	**E O**		72	12	**E O**	
	69	10	**E O**		C40	5	**E O**		65	10	**E O**		45	8	**E O**	
	55	7	**E O**		C25	4	**E O**		51	7	**E O**		33	6	**E O**	
	44	5	**E O**		C20	3	**E O**		41	5	**E O**		26	4	**E O**	
	78	9	**E O**		C32	4	**E O**		74	9	**E O**		57	9	**E O**	
	78	10	**E O**		C40	5	**E O**		74	10	**E O**		51	8	**E O**	
	44	7	**E O**		C25	4	**E O**		42	7	**E O**		38	6	**E O**	
	99	12	**E O**		C50	6	**E O**		94	12	**E O**		65	12	**E O**	
	55	10	**E O**		C40	5	**E O**		52	10	**E O**		51	8	**E O**	
					C12	3	**E O**									
					C20	3	**E O**						36	5	**E O**	
					C12	2	**E O**									
	88	16	**E O**		C50	6	**E O**		83	16	**E O**		65	16	**E O**	
	88	12	**E O**		C40	4	**E O**		83	12	**E O**		51	12	**E O**	
	110	16	**E O**		C63	7	**E O**		102	16	**E O**		81	16	**E O**	
	88	16	**E O**		C50	6	**E O**		83	16	**E O**		65	16	**E O**	
	110	16	**E O**		C63	7	**E O**		102	16	**E O**		72	16	**E O**	
	88	12	**E O**		C40	4	**E O**		83	12	**E O**		51	12	**E O**	
	99	2	**E O**		C50	5	**E O**		92	2	**E O**		57	12	**E O**	
					C160	9	**E O**	M					225	10	**E O**	M
					C160	9	**E O**	M					225	10	**E O**	M
	225	16	**E O**		C125	9	**E O**	M	205	16	**E O**	M	200	16	**E O**	M
	225	16	**E O**		C100	9	**E O**	M	205	16	**E O**	M	180	16	**E O**	M
	190	12	**E O**		C63	8	**E O**	M	175	12	**E O**	M	144	12	**E O**	M
					C125	9		**M** L								
	185	6	**E O**		C100	6	**E O**		175	6	**E O**		144	6	**E O**	
	165	10	**E O**		C80	8	**E O**		155	10	**E O**		126	10	**E O**	
	205	16	**E O**		C80	8	**E O**		190	16	**E O**		162	16	**E O**	
	68	5	**E O**		C32	3	**E O**		63	5	**E O**		60	5	**E O**	
					C12	2	**E O**									
					C12	2	**E O**									
	35	5	**E O**		C20	3	**E O**		33	5	**E O**		30	5	**E O**	
	27	3	**E O**		C12	2	**E O**		25	3	**E O**		20	3	**E O**	
	22	3	**E O**		C12	1	**E O**		20	3	**E O**		18	3	**E O**	
	30	3	**O E**						28	3	O E		20	3	**O E**	
	110	16	**E O**		C25	12	**E** O		105	16	E O		81	16	**E O**	
				L	C40	8		**L**								
				L	C40	8		**L**								
				L	C40	8		**L**								
				L	C40	8		**L**								
				L	C40	8		**L**								

VCRR: Speed diagram
Solid carbide micro drills



VRR: Feed rate charts for solid carbide and HSS drilling and reaming tools

	Feed f [mm] for diameter [mm]															
VRR	0,05	0,06	0,08	0,1	0,12	0,15	0,2	0,25	0,4	0,5	0,6	0,8	1	1,2	1,5	2
1	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,002	0,002	0,003	0,003	0,004	0,005	0,007
2	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,002	0,003	0,003	0,004	0,005	0,007	0,008	0,010	0,013
3	0,001	0,001	0,001	0,001	0,001	0,002	0,002	0,003	0,004	0,005	0,006	0,008	0,010	0,012	0,015	0,020
4	0,001	0,001	0,001	0,001	0,002	0,002	0,003	0,003	0,005	0,007	0,008	0,011	0,013	0,016	0,020	0,027
5	0,001	0,001	0,001	0,002	0,002	0,003	0,003	0,004	0,007	0,008	0,010	0,013	0,017	0,020	0,025	0,033
6	0,001	0,001	0,002	0,002	0,002	0,003	0,004	0,005	0,008	0,010	0,012	0,016	0,020	0,024	0,030	0,040
7	0,001	0,001	0,002	0,002	0,003	0,004	0,005	0,006	0,009	0,012	0,014	0,019	0,023	0,028	0,035	0,047
8	0,001	0,002	0,002	0,003	0,003	0,004	0,005	0,007	0,011	0,013	0,016	0,021	0,027	0,032	0,040	0,053
9	0,002	0,002	0,002	0,003	0,004	0,005	0,006	0,008	0,012	0,015	0,018	0,024	0,030	0,036	0,045	0,060
10	0,002	0,002	0,003	0,003	0,004	0,005	0,007	0,008	0,013	0,017	0,020	0,027	0,033	0,040	0,050	0,067
12	0,002	0,002	0,003	0,004	0,005	0,006	0,008	0,010	0,016	0,020	0,024	0,032	0,040	0,048	0,060	0,080
16	0,003	0,003	0,004	0,005	0,006	0,008	0,011	0,013	0,021	0,027	0,032	0,043	0,053	0,064	0,080	0,11
20	0,003	0,004	0,005	0,007	0,008	0,010	0,013	0,017	0,027	0,033	0,040	0,053	0,067	0,080	0,10	0,13
25	0,004	0,005	0,007	0,008	0,010	0,013	0,017	0,021	0,033	0,042	0,050	0,067	0,083	0,100	0,125	0,167
30	0,005	0,006	0,008	0,010	0,012	0,015	0,020	0,025	0,040	0,050	0,060	0,080	0,100	0,120	0,150	0,200

	Feed f [mm] for diameter [mm]														
VRR	2,5	4	5	6	8	10	12	15	20	25	40	50	60	80	100
1	0,008	0,013	0,017	0,018	0,021	0,024	0,026	0,029	0,033	0,037	0,047	0,053	0,058	0,067	0,075
2	0,017	0,027	0,033	0,037	0,042	0,047	0,052	0,058	0,067	0,075	0,094	0,11	0,12	0,13	0,15
3	0,025	0,040	0,050	0,055	0,063	0,071	0,077	0,087	0,10	0,11	0,14	0,16	0,17	0,20	0,22
4	0,033	0,053	0,067	0,073	0,084	0,094	0,10	0,12	0,13	0,15	0,19	0,21	0,23	0,27	0,30
5	0,042	0,067	0,083	0,091	0,11	0,12	0,13	0,14	0,17	0,19	0,24	0,26	0,29	0,33	0,37
6	0,050	0,080	0,10	0,11	0,13	0,14	0,15	0,17	0,20	0,22	0,28	0,32	0,35	0,40	0,45
7	0,058	0,093	0,12	0,13	0,15	0,16	0,18	0,20	0,23	0,26	0,33	0,37	0,40	0,47	0,52
8	0,067	0,11	0,13	0,15	0,17	0,19	0,21	0,23	0,27	0,30	0,38	0,42	0,46	0,53	0,60
9	0,075	0,12	0,15	0,16	0,19	0,21	0,23	0,26	0,30	0,34	0,42	0,47	0,52	0,60	0,67
10	0,083	0,13	0,17	0,18	0,21	0,24	0,26	0,29	0,33	0,37	0,47	0,53	0,58	0,67	0,75
12	0,10	0,16	0,20	0,22	0,25	0,28	0,31	0,35	0,40	0,45	0,57	0,63	0,69	0,80	0,89
16	0,13	0,21	0,27	0,29	0,34	0,38	0,41	0,46	0,53	0,60	0,75	0,84	0,92	1,07	1,19
20	0,17	0,27	0,33	0,37	0,42	0,47	0,52	0,58	0,67	0,75	0,94	1,05	1,15	1,33	1,49
25	0,21	0,33	0,42	0,46	0,53	0,59	0,65	0,72	0,83	0,93	1,18	1,32	1,44	1,67	1,86
30	0,25	0,40	0,50	0,55	0,63	0,71	0,77	0,87	1,00	1,12	1,41	1,58	1,73	2,00	2,24

Grade description

B1

Coated carbide

Walter grade description	Standard designation	Materials P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Application range	Coating process	Coating composition	Tool example
WJ30EJ	HC – P 30	●●							01 05 10 15 20 25 30 35 40 45	PVD	Tinal/AlCrN multi-layer coating	
	HC – K 30			●●								
WJ30RE	HC – 30	●●	●●	●●	●●	●●	●	●●		PVD	Tinal multi-layer coating	
WJ30TA	HC – 30	●●	●●	●●	●●	●●	●	●●		PVD	Tinal multi-layer coating with post-treatment	
WJ30EL	HC – 30	●●		●●	●●	●	●	●		PVD	AlCrN single-layer coating	
WJ30ER	HC – 30	●●		●●	●●	●	●	●		PVD	AlCrN single-layer point coating	
WJ30ET	HC – 30	●●	●	●●	●●	●●	●	●		PVD	TiSiAlCrN/ AlTiN multi-layer coating	
WJ30EU	HC – 30	●●	●	●●	●●	●●	●	●		PVD	TiSiAlCrN/ AlTiN multi-layer coating point coating	
WJ30UU	HW – 30	●●	●●	●●	●●	●●		●●		Uncoated		

HC = Coated carbide
HW = Uncoated carbide

●● Primary application
● Additional application

Cutting data for D4140

= Wet machining (E = emulsion, O = oil)

= Dry machining possible (M = MQL, L = dry)
Cutting data must be selected from Walter GPS

v_c = Cutting speed
VRR = Feed rate chart from page 286 onwards

* The classification of the machining groups can be found in the material group comparison table

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *	Drilling depth							
							2,5 × D_c							
							Designation							
							Dia. range [mm]							
														
							 P6001 WPP45C				 P6003 WMP35			
							v_c	VRR			v_c	VRR		
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	120	7	E O		120	7	E O	
		C > 0.25 ... ≤ 0.55%	Annealed	190	640	P2	120	7	E O		120	7	E O	
		C > 0.25 ... ≤ 0.55%	Heat-treated	210	710	P3	120	7	E O		120	7	E O	
		C > 0.55%	Annealed	190	640	P4	110	6	E O		110	6	E O	
		C > 0.55%	Heat-treated	300	1010	P5	90	7	E O		90	7	E O	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	120	7	E O		120	7	E O	
	Low-alloy steel	Annealed		175	590	P7	120	7	E O		120	7	E O	
		Heat-treated		285	960	P8	71	7	E O		71	7	E O	
		Heat-treated		380	1280	P9	32	3	O E		32	3	O E	
		Heat-treated		430	1480	P10								
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	90	6	E O		90	6	E O	
		Hardened and tempered		300	1010	P12	90	7	E O		90	7	E O	
		Hardened and tempered		380	1280	P13	63	5	E O		63	5	E O	
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	100	7	E O		100	7	E O	
		Martensitic, heat-treated		330	1110	P15	80	7	E O		80	7	E O	
M	Stainless steel	Austenitic, quench hardened		200	680	M1					71	4	E O	
		Austenitic, precipitation hardened (PH)		300	1010	M2								
		Austenitic/ferritic, duplex		230	780	M3					32	5	E O	
K	Malleable cast iron	Ferritic		200	400	K1	120	8	E O		120	8	E O	
		Pearlitic		260	700	K2	120	8	E O		120	8	E O	
	Grey cast iron	Low tensile strength		180	200	K3	140	9	E O		140	9	E O	
		High tensile strength/austenitic		245	350	K4	140	9	E O		140	9	E O	
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	140	8	E O		140	8	E O	
		Pearlitic		265	700	K6	120	8	E O		120	8	E O	
	GGV (CGI)			230	400	K7	110	7	E O		110	7	E O	
N	Wrought aluminium alloys	Not hardenable		30	–	N1								
		Hardenable, hardened		100	340	N2								
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3								
		≤ 12% Si, hardenable, hardened		90	310	N4								
		> 12% Si, not hardenable		130	450	N5								
	Magnesium alloys			70	250	N6								
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7								
		Brass, bronze, red brass		90	310	N8								
		Cu alloys, short-chipping		110	380	N9								
		High-tensile, Ampco		300	1010	N10								
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1					56	3	E O	
			Hardened	280	940	S2								
		Ni- or Co-based	Annealed	250	840	S3					32	5	E O	
			Hardened	350	1180	S4					12	2	E O	
			Cast	320	1080	S5					20	5	E O	
	Titanium alloys	Pure titanium		200	680	S6					71	4	E O	
		α and β alloys, hardened		375	1260	S7					63	4	E O	
		β alloys		410	1400	S8					63	3	E O	
	Tungsten alloys			300	1010	S9					20	5	E O	
	Molybdenum alloys			300	1010	S10					20	5	E O	
H	Hardened steel	Hardened and tempered		50 HRC	–	H1								
		Hardened and tempered		55 HRC	–	H2								
		Hardened and tempered		60 HRC	–	H3								
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4								
O	Thermoplastics	Without abrasive fillers				O1								
	Thermosets	Without abrasive fillers				O2								
	Plastic, glass-fibre-reinforced	GFRP				O3								
	Plastic, carbon-fibre-reinforced	CFRP				O4								
	Plastic, aramid-fibre-reinforced	AFRP				O5								
	Graphite (technical)			80 Shore		O6								

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

	2,5 × D_c								1,3 × D_c															
	D4240								D4140															
	12–29,99								12–25,99															
																								
	 P6004 WXK25				 P6005 WKK45C				 P6001 WPP45C				 P6003 WMP35				 P6004 WXK25				 P6005 WKK45C			
	vc	VRR			vc	VRR			vc	VRR			vc	VRR			vc	VRR			vc	VRR		
									120	7	E	O	120	7	E	O								
									120	7	E	O	120	7	E	O								
									120	7	E	O	120	7	E	O								
									110	6	E	O	110	6	E	O								
									90	7	E	O	90	7	E	O								
									120	7	E	O	120	7	E	O								
									120	7	E	O	120	7	E	O								
									71	7	E	O	71	7	E	O								
									32	3	O	E	32	3	O	E								
									90	6	E	O	90	6	E	O								
									90	7	E	O	90	7	E	O								
									63	5	E	O	63	5	E	O								
									100	7	E	O	100	7	E	O								
									80	7	E	O	80	7	E	O								
													71	4	E	O								
													32	5	E	O								
					120	8	E	O	120	8	E	O	120	8	E	O					120	8	E	O
					110	8	E	O	120	8	E	O	120	8	E	O					110	8	E	O
					160	9	E	O	140	9	E	O	140	9	E	O					160	9	E	O
					160	9	E	O	140	9	E	O	140	9	E	O					160	9	E	O
					140	8	E	O	140	8	E	O	140	8	E	O					140	8	E	O
					110	8	E	O	120	8	E	O	120	8	E	O					110	8	E	O
					110	7	E	O	110	7	E	O	110	7	E	O					110	7	E	O
	320	16	E	O													320	16	E	O				
	320	16	E	O													320	16	E	O				
	400	9	E	O	M												400	9	E	O	M			
	320	9	E	O	M												320	9	E	O	M			
	220	9	E	O	M												220	9	E	O	M			
	120	4	E	O													120	4	E	O				
	250	10	E	O													250	10	E	O				
	250	10	E	O													250	10	E	O				
	90	5	E	O													90	5	E	O				
													56	3	E	O								
													32	5	E	O								
													12	2	E	O								
													20	5	E	O								
													71	4	E	O								
													63	4	E	O								
													63	3	E	O								
													20	5	E	O								
													20	5	E	O								

HC = Coated carbide

Cutting data for D4140

= Wet machining (E = emulsion, O = oil)

= Dry machining possible (M = MQL, L = dry)
Cutting data must be selected from Walter GPS

v_c = Cutting speed
VRR = Feed rate chart from page 286 onwards

* The classification of the machining groups can be found in the material group comparison table

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *	P6001 WPP45C vc	P6001 WPP45C VRR	P6001 WPP45C	P6001 WPP45C	P6003 WMP35 vc	P6003 WMP35 VRR	P6003 WMP35	P6003 WMP35
	Drilling depth						3 × D_c							
	Designation						D4140							
	Dia. range [mm]						12–37,99							
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	110	7	E O		110	7	E O	
		C > 0.25 ... ≤ 0.55%	Annealed	190	640	P2	110	7	E O		110	7	E O	
		C > 0.25 ... ≤ 0.55%	Heat-treated	210	710	P3	100	7	E O		100	7	E O	
		C > 0.55%	Annealed	190	640	P4	100	6	E O		100	6	E O	
		C > 0.55%	Heat-treated	300	1010	P5	80	7	E O		80	7	E O	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	110	7	E O		110	7	E O	
	Low-alloy steel	Annealed		175	590	P7	110	7	E O		110	7	E O	
		Heat-treated		285	960	P8	71	7	E O		71	7	E O	
		Heat-treated		380	1280	P9	32	3	O E		32	3	O E	
		Heat-treated		430	1480	P10								
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	80	6	E O		80	6	E O	
		Hardened and tempered		300	1010	P12	80	7	E O		80	7	E O	
		Hardened and tempered		380	1280	P13	63	5	E O		63	5	E O	
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	90	7	E O		90	7	E O	
		Martensitic, heat-treated		330	1110	P15	71	7	E O		71	7	E O	
M	Stainless steel	Austenitic, quench hardened		200	680	M1					63	4	E O	
		Austenitic, precipitation hardened (PH)		300	1010	M2								
		Austenitic/ferritic, duplex		230	780	M3					28	5	E O	
K	Malleable cast iron	Ferritic		200	400	K1	110	8	E O		110	8	E O	
		Pearlitic		260	700	K2	110	8	E O		110	8	E O	
	Grey cast iron	Low tensile strength		180	200	K3	140	9	E O		140	9	E O	
		High tensile strength/austenitic		245	350	K4	120	9	E O		120	9	E O	
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	120	8	E O		120	8	E O	
		Pearlitic		265	700	K6	110	8	E O		110	8	E O	
	GGV (CGI)			230	400	K7	110	7	E O		110	7	E O	
N	Wrought aluminium alloys	Not hardenable		30	–	N1								
		Hardenable, hardened		100	340	N2								
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3								
		≤ 12% Si, hardenable, hardened		90	310	N4								
		> 12% Si, not hardenable		130	450	N5								
	Magnesium alloys			70	250	N6								
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7								
		Brass, bronze, red brass		90	310	N8								
		Cu alloys, short-chipping		110	380	N9								
		High-tensile, Ampco		300	1010	N10								
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1					50	3	E O	
			Hardened	280	940	S2								
		Ni- or Co-based	Annealed	250	840	S3					28	5	E O	
			Hardened	350	1180	S4					11	2	E O	
			Cast	320	1080	S5					18	5	E O	
	Titanium alloys	Pure titanium		200	680	S6					63	4	E O	
		α and β alloys, hardened		375	1260	S7					56	4	E O	
		β alloys		410	1400	S8					56	3	E O	
	Tungsten alloys			300	1010	S9					18	5	E O	
	Molybdenum alloys			300	1010	S10					18	5	E O	
H	Hardened steel	Hardened and tempered		50 HRC	–	H1								
		Hardened and tempered		55 HRC	–	H2								
		Hardened and tempered		60 HRC	–	H3								
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4								
O	Thermoplastics	Without abrasive fillers				O1								
	Thermosets	Without abrasive fillers				O2								
	Plastic, glass-fibre-reinforced	GFRP				O3								
	Plastic, carbon-fibre-reinforced	CFRP				O4								
	Plastic, aramid-fibre-reinforced	AFRP				O5								
	Graphite (technical)			80 Shore		O6								

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

	3×D_c								5×D_c															
	D4140								D4140															
	12–37,99								12–37,99															
																								
	 P6004 WXK25				 P6005 WKK45C				 P6001 WPP45C				 P6003 WMP35				 P6004 WXK25				 P6005 WKK45C			
	vc	VRR			vc	VRR			vc	VRR			vc	VRR			vc	VRR			vc	VRR		
									100	7	E O		100	7	E O									
									100	7	E O		100	7	E O									
									100	7	E O		100	7	E O									
									90	6	E O		90	6	E O									
									71	7	E O		71	7	E O									
									100	7	E O		100	7	E O									
									100	7	E O													
									63	7	E O		63	7	E O									
									32	3	O E		32	3	O E									
									80	6	E O		80	6	E O									
									71	7	E O		71	7	E O									
									63	5	E O		63	5	E O									
									90	7	E O		90	7	E O									
									71	7	E O		71	7	E O									
													63	4	E O									
													28	5	E O									
					110	8	E O		110	8	E O		110	8	E O						110	8	E O	
					100	8	E O		110	8	E O		110	8	E O						100	8	E O	
					160	9	E O		140	9	E O		140	9	E O						160	9	E O	
					140	9	E O		120	9	E O		120	9	E O						140	9	E O	
					120	8	E O		120	8	E O		120	8	E O						120	8	E O	
					100	8	E O		110	8	E O		110	8	E O						100	8	E O	
					100	7	E O		110	7	E O		110	7	E O						100	7	E O	
	250	16	E O														250	16	E O					
	250	16	E O														250	16	E O					
	400	9	E O	M													360	9	E O	M				
	320	9	E O	M													320	9	E O	M				
	200	9	E O	M													200	9	E O	M				
	110	4	E O														110	4	E O					
	220	10	E O														220	10	E O					
	220	10	E O														220	10	E O					
	80	5	E O														71	5	E O					
													50	3	E O									
													25	5	E O									
													10	2	E O									
													18	5	E O									
													63	4	E O									
													50	4	E O									
													50	3	E O									
													18	5	E O									
													18	5	E O									

HC = Coated carbide

Cutting data for D4140

= Wet machining (E = emulsion, O = oil)

= Dry machining possible (M = MQL, L = dry)
Cutting data must be selected from Walter GPS

v_c = Cutting speed
VRR = Feed rate chart from page 286 onwards

* The classification of the machining groups can be found in the material group comparison table

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *	P6001 WPP45C vc	P6001 WPP45C VRR	P6001 WPP45C	P6001 WPP45C	P6003 WMP35 vc	P6003 WMP35 VRR	P6003 WMP35	P6003 WMP35
	Drilling depth						7 × D_c							
	Designation						D4140							
	Dia. range [mm]						12–37,99							
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	100	7	E O		100	7	E O	
		C > 0.25 ... ≤ 0.55%	Annealed	190	640	P2	100	7	E O		100	7	E O	
		C > 0.25 ... ≤ 0.55%	Heat-treated	210	710	P3	100	7	E O		100	7	E O	
		C > 0.55%	Annealed	190	640	P4	90	6	E O		90	6	E O	
		C > 0.55%	Heat-treated	300	1010	P5	71	7	E O		71	7	E O	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	100	7	E O		100	7	E O	
	Low-alloy steel	Annealed		175	590	P7	100	7	E O		100	7	E O	
		Heat-treated		285	960	P8	63	7	E O		63	7	E O	
		Heat-treated		380	1280	P9	32	3	O E		32	3	O E	
		Heat-treated		430	1480	P10								
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	80	6	E O		80	6	E O	
		Hardened and tempered		300	1010	P12	71	7	E O		71	7	E O	
		Hardened and tempered		380	1280	P13	63	5	E O		63	5	E O	
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	90	7	E O		90	7	E O	
		Martensitic, heat-treated		330	1110	P15	71	7	E O		71	7	E O	
M	Stainless steel	Austenitic, quench hardened		200	680	M1					63	4	E O	
		Austenitic, precipitation hardened (PH)		300	1010	M2								
		Austenitic/ferritic, duplex		230	780	M3					28	5	E O	
K	Malleable cast iron	Ferritic		200	400	K1	110	8	E O		110	8	E O	
		Pearlitic		260	700	K2	110	8	E O		110	8	E O	
	Grey cast iron	Low tensile strength		180	200	K3	120	9	E O		120	9	E O	
		High tensile strength/austenitic		245	350	K4	120	9	E O		120	9	E O	
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	120	8	E O		120	8	E O	
		Pearlitic		265	700	K6	110	8	E O		110	8	E O	
	GGV (CGI)			230	400	K7	110	7	E O		110	7	E O	
N	Wrought aluminium alloys	Not hardenable		30	–	N1								
		Hardenable, hardened		100	340	N2								
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3								
		≤ 12% Si, hardenable, hardened		90	310	N4								
		> 12% Si, not hardenable		130	450	N5								
	Magnesium alloys			70	250	N6								
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7								
		Brass, bronze, red brass		90	310	N8								
		Cu alloys, short-chipping		110	380	N9								
		High-tensile, Ampco		300	1010	N10								
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1					50	3	E O	
			Hardened	280	940	S2								
		Ni- or Co-based	Annealed	250	840	S3					25	5	E O	
			Hardened	350	1180	S4					10	2	E O	
			Cast	320	1080	S5					18	5	E O	
	Titanium alloys	Pure titanium		200	680	S6					63	4	E O	
		α and β alloys, hardened		375	1260	S7					50	4	E O	
		β alloys		410	1400	S8					50	3	E O	
	Tungsten alloys			300	1010	S9					18	5	E O	
	Molybdenum alloys			300	1010	S10					18	5	E O	
H	Hardened steel	Hardened and tempered		50 HRC	–	H1								
		Hardened and tempered		55 HRC	–	H2								
		Hardened and tempered		60 HRC	–	H3								
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4								
O	Thermoplastics	Without abrasive fillers				O1								
	Thermosets	Without abrasive fillers				O2								
	Plastic, glass-fibre-reinforced	GFRP				O3								
	Plastic, carbon-fibre-reinforced	CFRP				O4								
	Plastic, aramid-fibre-reinforced	AFRP				O5								
	Graphite (technical)			80 Shore		O6								

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

	7×D_c								10×D_c															
	D4140								D4140															
	12–31								18–24,7															
																								
	 P6004 WXK25				 P6005 WKK45C				 P6001 WPP45C				 P6003 WMP35				 P6004 WXK25				 P6005 WKK45C			
	vc	VRR			vc	VRR			vc	VRR			vc	VRR			vc	VRR			vc	VRR		
									90	7	E O		90	7	E O									
									90	7	E O		90	7	E O									
									80	7	E O		80	7	E O									
									80	6	E O		80	6	E O									
									63	7	E O		63	7	E O									
									90	7	E O		90	7	E O									
													90	7	E O									
									56	7	E O		56	7	E O									
									32	3	O E		32	3	O E									
									63	6	E O		63	6	E O									
									63	7	E O		63	7	E O									
									63	5	E O		63	5	E O									
									71	7	E O		71	7	E O									
									56	7	E O		56	7	E O									
													50	4	E O									
													25	5	E O									
					110	8	E O		100	8	E O		100	8	E O						100	8	E O	
					100	8	E O		100	8	E O		100	8	E O						90	8	E O	
					140	9	E O		120	9	E O		120	9	E O						140	9	E O	
					140	9	E O		110	9	E O		110	9	E O						120	9	E O	
					120	8	E O		110	8	E O		110	8	E O						110	8	E O	
					100	8	E O		100	8	E O		100	8	E O						90	8	E O	
					100	7	E O		100	7	E O		100	7	E O						90	7	E O	
	220	16	E O														160	16	E O					
	220	16	E O														160	16	E O					
	360	9	E O	M																				
	280	9	E O	M													200	9	E O	M				
	200	9	E O	M													180	9	E O	M				
	110	4	E O														100	4	E O					
	220	10	E O														200	10	E O					
	220	10	E O														200	10	E O					
	71	5	E O														63	5	E O					
													40	3	E O									
													22	5	E O									
													9	2	E O									
													14	5	E O									
													50	4	E O									
													45	4	E O									
													45	3	E O									
													14	5	E O									
													14	5	E O									

Cutting data for D4120

= Wet machining (E = emulsion, O = oil)

= Dry machining possible (M = MQL, L = dry)
Cutting data must be selected from Walter GPS

* The classification of the machining groups can be found in the material group comparison table

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *			Indexable insert geometry — Starting values for feed f [mm/rev] — A 57 — D_c [mm]					
									Grade 1 — 13,5–16,4	Grade 2 — 16,5–20,4	Grade 3 — 20,5–24,4	Grade 4 — 24,5–29,4	Grade 5 Grade 6 — 29,5–42,4	Grade 7 Grade 8 — 42,5–59,4
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●		0,05	0,06	0,06	0,09	0,12	0,13
		C > 0.25 ... ≤ 0.55%	Annealed	190	640	P2	●●		0,07	0,09	0,10	0,13	0,18	0,19
		C > 0.25 ... ≤ 0.55%	Heat-treated	210	710	P3	●●		0,07	0,09	0,10	0,13	0,18	0,19
		C > 0.55%	Annealed	190	640	P4	●●		0,07	0,09	0,10	0,13	0,18	0,19,
		C > 0.55%	Heat-treated	300	1010	P5	●●		0,07	0,09	0,10	0,13	0,18	0,19
		Free-machining steel (short-chipping)	Annealed	220	750	P6	●●	●	0,07	0,09	0,10	0,13	0,18	0,19,
	Low-alloy steel	Annealed		175	590	P7	●●		0,08	0,10	0,12	0,15	0,20	0,21
		Heat-treated		285	960	P8	●●		0,07	0,09	0,10	0,13	0,15	0,16
		Heat-treated		380	1280	P9	●●		0,07	0,09	0,10	0,13	0,15	0,16
		Heat-treated		430	1480	P10	●●		0,05	0,06	0,06	0,09	0,12	0,13
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	●●		0,08	0,10	0,12	0,15	0,18	0,19
		Hardened and tempered		300	1010	P12	●●		0,07	0,09	0,10	0,13	0,15	0,16
		Hardened and tempered		380	1280	P13	●●		0,06	0,08	0,09	0,12	0,14	0,15
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●●		0,07	0,09	0,10	0,13	0,15	0,16
		Martensitic, heat-treated		330	1110	P15	●●		0,06	0,08	0,09	0,12	0,14	0,15
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●		0,06	0,07	0,08	0,10	0,13	0,14
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●		0,06	0,07	0,08	0,10	0,13	0,14
		Austenitic/ferritic, duplex		230	780	M3	●●		0,06	0,07	0,08	0,10	0,13	0,14
K	Malleable cast iron	Ferritic		200	400	K1	●●	●	0,09	0,12	0,14	0,17	0,22	0,23
		Pearlitic		260	700	K2	●●	●	0,07	0,09	0,11	0,14	0,19	0,20
	Grey cast iron	Low tensile strength		180	200	K3	●●	●	0,10	0,13	0,15	0,18	0,23	0,24
		High tensile strength/austenitic		245	350	K4	●●	●	0,08	0,10	0,12	0,15	0,20	0,21
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●	●	0,10	0,13	0,15	0,18	0,23	0,24
		Pearlitic		265	700	K6	●●		0,08	0,10	0,12	0,18	0,23	0,24
	GGV (CGI)			230	400	K7	●●	●	0,09	0,12	0,14	0,17	0,22	0,23
N	Wrought aluminium alloys	Not hardenable		30	–	N1								
		Hardenable, hardened		100	340	N2	●●							
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●							
		≤ 12% Si, hardenable, hardened		90	310	N4	●●							
		> 12% Si, not hardenable		130	450	N5	●●	●						
	Magnesium alloys			70	250	N6	●●							
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7								
		Brass, bronze, red brass		90	310	N8	●●							
		Cu alloys, short-chipping		110	380	N9	●●	●						
		High-tensile, Ampco		300	1010	N10	●●	●	0,06	0,07	0,08	0,10	0,13	0,14
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●							
			Hardened	280	940	S2	●●							
		Ni- or Co-based	Annealed	250	840	S3	●●							
			Hardened	350	1180	S4	●●							
			Cast	320	1080	S5	●●							
	Titanium alloys	Pure titanium		200	680	S6								
		α and β alloys, hardened		375	1260	S7	●●							
		β alloys		410	1400	S8	●●							
	Tungsten alloys			300	1010	S9	●●		0,05	0,06	0,06	0,09	0,11	0,12
	Molybdenum alloys			300	1010	S10	●●		0,05	0,06	0,06	0,09	0,11	0,12
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	●●		0,05	0,06	0,06	0,09	0,10	0,10
		Hardened and tempered		55 HRC	–	H2	●●		0,05	0,06	0,06	0,09	0,10	0,10
		Hardened and tempered		60 HRC	–	H3								
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	●●		0,05	0,06	0,06	0,09	0,10	0,10
O	Thermoplastics	Without abrasive fillers				O1	●●	●						
	Thermosets	Without abrasive fillers				O2	●●	●						
	Plastic, glass-fibre-reinforced	GFRP				O3								
	Plastic, carbon-fibre-reinforced	CFRP				O4								
	Plastic, aramid-fibre-reinforced	AFRP				O5								
	Graphite (technical)			80 Shore		O6	●●	●	0,09	0,12	0,14	0,17	0,22	0,23

●● Recommended application (the specified cutting data is regarded as starting values for the recommended application)
● Possible application. Limited to 2 × D_c drilling depth. MQL (minimum quantity lubrication) or compressed air is recommended.

When using drills > 3 × D_c, the following reductions are recommended:
> 3 × D_c: Cutting speed v_c - 20%, feed f - 30% when spot drilling, feed f - 50% when spot drilling on inclined surfaces.
> 4 × D_c: Cutting speed v_c - 30%, feed f - 40% when spot drilling.

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

Indexable insert geometry													Cutting material grade Outer insert [P484.P..]								
Starting values for feed f [mm/rev]													Starting values for cutting speed v_c [m/min]								
E 57							E 67						HC								
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5 Grade 6	Grade 7 Grade 8		Grade 1	Grade 2	Grade 3	Grade 4	Grade 5 Grade 6	Grade 7 Grade 8	WKP25S f [mm/rev]			WKP35S f [mm/rev]			WSP45 f [mm/rev]		
D_c [mm]							D_c [mm]														
13,5–16,4	16,5–20,4	20,5–24,4	24,5–29,4	29,5–42,4	42,5–59,4		13,5–16,4	16,5–20,4	20,5–24,4	24,5–29,4	29,5–42,4	42,5–59,4	0,06	0,10	0,16	0,06	0,10	0,16	0,06	0,10	0,16
0,05	0,06	0,06	0,09	0,12	0,13		0,05	0,06	0,06	0,09	0,12	0,13	350	320		300	270		250	220	
0,06	0,07	0,08	0,11	0,17	0,18		0,06	0,07	0,08	0,11	0,17	0,18	260	240	220	220	200	180	170	160	150
0,06	0,07	0,08	0,11	0,17	0,18								240	220	200	200	180	150	150	140	130
0,06	0,07	0,08	0,11	0,17	0,18								220	200	180	180	150	140	140	130	120
0,06	0,07	0,08	0,11	0,17	0,18								190	170	150	150	130	120	130	120	110
0,06	0,07	0,08	0,11	0,17	0,18								220	200	180	180	150	140	140	130	120
0,06	0,08	0,10	0,13	0,19	0,20		0,06	0,08	0,10	0,14	0,20	0,21	260	240	220	220	200	180	170	160	160
0,06	0,07	0,08	0,11	0,14	0,15								230	210	190	190	170	140	140	130	120
0,06	0,07	0,08	0,11	0,14	0,15								210	190	170	180	160	130	140	120	110
0,05	0,06	0,06	0,09	0,11	0,12								190	170	160	170	140	130	140	120	110
0,06	0,08	0,10	0,13	0,17	0,18		0,06	0,08	0,10	0,12	0,16	0,17	220	200	180	200	170	150	140	130	120
0,06	0,07	0,08	0,11	0,14	0,15								200	170	150	180	140	130	130	120	110
0,05	0,06	0,07	0,10	0,13	0,14								190	160	140	170	130	120	120	110	100
0,06	0,07	0,08	0,11	0,14	0,15		0,06	0,07	0,08	0,11	0,14	0,15				190	170	150	140	130	120
0,05	0,06	0,07	0,10	0,13	0,14		0,05	0,06	0,07	0,10	0,13	0,15				150	130	120	120	110	100
0,06	0,07	0,08	0,10	0,13	0,14		0,06	0,07	0,09	0,12	0,14	0,15				220	200	180	180	170	150
0,06	0,07	0,08	0,10	0,13	0,14		0,06	0,07	0,09	0,12	0,14	0,15				150	130	110	130	110	100
0,06	0,07	0,08	0,10	0,13	0,14		0,06	0,07	0,09	0,12	0,14	0,15				120	100	80	100	80	70
0,07	0,09	0,11	0,14	0,21	0,22		0,07	0,09	0,11	0,14	0,21	0,22	210	190	170	190	180	160	170	140	120
0,05	0,07	0,08	0,11	0,18	0,19		0,05	0,07	0,09				190	140	120	130	120	110	130	120	110
0,08	0,10	0,12	0,15	0,22	0,23		0,08	0,10	0,12	0,15	0,22	0,23	220	200	180	200	190	170	180	160	130
0,06	0,08	0,09	0,12	0,19	0,20								180	150	130	150	130	110	150	130	110
0,08	0,10	0,12	0,15	0,22	0,23		0,08	0,10	0,12	0,15	0,22	0,23	150	140	130	140	120	110	150	130	120
0,06	0,08	0,09	0,12	0,22	0,23		0,06	0,08					140	130	120	120	110	100	120	110	110
0,07	0,09	0,11	0,14	0,21	0,22		0,07	0,09	0,11	0,14	0,21	0,22	180	150	130	150	130	110	150	130	110
0,07	0,09	0,10	0,12	0,17	0,18		0,07	0,09	0,11	0,12	0,17	0,18							450	450	450
0,08	0,10	0,12	0,15	0,17	0,18		0,08	0,10	0,12	0,15	0,17	0,18							300	300	300
0,08	0,10	0,12	0,15	0,17	0,18		0,08	0,10	0,12	0,15	0,17	0,18							250	250	250
0,08	0,10	0,12	0,15	0,17	0,18		0,08	0,10	0,12	0,15	0,17	0,18							200	200	200
0,08	0,10	0,12	0,15	0,17	0,18		0,08	0,10	0,12	0,15	0,17	0,18							300	300	300
0,10	0,12	0,14	0,17	0,22	0,23		0,10	0,12	0,14	0,17	0,22	0,23							300	250	200
0,10	0,12	0,14	0,17	0,22	0,23		0,10	0,12	0,14	0,17	0,22	0,23							350	300	250
0,06	0,07	0,08	0,10	0,13	0,14		0,06	0,07	0,09	0,12	0,14	0,15				150	130	110	130	110	100
0,05	0,06	0,07	0,10	0,13	0,14		0,05	0,06	0,07	0,10	0,13	0,14	100	100		100	100		90	90	
0,05	0,06	0,06	0,09	0,11	0,12		0,05	0,06	0,06	0,09	0,11	0,12	80	80		80	80		70	70	
0,05	0,06	0,07	0,10	0,12	0,13		0,05	0,06	0,07	0,10	0,12	0,13	60	60		60	60		50	50	
0,05	0,06	0,06	0,09	0,11	0,12		0,05	0,06	0,06	0,09	0,11	0,12	50	50		50	50		40	40	
0,05	0,06	0,06	0,09	0,11	0,12		0,05	0,06	0,06	0,09	0,11	0,12	50	50		50	50		40	40	
0,05	0,06	0,07	0,10	0,12	0,13		0,05	0,06	0,07	0,10	0,12	0,13				50	50		50	45	
0,05	0,06	0,06	0,09	0,11	0,12		0,05	0,06	0,06	0,09	0,11	0,12				50	50		40	40	
0,05	0,06	0,06	0,09	0,11	0,12		0,05	0,06	0,06	0,09	0,11	0,12	70	60							
0,05	0,06	0,06	0,09	0,11	0,12		0,05	0,06	0,06	0,09	0,11	0,12	70	60							
0,05	0,06	0,06	0,09	0,10	0,10								70	60	50						
0,05	0,06	0,06	0,09	0,10	0,10								60	50	50						
0,05	0,06	0,06	0,09	0,10	0,10								60	50	50						
0,16	0,18	0,20	0,25	0,30	0,30		0,16	0,18	0,20	0,25	0,30	0,30				400	400	400	400	400	400
0,12	0,14	0,18	0,20	0,25	0,25		0,12	0,14	0,18	0,20	0,25	0,25	300	300	300	300	300	300	300	300	300
0,07	0,09	0,11	0,14	0,21	0,22								300	250	200	250	200	150	250	200	150

HC = Coated carbide

Cutting data for D3120

= Wet machining (E = emulsion, O = oil)

= Dry machining possible (M = MQL, L = dry)
Cutting data must be selected from Walter GPS

* The classification of the machining groups can be found in the material group comparison table

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *			Indexable insert geometry Starting values for feed f [mm/rev] A 57 Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
									D_c [mm]				
									16–20	21–25	26–30	31–36	37–42
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●		0,05	0,06	0,06	0,09	0,12
		C > 0.25 ... ≤ 0.55%	Annealed	190	640	P2	●●		0,07	0,09	0,10	0,13	0,18
		C > 0.25 ... ≤ 0.55%	Heat-treated	210	710	P3	●●		0,07	0,09	0,10	0,13	0,18
		C > 0.55%	Annealed	190	640	P4	●●		0,07	0,09	0,10	0,13	0,18
		C > 0.55%	Heat-treated	300	1010	P5	●●		0,07	0,09	0,10	0,13	0,18
		Free-machining steel (short-chipping)	Annealed	220	750	P6	●●	●	0,07	0,09	0,10	0,13	0,18
	Low-alloy steel	Annealed		175	590	P7	●●		0,08	0,10	0,12	0,15	0,20
		Heat-treated		285	960	P8	●●		0,07	0,09	0,10	0,13	0,15
		Heat-treated		380	1280	P9	●●		0,07	0,09	0,10	0,13	0,15
		Heat-treated		430	1480	P10	●●		0,05	0,06	0,06	0,09	0,12
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	●●		0,08	0,10	0,12	0,15	0,18
		Hardened and tempered		300	1010	P12	●●		0,07	0,09	0,10	0,13	0,15
		Hardened and tempered		380	1280	P13	●●		0,06	0,08	0,09	0,12	0,14
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●●		0,07	0,09	0,10	0,13	0,15
		Martensitic, heat-treated		330	1110	P15	●●		0,06	0,08	0,09	0,12	0,14
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●		0,06	0,07	0,08	0,10	0,13
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●		0,06	0,07	0,08	0,10	0,13
		Austenitic/ferritic, duplex		230	780	M3	●●		0,06	0,07	0,08	0,10	0,13
K	Malleable cast iron	Ferritic		200	400	K1	●●	●	0,09	0,12	0,14	0,17	0,22
		Pearlitic		260	700	K2	●●	●	0,07	0,09	0,11	0,14	0,19
	Grey cast iron	Low tensile strength		180	200	K3	●●	●	0,10	0,13	0,15	0,18	0,23
		High tensile strength/austenitic		245	350	K4	●●	●	0,08	0,10	0,12	0,15	0,20
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●	●	0,10	0,13	0,15	0,18	0,23
		Pearlitic		265	700	K6	●●		0,08	0,10	0,12	0,18	0,23
	GGV (CGI)			230	400	K7	●●	●	0,09	0,12	0,14	0,17	0,22
N	Wrought aluminium alloys	Not hardenable		30	–	N1							
		Hardenable, hardened		100	340	N2	●●						
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●						
		≤ 12% Si, hardenable, hardened		90	310	N4	●●						
		> 12% Si, not hardenable		130	450	N5	●●	●					
	Magnesium alloys			70	250	N6	●●						
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7							
		Brass, bronze, red brass		90	310	N8	●●						
		Cu alloys, short-chipping		110	380	N9	●●	●					
		High-tensile, Ampco		300	1010	N10	●●	●	0,06	0,07	0,08	0,10	0,13
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●						
			Hardened	280	940	S2	●●						
		Ni- or Co-based	Annealed	250	840	S3	●●						
			Hardened	350	1180	S4	●●						
			Cast	320	1080	S5	●●						
	Titanium alloys	Pure titanium		200	680	S6							
		α and β alloys, hardened		375	1260	S7	●●						
		β alloys		410	1400	S8	●●						
	Tungsten alloys			300	1010	S9	●●		0,05	0,06	0,06	0,09	0,11
	Molybdenum alloys			300	1010	S10	●●		0,05	0,06	0,06	0,09	0,11
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	●●		0,05	0,06	0,06	0,09	0,10
		Hardened and tempered		55 HRC	–	H2	●●		0,05	0,06	0,06	0,09	0,10
		Hardened and tempered		60 HRC	–	H3							
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	●●		0,05	0,06	0,06	0,09	0,10
O	Thermoplastics	Without abrasive fillers				O1	●●	●					
	Thermosets	Without abrasive fillers				O2	●●	●					
	Plastic, glass-fibre-reinforced	GFRP				O3							
	Plastic, carbon-fibre-reinforced	CFRP				O4							
	Plastic, aramid-fibre-reinforced	AFRP				O5							
	Graphite (technical)			80 Shore		O6	●●	●	0,09	0,12	0,14	0,17	0,22

●● Recommended application (the specified cutting data is regarded as starting values for the recommended application)
● Possible application, limited to 2 × D_c drilling depth, MQL (minimum quantity lubrication) or compressed air is recommended.

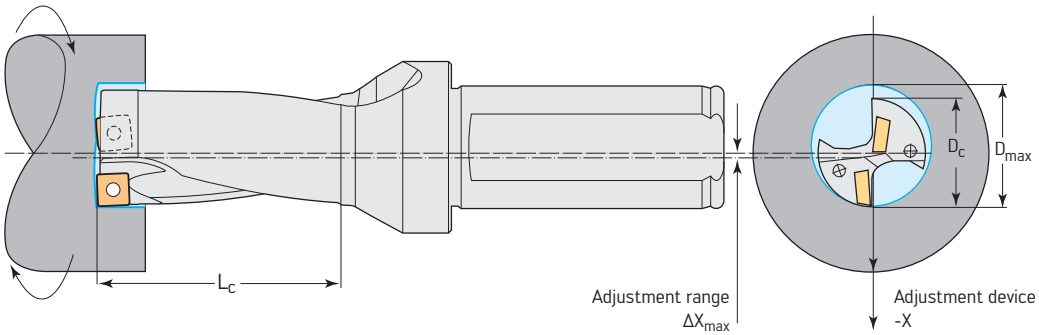
When using drills > 3 × D, the following reductions are recommended:
> 3 × D: Cutting speed v_c –20%, feed f –30% when spot drilling, feed f –50% when spot drilling on inclined surfaces.
> 4 × D: Cutting speed v_c –30%, feed f –40% when spot drilling.

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

Indexable insert geometry											Cutting material grade															
Starting values for feed f [mm/rev]											Starting values for cutting speed v_c [m/min]															
E 57						E 67					HC												HW			
											WKP25S f [mm/rev]			WKP35S f [mm/rev]			WSP45S f [mm/rev]			WXP40 f [mm/rev]			WK40 f [mm/rev]		
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5																	
D_c [mm]					D_c [mm]																					
16–20	21–25	26–30	31–36	37–42	16–20	21–25	26–30	31–36	37–42		0,06	0,10	0,16	0,06	0,10	0,16	0,06	0,10	0,16	0,06	0,10	0,16	0,06	0,10	0,16
0,05	0,06	0,06	0,09	0,12	0,05	0,06	0,06	0,09	0,12		350	320		300	270		250	220		200	180	160			
0,06	0,07	0,08	0,11	0,17	0,06	0,07	0,08	0,11	0,17		260	240	220	220	200	180	170	160	150	150	140	130			
0,06	0,07	0,08	0,11	0,17							240	220	200	200	180	150	150	140	130	150	140	120			
0,06	0,07	0,08	0,11	0,17							220	200	180	180	150	140	140	130	120	150	140	130			
0,06	0,07	0,08	0,11	0,17							190	170	150	150	130	120	130	120	110	120	110	100			
0,06	0,07	0,08	0,11	0,17							220	200	180	180	150	140	140	130	120	120	110	130			
0,06	0,08	0,10	0,13	0,19	0,06	0,08	0,10	0,14	0,20		260	240	220	220	200	180	170	160	160	150	140	130			
0,06	0,07	0,08	0,11	0,14							230	210	190	190	170	140	140	130	120	140	120	110			
0,06	0,07	0,08	0,11	0,14							210	190	170	180	160	130	140	120	110	140	120	90			
0,05	0,06	0,06	0,09	0,11							190	170	160	170	140	130	140	120	110	120	110	80			
0,06	0,08	0,10	0,13	0,17	0,06	0,08	0,10	0,12	0,16		220	200	180	200	170	150	140	130	120	130	120	110			
0,06	0,07	0,08	0,11	0,14							200	170	150	180	140	130	130	120	110	120	110	100			
0,05	0,06	0,07	0,10	0,13							190	160	140	170	130	120	120	110	100	110	100	80			
0,06	0,07	0,08	0,11	0,14	0,06	0,07	0,08	0,11	0,14					190	170	150	140	130	120	130	120	110			
0,05	0,06	0,07	0,10	0,13	0,05	0,06	0,07	0,10	0,13					150	130	120	120	110	100	110	100	90			
0,06	0,07	0,08	0,10	0,13	0,06	0,07	0,09	0,12	0,14					220	200	180	180	170	150	160	150	120			
0,06	0,07	0,08	0,10	0,13	0,06	0,07	0,09	0,12	0,14					150	130	110	130	110	100	110	100	75			
0,06	0,07	0,08	0,10	0,13	0,06	0,07	0,09	0,12	0,14					120	100	80	100	80	70	80	70	60			
0,07	0,09	0,11	0,14	0,21	0,07	0,09	0,11	0,14	0,21		210	190	170	190	180	160	170	140	120	160	140	140			
0,05	0,07	0,08	0,11	0,18	0,05	0,07	0,09				190	140	120	130	120	110	130	120	110	130	120	120			
0,08	0,10	0,12	0,15	0,22	0,08	0,10	0,12	0,15	0,22		220	200	180	200	190	170	180	160	130	160	140	120			
0,06	0,08	0,09	0,12	0,19							180	150	130	150	130	110	150	130	110	130	120	100			
0,08	0,10	0,12	0,15	0,22	0,08	0,10	0,12	0,15	0,22		150	140	130	140	120	110	150	130	120	130	120	110			
0,06	0,08	0,09	0,12	0,22	0,06	0,08					140	130	120	120	110	100	120	110	110	110	100	100			
0,07	0,09	0,11	0,14	0,21	0,07	0,09	0,11	0,14	0,21		180	150	130	150	130	110	150	130	110	130	120	100			
																								500	500
0,07	0,09	0,10	0,12	0,17	0,07	0,09	0,11	0,12	0,17								450	450	450					450	400
0,08	0,10	0,12	0,15	0,17	0,08	0,10	0,12	0,15	0,17								300	300	300					400	400
0,08	0,10	0,12	0,15	0,17	0,08	0,10	0,12	0,15	0,17								250	250	250					300	300
0,08	0,10	0,12	0,15	0,17	0,08	0,10	0,12	0,15	0,17								200	200	200					200	200
0,08	0,10	0,12	0,15	0,17	0,08	0,10	0,12	0,15	0,17								300	300	300						
																								300	260
0,10	0,12	0,14	0,17	0,22	0,10	0,12	0,14	0,17	0,22								300	250	200					300	260
0,10	0,12	0,14	0,17	0,22	0,10	0,12	0,14	0,17	0,22								350	300	250					400	350
0,06	0,07	0,08	0,10	0,13	0,06	0,07	0,09	0,12	0,14					150	130	110	130	110	100						
0,05	0,06	0,07	0,10	0,13	0,05	0,06	0,07	0,10	0,13		100	100		100	100		90	90		80	80	70	70	70	
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11		80	80		80	80		70	70		60	60	50	50	50	
0,05	0,06	0,07	0,10	0,12	0,05	0,06	0,07	0,10	0,12		60	60		60	60		50	50		50	50	40	40	40	
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11		50	50		50	50		40	40		40	40	35	30	30	
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11		50	50		50	50		40	40		40	40	35	30	30	
0,05	0,06	0,07	0,10	0,12	0,05	0,06	0,07	0,10	0,12					50	50		50	45							
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11					50	50		40	40							
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11		70	60													
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11		70	60													
0,05	0,06	0,06	0,09	0,10							70	60	50												
0,05	0,06	0,06	0,09	0,10							60	50	50												
0,05	0,06	0,06	0,09	0,10							60	50	50												
0,16	0,18	0,20	0,25	0,30	0,16	0,18	0,20	0,25	0,30					400	400	400	400	400	400	400	400	400			
0,12	0,14	0,18	0,20	0,25	0,12	0,14	0,18	0,20	0,25		300	300	300	300	300	300	300	300	300	300	300	300			
0,07	0,09	0,11	0,14	0,21							300	250	200	250	200	150	250	200	150	250	200	150			

HC = Coated carbide

Drilling with X offset for D4120 using a stationary drill with rotating workpiece

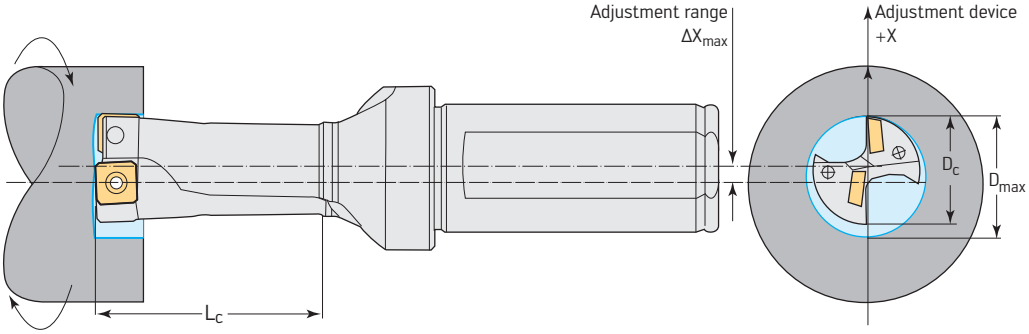


Indexable insert size	D_c	$(L_c / D_c) \geq 4$		$(L_c / D_c) < 4$	
		ΔX	D_{max}	ΔX_{max}	D_{max}
	mm	mm	mm	mm	mm
1	13,5	0,5	14,5	0,7	14,9
	14	0,35	14,7	0,6	15,2
	14,5	0,3	15,1	0,5	15,5
	15	0,2	15,4	0,45	15,9
	15,5	0,15	15,8	0,35	16,2
	16	0,05	16,1	0,3	16,6
	16,4	0	–	0,2	16,8
2	16,5	0,6	17,7	0,9	18,3
	17	0,5	18	0,75	18,5
	17,5	0,35	18,2	0,6	18,7
	18	0,3	18,6	0,55	19,1
	18,5	0,2	18,9	0,45	19,4
	19	0,15	19,3	0,4	19,8
	19,5	0,07	19,64	0,3	20,1
	20	0	20	0,25	20,5
	20,4*	0	–	0,15	20,7
3	20,5	0,35	21,2	0,7	21,9
	21	0,3	21,6	0,6	22,2
	21,5	0,17	21,84	0,45	22,4
	22	0,15	22,3	0,45	22,9
	22,5	0,02	22,54	0,3	23,1
	23	0	–	0,3	23,6
	23,5*	0	–	0,18	23,86
	24*	0	–	0,15	24,3
	24,4*	0	–	0	–
4	24,5	0,5	25,5	0,85	26,2
	25	0,35	25,7	0,75	26,5
	25,5	0,25	26	0,6	26,7
	26	0,15	26,3	0,55	27,1
	26,5	0,05	26,6	0,4	27,3
	27	0	–	0,4	27,8
	27,5	0	–	0,25	28
	28*	0	–	0,25	28,5
	28,5*	0	–	0,12	28,74
	29*	0	–	0,1	29,2
	29,4*	0	–	0	–

Indexable insert size	D_c	$(L_c / D_c) \geq 4$		$(L_c / D_c) < 4$	
		ΔX	D_{max}	ΔX_{max}	D_{max}
	mm	mm	mm	mm	mm
5	29,5	0,7	30,9	1,1	31,7
	30	0,6	31,2	1	32
	31	0,45	31,9	0,8	32,6
	32	0,3	32,6	0,7	33,4
	33	0,15	33,3	0,5	34
	34	0	–	0,4	34,8
	35*	0	–	0,3	35,6
	35,4*	0	–	0,2	35,8
6	35,5	0,8	37,1	1,4	38,3
	36	0,7	37,4	1,25	38,5
	37	0,55	38,1	1,1	39,2
	38	0,4	38,8	0,95	39,9
	39	0,25	39,5	0,8	40,6
	40	0,1	40,2	0,65	41,3
	41	0	–	0,55	42,1
	42	0	–	0,4	42,8
	42,4	0	–	0,3	43

* Outer insert with wiper edge (P4840P.) can only be used 2x.

Drilling with X offset for D3120 using a stationary drill with rotating workpiece

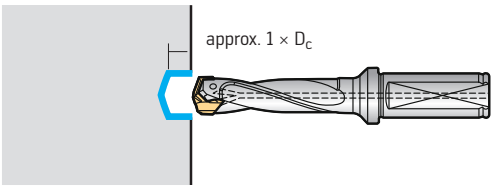


Indexable insert size	D_c	$(L_c / D_c) \geq 4$		$(L_c / D_c) < 4$	
		ΔX	D_{max}	ΔX_{max}	D_{max}
	mm	mm	mm	mm	mm
1	16	1,0	18,0	1,8	19,6
	17	0,8	18,6	1,5	20,0
	18	0,7	19,4	1,3	20,6
	19	0,5	20,0	1,0	21,0
	20	0,3	20,6	0,8	21,6
2	21	1,1	23,2	2,0	25,0
	22	0,9	23,8	1,7	25,4
	23	0,8	24,6	1,5	26,0
	24	0,6	25,2	1,2	26,4
	25	0,4	25,8	1,0	27,0
3	26	1,0	28,0	1,7	29,4
	27	0,8	28,6	1,4	29,8
	28	0,6	29,2	1,2	30,4
	29	0,4	29,8	0,9	30,8
	30	0,3	30,6	0,7	31,4
4	31	1,1	33,2	1,9	34,8
	32	0,9	33,8	1,6	35,2
	33	0,7	34,4	1,4	35,8
	34	0,5	35,0	1,1	36,2
	35	0,3	35,6	0,8	36,6
	36	0,2	36,4	0,6	37,2
5	37	0,9	38,8	1,8	40,6
	38	0,7	39,4	1,5	41,0
	39	0,5	40,0	1,2	41,4
	40	0,5	41,0	1,2	42,4
	41	0,4	41,8	0,9	42,8
	42	0,2	42,4	0,6	43,2

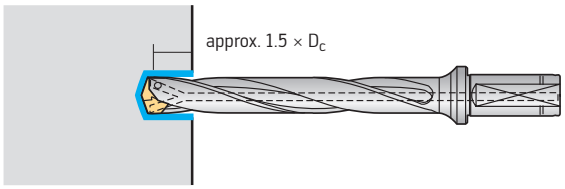
D4140 drilling strategy

Drilling depth > 5 × D_c –10 × D_c

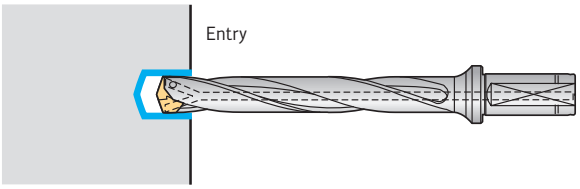
Pilot hole
D4140-01../D4140-03..



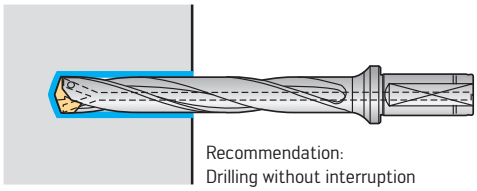
n = -20%
f = -50%



max. approx. 500 rpm



n = 100%
f = 100%



VRR: Feed rate charts for D4140

	Feed f [mm] for diameter [mm]				
VRR	12	15	20	25	40
2	0,052	0,058	0,067	0,075	0,094
3	0,077	0,087	0,10	0,11	0,14
4	0,10	0,12	0,13	0,15	0,19
5	0,13	0,14	0,17	0,19	0,24
6	0,15	0,17	0,20	0,22	0,28
7	0,18	0,20	0,23	0,26	0,33
8	0,21	0,23	0,27	0,30	0,38
9	0,23	0,26	0,30	0,34	0,42
10	0,26	0,29	0,33	0,37	0,47
12	0,31	0,35	0,40	0,45	0,57
16	0,41	0,46	0,53	0,60	0,75

Cutting data
HSS drills

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

= Wet machining (E = emulsion, O = oil)

= Dry machining possible (M = MQL, L = dry)
Cutting data must be selected from Walter GPS

v_c = Cutting speed
VRR = Feed rate chart from page 169 onwards

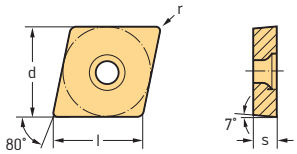
* The classification of the machining groups can be found in the material group comparison table

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *	vc	VRR		
	Drilling depth						~8 × Dc			
	Designation						DA110 Perform			
	Standard						DIN 338			
	Cooling						External coolant			
	Grade						WZ90AJ			
	Dia. range [mm]						1–16			
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	29	9	E O	
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	29	10	E O	
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	23	10	E O	
		C > 0.55%	Annealed	190	640	P4	22	8	E O	
		C > 0.55%	Heat-treated	300	1010	P5	15	8	E O	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	29	10	E O	
	Low-alloy steel	Annealed		175	590	P7	29	10	E O	
		Heat-treated		285	960	P8	13	8	E O	
		Heat-treated		380	1280	P9	9	3	E O	
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	9	4	E O	
		Hardened and tempered		300	1010	P12	15	8	E O	
		Hardened and tempered		380	1280	P13	7	3	E O	
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	24	10	E O	
		Martensitic, heat-treated		330	1110	P15	15	8	E O	
M	Stainless steel	Austenitic, quench hardened		200	680	M1	5	4	O E	
		Austenitic, precipitation hardened (PH)		300	1010	M2	8	5	E O	
		Austenitic/ferritic, duplex		230	780	M3				
K	Malleable cast iron	Ferritic		200	400	K1	22	12	E O	
		Pearlitic		260	700	K2	17	10	E O	
	Grey cast iron	Low tensile strength		180	200	K3	28	12	E O	
		High tensile strength/austenitic		245	350	K4	22	12	E O	
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	25	12	E O	
		Pearlitic		265	700	K6	17	10	E O	
	GGV (CGI)			230	400	K7	20	10	E O	
N	Wrought aluminium alloys	Not hardenable		30	-	N1				
		Hardenable, hardened		100	340	N2				
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3				
		≤ 12% Si, hardenable, hardened		90	310	N4				
		> 12% Si, not hardenable		130	450	N5				
	Magnesium alloys			70	250	N6				
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7	41	5	E O	
		Brass, bronze, red brass		90	310	N8				
		Cu alloys, short-chipping		110	380	N9	51	12	E O	
		High-tensile, Ampco		300	1010	N10				
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	4	3	O E	
			Hardened	280	940	S2				
		Ni- or Co-based	Annealed	250	840	S3				
			Hardened	350	1180	S4				
			Cast	320	1080	S5				
	Titanium alloys	Pure titanium		200	680	S6				
		α and β alloys, hardened		375	1260	S7				
		β alloys		410	1400	S8				
	Tungsten alloys			300	1010	S9				
	Molybdenum alloys			300	1010	S10				
H	Hardened steel	Hardened and tempered		50 HRC	-	H1				
		Hardened and tempered		55 HRC	-	H2				
		Hardened and tempered		60 HRC	-	H3				
	Hardened cast iron	Hardened and tempered		55 HRC	-	H4				
O	Thermoplastics	Without abrasive fillers				O1	25	12	E O	
	Thermosets	Without abrasive fillers				O2	28	8		L
	Plastic, glass-fibre-reinforced	GFRP				O3				
	Plastic, carbon-fibre-reinforced	CFRP				O4				
	Plastic, aramid-fibre-reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

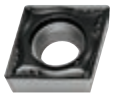
Product range overview of indexable inserts for counterboring and precision boring

Machining	Insert shape		Description	Page
Counterboring Precision boring		S	For counterboring	290
		C	For counterboring For precision boring	289 291
		W	For counterboring	290
		T	For precision boring	293

Positive rhombic 80°
CCMT / CCGT
Tiger·tec® Silver



Indexable inserts

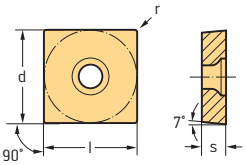
	Designation	r mm	l mm	P HC					M HC					K HC		N HC	S HC			
				WPP10S	WPP20S	WPP30S	WMP20S	WPP20	WMP20S	WSM01	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WNN10	WSM01	WSM10S	WSM20S	WSM30S
	CCMT060202-E47	0,2	6,45		●							●	●						●	●
	CCMT060204-E47	0,4	6,45		●			●				●	●						●	●
	CCMT09T302-E47	0,2	9,67		●							●	●						●	●
	CCMT09T304-E47	0,4	9,67		●							●	●						●	●
	CCMT09T308-E47	0,8	9,67		●							●	●						●	●
	CCMT120404-E47	0,4	12,9		●							●	●						●	●
	CCMT120408-E47	0,8	12,9		●							●	●						●	●
	CCMT120412-E47	1,2	12,9		●							●	●						●	●
	CCMT160508-E47	0,8	16,12		●							●							●	
	CCMT060204-MM4	0,4	6,45				●		●		●	●	●					●	●	●
	CCMT060208-MM4	0,8	6,45				●		●			●							●	
	CCMT09T304-MM4	0,4	9,67				●		●		●	●	●					●	●	●
	CCMT09T308-MM4	0,8	9,67				●		●		●	●	●					●	●	●
	CCMT120404-MM4	0,4	12,90				●		●			●							●	
	CCMT120408-MM4	0,8	12,90				●		●		●	●						●	●	
	CCGT060204-MM4	0,4	6,45							●		●					●		●	
	CCGT060208-MM4	0,8	6,45							●		●					●		●	
	CCGT09T304-MM4	0,4	9,67							●		●					●		●	
	CCGT09T308-MM4	0,8	9,67							●		●					●		●	
	CCGT120408-MM4	0,8	12,90									●							●	

See the ISO 1832 designation key for dimensions

HC = Coated carbide

B 2

Positive square
SCMT / SCGT
Tiger·tec® Silver



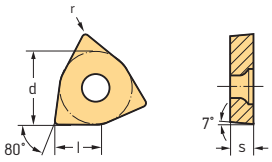
Indexable inserts

	Designation	r mm	l mm	P HC WPP01	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	SCMT060204-E47	0,4	6,35			☹					☺	😐	☹					☺	😐	☹
	SCMT09T304-E47	0,4	9,53			☹					☺	😐	☹					☺	😐	☹
	SCMT09T308-E47	0,8	9,53			☹					☺	😐	☹					☺	😐	☹
	SCMT120408-E47	0,8	12,7			☹					☺	😐	☹					☺	😐	☹
	SCMT09T304-MM4	0,4	9,53					😐	😐		☺	😐	☹					☺	😐	☹
	SCMT09T308-MM4	0,8	9,53					😐	😐		☺	😐	☹					☺	😐	☹
	SCMT120408-MM4	0,8	12,7					😐	😐			😐							😐	
	SCGT09T304-MM4	0,4	9,53							☺		😐					☺		😐	
	SCGT09T308-MM4	0,8	9,53							☺		😐					☺		😐	
	SCGT120408-MM4	0,8	12,7							☺		😐					☺		😐	

See the ISO 1832 designation key for dimensions

HC = Coated carbide

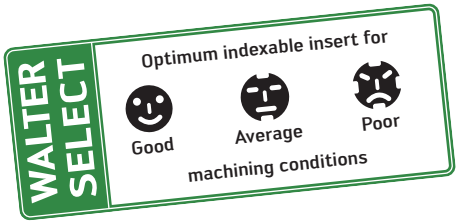
Positive Trigon 80°
WCMT
Tiger·tec® Silver



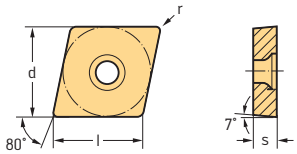
Indexable inserts

	Designation	l mm	r mm	P HC WPP10S	P HC WPP20S	P HC WPP30S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM10S	S HC WSM20S	S HC WSM30S
	WCMT030204-E47	3,5	0,4		☹				😐						😐	
	WCMT040204-E47	4,3	0,4		☹				😐						😐	
	WCMT06T304-E47	6,5	0,4		☹				😐						😐	
	WCMT06T308-E47	6,5	0,8		☹				😐						😐	
	WCMT080408-E47	8,7	0,8		☹				😐						😐	

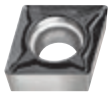
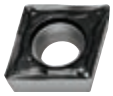
HC = Coated carbide



Positive rhombic 80°
CCGT / CCMT
Tiger·tec® Silver

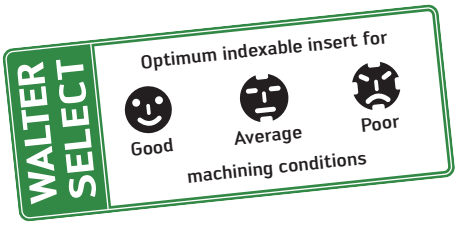


Indexable inserts

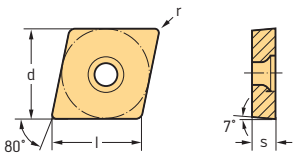
	Designation	l mm	r mm	P					M						K		N	S			
				HE	HC				HC						HC		HC	HC			
				WEP10	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM01	WSM10S	WSM20S	WSM30S	WSM10	WKK10S	WKK20S	WNN10	WSM01	WSM10S	WSM20S	WSM30S
	CCGT060201-FN2	6,45	0,1														☺				
	CCGT060202-FN2	6,45	0,2														☺				
	CCGT060204-FN2	6,45	0,4														☺				
	CCGT09T301-FN2	9,67	0,1														☺				
	CCGT09T302-FN2	9,67	0,2														☺				
	CCGT09T304-FN2	9,67	0,4														☺				
	CCGT09T308-FN2	9,67	0,8														☺				
	CCGT120404-FN2	12,90	0,4														☺				
	CCGT120408-FN2	12,90	0,8														☺				
	CCGT060201-FM2	6,45	0,1									😐								😐	
	CCGT060202-FM2	6,45	0,2							☺		😐						☺		😐	
	CCGT060204-FM2	6,45	0,4							☺		😐						☺		😐	
	CCGT09T301-FM2	9,67	0,1									😐								😐	
	CCGT09T302-FM2	9,67	0,2							☺		😐						☺		😐	
	CCGT09T304-FM2	9,67	0,4							☺	☺	😐						☺	☺	😐	
	CCGT09T308-FM2	9,67	0,8							☺	☺	😐						☺	☺	😐	
	CCGT120404-FM2	12,90	0,4									😐								😐	
	CCGT120408-FM2	12,90	0,8									😐								😐	
	CCGT060201-MN2	6,45	0,1														☺				
	CCGT060202-MN2	6,45	0,2							☺							☺	☺			
	CCGT060204-MN2	6,45	0,4							☺							☺	☺			
	CCGT09T301-MN2	9,67	0,1														☺				
	CCGT09T302-MN2	9,67	0,2							☺							☺	☺			
	CCGT09T304-MN2	9,67	0,4							☺							☺	☺			
	CCGT09T308-MN2	9,67	0,8							☺							☺	☺			
	CCGT120402-MN2	12,90	0,2														☺				
	CCGT120404-MN2	12,90	0,4														☺				
	CCGT120408-MN2	12,90	0,8														☺				
	CCMT060202-FP4	6,45	0,2	☺	☺	😐															
	CCMT060204-FP4	6,45	0,4	☺	☺	😐															
	CCMT060208-FP4	6,45	0,8		☺	😐															
	CCMT09T302-FP4	9,67	0,2	☺	☺	😐															
	CCMT09T304-FP4	9,67	0,4	☺	☺	😐															
	CCMT09T308-FP4	9,67	0,8	☺	☺	😐															
	CCMT120404-FP4	12,90	0,4		☺	😐															
	CCMT120408-FP4	12,90	0,8		☺	😐															

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide



Positive rhombic 80°
CCGT / CCMT
Tiger·tec® Silver



Indexable inserts

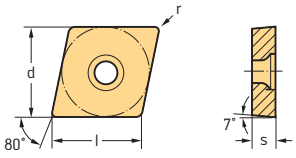
	Designation	l mm	r mm	P HE WEP10	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	M HC WSM10	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	CCMT060204-FM6	6,45	0,4									●	●							●	●
	CCMT060208-FM6	6,45	0,8									●								●	
	CCMT09T304-FM6	9,67	0,4									●	●							●	●
	CCMT09T308-FM6	9,67	0,8									●	●							●	●
	CCMT120408-FM6	12,90	0,8									●	●							●	●

See the ISO 1832 designation key for dimensions

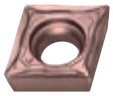
HE = Coated cermet
HC = Coated carbide

B 2

Positive rhombic 80°
CCMT
Cermet



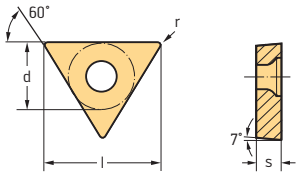
Indexable inserts

	Designation	l mm	r mm	P HE WEP10	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM20S	M HC WSM30S	M HC WSM10	M HC WSM20	M HC WSM30	K HC WKK10S	K HC WKK20S	N HC WXN10	N HW WK1	S HC WSM20S	S HC WSM30S	S HC WSM10	S HC WSM20	S HC WSM30
	CCMT060202-FP4	6,45	0,2	●	●	●																	
	CCMT060204-FP4	6,45	0,4	●	●	●																	
	CCMT060208-FP4	6,45	0,8		●	●																	
	CCMT09T302-FP4	9,67	0,2	●	●	●																	
	CCMT09T304-FP4	9,67	0,4	●	●	●																	
	CCMT09T308-FP4	9,67	0,8	●	●	●																	
	CCMT120404-FP4	12,90	0,4		●	●																	
	CCMT120408-FP4	12,90	0,8		●	●																	

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide
HW = Uncoated carbide

Positive triangular 60°
TCGT / TCMT
Tiger·tec® Silver

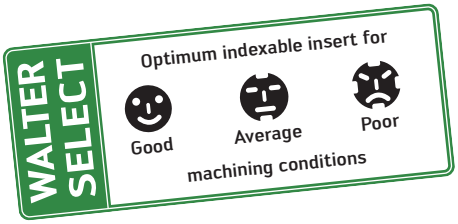


Indexable inserts

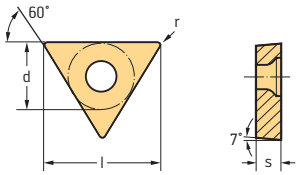
	Designation	l mm	r mm	P HC					M HC						K HC		N HC	S HC			
				WEP10	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM01	WSM10S	WSM20S	WSM30S	WSM21	WKK10S	WKK20S	WNN10	WSM01	WSM10S	WSM20S	WSM30S
	TCGT06T101-FN2	6,62	0,1														☺				
	TCGT06T102-FN2	6,62	0,2														☺				
	TCGT06T104-FN2	6,62	0,4														☺				
	TCGT090202-FN2	9,37	0,2														☺				
	TCGT090204-FN2	9,37	0,4														☺				
	TCGT110202-FN2	10,74	0,2														☺				
	TCGT110204-FN2	10,74	0,4														☺				
	TCGT16T304-FN2	16,50	0,4														☺				
	TCGT16T308-FN2	16,50	0,8														☺				
	TCGT06T101-FM2	6,62	0,1											😐							
	TCGT06T102-FM2	6,62	0,2											😐							
	TCGT06T104-FM2	6,62	0,4							☺				😐				☺			
	TCGT090202-FM2	9,37	0,2									😐								😐	
	TCGT090204-FM2	9,37	0,4									😐								😐	
	TCGT110201-FM2	10,74	0,1									😐								😐	
	TCGT110202-FM2	10,74	0,2							☺		😐						☺		😐	
	TCGT110204-FM2	10,74	0,4							☺		😐						☺		😐	
	TCGT16T302-FM2	16,50	0,2									😐								😐	
	TCGT16T304-FM2	16,50	0,4							☺		😐						☺		😐	
	TCGT16T308-FM2	16,50	0,8							☺		😐						☺		😐	
	TCMT06T102-FM4	6,62	0,2											😐							
	TCMT06T104-FM4	6,62	0,4											😐							
	TCMT090202-FM4	9,37	0,2									☺	😐	😐					☺	😐	😐
	TCMT090204-FM4	9,37	0,4									☺	😐	😐					☺	😐	😐
	TCMT090208-FM4	9,37	0,8									☺	😐						☺	😐	
	TCMT110202-FM4	10,74	0,2									☺	😐	😐					☺	😐	😐
	TCMT110204-FM4	10,74	0,4					😐	😐			☺	😐	😐					☺	😐	😐
	TCMT110208-FM4	10,74	0,8									☺	😐	😐					☺	😐	😐
	TCMT16T302-FM4	16,50	0,2									☺	😐	😐					☺	😐	😐
	TCMT16T304-FM4	16,50	0,4					😐	😐			☺	😐	😐					☺	😐	😐
	TCMT16T308-FM4	16,50	0,8					😐	😐			☺	😐	😐					☺	😐	😐

See the ISO 1832 designation key for dimensions

HC = Coated carbide



Positive triangular 60°
TCGT / TCMT
Tiger·tec® Silver



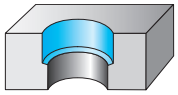
Indexable inserts

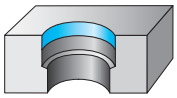
	Designation	l mm	r mm	P HC					M HC						K HC		N HC	S HC			
				WEP10	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM01	WSM10S	WSM20S	WSM30S	WSM21	WKK10S	WKK20S	WNN10	WSM01	WSM10S	WSM20S	WSM30S
	TCMT06T102-FP4	6,62	0,2			●															
	TCMT06T104-FP4	6,62	0,4	●		●															
	TCMT090202-FP4	9,37	0,2			●															
	TCMT090204-FP4	9,37	0,4	●	●	●															
	TCMT090208-FP4	9,37	0,8			●															
	TCMT110202-FP4	10,74	0,2		●	●															
	TCMT110204-FP4	10,74	0,4	●	●	●															
	TCMT110208-FP4	10,74	0,8		●	●															
	TCMT16T302-FP4	16,50	0,2			●															
	TCMT16T304-FP4	16,50	0,4		●	●															
	TCMT16T308-FP4	16,50	0,8	●	●	●															
	TCMT110204-FM6	10,74	0,4									●	●							●	●
	TCMT110208-FM6	10,74	0,8									●	●							●	●
	TCMT16T304-FM6	16,50	0,4									●	●							●	●
	TCMT16T308-FM6	16,50	0,8									●								●	
	TCGT110201-MN2	10,74	0,1														●				
	TCGT110202-MN2	10,74	0,2														●				
	TCGT110204-MN2	10,74	0,4							●							●	●			
	TCGT16T302-MN2	16,50	0,2														●				
	TCGT16T304-MN2	16,50	0,4							●							●	●			
	TCGT16T308-MN2	16,50	0,8							●							●	●			

See the ISO 1832 designation key for dimensions

HC = Coated carbide

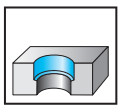
Product range overview of drilling and reaming tools with indexable inserts for counterboring and precision boring

Machining			
Diameter range D_c [mm]	**20–153**	**20–153**	**150–640**
Designation	**B3220** **Walter Boring^{MEDIUM}**	**B3220** **Walter Boring^{MEDIUM}**	**B3220 / B3224** **Walter Boring^{MAXI}**
Shank (page)	ScrewFit | 298 NCT | 298	Walter Capto™ | 298	Walter Capto™ | 300 NCT | 302
			

Machining					
Diameter range D_c [mm]	**2–45**	**2–45**	**15–203**	**33–153**	**150–640**
Designation	**B3230** **Walter Precision^{MIN}**	**B4030** **Walter Precision^{MIN}**	**B3230** **Walter Precision^{MEDIUM}**	**B4030/B4031** **Walter Precision^{MEDIUM}**	**B3230 / B3234** **Walter Precision^{MAXI}**
Shank (page)	Walter Capto™ | 304 ScrewFit | 304 NCT | 324	Walter Capto™ | 304 ScrewFit | 304 NCT | 324	Walter Capto™ | 314 ScrewFit | 312 NCT | 330	Walter Capto™ | 316/318 ScrewFit | 316 NCT | 332	Walter Capto™ | 320 NCT | 334
Balance type	Standard	Balanceable	Standard	Standard	Standard
Analogue/digital	Analogue	Analogue	Analogue	Analogue	Analogue
					
Indexable inserts	TC..06T1.. TC..1102..	TC..06T1.. TC..1102..	CP..0502.. CC..0602.. TC..06T1.. TC..1102..	CP..0502.. CC0..602.. TC..06T1..	CC..0602.. TC..1102..

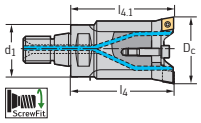
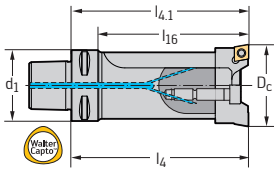
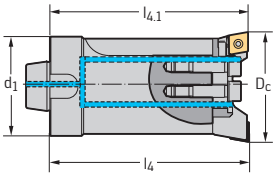
Two flute boring tool
B3220

Walter Boring[MEDIUM]



D_c 41–153	κ=90°	Z=2

	P	M	K	N	S	H	O
B3220	●●	●●	●●	●	●●		

Tool	Basic body designation	d_1 mm	D_c mm	l_4 mm	$l_{4.1}$ ARS mm
ScrewFit 	B3220G.T36.41-55.Z2	T36	41–55	65	65,3
	B3220G.C4.041-056.Z2	C4		80	80,3
	B3220G.N4.041-056.Z2	N4		80	80,3
Walter Capto™ 	B3220G.T45.55-70.Z2	T45	55–70	80	80,3
	B3220G.C5.055-073.Z2	C5		100	100,3
	B3220G.N5.055-073.Z2	N5		100	100,3
	B3220G.N6.070-093.Z2	C6	70-90	110	110,3
	B3220G.C6.070-93.Z2	N6	75–95	100	100,3
NCT 	B3220G.C8.090-113.Z2	C8	90-110	110	110,3
	B3220G.N8.090-113.Z2	N8		100	100,3
	B3220G.C8.110-153.Z2	C8	110-133	110	110,3
	B3220G.N8.110-153.Z2	N8		100	100,3
	B3220G.C8.110-153.Z2	C8	130-153	110	110,3
	B3220G.N8.110-153.Z2	N8		100	100,3

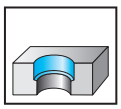
For assembly aids, see page D 154 of the Walter General Catalogue 2017
② ARS cartridge for axial and radial offset roughing. For this, a cartridge ① of the complete tool with CC insert seat must be replaced.
$l_{4.1}$ For the projection length when using the ARS counterboring method, see "Technical information"
Bodies and assembly parts are included in the scope of delivery.

	Cartridge ① designation	ARS cartridge ② designation	Type	Complete tool designation with C insert
	EB207–208.CC09	EB207–208-1.CC09 (ARS)	CC09	B3220.T36.41-55.Z2.CC09*
				B3220.C4.041-055.Z2.CC09
				B3220.N4.041-055.Z2.CC09
	EB209–210.CC09	EB209–210-1.CC09 (ARS)		B3220.T45.55-70.Z2.CC09*
				B3220.C5.055-070.Z2.CC09
				B3220.N5.055-070.Z2.CC09
	EB211–212.CC12	EB211–212-1.CC12 (ARS)	CC12 CC16	B3220.C6.070-090.Z2.CC12 B3220.N6.070-090.Z2.CC12
	EB211–212.CC16	EB211–212-1.CC16 (ARS)		B3220.C6.070-090.Z2.CC16 B3220.N6.070-090.Z2.CC16
	EB213–214.CC12 EB213–214.CC16	EB213–214-1.CC12 (ARS) EB213–214-1.CC16 (ARS)		B3220.C8.090-110.Z2.CC12 B3220.C8.090-110.Z2.CC16
				B 3220.N8.090-110.Z2.CC12 B 3220.N8.090-110.Z2.CC16
	EB215.CC12 EB215.CC16	EB215-1.CC12 (ARS) EB215-1.CC16 (ARS)		B3220.C8.110-133.Z2.CC12 B3220.C8.110-133.Z2.CC16
				B 3220.N8.110-133.Z2.CC12 B 3220.N8.110-133.Z2.CC16
	EB216.CC12 EB216.CC16	EB216-1.CC12 (ARS) EB216-1.CC16 (ARS)		B3220.C8.130-153.Z2.CC12 B3220.C8.130-153.Z2.CC16
				B 3220.N8.130-153.Z2.CC12 B 3220.N8.130-153.Z2.CC16

* Important: The projection of the cartridges must be sufficient for chip removal when used with extension in blind-hole bores.

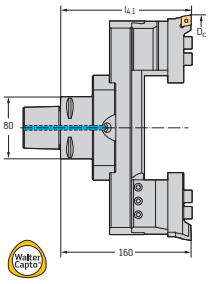
Two flute boring tool
B3223 / B3224

Walter Boring^{MEDIUM}



D_c 150–640	κ=90°	Z=2

	P	M	K	N	S	H	O
B3223 / B3224	●●	●●	●●	●	●●		

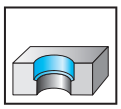
Tool	Basic body designation	d_1 mm	D_c mm	l_4 mm	$l_{4.1}$ ARS mm	Bridge designation
Walter Capto™		C8	150–220	160	160,3	EB134AL
		N8		150	150,3	
	B3223G.C8.150-640 B3224G.C8.150-640	C8	220–290	160	160,3	EB135AL
		N8		150	150,3	
		C8	290–360	160	160,3	EB136AL
		N8		150	150,3	
		C8	360–430	160	160,3	EB137AL

For assembly aids, see page D 154 of the Walter General Catalogue 2017
② ARS cartridge for axial and radial offset roughing. For this, a cartridge ① of the complete tool with CC insert seat must be replaced.
$l_{4.1}$ For the projection length when using the ARS counterboring method, see "Technical information"
Bodies and assembly parts are included in the scope of delivery.

	Cartridge holder designation	Cartridge ① designation	ARS cartridge ② designation	Type	Complete tool designation with C insert
	EB122	EB217.CC12 EB217.CC16	EB217-1.CC12 (ARS) EB217-1.CC16 (ARS)	CC12 CC16	B3220.C8.150-220.Z2.CC12 B3220.C8.150-220.Z2.CC16
					B3224.C8.150-220.Z2.CC12 B3224.C8.150-220.Z2.CC16
					B 3220.N8.150-220.Z2.CC12 B 3220.N8.150-220.Z2.CC16
					B 3224.N8.150-220.Z2.CC12 B 3224.N8.150-220.Z2.CC16
					B3220.C8.220-290.Z2.CC12 B3220.C8.220-290.Z2.CC16
					B3224.C8.220-290.Z2.CC12 B3224.C8.220-290.Z2.CC16
					B3220.N8.220-290.Z2.CC12 B3220.N8.220-290.Z2.CC16
					B3224.N8.220-290.Z2.CC12 B3224.N8.220-290.Z2.CC16
					B3220.C8.290-360.Z2.CC12 B3220.C8.290-360.Z2.CC16
					B3224.C8.290-360.Z2.CC12 B3224.C8.290-360.Z2.CC16
					B3220.N8.290-360.Z2.CC12 B3220.N8.290-360.Z2.CC16
					B3224.N8.290-360.Z2.CC12 B3224.N8.290-360.Z2.CC16
					B3220.C8.360-430.Z2.CC12 B3220.C8.360-430.Z2.CC16
					B3224.C8.360-430.Z2.CC12 B3224.C8.360-430.Z2.CC16

Two flute boring tool
B3223 / B3224

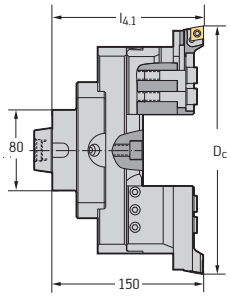
Walter Boring^{MEDIUM}



D_c 150–640	κ=90°	Z=2

	P	M	K	N	S	H	O
B3223 / B3224	●●	●●	●●	●	●●		

Tool	Basic body designation	d_1 mm	D_c mm	l_4 mm	$l_{4.1}$ ARS mm	Bridge designation	
NCT		N8	360–430	150	150,3	EB137AL	
		C8	430–500	160	160,3	EB138AL	
		N8		150	150,3		
	B3223G.N8.150-640 B3224G.N8.150-640	C8	500–570	160	160,3	EB139AL	
		N8		150	150,3		
		C8	570–640	160	160,3	EB140AL	
		N8		150	150,3		



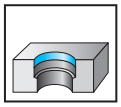
For assembly aids, see page D 154 of the Walter General Catalogue 2017
② ARS cartridge for axial and radial offset roughing. For this, a cartridge ① of the complete tool with CC insert seat must be replaced.
$l_{4.1}$ For the projection length when using the ARS counterboring method, see "Technical information"
Bodies and assembly parts are included in the scope of delivery.

Cartridge holder designation	Cartridge ① designation	ARS cartridge ② designation	Type	Complete tool designation with C insert
EB122	EB217.CC12 EB217.CC16	EB217-1.CC12 (ARS) EB217-1.CC16 (ARS)	CC12 CC16	B3220.N8.360-430.Z2.CC12 B3220.N8.360-430.Z2.CC16
				B3224.N8.360-430.Z2.CC12 B3224.N8.360-430.Z2.CC16
				B3220.C8.430-500.Z2.CC12 B3220.C8.430-500.Z2.CC16
				B3224.C8.430-500.Z2.CC12 B3224.C8.430-500.Z2.CC16
				B3220.N8.430-500.Z2.CC12 B3220.N8.430-500.Z2.CC16
				B3224.N8.430-500.Z2.CC12 B3224.N8.430-500.Z2.CC16
				B3220.C8.500-570.Z2.CC12 B3220.C8.500-570.Z2.CC16
				B3224.C8.500-570.Z2.CC12 B3224.C8.500-570.Z2.CC16
				B3220.N8.500-570.Z2.CC12 B3220.N8.500-570.Z2.CC16
				B3224.N8.500-570.Z2.CC12 B3224.N8.500-570.Z2.CC16
				B3220.C8.570-640.Z2.CC12 B3220.C8.570-640.Z2.CC16
				B3224.C8.570-640.Z2.CC12 B3224.C8.570-640.Z2.CC16
				B3220.N8.570-640.Z2.CC12 B3220.N8.570-640.Z2.CC16
				B 3224.N8.570-640.Z2.CC12 B 3224.N8.570-640.Z2.CC16

Precision boring tool
B3230 / B4030

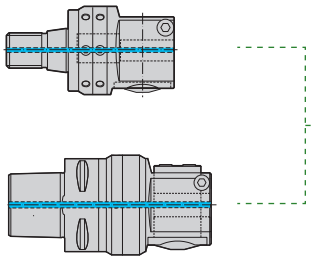
Walter Precision^{MINI}

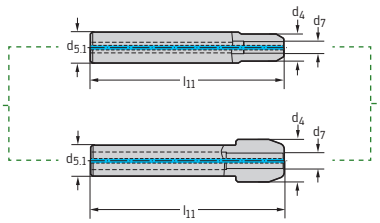
D_c 2,0–9,5	κ=93°	Z=1



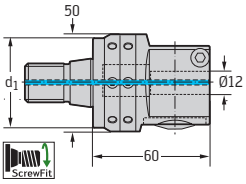
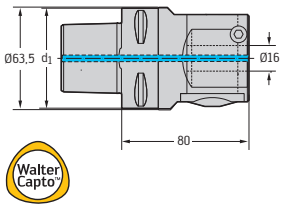
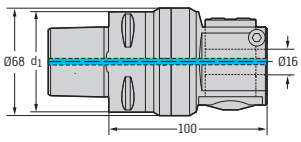
	P	M	K	N	S	H	O
B3230	●●	●●	●●	●	●		
B4030	●●	●●	●●	●●	●●	●	●

Basic body **Extension**



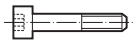


B2

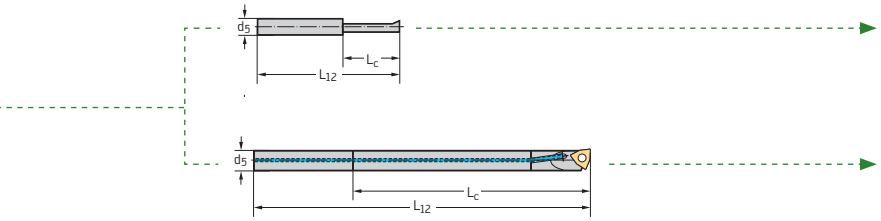
Tool	Basic body designation	d_1 mm	D_c mm	Designation	d_7 mm	d_4 mm	$d_{5.1}$ mm	l_{11} mm
ScrewFit 	B4030G.T45.02-20.Z1 Balanceable	T45	2,0–3,5	EB501	4	12	12	85
			3,0–6,0					
			5,8–7,5	EB502	5	12	12	85
			7,3–9,5	EB503	6	22	12	85
Walter Capto™ 	B3230G.C6.02-45.Z1 Standard	C6	2,0–3,5	EB101	4	12	16	100
			3,0–6,0					
			5,8–7,5	EB102	5	13	16	100
	B4030G.C6.02-45.Z1 Balanceable		7,3–9,5	EB103	6	14	16	100

For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

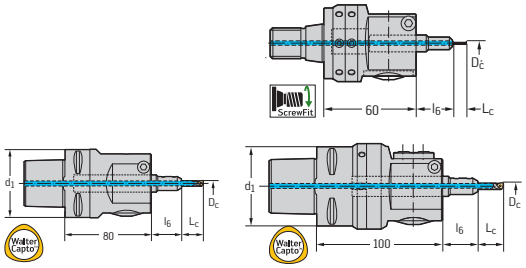
Assembly parts

		d_1 = T45		d_1 = C6	
		Designation	Tightening torque	Designation	Tightening torque
	Clamping screw for basic body	FS1084 (SW 4)	6,0 Nm	FS1085 (SW 5)	10 Nm
	Clamping screw for extension	FS2039 (SW 4)	5,0 Nm	FS2040 (SW 5)	10 Nm
	Clamping screw for extension	FS1110 (SW 2)	1,0 Nm	FS1110 (SW 2)	1,0 Nm
	Clamping screw for indexable insert with D_c = 5.8–9.5 mm	FS2245 (Torx 6IP)	0,5 Nm	FS2245 (Torx 6IP)	0,6 Nm
	Clamping screw for balancing rings	FS2037 (SW 2)		FS2246 (SW 2) for B4030	0,5 Nm

Insert holder



Complete tool

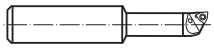


B 2

Designation	d_5 mm	L_{12} mm	Type	$L_{c\,min}$ mm	$L_{c\,max}$ mm	l_6 mm	kg	Complete tool designation	Complete tool, balanceable designation
EB301 WK10*	4	30	—	9	—	30–53	0,8		B4030.T45.02-03.Z1.WK10
EB302 WK10*	4	35	—	14	—	30–53	0,8		B4030.T45.03-06.Z1.WK10
EB303.WC02.CS	5	85	WC . . 0201 . .	20	60	30–53	0,8		B4030.T45.06-07.Z1.WC02
EB304.WC02.CS	6	95	WC . . 0201 . .	20	65	30–53	0,8		B4030.T45.07-09.Z1.WC02
EB301 WK10*	4	30	—	9	—	28–60	1,8	B3230.C6.02-03.Z1.WK10	B4030.C6.02-03.Z1.WK10
EB302 WK10*	4	35	—	14	—	28–60	1,8	B3230.C6.03-06.Z1.WK10	B4030.C6.03-06.Z1.WK10
EB303.WC02.CS	5	85	WC . . 0201 . .	20	60	28–60	1,8	B3230.C6.06-07.Z1.WC02	B4030.C6.06-07.Z1.WC02
EB304.WC02.CS	6	95	WC . . 0201 . .	20	65	28–60	1,8	B3230.C6.07-09.Z1.WC02	B4030.C6.07-09.Z1.WC02

* Solid carbide boring bar
EB . . . CS = Solid carbide shank
Advantages: Increased rigidity, reduced deflection, neutralised vibrations

Accessories

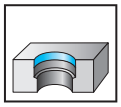
	Screwdriver for clamping screw	FS2086 (Torx 6IP)
	DIN 911 hex key	SW 2 / SW 4 / SW 5
	One-piece boring bar	For D_C 5.8–9.5, see page B 548

For torque screwdriver with interchangeable blades, see page B 702.

Precision boring tool
B3230 / B4030

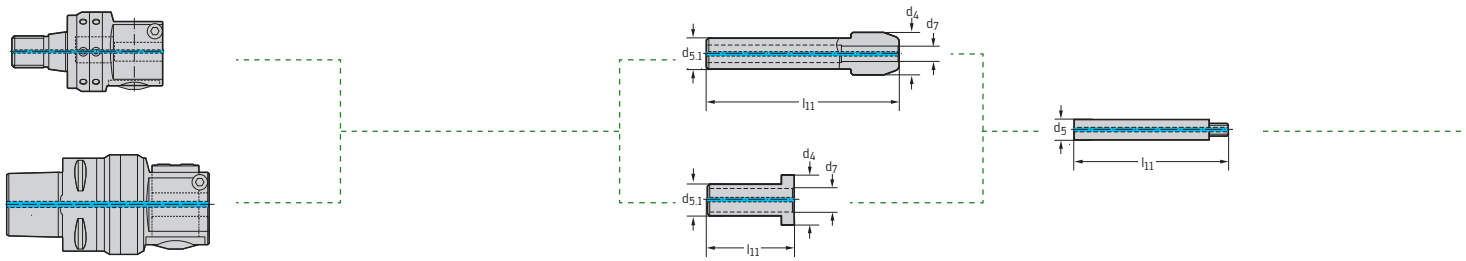
Walter Precision^{MINI}

D_c 8,8–20	κ=93°	Z=1

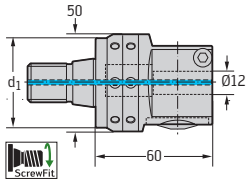
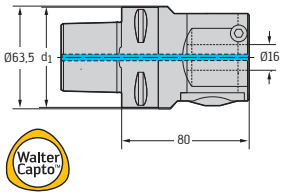
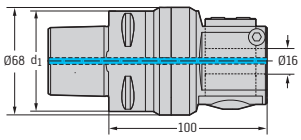


	P	M	K	N	S	H	O
B3230	●●	●●	●●	●	●		
B4030	●●	●●	●●	●●	●●	●	●

Basic body **Extension**

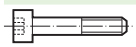


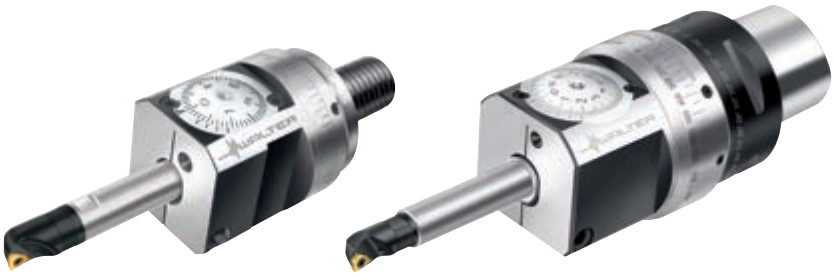
B 2

Tool	Basic body designation	d_1 mm	D_c mm	Designation	d_7 mm	d_4 mm	$d_{5.1}$ mm	l_{11} mm	Designation	d_5 mm	l_{11} mm
ScrewFit 	B4030G.T45.02-20.Z1 Balanceable	T45	8,8–12,5	EB504	8	14	12	30	EB106	8	47
									EB107.CS	8	87
			11,8–14,5	EB505	10	14	12	30	EB108	10	52
									EB109.CS	10	97
			13,8–16,5	—					EB508	12	77
									EB509.CS	12	97
			15,8–20,0	—					EB508	12	77
									EB509.CS	12	97
Walter Capto™ 	B3230G.C6.02-45.Z1 Standard	C6	8,8–12,5	EB104	8	22	16	100	EB106	8	47
									EB107.CS	8	87
			11,8–14,5	EB105	10	24	16	100	EB108	10	52
									EB109.CS	10	97
	B4030G.C6.02-45.Z1 Balanceable		13,8–16,5	EB506	12	17	16	36	EB508	12	77
									EB509.CS	12	97
			15,8–20,0	EB507	14	17	16	36	EB510	14	87
									EB511.CS	14	117

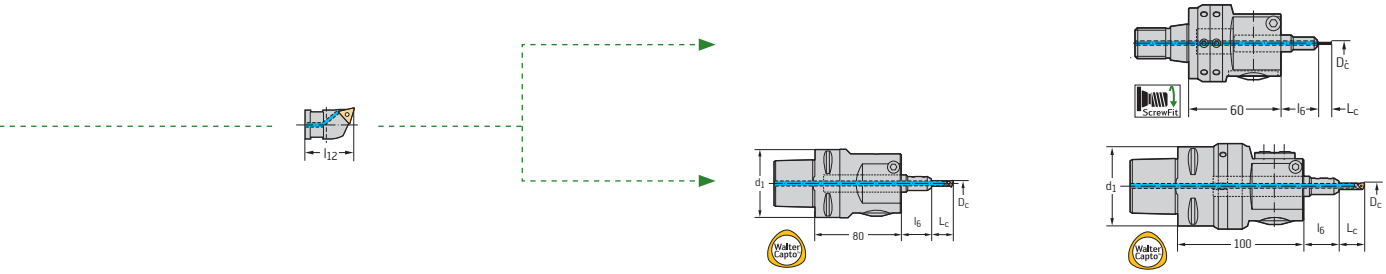
EB . . . CS = Solid carbide shank
Advantages: Increased rigidity, reduced deflection, neutralised vibrations

Assembly parts

		d_1 = T45		d_1 = C6	
		Designation	Tightening torque	Designation	Tightening torque
	Clamping screw for basic body	FS1084 (SW 4)	6,0 Nm	FS1085 (SW 5)	10 Nm
	Clamping screw for extension	FS2039 (SW 4)	5,0 Nm	FS2240	10 Nm
	Clamping screw for extension	FS1110 (SW 2)	1,0 Nm	FS1111 (SW 3)	2,5 Nm
	Clamping screw for indexable insert	Ø 8,8–12,5 mm = FS2147 (Torx 6IP) Ø11,8-20 mm = FS2148 (Torx 6IP)	0,6 Nm	Ø 8,8–12,5 mm = FS2147 (Torx 6IP) Ø11,8–20 mm = FS2148 (Torx 6IP)	0,6 Nm
	Clamping screw for balancing rings	FS2037 (SW 2)	0,5 Nm	FS2246 (SW 2) for B4030	0,5 Nm



Insert holder | **Complete tool**

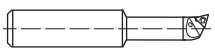


B 2

Designation	l_{12} mm	Type	$L_{c\,min}$ mm	$L_{c\,max}$ mm	l_6 mm	kg	Complete tool designation	Complete tool, balanceable designation
EB305.TC06	18	TC . . 0601 . .	18	33	2	0,8		B4030.T45.09-12.Z1.TC06.S*
			35	73	2	0,8		B4030.T45.09-12.Z1.TC06.L*
EB306.TC06	23	TC . . 0601 . .	23	43	2	0,8		B4030.T45.12-14.Z1.TC06.S
			45	68	2	0,8		B4030.T45.12-14.Z1.TC06.L
EB307.TC06	23	TC . . 0601 . .	45	68	—	0,8		B4030.T45.14-16.Z1.TC06.S
			65	88	—	0,9		B4030.T45.14-16.Z1.TC06.L
EB512.TC06	23	TC . . 0601 . .	45	68	—	0,8		B4030.T45.16-20.Z1.TC06.S
			65	88	—	0,9		B4030.T45.16-20.Z1.TC06.L
EB305.TC06	18	TC . . 0601 . .	20	35	34–60	1,9	B3230.C6.09-12.Z1.TC06.S*	B4030.C6.09-12.Z1.TC06.S*
			20	73	34–60	1,9	B3230.C6.09-12.Z1.TC06.L*	B4030.C6.09-12.Z1.TC06.L*
EB306.TC06	23	TC . . 0601 . .	25	45	34–60	1,9	B3230.C6.12-14.Z1.TC06.S	B4030.C6.12-14.Z1.TC06.S
			25	70	34–60	1,9	B3230.C6.12-14.Z1.TC06.L	B4030.C6.12-14.Z1.TC06.L
EB307.TC06	23	TC . . 0601 . .	34	60	2	1,9	B3230.C6.14-16.Z1.TC06.S	B4030.C6.14-16.Z1.TC06.S
			54	80	2	1,9	B3230.C6.14-16.Z1.TC06.L	B4030.C6.14-16.Z1.TC06.L
EB512.TC06	23	TC . . 0601 . .	44	70	2	1,9	B3230.C6.16-20.Z1.TC06.S	B4030.C6.16-20.Z1.TC06.S
			74	100	2	1,9	B3230.C6.16-20.Z1.TC06.L	B4030.C6.16-20.Z1.TC06.L

* When using the TC . . 06T1 . .-FN2 indexable insert, manually shorten the indexable insert clamping screw by 1 mm.

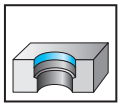
Accessories

	Screwdriver for clamping screw	FS2086 (Torx 6IP)
	DIN 911 hex key	SW 2 / SW 4 / SW 5
	One-piece boring bar	For D_C 8.8–20, see page B 548

For torque screwdriver with interchangeable blades, see page B 702.

Precision boring tool
B3230 / B4030

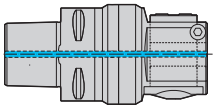
Walter Precision^{MINI}



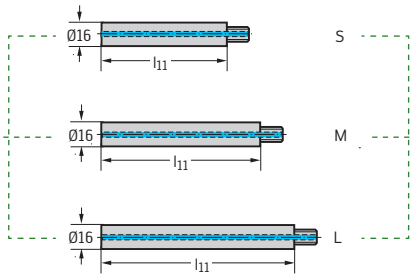
D_c 17,8–45,5	κ=93°	Z=1

	P	M	K	N	S	H	O
B3230 / B4030	●●	●●	●●	●●	●●	●	●

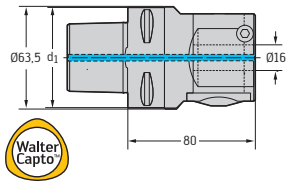
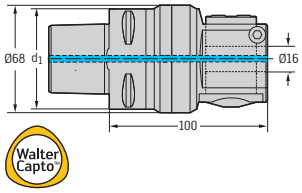
Basic body



Extension

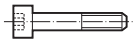


B 2

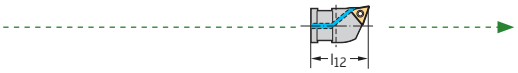
Tool	Basic body designation	d_1 mm	D_c mm	Designation	l_{11} mm		
Walter Capto™							
	B3230G.C6.02-45.Z1 Standard	C6	17,8–22,5	EB110	88	(S)	
				EB111.CS	108	(M)	
				EB112.CS	168	(L)	
			21,8–25,5	EB110	88	(S)	
				EB111.CS	108	(M)	
				EB112.CS	168	(L)	
			24,8–28,5	EB110	88	(S)	
				EB111.CS	108	(M)	
				EB112.CS	168	(L)	
			27,8–32,5	EB110	88	(S)	
				EB111.CS	108	(M)	
				EB112.CS	168	(L)	
			31,8–36,5	EB110	88	(S)	
				EB111.CS	108	(M)	
				EB112.CS	168	(L)	
	B4030G.C6.02-45.Z1 Balanceable		35,8–40,5	EB110	88	(S)	
				EB111.CS	108	(M)	
				EB112.CS	168	(L)	
			39,8–45,5	EB110	88	(S)	
				EB111.CS	108	(M)	
				EB112.CS	168	(L)	

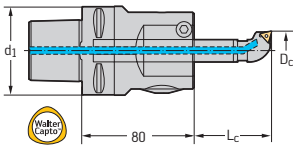
EB . . . CS = Solid carbide shank
Advantages: Increased rigidity, reduced deflection, neutralised vibrations

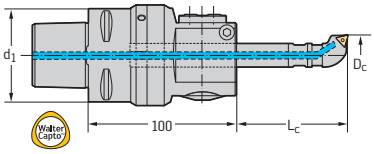
Assembly parts

	Designation	Tightening torque
 Clamping screw for basic body	FS1085 (SW 5)	10 Nm
 Clamping screw for extension	FS2040	10 Nm
 Clamping screw for indexable insert	FS1454 (Torx 8IP)	1,2 Nm
 Clamping screw for balancing rings	FS2246 for B4030	

Insert holder | Complete tool







Designation	l_{12} mm	Type	$L_{c\ min}$ mm	$L_{c\ max}$ mm	kg	Complete tool designation	Complete tool, balanceable designation
EB308.TC11	27	TC . . 1102 . .	55	80	1,8	B3230.C6.18-22.Z1.TC11.S	B4030.C6.18-22.Z1.TC11.S
			75	100	2,0	B3230.C6.18-22.Z1.TC11.M	B4030.C6.18-22.Z1.TC11.M
			135	160	2,2	B3230.C6.18-22.Z1.TC11.L	B4030.C6.18-22.Z1.TC11.L
EB309.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.C6.22-25.Z1.TC11.S	B4030.C6.22-25.Z1.TC11.S
			75	100	2,5	B3230.C6.22-25.Z1.TC11.M	B4030.C6.22-25.Z1.TC11.M
			135	160	2,7	B3230.C6.22-25.Z1.TC11.L	B4030.C6.22-25.Z1.TC11.L
EB310.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.C6.25-28.Z1.TC11.S	B4030.C6.25-28.Z1.TC11.S
			75	100	2,5	B3230.C6.25-28.Z1.TC11.M	B4030.C6.25-28.Z1.TC11.M
			135	160	2,7	B3230.C6.25-28.Z1.TC11.L	B4030.C6.25-28.Z1.TC11.L
EB311.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.C6.28-32.Z1.TC11.S	B4030.C6.28-32.Z1.TC11.S
			75	100	2,5	B3230.C6.28-32.Z1.TC11.M	B4030.C6.28-32.Z1.TC11.M
			135	160	2,7	B3230.C6.28-32.Z1.TC11.L	B4030.C6.28-32.Z1.TC11.L
EB312.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.C6.32-36.Z1.TC11.S	B4030.C6.32-36.Z1.TC11.S
			75	100	2,5	B3230.C6.32-36.Z1.TC11.M	B4030.C6.32-36.Z1.TC11.M
			135	160	2,7	B3230.C6.32-36.Z1.TC11.L	B4030.C6.32-36.Z1.TC11.L
EB313.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.C6.36-40.Z1.TC11.S	B4030.C6.36-40.Z1.TC11.S
			75	100	2,5	B3230.C6.36-40.Z1.TC11.M	B4030.C6.36-40.Z1.TC11.M
			135	160	2,7	B3230.C6.36-40.Z1.TC11.L	B4030.C6.36-40.Z1.TC11.L
EB314.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.C6.40-45.Z1.TC11.S	B4030.C6.40-45.Z1.TC11.S
			75	100	2,5	B3230.C6.40-45.Z1.TC11.M	B4030.C6.40-45.Z1.TC11.M
			135	160	2,7	B3230.C6.40-45.Z1.TC11.L	B4030.C6.40-45.Z1.TC11.L

For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

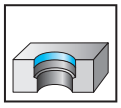
Accessories

	Screwdriver	FS1483 (Torx 8IP)
	DIN 911 hex key	SW 5

For torque screwdriver with interchangeable blades, see page B 702.

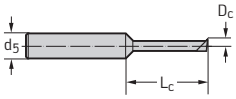
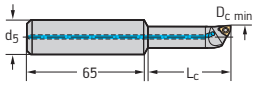
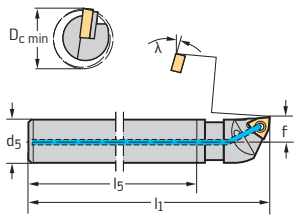
EB . . . boring bar

κ=93°



B2

Tool

Designation	$D_{c\ min}$ mm	d_5 mm	f mm	l_1 mm	l_5 mm	L_c mm	λ	Type
One-piece 								
EB301 WK10	2,0	4	1,0	30	21			VHM WK10
EB302 WK10	3,0	4	1,5	35	21			
One-piece 								
EB513	5,8	16				17		WC . . 0201 . .
EB514.CS	5,8	16				30		
EB515	7,3	16				21		
EB516.CS	7,3	16				36		
EB551	8,8	16				28		
EB552.CS	8,8	16				47		
EB553	11,8	16				35		
EB554.CS	11,8	16				60		TC . . 06T1 . .
EB555	13,8	16				42		
EB556.CS	13,8	16				72		
With insert holder 								
EB303.WC02.CS	5,8	5	2,9	85	70			WC . . 0201 . .
EB304.WC02.CS	7,3	6	3,65	95	75			
EB353.TC06	8,8	8	4,5	65	47		−10°	TC . . 06T1 . .
EB354.TC06.CS	8,8	8	4,5	105	87		−10°	
EB355.TC06	11,8	10	6,0	75	52		−7°	
EB356.TC06.CS	11,8	10	6,0	120	97		−7°	
EB357.TC06	13,8	10	6,9	75	52		−5°	
EB358.TC06.CS	13,8	10	6,9	120	97		−5°	
EB359.TC11	17,8	16	8,9	115	88		−3°	TC . . 1102 . .
EB360.TC11.CS	17,8	16	8,9	135	108		−3°	
EB361.TC11.CS	17,8	16	8,9	195	168		−3°	
EB362.TC11	21,8	16	10,9	115	88		−2,5°	
EB363.TC11.CS	21,8	16	10,9	135	108		−2,5°	
EB364.TC11.CS	21,8	16	10,9	195	168		−2,5°	
EB365.TC11	24,8	16	12,4	115	88		0°	
EB366.TC11.CS	24,8	16	12,4	135	108		0°	
EB367.TC11.CS	24,8	16	12,4	195	168		0°	
EB368.TC11	27,8	16	13,9	115	88		0°	
EB369.TC11.CS	27,8	16	13,9	135	108		0°	
EB370.TC11.CS	27,8	16	13,9	195	168		0°	
EB371.TC11	31,8	16	15,9	115	88		0°	
EB372.TC11.CS	31,8	16	15,9	135	108		0°	
EB373.TC11.CS	31,8	16	15,9	195	168		0°	
EB374.TC11	35,8	16	17,9	115	88		0°	
EB375.TC11.CS	35,8	16	17,9	135	108		0°	
EB376.TC11.CS	35,8	16	17,9	195	168		0°	
EB377.TC11	39,8	16	19,9	115	88		0°	
EB378.TC11.CS	39,8	16	19,9	135	108		0°	
EB379.TC11.CS	39,8	16	19,9	195	168		0°	

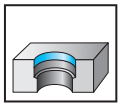
Bodies and assembly parts are included in the scope of delivery.

Assembly parts				Accessories
Extension	Insert holder	Clamping screw for indexable insert	Tightening torque	Screwdriver
		FS2245 (Torx 6IP)	0,6 Nm	FS2086 (Torx 6IP)
		FS2147 (Torx 6IP)		
		FS2148 (Torx 6IP)	0,9 Nm	FS2086 (Torx 6IP)
—	EB303.WC02.CS	FS2245 (Torx 6IP)	0,6 Nm	FS2086 (Torx 6IP)
—	EB304.WC02.CS			
EB106	EB305.TC06*	FS2147 (Torx 6IP)	0,6 Nm	FS2086 (Torx 6IP)
EB107.CS	EB305.TC06*			
EB108	EB306.TC06	FS2148 (Torx 6IP)	0,9 Nm	
EB109.CS	EB306.TC06			
EB108	EB307.TC06			
EB109.CS	EB307.TC06			
EB110	EB308.TC11	FS1454 (Torx 8IP)	1,2 Nm	FS1483 (Torx 8IP)
EB111.CS	EB308.TC11			
EB112.CS	EB308.TC11			
EB110	EB309.TC11			
EB111.CS	EB309.TC11			
EB112.CS	EB309.TC11			
EB110	EB310.TC11			
EB111.CS	EB310.TC11			
EB112.CS	EB310.TC11			
EB110	EB311.TC11			
EB111.CS	EB311.TC11			
EB112.CS	EB311.TC11			
EB110	EB312.TC11			
EB111.CS	EB312.TC11			
EB112.CS	EB312.TC11			
EB110	EB313.TC11			
EB111.CS	EB313.TC11			
EB112.CS	EB313.TC11			
EB110	EB314.TC11			
EB111.CS	EB314.TC11			
EB112.CS	EB314.TC11			

EB . . . CS = Solid carbide shank
Advantages: Increased rigidity, reduced deflection, neutralised vibrations
* When using the WC . . 0302 . .-PM2 indexable insert, manually shorten the indexable insert clamping screw by 1 mm.

Precision boring tool
B3230

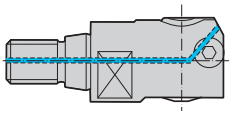
Walter Precision^{MEDIUM}



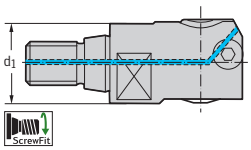
D_c 15–33	κ=95°	κ=93°	Z=1

	P	M	K	N	S	H	O
B3230	●●	●●	●●	●●	●●	●	●

Basic body | **Cartridge with C insert**

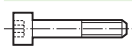


B 2

Tool	Basic body designation	d_1 mm	D_c mm	Cartridge no.	Designation	Type
ScrewFit 	B3230G.T14.15-21.Z1	T14	15–18,5	1		
			18–21,5	2		
	B3230G.T18.20-26.Z1	T18	20–26	1	EB321.CP05	CP . . 0502 . .
	B3230G.T22.26-33.Z1	T22	26–33	1	EB323.CP05	CP . . 0502 . .

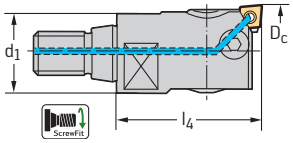
For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

		T14	T18	T22
		for $D_{c\ min–max}$ [mm]		
		15–21,5	20–26	26–33
	Clamping screw for basic body	FS2244 (SW 1,5)	FS2251 (Torx 9IP)	FS1082 (SW 2,5)
	Tightening torque			2,0 Nm
	Clamping screw for cartridge	FS2066 (Torx 7IP)	FS1457 (Torx 9IP)	FS2080 (Torx 15IP)
	Tightening torque	0,9 Nm	0,9 Nm	2,0 Nm
	Clamping screw for indexable insert	FS2245 (Torx 6IP)	CP . . 0502 . . = FS2084 (Torx 7IP) 0,8 Nm TC . . 06T1 . . = FS2148 (Torx 6IP) 0,6 Nm	
	Tightening torque	0,6 Nm		

Cartridge with W insert

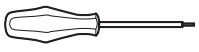
Complete tool



B 2

Designation	Indexable insert Type	d_1 mm	l_4 mm	kg	Complete tool designation with C insert	Complete tool designation with T insert/W insert
EB549.WC02	WC . . 0201 . .	14	30	0,10		B3230.T14.15-18.Z1.WC02
EB550.WC02	WC . . 0201 . .	14	30	0,10		B3230.T14.18-21.Z1.WC02
EB341.TC06	TC . . 06T1 . .	18	35	0,10	B3230.T18.20-26.Z1.CP05	B3230.T18.20-26.Z1.TC06
EB343.TC06	TC . . 06T1 . .	22	40	0,15	B3230.T22.26-33.Z1.CP05	B3230.T22.26-33.Z1.TC06

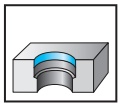
Accessories

		T14	T18	T22
		for $D_{c\ min-max}$ [mm]		
		15–21,5	20–26	26–33
	Screwdriver for clamping screw	FS2086 (Torx 6IP)	CP . . 0502 . . = FS2088 (Torx 7IP) TC . . 06T1 . . = FS2086 (Torx 6IP)	
	DIN 911 hex key for clamping screw	SW 1,5		SW 2,5
	Key for cartridge clamping	FS2088 (Torx 7IP)	FS1486 (Torx 20IP)	FS1485 (Torx 15IP)

For torque screwdriver with interchangeable blades, see page B 702.

Precision boring tool
B3230

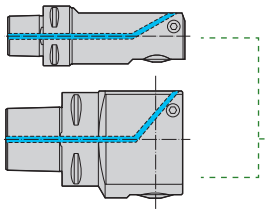
Walter Precision[MEDIUM]



D_c 20–203	κ=95°	κ=93°	Z=1

	P	M	K	N	S	H	O
B3230	●●	●●	●●	●●	●●	●	●

Basic body

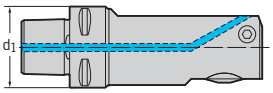


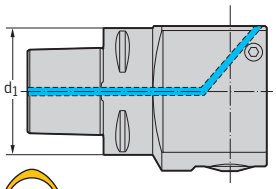
Cartridge with C and W insert

B 2

Tool

Walter Capto™





Basic body designation	d_1 mm	D_c mm	Cartridge no.	Designation	Type	Designation	Type
B3230G.C3.20-38.Z1	C3	20–26,5	1	EB321.CP05	CP . . 0502 . .	EB341.TC06	TC . . 06T1 . .
		(28)[1] 26–32,5*	2	EB523.CP05		EB536.TC06	
		32–38,5*	3	EB524.CP05		EB537.TC06	
B3230G.C3.26-47.Z1	C3	26–33,5	1	EB323.CP05	CP . . 0502 . .	EB343.TC06	TC . . 06T1 . .
		(34)[1] 33–40,5*	2	EB525.CP05		EB538.TC06	
		40–47,5*	3	EB526.CP05		EB539.TC06	
B3230G.C3.33-57.Z1	C3	33–41,5	1	EB325.CP05	CP . . 0502 . .	EB345.TC06	TC . . 06T1 . .
		41–49,5*	2	EB527.CP05		EB540.TC06	
		49–57,5*	3	EB528.CP05		EB541.TC06	
B3230G.C4.41-83.Z1	C4	41–55,5	1	EB327.CC06	CC . . 0602 . .	EB347.TC06	TC . . 06T1 . .
		55–69,5*	2	EB532.CC06		EB545.TC06	TC . . 06T1 . .
		69–83,5*	3	EB533.CC06		EB546.TC06	
B3230G.C5.55-100.Z1	C5	55–70,5	1	EB329.CC06	CC . . 0602 . .	EB349.TC11	TC . . 1102 . .
		70–85,5*	2	EB534.CC06		EB547.TC11	
		85–100,5*	3	EB535.CC06		EB548.TC11	
B3230G.C6.070-120.Z1	C6	70–90,5	1	EB329.CC06	CC . . 0602 . .	EB349.TC11	TC . . 1102 . .
		85–105,5*	2	EB534.CC06		EB547.TC11	
		100–120,5*	3	EB535.CC06		EB548.TC11	
B3230G.C6.090-166.Z1	C6	90–116*	1	EB529.CC06	CC . . 0602 . .	EB542.TC11	TC . . 1102 . .
		115–141*	2	EB530.CC06		EB543.TC11	
		140–166*	3	EB531.CC06		EB544.TC11	
B3230G.C8.090-166.Z1	C8	90–116*	1	EB529.CC06	CC . . 0602 . .	EB542.TC11	TC . . 1102 . .
		115–141*	2	EB530.CC06		EB543.TC11	
		140–166*	3	EB531.CC06		EB544.TC11	
B3230G.C6.110-203.Z1	C6	110–153*	1	EB529.CC06	CC . . 0602 . .	EB542.TC11	TC . . 1102 . .
		135–178*	2	EB530.CC06		EB543.TC11	
		160–203*	3	EB531.CC06		EB544.TC11	
B3230G.C8.110-203.Z1	C8	110–153*	1	EB529.CC06	CC . . 0602 . .	EB542.TC11	TC . . 1102 . .
		135–178*	2	EB530.CC06		EB543.TC11	
		160–203*	3	EB531.CC06		EB544.TC11	

[1] D_{min} for reverse machining.

* Reverse machining possible

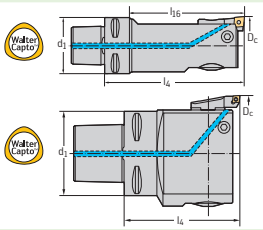
For assembly aids, see page D 1.

Bodies and assembly parts are included in the scope of delivery.

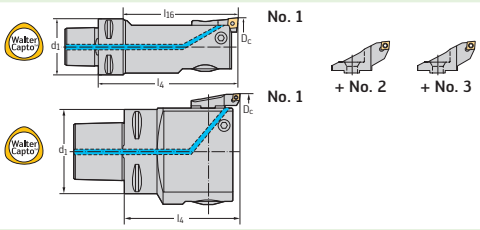
Assembly parts

		C3			C4	C5	C6	C6 / C8
		for $D_{c\ min–max}$ [mm]						
		20–38,5	26–47,5	33–57,5	41–83,5	55–100,5	70–120,5	90–203
	Clamping screw	FS2251 (Torx 9IP)	FS1082 (SW 2,5)	FS1083 (SW 3)	FS1084 (SW 4)	FS1085 (SW 5)	FS1086 (SW 6)	FS1087 (SW 6)
	Tightening torque		2,5 Nm	2,5 Nm	4,0 Nm	10,0 Nm	25,0 Nm	25,0 Nm
	Clamping screw for cartridge	FS1457 (Torx 9IP)	FS2080 (Torx 15IP)	FS1495 (Torx 20IP)	FS1091 (SW 3)	FS1092 (SW 5)	FS1092 (SW 5)	FS2150 (Torx 30IP)
	Tightening torque	1,5 Nm	2,5 Nm	5,0 Nm	2,5 Nm	12,0 Nm	12,0 Nm	10,0 Nm
	Clamping screw for indexable insert	CP . . 0502 . . = FS2084 (Torx 7IP) 0,8 Nm TC . . 06T1 . . = FS2148 (Torx 6IP) 0,6 Nm			FS1454 (Torx 8IP) 1,2 Nm			
	Tightening torque							

Complete tool



Precision set



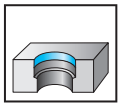
d_1 mm	l_4 mm	l_{16} mm	kg	Complete tool designation with C insert	Complete tool designation with W insert	Precision set designation with C insert	Precision set designation with T insert
32	80	60	0,23	B3230.C3.020-026.Z1.CP05	B3230.C3.020-026.Z1.TC06	B3230.C3.020-038.Z1.CP05	B3230.C3.020-038.Z1.TC06
			0,23	B3230.C3.026-032.Z1.CP05	B3230.C3.026-032.Z1.TC06		
			0,24	B3230.C3.032-038.Z1.CP05	B3230.C3.032-038.Z1.TC06		
32	80		0,29	B3230.C3.026-033.Z1.CP05	B3230.C3.026-033.Z1.TC06	B3230.C3.026-047.Z1.CP05	B3230.C3.026-047.Z1.TC06
			0,30	B3230.C3.033-040.Z1.CP05	B3230.C3.033-040.Z1.TC06		
			0,30	B3230.C3.040-047.Z1.CP05	B3230.C3.040-047.Z1.TC06		
32	80		0,42	B3230.C3.033-041.Z1.CP05	B3230.C3.033-041.Z1.TC06	B3230.C3.033-057.Z1.CP05	B3230.C3.033-057.Z1.TC06
			0,42	B3230.C3.041-049.Z1.CP05	B3230.C3.041-049.Z1.TC06		
			0,42	B3230.C3.049-057.Z1.CP05	B3230.C3.049-057.Z1.TC06		
40	80		0,7	B3230.C4.041-055.Z1.CC06	B3230.C4.041-055.Z1.TC06	B3230.C4.041-083.Z1.CC06	B3230.C4.041-083.Z1.TC06
			0,7	B3230.C4.055-069.Z1.CC06	B3230.C4.055-069.Z1.TC06		
			0,7	B3230.C4.069-083.Z1.CC06	B3230.C4.069-083.Z1.TC06		
50	100		1,4	B3230.C5.055-070.Z1.CC06	B3230.C5.055-070.Z1.TC11	B3230.C5.055-100.Z1.CC06	B3230.C5.055-100.Z1.TC11
			1,4	B3230.C5.070-085.Z1.CC06	B3230.C5.070-085.Z1.TC11		
			1,4	B3230.C5.085-100.Z1.CC06	B3230.C5.085-100.Z1.TC11		
63	100		2,1	B3230.C6.070-090.Z1.CC06	B3230.C6.070-090.Z1.TC11	B3230.C6.070-120.Z1.CC06	B3230.C6.070-120.Z1.TC11
			2,2	B3230.C6.085-105.Z1.CC06	B3230.C6.085-105.Z1.TC11		
			2,1	B3230.C6.100-120.Z1.CC06	B3230.C6.100-120.Z1.TC11		
63	110		3,2	B3230.C6.090-116.Z1.CC06	B3230.C6.090-116.Z1.TC11	B3230.C6.090-166.Z1.CC06	B3230.C6.090-166.Z1.TC11
			3,2	B3230.C6.115-141.Z1.CC06	B3230.C6.115-141.Z1.TC11		
			3,2	B3230.C6.140-166.Z1.CC06	B3230.C6.140-166.Z1.TC11		
80	110		4,0	B3230.C8.090-116.Z1.CC06	B3230.C8.090-116.Z1.TC11	B3230.C8.090-166.Z1.CC06	B3230.C8.090-166.Z1.TC11
			4,0	B3230.C8.115-141.Z1.CC06	B3230.C8.115-141.Z1.TC11		
			4,0	B3230.C8.140-166.Z1.CC06	B3230.C8.140-166.Z1.TC11		
63	110		4,1	B3230.C6.110-153.Z1.CC06	B3230.C6.110-153.Z1.TC11	B3230.C6.110-203.Z1.CC06	B3230.C6.110-203.Z1.TC11
			4,1	B3230.C6.135-178.Z1.CC06	B3230.C6.135-178.Z1.TC11		
			4,1	B3230.C6.160-203.Z1.CC06	B3230.C6.160-203.Z1.TC11		
63	110		4,8	B3230.C8.110-153.Z1.CC06	B3230.C8.110-153.Z1.TC11	B3230.C8.110-203.Z1.CC06	B3230.C8.110-203.Z1.TC11
			4,8	B3230.C8.135-178.Z1.CC06	B3230.C8.135-178.Z1.TC11		
			4,8	B3230.C8.160-203.Z1.CC06	B3230.C8.160-203.Z1.TC11		

Accessories

	C3		C4	C5	C6	C6 / C8
	for $D_{c\ min-max}$ [mm]					
	20–38,5	26–47,5	33–57,5	41–83,5	55–100,5	70–120,5	90–203
Screwdriver for clamping screw	CP . . 0502 . . = FS2088 (Torx 7IP) TC . . 06T1 . . = FS2086 (Torx 6IP)				CC . . 06 = FS1483 (Torx 8IP) TC . . 1102 . . = FS1483 (Torx 8IP)		
Screwdriver for clamping screw	FS1484 (Torx 9IP)						
DIN 911 hex key for clamping screw		SW 2,5	SW 3	SW 4	SW 5	SW 6	SW 6
Key for cartridge clamping	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)				FS2109 (Torx 30IP)
DIN 911 hex key for cartridge clamping				SW 3	SW 5	SW 5	

Self-balancing precision boring tool B4030

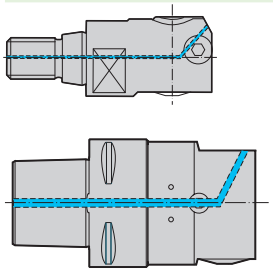
Walter Precision^{MEDIUM}



D_c 33–153	κ=95°	κ=93°	Z=1

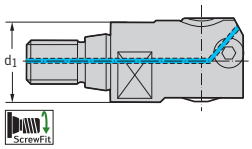
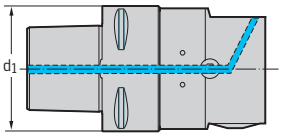
	P	M	K	N	S	H	O
B4030	●●	●●	●●	●●	●●	●	●

Basic body



Cartridge with C insert

B 2

Tool	Basic body designation	d_1 mm	D_c mm	Designation	Type	
ScrewFit 	B4030G.T28.33-41.Z1	T 28	33–41	EB323.CP 05	CP . . 0502 . .	
	B4030G.T36.41-55.Z1	T 36	41–55	EB325.CP05	CP . . 0502 . .	
	B4030G.T45.55-70.Z1	T 45	55–70	EB327.CC06	CC . . 0602 . .	
Walter Capto™ 	B4030G.C3.33-41.Z1	C3	33–41	EB323.CP05	CP . . 0502 . .	
	B4030G.C4.41-55.Z1	C4	41–55	EB325.CP05	CP . . 0502 . .	
	B4030G.C5.55-70.Z1	C5	55–70	EB327.CC06	CC . . 0602 . .	
	B4030G.C6.070-090.Z1	C6	70–90			
	B4030G.C6.090-110.Z1	C6	90–110			
	B4030G.C8.090-110.Z1	C8	90–110			
	B4030G.C6.110-153.Z1	C6	110–153			
	B4030G.C8.110-153.Z1	C8	110–153			

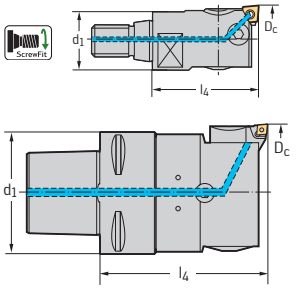
For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

		$D_{c\ min–max}$ [mm]					
		33–41	41–55	55–70	70–90	90–110	110–153
	Clamping screw	FS2031 (SW 2,5)	FS2032 (SW 3)	FS2033 (SW 4)	FS2034 (SW 5)	FS2035 (SW 6)	FS2036 (SW 6)
	Tightening torque	2,5 Nm	3,0 Nm	6,0 Nm	12 Nm	15 Nm	15 Nm
	Clamping screw for cartridge	FS2080 (Torx 15IP)	FS1495 (Torx 20IP)	FS1091 (SW 3)			
	Tightening torque	2,5 Nm	2,5 Nm	2,5 Nm			
	Clamping screw for indexable insert	CP . . 0502 . . = FS2084 (Torx 7IP) 0,8 Nm TC . . 06T1 . . = FS2148 (Torx 6IP) 0,6 Nm		CC . . 0602 . . = FS1454 (Torx 8IP) 0,8 Nm TC . . 06T1 . . = FS2148 (Torx 6IP) 0,6 Nm			
	Tightening torque						

Cartridge with W insert

Complete tool



B 2

Designation	Type	d_1 mm	l_1 mm	kg	Complete tool, balanceable designation with C insert	Complete tool, balanceable designation with T insert
EB343.TC06	TC . . 06T1 . .	28	55	0,3	B4030.T28.33-41.Z1.CP05	B4030.T28.33-41.Z1.TC06
EB345.TC06	TC . . 06T1 . .	36	65	0,6	B4030.T36.41-55.Z1.CP05	B4030.T36.41-55.Z1.TC06
EB347.TC06	TC . . 06T1 . .	45	80	1,0	B4030.T45.55-70.Z1.CC06	B4030.T45.55-70.Z1.TC06
EB343.TC06	TC . . 06T1 . .	32	80	0,4	B4030.C3.033-041.Z1.CP05	B4030.C3.033-041.Z1.TC06
EB345.TC06	TC . . 06T1 . .	40	80	0,75	B4030.C4.041-055.Z1.CP05	B4030.C4.041-055.Z1.TC06
EB347.TC06	TC . . 06T1 . .	50	100	1,4	B4030.C5.055-070.Z1.CP05	B4030.C5.055-070.Z1.TC06
		63	100	1,5	B4030.C6.070-090.Z1.CC06	B4030.C6.070-090.Z1.TC06
		63	110	1,6	B4030.C6.090-110.Z1.CC06	B4030.C6.090-110.Z1.TC06
		80	110	1,6	B4030.C8.090-110.Z1.CC06	B4030.C8.090-110.Z1.TC06
		63	110	2,0	B4030.C6.110-153.Z1.CC06	B4030.C6.110-153.Z1.TC06
		80	110	2,0	B4030.C8.110-153.Z1.CC06	B4030.C8.110-153.Z1.TC06

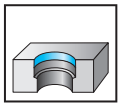
Accessories

		for $D_{c\ min-max}$ [mm]				
		33–41	41–55	55–70	70–90	90–153
	Screwdriver for clamping screw	CP . . 0502 . . = FS1484 (Torx 7IP) TC . . 06T1 . . = FS2086 (Torx 6IP)		CC . . 0602 . . = FS1483 (Torx 8IP) TC . . 06T1 . . = FS2086 (Torx 6IP)		
	DIN 911 hex key for clamping screw	SW 2,5	SW 3	SW 4	SW 5	SW 6
	Key for cartridge clamping	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)			
	DIN 911 hex key for cartridge clamping			SW 3		

For torque screwdriver with interchangeable blades, see page B 702.

Self-balancing precision boring tool
B4031.C LWS

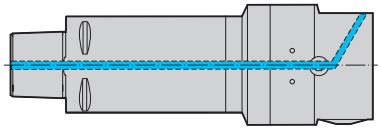
Walter Precision MEDIUM



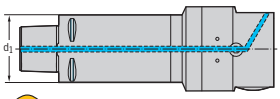
D_c 90–153	κ=95°	κ=93°	Z=1

	P	M	K	N	S	H	O
B4031.C	●●	●●	●●	●●	●●	●	●

Basic body | **Cartridge with C insert**

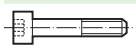


B 2

Tool	Basic body designation	d_1 mm	D_c mm	Designation	Type
Walter Capto™ 	B4031G.C6.090-110.Z1.AL*	C6	90–110	EB327.CC06	CC . . 0602 . .
	B4031G.C6.110-153.Z1.AL*	C6	110–153		

* Reduced-weight aluminium version
For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

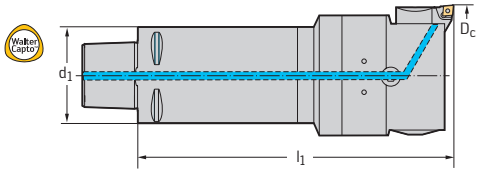
Assembly parts



	$D_{c\ min–max}$ [mm] 90–110	110–153
Clamping screw	FS2035 (SW 6)	FS2036 (SW 6)
Tightening torque	15 Nm	15 Nm
Clamping screw for indexable insert	CC . . 0602 . . = FS1454 (Torx 8IP) 0,8 Nm TC . . 06T1 . . = FS2148 (Torx 6IP) 0,6 Nm	

Cartridge with T insert

Complete tool



B 2

Designation	Type	d_1 mm	l_1 mm	kg	Complete tool designation with C insert	Complete tool designation with T insert
EB347.TC06	TC . . 06T1 . .	60	230	3,4	B4031.C6.090-110Z1.CC06	B4031.C6.090-110.Z1.TC06
		60	230	3,8	B4031.C6.110-153Z1.CC06	B4031.C6.110-153.Z1.TC06

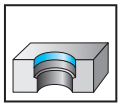
Accessories

		for $D_{c\ min-max}$ [mm]	
		70–90	90–153
	Screwdriver for clamping screw	CC . . 0602 . . = FS1483 (Torx 8IP) TC . . 06T1 . . = FS2086 (Torx 6IP)	
	DIN 911 hex key for clamping screw	SW 5	SW 6

For torque screwdriver with interchangeable blades, see page B 702.

Precision boring tool with bridge design
B3230

Walter Precision^{MAXI}



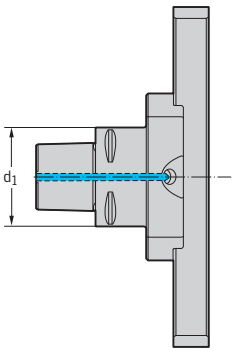
– Aluminium bridge

D_c 150–640	κ=95°	κ=93°	Z=1

	P	M	K	N	S	H	O
B3230	●●	●●	●●	●●	●●	●	●

Basic body

B2

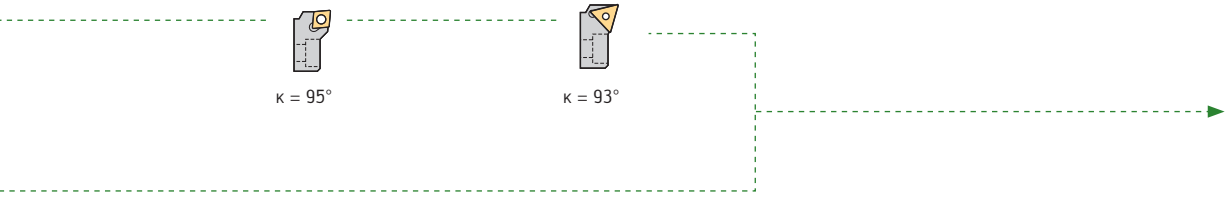
Tool	Basic body designation	d_1 mm	D_c mm	Bridge	Balance weight	Cartridge holder
Walter Capto™ 	B3223G.C8.150-640	C8	150–220	EB134AL	EB121	EB123
			220–290	EB135AL		
			290–360	EB136AL		
			360–430	EB137AL		
			430–500	EB138AL		
			500–570	EB139AL		
			570–640	EB140AL		

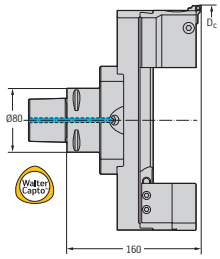
For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Designation	Tightening torque
 Clamping screw for bridge	FS1114 (SW 10)	120 Nm
 Clamping screw for balance compensation slide	FS1086 (SW 6)	25 Nm
 Clamping screw for cartridge holder and balance compensation	FS1113 (SW 6)	25 Nm
 Clamping screw for cartridge	FS1092 (SW 5)	12 Nm
 Clamping screw for indexable insert	FS1454 (Torx 8IP)	1,2 Nm

Cartridge with C insert | Cartridge with T insert | Complete tool





Cartridge designation	Type	Cartridge designation	Type	kg	Complete tool designation with C insert	Complete tool designation with T insert
EB329.CC06	CC . .0602 . .	EB349.TC11	TC . . 1102 . .	6,3	B3230.C8.150-220.Z1.CC06	B3230.C8.150-220.Z1.TC11
				6,8	B3230.C8.220-290.Z1.CC06	B3230.C8.220-290.Z1.TC11
				7,2	B3230.C8.290-360.Z1.CC06	B3230.C8.290-360.Z1.TC11
				7,5	B3230.C8.360-430.Z1.CC06	B3230.C8.360-430.Z1.TC11
				7,9	B3230.C8.430-500.Z1.CC06	B3230.C8.430-500.Z1.TC11
				8,2	B3230.C8.500-570.Z1.CC06	B3230.C8.500-570.Z1.TC11
				8,4	B3230.C8.570-640.Z1.CC06	B3230.C8.570-640.Z1.TC11

Accessories

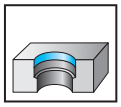
	Screwdriver for clamping screw	
	DIN 911 hex key	SW 5 / SW 6 / SW 10

For torque screwdriver with interchangeable blades, see page B 702.

Precision boring tool with bridge design
B3234

Walter Precision^{MAXI}

D_c 150–640	κ=95°	κ=93°	Z=1



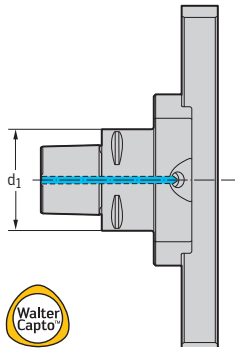
– Cutting edge orientation rotated by 90° in relation to B3230G.C …
– Aluminium bridge

	P	M	K	N	S	H	O
B3234	●●	●●	●●	●●	●●	●	●

Basic body

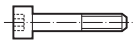
B2

Tool	Basic body designation	d_1 mm	D_c mm	Bridge	Balance weight	Cartridge holder
Walter Capto™	B3224G.C8.150-640	C8	150–220	EB134AL	EB121	EB123
			220–290	EB135AL		
			290–360	EB136AL		
			360–430	EB137AL		
			430–500	EB138AL		
			500–570	EB139AL		
			570–640	EB140AL		

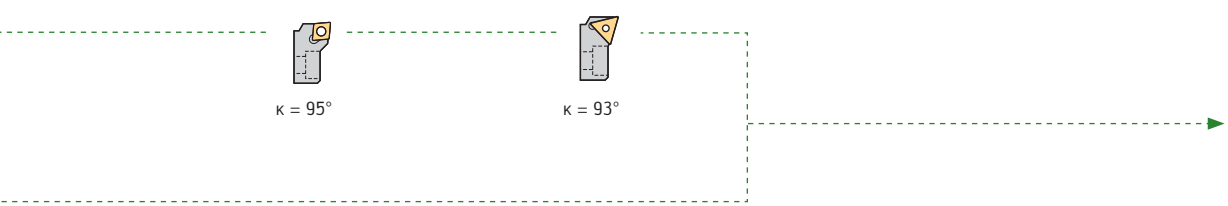


For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

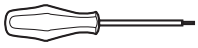
		Designation	Tightening torque
	Clamping screw for bridge	FS1114 (SW 10)	120 Nm
	Clamping screw for balance compensation slide	FS1086 (SW 6)	25 Nm
	Clamping screw for cartridge holder and balance compensation	FS1113 (SW 6)	25 Nm
	Clamping screw for cartridge	FS1092 (SW 5)	12 Nm
	Clamping screw for indexable insert	FS1454 (Torx 8IP)	1,2 Nm

Cartridge with C insert | Cartridge with T insert | Complete tool



Cartridge designation	Type	Cartridge designation	Type	kg	Complete tool designation with C insert	Complete tool designation with T insert
EB329.CC06	CCGT 06 . .	EB349.TC11	TC . . 1102 . .	6,3	B3234.C8.150-220.Z1.CC06	B3234.C8.150-220.Z1.TC11
				6,8	B3234.C8.220-290.Z1.CC06	B3234.C8.220-290.Z1.TC11
				7,2	B3234.C8.290-360.Z1.CC06	B3234.C8.290-360.Z1.TC11
				7,5	B3234.C8.360-430.Z1.CC06	B3234.C8.360-430.Z1.TC11
				7,9	B3234.C8.430-500.Z1.CC06	B3234.C8.430-500.Z1.TC11
				8,2	B3234.C8.500-570.Z1.CC06	B3234.C8.500-570.Z1.TC11
				8,4	B3234.C8.570-640.Z1.CC06	B3234.C8.570-640.Z1.TC11

Accessories

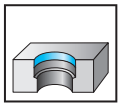
	Screwdriver for clamping screw	FS1483 (Torx 8IP)
	DIN 911 hex key	SW 5 / SW 6 / SW 10

For torque screwdriver with interchangeable blades, see page B 702.

Precision boring tool
B3230 / B4030

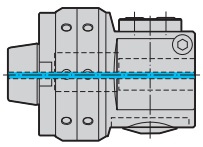
Walter Precision^{MINI}

D_c 2,0–9,5	κ=93°	Z=1

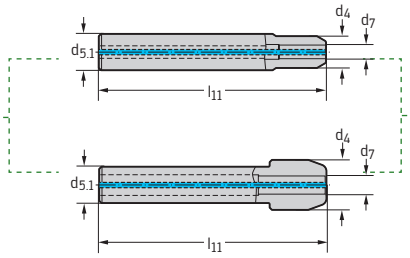


	P	M	K	N	S	H	O
B3230 / B4030	●●	●●	●●	●●	●●	●	●

Basic body

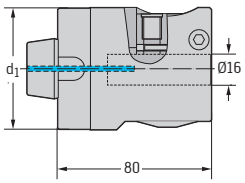
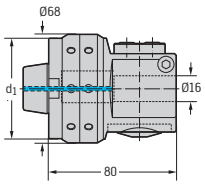


Reducer



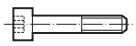
B2

Tool

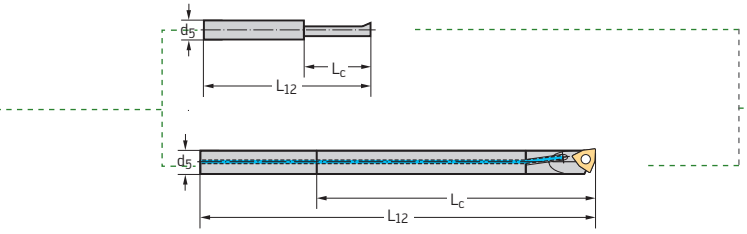
	Designation	d_1 mm	D mm	Designation	d_7 mm	d_4 mm	$d_{5.1}$ mm	l_{11} mm
NCT 	B3230G.N6.002-045.Z1 Standard	NCT63	2,0–3,5	EB101	4	12	16	100
			3,0–6,0					
	B4030G. N6.02-45.Z1 Balanceable	NCT63	5,8–7,5	EB102	5	13	16	100
			7,3–9,5	EB103	6	14	16	100

For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

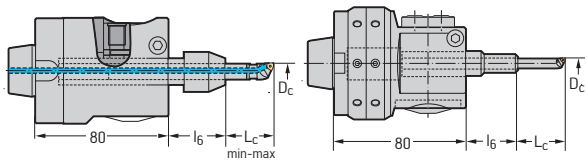
Assembly parts

		Designation	Tightening torque
	Clamping screw	FS1085 (SW 5)	10 Nm
	Clamping screw for reducer	FS2040	10 Nm
	Clamping screw for insert holder	FS1110 (SW 2)	1,9 Nm
	Clamping screw for indexable insert with D_c = 5.8–9.5 mm	FS2245 (Torx 6IP)	0,6 Nm
	Clamping screw for balancing rings	FS2246 for B4030	0,5 Nm

Insert holder



Complete tool

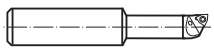


B 2

Designation	d_5 mm	L_{12} mm	Type	$L_{c\ min}$ mm	$L_{c\ max}$ mm	l_6 mm	kg	Standard Designation	Balanceable Designation
EB301 WK10*	4	30	—	9	—	28–60	1,8	B3230.N6.02-03.Z1.WK10	B4030.N6.02-03.Z1.WK10
EB302 WK10*	4	35	—	14	—	28–60	1,8	B3230.N6.03-06.Z1.WK10	B4030.N6.03-06.Z1.WK10
EB303.WC02.CS	5	85	WC . . 0201 . .	20	60	28–60	1,8	B3230.N6.06-07.Z1.WC02	B4030.N6.06-07.Z1.WC02
EB304.WC02.CS	6	95	WC . . 0201 . .	20	65	28–60	1,8	B3230.N6.07-09.Z1.WC02	B4030.N6.07-09.Z1.WC02

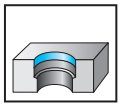
* Solid carbide boring bar
EB . . . CS = Solid carbide shank
Advantages: Increased rigidity, reduced deflection, neutralised vibrations

Accessories

	Screwdriver for clamping screw	FS1063 (Torx 6)
	DIN 911 hex key	SW 2 / SW 4 / SW 5
	One-piece boring bar	D_c 5.8–9.5, see page B 548

Precision boring tool
B3230 / B4030

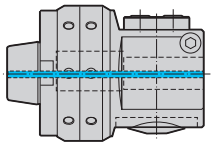
Walter Precision^{MINI}

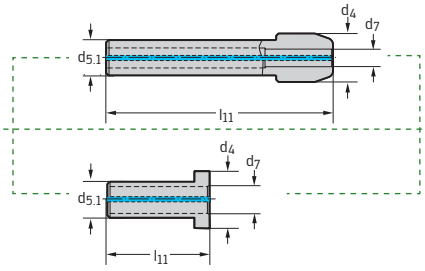


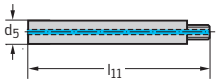
D_c 8,8–20	κ=93°	Z=1

	P	M	K	N	S	H	O
B3230 / B4030	●●	●●	●●	●●	●●	●●	●●

Basic body **Reducer** **Extension**

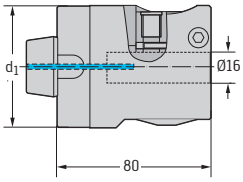
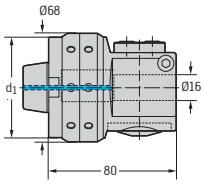






B2

Tool

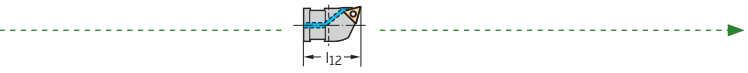
Tool	Designation	d_1 mm	D_c mm	Designation	d_7 mm	d_4 mm	$d_{5.1}$ mm	l_{11} mm	Designation	d_5 mm	l_{11} mm
NCT 	B3230G.N6.002-045.Z1 Standard	NCT63	8,8–12,5	EB104	8	22	16	100	EB106	8	47
									EB107.CS	8	87
			11,8–14,5	EB105	10	24	16	100	EB108	10	52
									EB109.CS	10	97
	B4030G.N6.02-45.Z1 Balanceable		13,8–16,5	EB506	12	17	16	36	EB508	12	77
									EB509.CS	12	97
			15,8–20,0	EB507	14	17	16	36	EB510	14	87
									EB511.CS	14	117

EB . . . CS = Solid carbide shank
Advantages: Increased rigidity, reduced deflection, neutralised vibrations

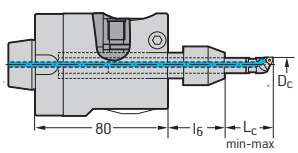
Assembly parts

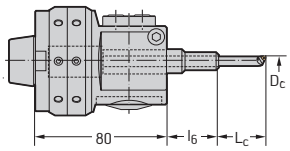
		Designation	Tightening torque
	Clamping screw	FS1085 (SW 5)	10 Nm
	Clamping screw for reducer	FS2040	10 Nm
	Clamping screw for extension	FS1111 (SW 3)	2,5 Nm
	Clamping screw for indexable insert	Ø 8,8-12,5 mm = FS2147 (Torx 6IP) Ø11,8-20 mm = FS2148 (Torx 6IP)	
	Clamping screw for balancing rings	FS2246 (SW 2) for B4030	0,5 Nm

Insert holder



Complete tool



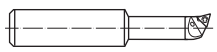


B 2

Designation	l_{12} mm	Type	$L_{c\ min}$ mm	$L_{c\ max}$ mm	l_6 mm	kg	Standard Designation	Balanceable Designation
EB305.TC06	18	TC . . 06T1 . .	20	35	34–60	1,9	B3230.N6.09-12.Z1.TC06.S*	B4030.N6.09-12.Z1.TC06.S*
			20	73	34–60	1,9	B3230.N6.09-12.Z1.TC06.L*	B4030.N6.09-12.Z1.TC06.L
EB306.TC06	23	TC . . 06T1 . .	25	45	34–60	1,9	B3230.N6.12-14.Z1.TC06.S	B4030.N6.12-14.Z1.TC06.S*
			25	70	34–60	1,9	B3230.N6.12-14.Z1.TC06.L	B4030.N6.12-14.Z1.TC06.L
EB307.TC06	23	TC . . 06T1 . .	34	60	2	1,9	B3230.N6.14-16.Z1.TC06.S	B4030.N6.14-16.Z1.TC06.S
			54	80	2	1,9	B3230.N6.14-16.Z1.TC06.L	B4030.N6.14-16.Z1.TC06.L
EB512.TC06	23	TC . . 06T1 . .	44	70	2	1,9	B3230.N6.16-20.Z1.TC06.S	B4030.N6.16-20.Z1.TC06.S
			74	100	2	1,9	B3230.N6.16-20.Z1.TC06.L	B4030.N6.16-20.Z1.TC06.L

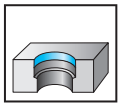
* When using the TC . . 06T1 . .-FN2 indexable insert, manually shorten the indexable insert clamping screw by 1 mm.

Accessories

	Screwdriver for clamping screw	FS2086 (Torx 6IP)
	DIN 911 hex key	SW 2 / SW 4 / SW 5
	One-piece boring bar	D_c 8.8–15.8, see page B 548

Precision boring tool
B3230 / B4030

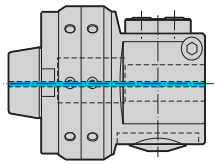
Walter Precision^{MINI}



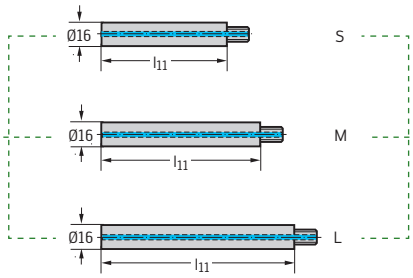
D_c 17,8–45,5	κ=93°	Z=1

	P	M	K	N	S	H	O
B3230 / B4030	●●	●●	●●	●●	●●	●	●

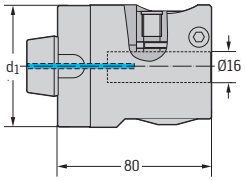
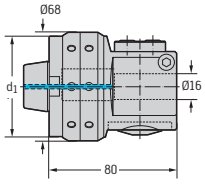
Basic body



Extension

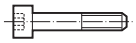


B2

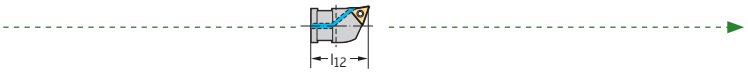
Tool	Designation	d_1 mm	D_c mm	Designation	l_{11} mm	
NCT						
	B3230G.N6.02-45.Z1 Standard	NCT63	17,8–22,5	EB110	88	(S)
				EB111.CS	108	(M)
				EB112.CS	168	(L)
			21,8–25,5	EB110	88	(S)
				EB111.CS	108	(M)
				EB112.CS	168	(L)
			24,8–28,5	EB110	88	(S)
				EB111.CS	108	(M)
				EB112.CS	168	(L)
			27,8–32,5	EB110	88	(S)
				EB111.CS	108	(M)
				EB112.CS	168	(L)
			31,8–36,5	EB110	88	(S)
				EB111.CS	108	(M)
				EB112.CS	168	(L)
	B4030G.N6.02-45.Z1 Balanceable		35,8–40,5	EB110	88	(S)
				EB111.CS	108	(M)
				EB112.CS	168	(L)
			39,8–45,5	EB110	88	(S)
				EB111.CS	108	(M)
				EB112.CS	168	(L)

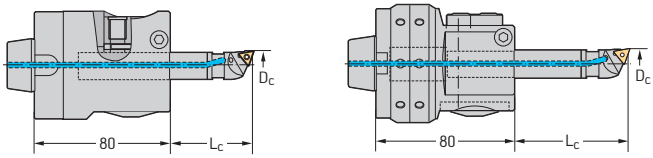
EB . . . CS = Solid carbide shank
Advantages: Increased rigidity, reduced deflection, neutralised vibrations

Assembly parts

		Designation	Tightening torque
	Clamping screw	FS1085 (SW 5)	10 Nm
	Clamping screw for extension	FS2040	10 Nm
	Clamping screw for indexable insert	FS1454 (Torx 8IP)	1,2 Nm
	Clamping screw for balancing rings	FS2246 (SW 2) for B4030	0,5 Nm

Insert holder | Complete tool





B 2

Designation	l_{12} mm	Type	$L_{c\ min}$ mm	$L_{c\ max}$ mm	kg	Standard Designation	Balanceable Designation
EB308.TC11	27	TC . . 1102 . .	55	80	1,8	B3230.N6.18-22.Z1.TC11.S	B4030.N6.18-22.Z1.TC11.S
			75	100	2,0	B3230.N6.18-22.Z1.TC11.M	B4030.N6.18-22.Z1.TC11.M
			135	160	2,2	B3230.N6.18-22.Z1.TC11.L	B4030.N6.18-22.Z1.TC11.L
EB309.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.N6.22-25.Z1.TC11.S	B4030.N6.22-25.Z1.TC11.S
			75	100	2,5	B3230.N6.22-25.Z1.TC11.M	B4030.N6.22-25.Z1.TC11.M
			135	160	2,7	B3230.N6.22-25.Z1.TC11.L	B4030.N6.22-25.Z1.TC11.L
EB310.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.N6.25-28.Z1.TC11.S	B4030.N6.25-28.Z1.TC11.S
			75	100	2,5	B3230.N6.25-28.Z1.TC11.M	B4030.N6.25-28.Z1.TC11.M
			135	160	2,7	B3230.N6.25-28.Z1.TC11.L	B4030.N6.25-28.Z1.TC11.L
EB311.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.N6.28-32.Z1. TC11.S	B4030.N6.28-32.Z1.TC11.S
			75	100	2,5	B3230.N6.28-32.Z1.TC11.M	B4030.N6.28-32.Z1.TC11.M
			135	160	2,7	B3230.N6.28-32.Z1.TC11.L	B4030.N6.28-32.Z1.TC11.L
EB312.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.N6.32-36.Z1.TC11.S	B4030.N6.32-36.Z1.TC11.S
			75	100	2,5	B3230.N6.32-36.Z1.TC11.M	B4030.N6.32-36.Z1.TC11.M
			135	160	2,7	B3230.N6.32-36.Z1.TC11.L	B4030.N6.32-36.Z1.TC11.L
EB313.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.N6.36-40.Z1.TC11.S	B4030.N6.36-40.Z1.TC11.S
			75	100	2,5	B3230.N6.36-40.Z1.TC11.M	B4030.N6.36-40.Z1.TC11.M
			135	160	2,7	B3230.N6.36-40.Z1.TC11.L	B4030.N6.36-40.Z1.TC11.L
EB314.TC11	27	TC . . 1102 . .	55	80	2,3	B3230.N6.40-45.Z1.TC11.S	B4030.N6.40-45.Z1.TC11.S
			75	100	2,5	B3230.N6.40-45.Z1.TC11.M	B4030.N6.40-45.Z1.TC11.M
			135	160	2,7	B3230.N6.40-45.Z1.TC11.L	B4030.N6.40-45.Z1.TC11.L

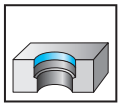
For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

Accessories

	Screwdriver	FS1483 (Torx 8IP)
	DIN 911 hex key	SW 5

Precision boring tool
B3230

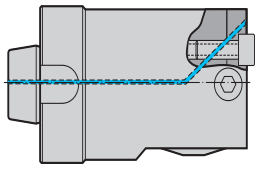
Walter Precision^{MEDIUM}



D_c 20–153	κ=95°	κ=93°	Z=1

	P	M	K	N	S	H	O
B3230	●●	●●	●●	●●	●●	●	●

Basic body

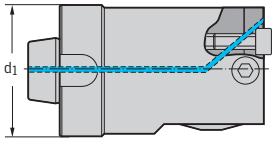


Cartridge with C insert

B 2

Tool

Designation	d_1 mm	D_c mm	Designation	Type
NCT				
B3230G.N2.020-026.Z1	NCT25	20–26	EB321.CP05	CP . . 0502 . .
B3230G.N2.026-033.Z1	NCT25	26–33	EB323.CP05	CP . . 0502 . .
B3230G.N3.033-041.Z1	NCT32	33–41	EB325.CP05	CP . . 0502 . .
B3230G.N4.041-055.Z1	NCT40	41–55	EB327.CC06	CC . . 0602 . .
B3230G.N5.055-070.Z1	NCT50	55–70	EB329.CC06	CC . . 0602 . .
B3230G.N6.070-090.Z1	NCT63	70–90		
B3230G.N8.090-110.Z1	NCT80	90–110		
B3230G.N8.110-153.Z1	NCT80	110–153		

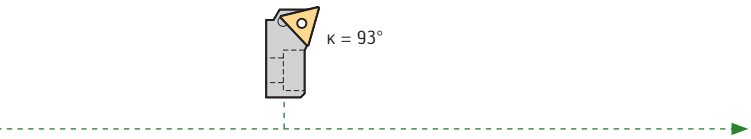


For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

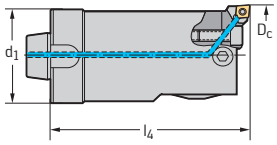
Assembly parts

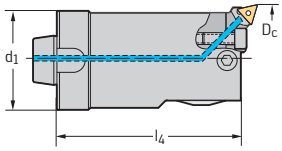
	$D_{c\ min–max}$ [mm]						
	20–26	26–33	33–41	41–55	55–70	70–90	90–153
 Clamping screw	FS2251 (Torx 9IP)	FS1082 (SW 2,5)	FS1083 (SW 3)	FS1084 (SW 4)	FS1085 (SW 5)	FS1086 (SW 6)	FS1087 (SW 6)
Tightening torque	1,2 Nm	2,0 Nm	3,0 Nm	4,0 Nm	10,0 Nm	25,0 Nm	25,0 Nm
 Clamping screw for cartridge	FS1457 (Torx 9IP)	FS2080 (Torx 15IP)	FS1495 (Torx 20IP)	FS1091 (SW 3)	FS1092 (SW 5)		
Tightening torque	0,9 Nm	2,0 Nm	2,5 Nm	2,5 Nm	12,0 Nm		
 Drive pin (only with NCT 25)	FK311		FK312	FK313			
 Screw for drive pin (only with NCT 25)	FS502		FS503	FS504			
 Clamping screw for indexable insert	CP . . 0502 . . = FS2084 (Torx 7IP) 0,8 Nm TC . . 06T1 . . = FS2148 (Torx 6IP) 0,6 Nm			CC . . 0602 . . = FS1454 (Torx 8IP) 1,2 Nm TC . . 06T1 . . = FS2148 (Torx 6IP) 0,6 Nm			
Tightening torque							

Cartridge with T insert



Complete tool



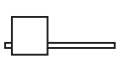


B 2

Designation	Type	d_1 mm	l_4 mm	kg	Standard designation with C insert	Standard designation with T insert
EB341.TC06	TC . . 06T1 . .	25*	80	0,2	B3230.N2.020-026.Z1.CP05	B3230.N2.020-026.Z1.TC06
EB343.TC06	TC . . 06T1 . .	25	80	0,3	B3230.N2.026-033.Z1.CP05	B3230.N2.026-033.Z1.TC06
EB345.TC06	TC . . 06T1 . .	32	80	0,5	B3230.N3.033-041.Z1.CP05	B3230.N3.033-041.Z1.TC06
EB347.TC06	TC . . 06T1 . .	40	80	0,8	B3230.N4.041-055.Z1.CC06	B3230.N4.041-055.Z1.TC06
EB349.TC11	TC . . 1102 . .	50	100	1,6	B3230.N5.055-070.Z1.CC06	B3230.N5.055-070.Z1.TC11
		63	100	2,5	B3230.N6.070-090.Z1.CC06	B3230.N6.070-090.Z1.TC11
		80	100	4,0	B3230.N8.090-110.Z1.CC06	B3230.N8.090-110.Z1.TC11
		80	100	5,0	B3230.N8.110-153.Z1.CC06	B3230.N8.110-153.Z1.TC11

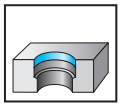
* Maximum drilling depth = 65 mm

Accessories

		for $D_{c\ min-max}$ [mm]					
		20–26	26–33	33–41	41–55	55–70	70–153
	Screwdriver for clamping screw	CP . . 0502 . . = FS2088 (Torx 7IP) TC . . 06T1 . . = FS2086 (Torx 6IP)			CC . . 0602 . . = FS1483 Torx 8IP) TC . . 06T1 . . = FS2086 (Torx 6IP)		
	Torx key for clamping screw	FS1484 (Torx 9IP)					
	DIN 911 hex key for clamping screw		SW 2,5	SW 3	SW 4	SW 5	SW 6
	Key for cartridge clamping	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)			FS2108 (Torx 30IP)
	DIN 911 hex key for cartridge clamping				SW 3	SW 5	SW 5

Self-balancing precision boring tool B4030

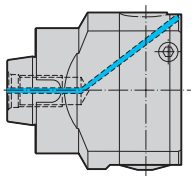
Walter Precision^{MEDIUM}



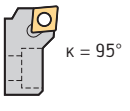
D_c 70–153	κ=95°	κ=93°	Z=1

	P	M	K	N	S	H	O
B4030	●●	●●	●●	●●	●●		●

Basic body



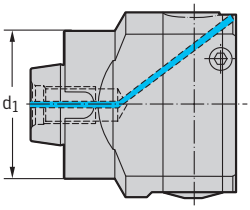
Cartridge with C insert



B 2

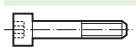
Tool

Designation	d_1 mm	D_c mm	Designation	Type	
NCT					
B4030G.N6.070-090.Z1	NCT63	70–90	EB327.CC06	CC . . 0602 . .	
B4030G.N8.090-110.Z1*	NCT80	90–110			
B4030G.N8.110-153.Z1*	NCT80	110–153			

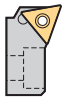


* Aluminium design
For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

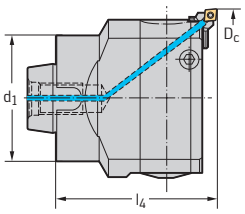
Assembly parts

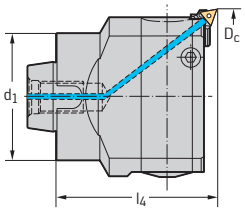
		$D_{c\ min–max}$ [mm]					
		33–41	41–55	55–70	70–90	90–110	110–153
	Clamping screw	FS2031 (SW 2,5)	FS2032 (SW 3)	FS2033 (SW 4)	FS2034 (SW 5)	FS2035 (SW 6)	FS2036 (SW 6)
	Tightening torque	2,5 Nm	3,0 Nm	6,0 Nm	10 Nm	12 Nm	12 Nm
	Clamping screw for cartridge	FS2080 (Torx 15IP)	FS1495 (Torx 20IP)	FS1091 (SW 3)			
	Tightening torque	2,5 Nm	2,5 Nm	2,5 Nm			
	Clamping screw for indexable insert	CC . . 0602 . . = FS1454 (Torx 8IP) 1,2 Nm					
	Tightening torque	TC . . 06T1 . . = FS2148 (Torx 6IP) 0,6 Nm					

Cartridge with T insert



Complete tool





B 2

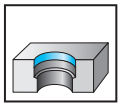
Designation	Type	d_1 mm	l_4 mm	kg	Designation with C insert	Designation with T insert
EB347.TC06	TC . . 06T1 . .	63	100	2,5	B4030.N6.070-090.Z1.CC06	B4030.N6.070-090.Z1.TC06
		80	100	1,6	B4030.N8.090-110.Z1.CC06	B4030.N8.090-110.Z1.TC06
		80	100	2,0	B4030.N8.110-153.Z1.CC06	B4030.N8.110-153.Z1.TC06

Accessories

		for $D_{c\ min-max}$ [mm]				
		33–41	41–55	55–70	70–90	90–153
	Screwdriver for clamping screw	CC . . 0602 . . = FS1483 (Torx 8IP) TC . . 06T1 . . = FS2086 (Torx 6IP)				
	DIN 911 hex key for clamping screw	SW 2,5	SW 3	SW 4	SW 5	SW 6
	Key for cartridge clamping	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)			
	DIN 911 hex key for cartridge clamping			SW 3		

Precision boring tool with bridge design
B3230

Walter Precision^{MAXI}

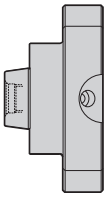


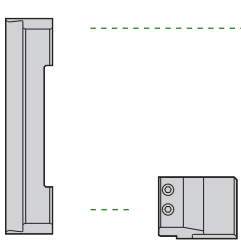
– 0.01 mm adjustment accuracy

	D_c 150–640	κ=95°	κ=93°	Z=1

	P	M	K	N	S	H	O
B3230	●●	●●	●●	●●	●●	●	●

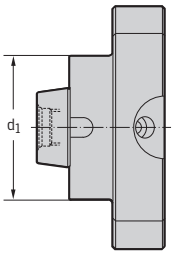
Basic body





B2

Tool	Designation	d_1 mm	D_c mm	Bridge	Balance weight	Cartridge holder	
NCT	B3223G.N8.150-640	NCT80	150–220	EB 124	EB121	EB123	
			220–290	EB 125			
			290–360	EB 126			
			360–430	EB 127			
			430–500	EB 128			
			500–570	EB 129			
			570–640	EB 130			

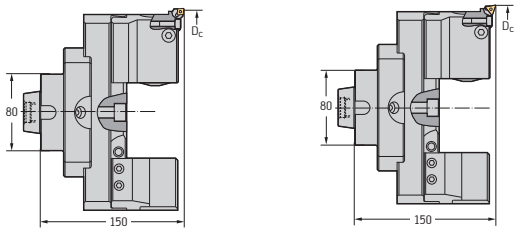


For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

		Designation	Tightening torque
	Clamping screw for bridge	FS1114 (SW 10)	120 Nm
	Clamping screw for balance compensation slide	FS1086 (SW 6)	25 Nm
	Clamping screw for cartridge holder and balance compensation	FS1113 (SW 6)	15 Nm
	Clamping screw for cartridge	FS1092 (SW 5)	12 Nm
	Clamping screw for indexable insert	FS1454 (Torx 8IP)	1,2 Nm

Cartridge with C insert | Cartridge with W insert | Complete tool



B 2

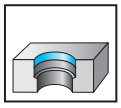
Designation	Type	Designation	Type		Standard designation with C insert	Standard designation with T insert
EB329.CC06	CCGT 06 . .	EB 349.TC11	TC . . 1102 . .	7,9	B3230.N8.150-220.Z1.CC06	B3230.N8.150-220.Z1.TC11
				9,2	B3230.N8.220-290.Z1.CC06	B3230.N8.220-290.Z1.TC11
				10,5	B3230.N8.290-360.Z1.CC06	B3230.N8.290-360.Z1.TC11
				11,7	B3230.N8.360-430.Z1.CC06	B3230.N8.360-430.Z1.TC11
				13,0	B3230.N8.430-500.Z1.CC06	B3230.N8.430-500.Z1.TC11
				14,3	B3230.N8.500-570.Z1.CC06	B3230.N8.500-570.Z1.TC11
				15,5	B3230.N8.570-640.Z1.CC06	B3230.N8.570-640.Z1.TC11

Accessories

	Screwdriver for clamping screw	FS1483 (Torx 8IP)
	DIN 911 hex key	SW 5 / SW 6 / SW 10

Precision boring tool with bridge design B3234

Walter Precision^{MAXI}

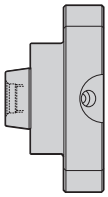


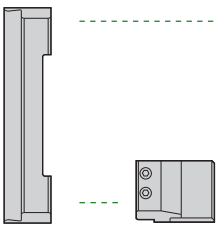
– 0.01 mm adjustment accuracy
– Cutting edge orientation rotated by 90° in relation to B3230

D_c 150–640	κ=95°	κ=93°	Z=1

	P	M	K	N	S	H	O
B3224	●●	●●	●●	●●	●●	●	●

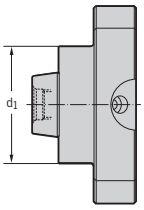
Basic body





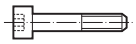
B2

Tool

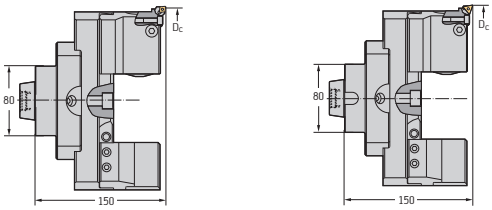
Designation	d_1 mm	D_c mm	Bridge	Balance weight	Cartridge holder
NCT 		150–220	EB124		
		220–290	EB125		
		290–360	EB126		
B3224G.N8.150-640	NCT80	360–430	EB127	EB121	EB123
		430–500	EB128		
		500–570	EB129		
		570–640	EB130		

For assembly aids, see page D 1.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Designation	Tightening torque
 Clamping screw for bridge	FS1114 (SW 10)	120 Nm
 Clamping screw for balance compensation slide	FS1086 (SW 6)	25 Nm
 Clamping screw for cartridge holder and balance compensation	FS1113 (SW 6)	15 Nm
 Clamping screw for cartridge	FS1092 (SW 5)	12 Nm
 Clamping screw for indexable insert	FS1454 (Torx 8IP)	1,2 Nm

Cartridge with C insert | Cartridge with T insert | Complete tool



B 2

Designation	Type	Designation	Type	kg	Standard designation with C insert	Standard designation with T insert
EB329.CC06	CCGT 06 . .	EB349.TC11	TC . . 1102 . .	7,9	B3234.N8.150-220.Z1.CC06	B3234.N8.150-220.Z1.TC11
				9,2	B3234.N8.220-290.Z1.CC06	B3234.N8.220-290.Z1.TC11
				10,5	B3234.N8.290-360.Z1.CC06	B3234.N8.290-360.Z1.TC11
				11,7	B3234.N8.360-430.Z1.CC06	B3234.N8.360-430.Z1.TC11
				13,0	B3234.N8.430-500.Z1.CC06	B3234.N8.430-500.Z1.TC11
				14,3	B3234.N8.500-570.Z1.CC06	B3234.N8.500-570.Z1.TC11
				15,5	B3234.N8.570-640.Z1.CC06	B3234.N8.570-640.Z1.TC11

Accessories

	Screwdriver for clamping screw	FS1483 (Torx 8IP)
	DIN 911 hex key	SW 5 / SW 6 / SW 10

Cartridges product range overview

Machining	Counterboring and step drilling	
Lead angle κ [°]	**45°**	**75°**
Designation	**PSSN R/L**	**PSKN R/L**
Standard	ISO 5611	
$D_{c\ min}$ [mm]	50	40/50/60/70/100
Page	343	342
		

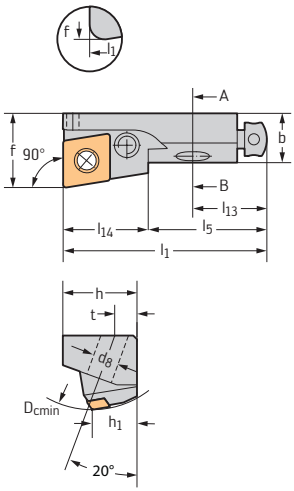
B 2

Machining	Counterboring and step drilling			
Lead angle κ [°]	**90°/95°**			
Designation	**PCFN R/L**	**PTFN R/L**	**STFC R/L**	**PCLN R/L**
Standard	ISO 5611			
$D_{c\ min}$ [mm]	50	50	25/40	50
Page	340	344	345	341
				

Machining	Precision boring						
Lead angle κ [°]	**90°**				**95°**		
Designation	**FR/FL 710**	**FR/FL 709**	**FR 760**	**FR 761**	**FR/FL 711**	**FR/FL 717**	**FR 763**
Standard	Walter						
Adjustment accuracy [mm]	0,01		0,002		0,01		0,002
$D_{c\ min}$ [mm]	28	36	28				
Page	346	346	346	346	347	347	347
							

ISO cartridges
PCFN mm

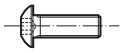
Tool



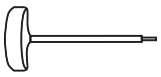
Designation	h1 mm	b mm	Dc min mm	d8 mm	l13 mm	f mm	h mm	l1 mm	l5 mm	t mm	Type
★ PCFNR12CA-12	12	13,3	50	7	20	20	20	47	32	6	CN .. 1204 ..

Measured with master insert: CN .. 120408
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	CN .. 1204 ..
	Lever	KN109
	Clamping screw for insert Tightening torque	FS332 (SW 2,5) 2,5 Nm
	Adjusting screw, axial	FS335
	Adjusting screw, radial	FS334
	Fastening screw	FS977 (Torx 30)

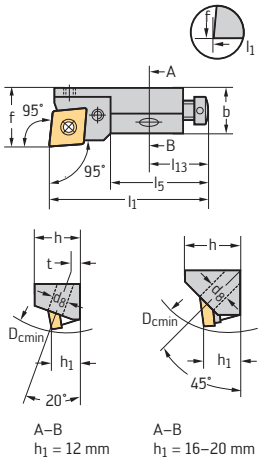
Accessories

	Type	CN .. 1204 ..
	ISO 2936 key	ISO2936-2,5 (SW 2,5)
	Handle key	FS1175 (Torx 30)

★ New addition to the product range

ISO cartridges
PCLN mm

Tool



Designation	h_1 mm	b mm	$D_{c\ min}$ mm	d_8 mm	l_{13} mm	f mm	h mm	l_1 mm	l_5 mm	t mm	Type
PCLNR/L12CA-12	12	16	50	7	20	20	20	55	28	6	CN .. 1204 ..
PCLNR/L16CA-12	16	20	60	9	25	25	25	63	35	0	
PCLNR/L20CA-16	20	20	70	9	30	25	30	70	40	0	CN .. 1606 ..
★ PCLNR25CA-19	25	25	100	11	30	32	33	90	62	0	CN .. 1906 ..

Measured with master insert: CN .. 120408 / CN .. 160612 / CN .. 190612
Ordering example, right-hand tool: PCLNR12CA-12/ordering example, left-hand tool: PCLNL12CA-12
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

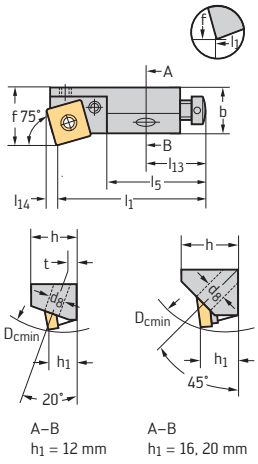
Type h_1 [mm]	CN .. 1204 .. 12	CN .. 1204 .. 16	CN .. 1204 ../CN .. 1606 .. 20	CN .. 1906 .. 25
Lever	KN109	KN121	KN104	KN106
Shim for radius		AP134-CN1216 r ≤ 1,6 mm	AP135-CN1624 r ≤ 2,4 mm	AP136-CN1924 r ≤ 2,4 mm
Clamping screw for insert Tightening torque	FS332 (SW 2,5) 2,5 Nm	FS2129 (SW 3) 5,0 Nm	FS354 (SW 3) 5,0 Nm	FS356 (SW 4) 10,0 Nm
Shim pin		RS102	RS103	RS104
Tapered assembly pin		MD101	MD102	MD102
Adjusting screw, axial	FS335	FS338	FS339	FS2575
Adjusting screw, radial	FS334	FS337	FS337	FS974 (SW 3)
Fastening screw	FS977 (Torx 30)	FS975 (Torx 40)	FS975 (Torx 40)	FS2578 (Torx 45)

Accessories

Type h_1 [mm]	CN .. 1204 .. 12	CN .. 1204 .. 16–20	CN .. 1606 .. 20	CN .. 1906 .. 25
ISO 2936 key	ISO2936-2,5 (SW 2,5)	ISO2936-3 (SW 3)	ISO2936-3 (SW 3)	ISO2936-4 (SW 4)
Handle key	FS1175 (Torx 30)	FS1176 (Torx 40)	FS1176 (Torx 40)	FS2577 (Torx 45)

ISO cartridges
PSKN mm

Tool



Designation	l_{14} mm	h_1 mm	b mm	$D_{c\ min}$ mm	d_8 mm	l_{13} mm	f mm	h mm	l_1 mm	l_5 mm	t mm	Type
★ PSKNR10CA-09	2,2	10	10	40	7	20	14	15	44	17	5	SN .. 0903 ..
PSKNR/L12CA-12	3,1	12	16	50	7	20	20	20	55	32	6	SN .. 1204 ..
PSKNR/L16CA-12	3,1	16	20	60	9	25	25	25	63	37	0	
PSKNR/L20CA-15	3,8	20	20	70	9	30	25	30	70	40	0	SN .. 1506 ..
★ PSKNR25CA-19	4,6	25	25	100	11	30	32	33	90	63	0	SN .. 1906 ..

Measured with master insert: SN .. 090308 / SN .. 120408 / SN .. 150612 / SN .. 190612
Ordering example, right-hand tool: PSKNR12CA-12/ordering example, left-hand tool: PSKNL12CA-12
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type h_1 [mm]	SN .. 0903 .. 10	SN .. 1204 .. 12	SN .. 1204 .. 16	SN .. 1506 .. 20	SN .. 1906 .. 25
Shim for radius			AP141-SN1216 r ≤ 1,6 mm	AP142-SN1524 r ≤ 2,4 mm	AP143-SN1924 r ≤ 2,4 mm
Lever	KN126	KN109	KN121	KN104	KN106
Clamping screw for insert Tightening torque	FS2182 (SW 2) 2,0 Nm	FS332 (SW 2,5) 2,5 Nm	FS2129 (SW 3) 5,0 Nm	FS354 (SW 3) 5,0 Nm	FS356 (SW 4) 10,0 Nm
Shim pin			RS102	RS103	RS104
Tapered assembly pin			MD101	MD102	MD102
Adjusting screw, axial	FS335	FS335	FS338	FS339	FS2575
Adjusting screw, radial	FS333	FS333	FS337	FS337	FS974 (SW 3)
Fastening screw	FS976 (Torx 30)	FS977 (Torx 30)	FS975 (Torx 40)	FS975 (Torx 40)	FS2578 (Torx 45)

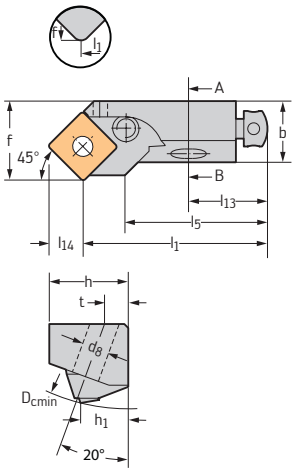
Accessories

Type h_1 [mm]	SN .. 0903 .. 10	SN .. 1204 .. 12	SN .. 1204 .. 16	SN .. 1506 .. 20	SN .. 1906 .. 25
ISO 2936 key	ISO2936-2 (SW 2)	ISO2936-2,5 (SW 2,5)	ISO2936-3 (SW 3)	ISO2936-3 (SW 3)	ISO2936-4 (SW 4)
Handle key	FS1175 (Torx 30)	FS1175 (Torx 30)	FS1176 (Torx 40)	FS1176 (Torx 40)	FS2577 (Torx 45)

/ ★ New addition to the product range

ISO cartridges
PSSN mm

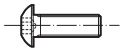
Tool



Designation	l_{14} mm	h_1 mm	b mm	$D_{c\ min}$ mm	d_8 mm	l_{13} mm	f mm	h mm	l_1 mm	l_5 mm	t mm	Type
★ PSSNR12CA-12	8,3	12	15,5	50	7	20	20	20	38	30	6	SN .. 1204 ..

Measured with master insert: SN .. 120408
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	SN .. 1204 ..
	Lever	KN109
	Clamping screw for insert Tightening torque	FS332 (SW 2,5) 2,5 Nm
	Adjusting screw, axial	FS335
	Adjusting screw, radial	FS333
	Fastening screw	FS977 (Torx 30)

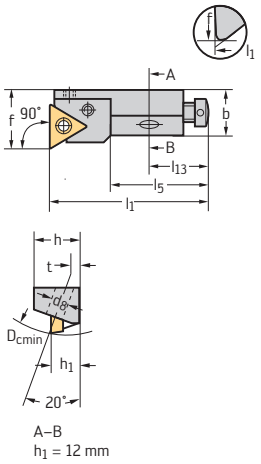
Accessories

	Type	SN .. 1204 ..
	ISO 2936 key	ISO2936-2,5 (SW 2,5)
	Handle key	FS1175 (Torx 30)

B 2

ISO cartridges
PTFN mm

Tool



A–B
h_1 = 12 mm

Designation	h_1 mm	b mm	$D_{c\ min}$ mm	d_8 mm	l_{13} mm	f mm	h mm	l_1 mm	l_5 mm	t mm	Type
PTFNR/L12CA-16	12	15	50	7	20	20	20	55	33	6	TN .. 1604 ..
★ PTFNR20CA-22	20	20	70	9	30	25	30	70	40	0	TN .. 2204 ..

Measured with master insert: TN .. 160408 / TN .. 220408
Ordering example, right-hand tool: PTFNR12CA-16/ordering example, left-hand tool: PTFNL12CA-16
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	TN .. 1604 ..	TN .. 2204 ..
	Shim for radius		AP138-TN2216 r ≤ 1,6 mm
	Lever	KN108	KN102
	Clamping screw for insert Tightening torque	FS331 (SW 2) 2,0 Nm	FS352 (SW 3) 5,0 Nm
	Shim pin		RS102
	Tapered assembly pin		MD101
	Adjusting screw, axial	FS335	FS338
	Adjusting screw, radial	FS333	FS337
	Fastening screw	FS977 (Torx 30)	FS977 (Torx 30)

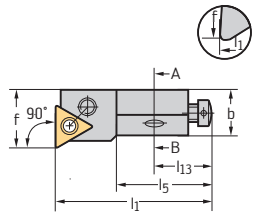
Accessories

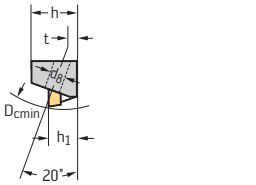
	Type	TN .. 1604 ..	TN .. 2204 ..
	ISO 2936 key	ISO2936-2 (SW 2)	ISO2936-3 (SW 3)
	Handle key	FS1175 (Torx 30)	FS1176 (Torx 40)

/ ★ New addition to the product range

ISO cartridges
STFC mm

Tool



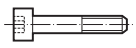


A–B
h_1 = 10, 12 mm

Designation	h_1 mm	b mm	$D_{c\ min}$ mm	d_8 mm	l_{13} mm	f mm	h mm	l_1 mm	l_5 mm	t mm	Type
★ STFCR/L08CA-09	8	6,6	25	5	17	10	9	32	22	5	TC .. 0902 ..
STFCR/L10CA-11	10	11	40	7	20	14	15	50	33	5	TC .. 1102 ..

Measured with master insert: TC .. 090204 / TC .. 110204
Ordering example, right-hand tool: STFCR08CA-09/ordering example, left-hand tool: STFCL08CA-09
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	TC .. 0902 ..	TC .. 1102 ..
	Clamping screw for insert Tightening torque	FS2149 (Torx 7IP) 0,9 Nm	FS375 (Torx 7) 0,8 Nm
	Adjusting screw, axial	FS1023	FS335
	Adjusting screw, radial	FS493	FS369
	Fastening screw	FS2106 (Torx 15IP)	FS976 (Torx 30)

Accessories

	Type	TC .. 0902 ..	TC .. 1102 ..
	Screwdriver	FS2088 (Torx 7IP)	FS309 (Torx 7)
	Handle key	FS1485 (Torx 15IP)	FS1175 (Torx 30)

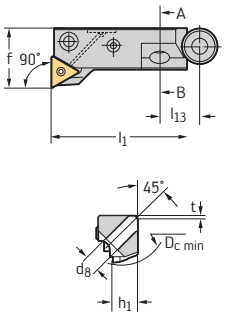
B 2

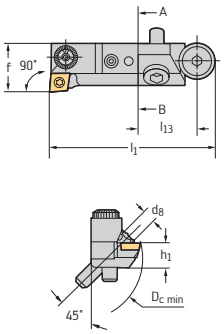
Precision boring cartridges

– 0.01 and 0.002 mm adjustment accuracy

Tool

	Designation	$D_{c\ min}$ mm	d_8 mm	l_{13} mm	f mm	h_1 mm	l_1 mm	t mm	Set mm	Indexable insert type
κ = 90°	FR709 / FL709	36	4,5	9,25	20	8,5	49,8	1	0,01	TC . . 1102 . .
	FR760	36	5,5	13,5	20	8,5	49,5	1	0,002	TC . . 1102 . .
κ = 90°	FR710 / FL710	28	4,5	9,25	16	8,5	49,5	1	0,01	CC . . 0602 . .
	FR761	28	5,5	13,5	16	8,5	49,5	1	0,002	CC . . 0602 . .



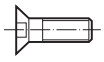


Measured with master insert TC . . 110204 and CC . . 060204

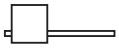
For radial/axial adjustment range, see page B 641 in the Walter General Catalogue 2017

Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Indexable insert type	TC . . 1102 . .	CC . . 0602 . .
	Clamping screw	FS1129 (Torx 8)	FS1129 (Torx 8)
	Clamping screw for cartridge	FS1354	FS1354
	Compression piece	FK369	FK369
	Adjusting screw, axial	FS1355	FS1355
	Adjusting screw, radial	FS1356	FS1356

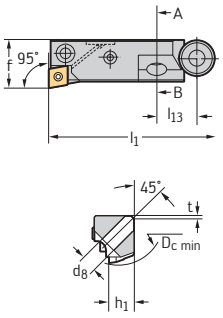
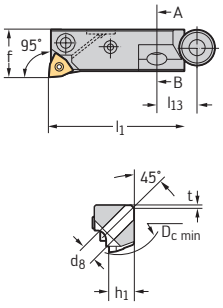
Accessories

	Indexable insert type	TC . . 1102 . .
	Screwdriver	FS257 (Torx 8)

Precision boring cartridges

– 0.01 and 0.002 mm adjustment accuracy

Tool

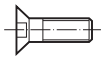
	Designation	$D_{c\ min}$ mm	d_8 mm	l_{13} mm	f mm	h_1 mm	l_1 mm	t mm	Set mm	Indexable insert type
κ = 95°	FR717 / FL717	28	4,5	9,25	16	8,5	49,5	1	0,01	CC . . 0602 . .
	FR763	28	5,5	13,5	16	8,5	49,5	1	0,002	CC . . 0602 . .
A–B										
κ = 95°	FR711 / FL711	28	4,5	9,25	16	8,5	49,8	1	0,01	WC . . 0402 . .
										
A–B										

Measured with master insert CC . . 060204

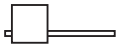
For radial/axial adjustment range, see page B 641 in the Walter General Catalogue 2017

Bodies and assembly parts are included in the scope of delivery.

Assembly parts

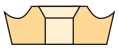
	Indexable insert type	CC . . 0602 . .
	Clamping screw	FS1129 (Torx 8)
	Clamping screw for cartridge	FS1354
	Compression piece	FK369
	Adjusting screw, axial	FS1355
	Adjusting screw, radial	FS1356

Accessories

	Indexable insert type	TC . . 1102 . .
	Screwdriver	FS257 (Torx 8)

B 2

Cutting data for precision boring (cartridges) – positive basic shape
Cermet



= Cutting data for wet machining

= Dry machining is possible.

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]			Cutting material grades		
									Starting values for cutting speed v_c [m/min]		
									HE		
									WEP10		
									f [mm/rev]		
									3 × D_c	4 × D_c	6 × D_c
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●	●	288	261	162
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	●●	●	270	216	135
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	●●	●	243	198	126
		C > 0.55%	Annealed	190	640	P4	●●	●	234	189	117
		C > 0.55%	Heat-treated	300	1010	P5	●●	●	207	171	108
		Free-machining steel (short-chipping)	Annealed	220	750	P6	●●	●	243	198	126
	Low-alloy steel	Annealed		175	590	P7	●●	●	270	216	135
		Heat-treated		285	960	P8	●●	●	225	180	117
		Heat-treated		380	1280	P9	●●	●	198	162	99
		Heat-treated		430	1480	P10	●●	●	171	135	72
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	●●	●	225	171	117
		Hardened and tempered		300	1010	P12	●●	●	189	162	99
		Hardened and tempered		380	1280	P13	●●	●	180	144	81
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●●	●	225	180	117
		Martensitic, heat-treated		330	1110	P15	●●	●	171	153	90
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●	●	207	162	108
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●	●	153	117	99
		Austenitic/ferritic, duplex		230	780	M3	●●	●	171	135	81
K	Malleable cast iron	Ferritic		200	400	K1	●●	●	225	189	108
		Pearlitic		260	700	K2	●●	●	180	153	99
	Grey cast iron	Low tensile strength		180	200	K3	●●	●	243	207	126
		High tensile strength/austenitic		245	350	K4	●●	●	180	153	99
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●	●	225	180	117
		Pearlitic		265	700	K6	●●	●	207	162	108
	GGV (CGI)			230	400	K7	●●	●			
N	Wrought aluminium alloys	Not hardenable		30	–	N1	●●	●			
		Hardenable, hardened		100	340	N2	●●	●			
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●	●			
		≤ 12% Si, hardenable, hardened		90	310	N4	●●	●			
		> 12% Si, not hardenable		130	450	N5					
	Magnesium-based alloys [3]			70	250	N6					
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7	●●	●			
		Brass, bronze, red brass		90	310	N8	●●	●			
		Cu alloys, short-chipping		110	380	N9	●●	●			
		High-tensile, Ampco		300	1010	N10					
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●	●			
			Hardened	280	940	S2	●●	●			
		Ni- or Co-based	Annealed	250	840	S3	●●	●			
			Hardened	350	1180	S4	●●	●			
			Cast	320	1080	S5	●●	●			
	Titanium alloys	Pure titanium		200	680	S6	●●	●			
		α and β alloys, hardened		375	1260	S7	●●	●			
		β alloys		410	1400	S8	●●	●			
	Tungsten alloys			300	1010	S9					
	Molybdenum alloys			300	1010	S10					
H	Hardened steel	Hardened and tempered		50 HRC		H1	●	●●			
		Hardened and tempered		55 HRC		H2	●	●●			
		Hardened and tempered		60 HRC		H3	●	●●			
	Hardened cast iron	Hardened and tempered		55 HRC		H4	●	●●			
O	Thermoplastics	Without abrasive fillers				O1					
	Thermosets	Without abrasive fillers				O2					
	Plastic, glass-fibre-reinforced	GFRP				O3					
	Plastic, carbon-fibre-reinforced	CFRP				O4					
	Plastic, aramid-fibre-reinforced	AFRP				O5					
	Graphite (technical)			80 Shore		O6					

●● Recommended application (the specified cutting data is regarded as starting values for the recommended application)

● Possible application, reduce cutting data by 30–50% (increase by approx. 70–80% for ISO M)

Note: If dry machining is possible, the tool life is reduced by 20–30% on average.
For specific applications, adjustment is recommended.

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

HE = Coated cermet

[1] The classification of the machining groups can be found from page B 1174 onwards in the Walter General Catalogue 2017.

[3] Water-miscible coolants must not be used when machining magnesium alloys.

Tapping – B3

Thread forming – B3

Thread milling – B4

Technical information – B3/B4

HSS-E(-PM) taps product range overview
M – Metric thread

Machining						
Thread depth	**3,5 × D_N**	**1,5 × D_N**		**2,5 × D_N**		**3 × D_N**
Designation	**TC216 Perform**	**TC122 Supreme**	**Paradur® Ni**	**TC121 Supreme**	**TC122 Supreme**	**TC115 Perform**
Dimension range	M 1.6–M 20	M 3–M 20	M 2–M 20	M 2–M 20	M 5–M 20	M 1.6–M 20
Tolerance	6H	6HX	6HX	6HX	6HX	6H
Coolant supply	External	External	External	External/axial	Axial	External
Chamfer form	B	C	C	C	C	C / E
Coating/grade	WY80FC / WY80AA	WW60BC	TiCN/uncoated	WW60RG / WY80BD	WW60BC	WY80FC / WY80AA
Version length	M	M	M	M	M	M
Page	355	362	364	360	363	356
						

Machining	
Thread depth	**3 × D_N**
Designation	**TC120 Supreme**
Dimension range	M 3–M 30
Tolerance	6HX
Coolant supply	External/axial
Chamfer form	C
Coating/grade	WW60AG
Version length	M
Page	358
	

B 3

HSS-E(-PM) taps product range overview
MF – Metric fine-pitch thread

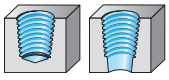
Machining		
Thread depth	**2 × D_N**	**3,5 × D_N**	**3 × D_N**
Designation	**Prototex® TiNi**	**TC216 Perform**	**TC115 Perform**
Dimension range	MF 8x0.75– MF 16x1	MF 8x1– MF 18x1.5	MF 8x1– MF 18x1.5
Tolerance	6HX	6H	6H
Coolant supply	External	External	External
Chamfer form	B	B	C
Coating/grade	TiCN/uncoated	WY80FC / WY80AA	WY80FC / WY80AA
Version length	M	M	M
Page	366	365	365
			

HSS-E(-PM) taps product range overview UNC / UNF

Machining						
Thread depth	**2 × D_N**	**3,5 × D_N**	**1,5 × D_N**	**3 × D_N**	**3,5 × D_N**	**2 × D_N**
Designation	**Prototex® TiNi**	**TC216 Perform**	**Paradur® Ni**	**TC115 Perform**	**Paradur® HT**	**Prototex® TiNi**
Dimension range	UNC 2-56– UNC 3/4-10	UNC 6-32– UNC 3/4-10	UNC 2-56– UNC 3/4-10	UNC 6-32– UNC 3/4-10	UNC 1/4-20– UNC 1"-8	UNF 4-48– UNF 5/8-18
Tolerance	3B / 2B	2B	2B	2B	2B	3B / 2B
Coolant supply	External	External	External	External	Axial	External
Chamfer form	B	B	C	C	C	B
Coating/grade	TiCN/uncoated	WY80AA	TiCN/uncoated	WY80AA	TIN	TiCN/uncoated
Version length	M	M	M	M	M	M
Page	368	367	372	370	371	373
						

Machining	
Thread depth	**1,5 × D_N**
Designation	**Paradur® Ni**
Dimension range	UNF 8-36– UNF 5/8-18
Tolerance	3B
Coolant supply	External
Chamfer form	C
Coating/grade	TiCN/uncoated
Version length	M
Page	375
	

HSS-E(-PM) taps product range overview NPT

Machining	
Thread depth	**-**
Designation	**Paradur® Ni**
Dimension range	NPT 1/16-27– NPT 1"-11.5
Tolerance	NORMAL
Coolant supply	External
Chamfer form	C
Coating/grade	TiCN/uncoated
Version length	
Page	376
	

B 3

Designation key
Taps

Example:

T	C	1	20	–	M10	–	C	1	–	W	W	60	AG
1	2	3	4	5	6		7	8		Grade			

1 – Tool group

T	Threading

2 – Generation

3 – Tool type

1	Blind hole taps
2	Through hole taps
3	Blind and through hole taps

4 – Tool type

15	Universal 45° helix angle 300–1000 N/mm²
16	Universal Straight-fluted, spiral point 300–800 N/mm²
20	ISO P 45° helix angle 350–800 N/mm²
21	ISO P 40° helix angle 800–1250 N/mm²
22	ISO P 15° helix angle 1000–1400 N/mm²
88	ISO H Straight-fluted 50–58 HRC
89	ISO H Straight-fluted 55–65 HRC

5 – 1. Delimiters

–	Metric

6 – Thread dimensions

7 – Tolerance/shank type

C	6HX, 2B Reinforced shank
L	6HX, 2B Reduced shank

8 – Modification

0	External coolant
1	Axial internal coolant
D	Chamfer form D
E	Chamfer form E

B 3

Grade designation key
for solid carbide and HSS-E(-PM) cutting tool materials

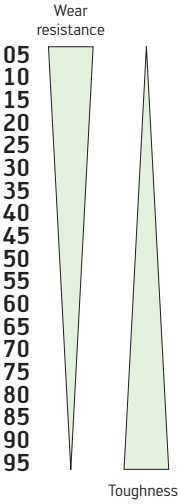
Example:

W	W	60	AG
Walter	1	2	3

1 – Substrate

Solid carbide	E	
	J	
HSS-E-PM	W	
HSS-E	Y	

2 – Application range



3 – Coating

AA	TiN
AG	TiNK/vap
BA	TiCN
BD	TiCN
BC	TiCN
RG	TiAlN

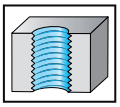
HSS-E machine taps
TC216 Perform mm

– For long-chipping materials

≤ 3,5×D_N	B=3,5-5	32HRC, 1000 –350 N/mm²

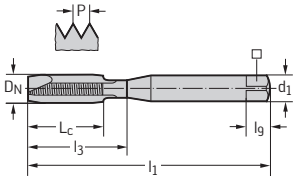
M
DIN 13

ISO2/6H



	P	M	K	N	S	H	O
WY80AA	●●	●●	●●	●●			
WY80FC	●●	●●	●●	●●			

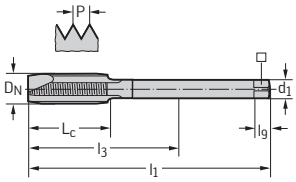
DIN 371



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA	WY80FC
TC216-M1.6-C0-	M 1.6	0,35	40	7	7	2,5	2,1	5	2	●●	●●
TC216-M2-C0-	M 2	0,4	45	6	9	2,8	2,1	5	2	●●	●●
TC216-M2.5-C0-	M 2.5	0,45	50	8	12,5	2,8	2,1	5	2	●●	●●
TC216-M3-C0-	M 3	0,5	56	9	18	3,5	2,7	6	2	●●	●●
TC216-M4-C0-	M 4	0,7	63	12	21	4,5	3,4	6	3	●●	●●
TC216-M5-C0-	M 5	0,8	70	13	25	6	4,9	8	3	●●	●●
TC216-M6-C0-	M 6	1	80	15	30	6	4,9	8	3	●●	●●
TC216-M8-C0-	M 8	1,25	90	18	35	8	6,2	9	3	●●	●●
TC216-M10-C0-	M 10	1,5	100	20	39	10	8	11	3	●●	●●

Ordering example for the WY80FC grade: TC216-M3-C0-WY80FC

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA	WY80FC
TC216-M12-L0-	M 12	1,75	110	23	83	9	7	10	3	●●	●●
TC216-M14-L0-	M 14	2	110	25	81	11	9	12	4	●●	●●
TC216-M16-L0-	M 16	2	110	25	68	12	9	12	4	●●	●●
TC216-M20-L0-	M 20	2,5	140	30	95	16	12	15	4	●●	●●

Ordering example for the WY80FC grade: TC216-M12-L0-WY80FC

B 3

●● / ★ New addition to the product range

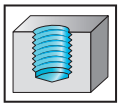
HSS-E machine taps
TC115 Perform mm

– For long-chipping materials

≤ 3×D_N | C=2-3 | 45° | 32HRC 1000 –350 N/mm²

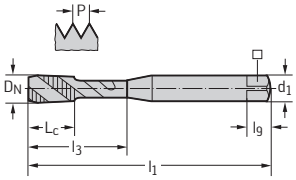
M
DIN 13

ISO2/6H



	P	M	K	N	S	H	O
WY80AA	●●	●●	●●	●			
WY80FC	●●	●●	●●	●			

DIN 371

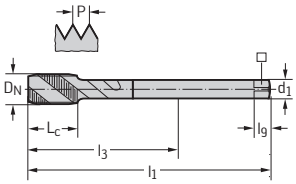


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA	WY80FC
TC115-M1.6-C0-	M 1.6	0,35	40	6	6	2,5	2,1	5	2	●●	●●
TC115-M2-C0-	M 2	0,4	45	4	9	2,8	2,1	5	3	●●	●●
TC115-M2.5-C0-	M 2.5	0,45	50	4	12,5	2,8	2,1	5	3	●●	●●
TC115-M3-C0-	M 3	0,5	56	6	18	3,5	2,7	6	3	●●	●●
TC115-M4-C0-	M 4	0,7	63	7	21	4,5	3,4	6	3	●●	●●
TC115-M5-C0-	M 5	0,8	70	8	25	6	4,9	8	3	●●	●●
TC115-M6-C0-	M 6	1	80	10	30	6	4,9	8	3	●●	●●
TC115-M8-C0-	M 8	1,25	90	12	35	8	6,2	9	3	●●	●●
TC115-M10-C0-	M 10	1,5	100	15	39	10	8	11	3	●●	●●

Ordering example for the WY80FC grade: TC115-M3-C0-WY80FC

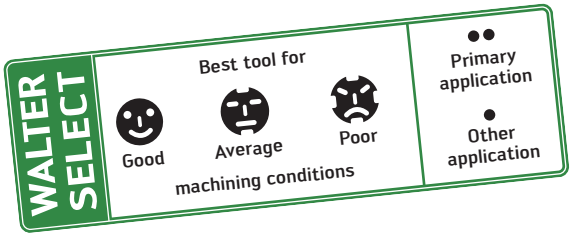
B 3

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA	WY80FC
TC115-M12-L0-	M 12	1,75	110	16	83	9	7	10	3	●●	●●
TC115-M14-L0-	M 14	2	110	20	81	11	9	12	3	●●	●●
TC115-M16-L0-	M 16	2	110	20	68	12	9	12	3	●●	●●
TC115-M20-L0-	M 20	2,5	140	25	95	16	12	15	4	●●	●●

Ordering example for the WY80FC grade: TC115-M12-L0-WY80FC

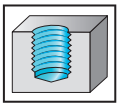


HSS-E machine taps
TC115 Perform mm

– For long-chipping materials

M
DIN 13

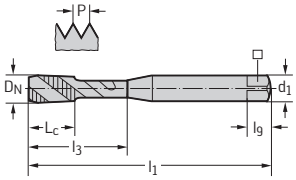
ISO2/6H



≤ 3×D_N | E=1,5-2 | 45° | 32HRC, 1000 –350 N/mm²

	P	M	K	N	S	H	O
WY80AA	●●	●●	●●	●			

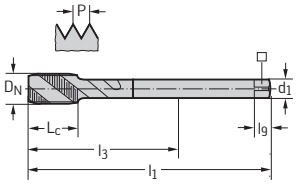
DIN 371



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA
TC115-M3-CE-	M 3	0,5	56	6	18	3,5	2,7	6	3	●●
TC115-M4-CE-	M 4	0,7	63	7	21	4,5	3,4	6	3	●●
TC115-M5-CE-	M 5	0,8	70	8	25	6	4,9	8	3	●●
TC115-M6-CE-	M 6	1	80	10	30	6	4,9	8	3	●●
TC115-M8-CE-	M 8	1,25	90	12	35	8	6,2	9	3	●●
TC115-M10-CE-	M 10	1,5	100	15	39	10	8	11	3	●●

Ordering example for the WY80AA grade: TC115-M3-CE-WY80AA

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA
TC115-M12-LE-	M 12	1,75	110	16	83	9	7	10	3	●●
TC115-M14-LE-	M 14	2	110	20	81	11	9	12	3	●●
TC115-M16-LE-	M 16	2	110	20	68	12	9	12	3	●●
TC115-M20-LE-	M 20	2,5	140	25	95	16	12	15	4	●●

Ordering example for the WY80AA grade: TC115-M12-LE-WY80AA

B 3

●● / ★ New addition to the product range

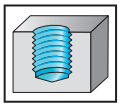
HSS-E-PM machine taps
TC120 Supreme mm

– For long-chipping materials

≤ 3×D_N	C=2-3	45°	25HRC 850 –350 N/mm²

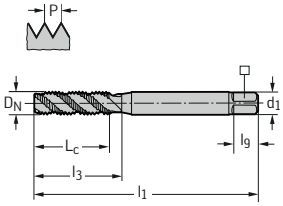
M
DIN 13

6HX



	P	M	K	N	S	H	O
WW60AG	●●			●			

DIN 371

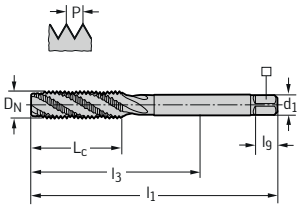


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AG
TC120-M3-C0-	M 3	0,5	56	10	18	3,5	2,7	6	3	●●
TC120-M4-C0-	M 4	0,7	63	13,5	21	4,5	3,4	6	3	●●
TC120-M5-C0-	M 5	0,8	70	16,5	25	6	4,9	8	3	●●
TC120-M6-C0-	M 6	1	80	20	30	6	4,9	8	3	●●
TC120-M8-C0-	M 8	1,25	90	26,5	35	8	6,2	9	3	●●
TC120-M10-C0-	M 10	1,5	100	33	39	10	8	11	3	●●

Ordering example for the WW60AG grade: TC120-M3-C0-WW60AG

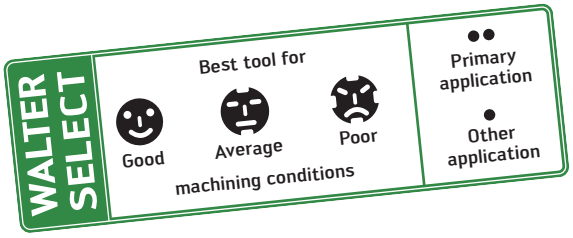
B 3

DIN 376



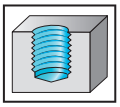
Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AG
TC120-M12-L0-	M 12	1,75	110	39,5	83	9	7	10	4	●●
TC120-M16-L0-	M 16	2	120	52	78	12	9	12	4	●●
TC120-M20-L0-	M 20	2,5	140	65	95	16	12	15	4	●●
TC120-M24-L0-	M 24	3	160	78	113	18	14,5	17	4	●●
TC120-M30-L0-	M 30	3,5	205	97	140	22	18	21	4	●●

Ordering example for the WW60AG grade: TC120-M12-L0-WW60AG



HSS-E-PM machine taps
TC120 Supreme mm

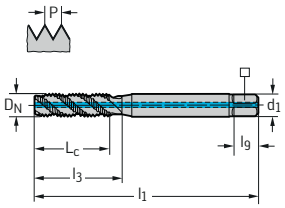
– For long-chipping materials

M DIN 13	6HX	

≤ 3×D_N	C=2-3	45°		25HRC 850 –350 N/mm²

	P	M	K	N	S	H	O
WW60AG	●●			●			

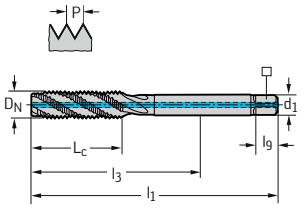
DIN 371



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AG
TC120-M8-C1-	M 8	1,25	90	26,5	35	8	6,2	9	3	●
TC120-M10-C1-	M 10	1,5	100	33	39	10	8	11	3	●

Ordering example for the WW60AG grade: TC120-M8-C1-WW60AG

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AG
TC120-M12-L1-	M 12	1,75	110	39,5	83	9	7	10	4	●
TC120-M16-L1-	M 16	2	120	52	78	12	9	12	4	●

Ordering example for the WW60AG grade: TC120-M12-L1-WW60AG

B 3

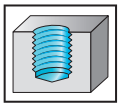
HSS-E(-PM) machine taps
TC121 Supreme mm

– WW60RG = HSS-E-PM + TiALN
– WY80BD = HSS-E + TiCN

≤ 2,5×D_N | C=2-3 | 40° | 40HRC 1300 –800 N/mm²

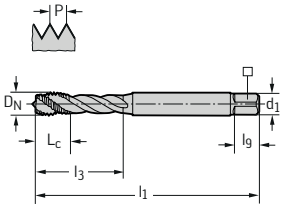
M
DIN 13

6HX



	P	M	K	N	S	H	O
WW60RG	●●	●	●	●			
WY80BD	●●	●	●	●			

DIN 371

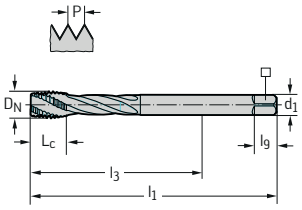


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60RG	WY80BD
TC121-M2-C0-	M 2	0,4	45	4	7,6	2,8	2,1	5	3	✱	✱
TC121-M3-C0-	M 3	0,5	56	6	11	3,5	2,7	6	3	✱	✱
TC121-M4-C0-	M 4	0,7	63	7	14,8	4,5	3,4	6	3	✱	✱
TC121-M5-C0-	M 5	0,8	70	8	20,7	6	4,9	8	3	✱	✱
TC121-M6-C0-	M 6	1	80	10	25	6	4,9	8	3	✱	✱
TC121-M8-C0-	M 8	1,25	90	12	35	8	6,2	9	3	✱	✱
TC121-M10-C0-	M 10	1,5	100	15	39	10	8	11	3	✱	✱

Ordering example for the WW60RG grade: TC121-M2-C0-WW60RG

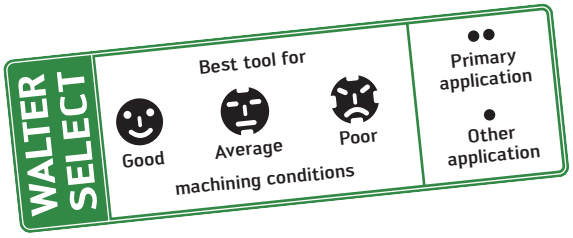
B 3

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60RG	WY80BD
TC121-M12-L0-	M 12	1,75	110	16	83	9	7	10	4	✱	✱
TC121-M14-L0-	M 14	2	110	20	81	11	9	12	4	✱	✱
TC121-M16-L0-	M 16	2	110	20	68	12	9	12	4	✱	✱
TC121-M20-L0-	M 20	2,5	140	25	95	16	12	15	4	✱	✱

Ordering example for the WW60RG grade: TC121-M12-L0-WW60RG

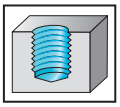


HSS-E(-PM) machine taps
TC121 Supreme mm

– For long-chipping materials

M
DIN 13

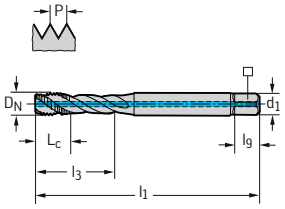
6HX



≤ 2,5×D_N | C=2-3 | 40° | 40HRC 1300 –800 N/mm²

	P	M	K	N	S	H	O
WW60RG	●●	●	●	●			

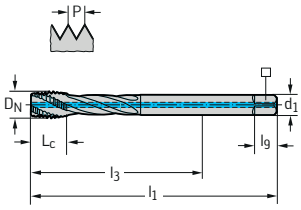
DIN 371



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60RG
TC121-M5-C1-	M 5	0,8	70	8	20,7	6	4,9	8	3	●
TC121-M6-C1-	M 6	1	80	10	25	6	4,9	8	3	●
TC121-M8-C1-	M 8	1,25	90	12	35	8	6,2	9	3	●
TC121-M10-C1-	M 10	1,5	100	15	39	10	8	11	3	●

Ordering example for the WW60RG grade: TC121-M5-C1-WW60RG

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60RG
TC121-M12-L1-	M 12	1,75	110	16	83	9	7	10	4	●
TC121-M14-L1-	M 14	2	110	20	81	11	9	12	4	●
TC121-M16-L1-	M 16	2	110	20	68	12	9	12	4	●
TC121-M20-L1-	M 20	2,5	140	25	95	16	12	15	4	●

Ordering example for the WW60RG grade: TC121-M12-L1-WW60RG

HSS-E-PM machine taps
TC122 Supreme mm

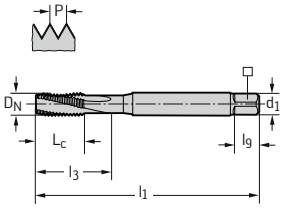
– For long-chipping materials

M	6HX	
DIN 13		

≤ 1,5×D_N | C=2-3 | 15° | 44HRC 1400 –1000 N/mm²

	P	M	K	N	S	H	O
WW60BC	●●		●				

DIN 371

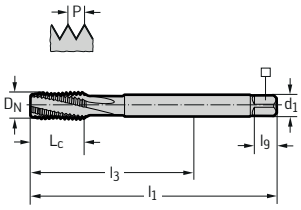


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60BC
TC122-M3-C0-	M 3	0,5	56	10	10	3,5	2,7	6	3	✱
TC122-M4-C0-	M 4	0,7	63	13	13	4,5	3,4	6	3	✱
TC122-M5-C0-	M 5	0,8	70	16	16	6	4,9	8	3	✱
TC122-M6-C0-	M 6	1	80	15	30	6	4,9	8	3	✱
TC122-M8-C0-	M 8	1,25	90	18	35	8	6,2	9	3	✱
TC122-M10-C0-	M 10	1,5	100	20	39	10	8	11	3	✱

Ordering example for the WW60BC grade: TC122-M3-C0-WW60BC

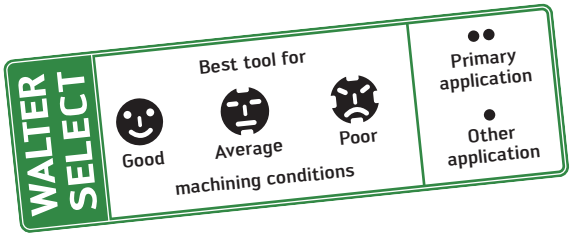
B 3

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60BC
TC122-M12-L0-	M 12	1,75	110	23	83	9	7	10	4	✱
TC122-M14-L0-	M 14	2	110	25	81	11	9	12	4	✱
TC122-M16-L0-	M 16	2	110	25	68	12	9	12	4	✱
TC122-M20-L0-	M 20	2,5	140	30	95	16	12	15	4	✱

Ordering example for the WW60BC grade: TC122-M12-L0-WW60BC

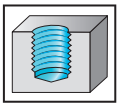


HSS-E-PM machine taps
TC122 Supreme mm

– For long-chipping materials

M
DIN 13

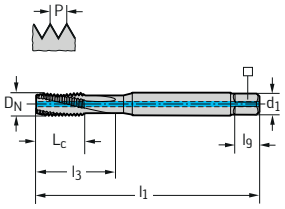
6HX



≤ 2,5×D_N | C=2-3 | 15° | 44HRC 1400 –1000 N/mm²

	P	M	K	N	S	H	O
WW60BC	●●		●				

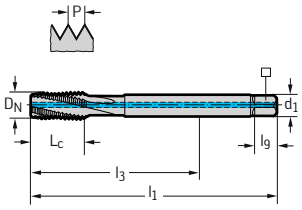
DIN 371



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60BC
TC122-M5-C1-	M 5	0,8	70	16	16	6	4,9	8	3	●
TC122-M6-C1-	M 6	1	80	15	30	6	4,9	8	3	●
TC122-M8-C1-	M 8	1,25	90	18	35	8	6,2	9	3	●
TC122-M10-C1-	M 10	1,5	100	20	39	10	8	11	3	●

Ordering example for the WW60BC grade: TC122-M5-C1-WW60BC

DIN 376



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60BC
TC122-M12-L1-	M 12	1,75	110	23	83	9	7	10	4	●
TC122-M14-L1-	M 14	2	110	25	81	11	9	12	4	●
TC122-M16-L1-	M 16	2	110	25	68	12	9	12	4	●
TC122-M20-L1-	M 20	2,5	140	30	95	16	12	15	4	●

Ordering example for the WW60BC grade: TC122-M12-L1-WW60BC

HSS-E-PM machine taps

mm

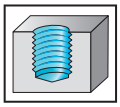
Paradur® Ni

– For long-chipping materials

≤ 1,5×D_N	C=2-3	25°	44HRC 1400 –700 N/mm²

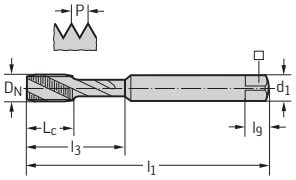
M
DIN 13

6HX



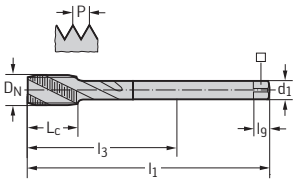
	P	M	K	N	S	H	O
TiCN	●				●●		
Uncoated	●				●●		

~DIN 371



Designation TiCN	Designation uncoated	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
20410206-M2	204102-M2	M 2	0,4	45	8	8	2,8	2,1	5	3
20410206-M2.5	204102-M2.5	M 2.5	0,45	50	9	30	2,8	2,1	5	3
20410206-M3	204102-M3	M 3	0,5	56	10	35	3,5	2,7	6	3
20410206-M4	204102-M4	M 4	0,7	63	13	42	4,5	3,4	6	3
20410206-M5	204102-M5	M 5	0,8	70	16	16	6	4,9	8	3
20410206-M6	204102-M6	M 6	1	80	15	23	6	4,9	8	3
20410206-M8	204102-M8	M 8	1,25	90	18	29,5	8	6,2	9	3
20410206-M10	204102-M10	M 10	1,5	100	20	33,5	10	8	11	4

DIN 376



Designation TiCN	Designation uncoated	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
	204602-M12	M 12	1,75	110	23	83	9	7	10	4
	204602-M14	M 14	2	110	25	81	11	9	12	4
	204602-M16	M 16	2	110	25	68	12	9	12	4
	204602-M18	M 18	2,5	125	30	81	14	11	14	5
	204602-M20	M 20	2,5	140	30	95	16	12	15	5

WALTER SELECT

●● Primary application

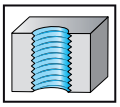
● Other application

HSS-E machine taps
TC216 Perform mm

– For long-chipping materials

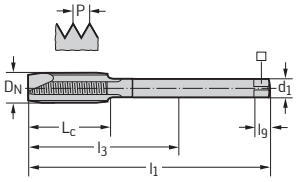
≤ 3,5×D_N | B=3,5-5 | 32HRC 1000 –350 N/mm²

MF DIN 13 | ISO2/6H



	P	M	K	N	S	H	O
WY80AA	●●	●●	●●	●●			
WY80FC	●●	●●	●●	●●			

DIN 374



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA	WY80FC
TC216-M8X1-L0-	MF 8x1	1	90	18	67	6	4,9	8	3		
TC216-M10X1-L0-	MF 10x1	1	90	20	67	7	5,5	8	3		
TC216-M10X1.25-L0-	MF 10x1.25	1,25	100	20	77	7	5,5	8	3		
TC216-M12X1.25-L0-	MF 12x1.25	1,25	100	21	73	9	7	10	4		
TC216-M12X1.5-L0-	MF 12x1.5	1,5	100	21	73	9	7	10	4		
TC216-M14X1.5-L0-	MF 14x1.5	1,5	100	21	71	11	9	12	4		
TC216-M16X1.5-L0-	MF 16x1.5	1,5	100	21	58	12	9	12	4		
TC216-M18X1.5-L0-	MF 18x1.5	1,5	110	24	66	14	11	14	4		

Ordering example for the WY80FC grade: TC216-M8X1-L0-WY80FC

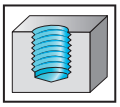
B 3

HSS-E machine taps
TC115 Perform mm

– For long-chipping materials

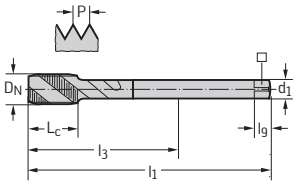
≤ 3×D_N | C=2-3 | 45° | 32HRC 1000 –350 N/mm²

MF DIN 13 | ISO2/6H



	P	M	K	N	S	H	O
WY80AA	●●	●●	●●	●			
WY80FC	●●	●●	●●	●			

DIN 374



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA	WY80FC
TC115-M8X1-L0-	MF 8x1	1	90	12	67	6	4,9	8	3		
TC115-M10X1-L0-	MF 10x1	1	90	12	67	7	5,5	8	3		
TC115-M10X1.25-L0-	MF 10x1.25	1,25	100	15	77	7	5,5	8	3		
TC115-M12X1.25-L0-	MF 12x1.25	1,25	100	13	73	9	7	10	4		
TC115-M12X1.5-L0-	MF 12x1.5	1,5	100	13	73	9	7	10	4		
TC115-M14X1.5-L0-	MF 14x1.5	1,5	100	15	71	11	9	12	4		
TC115-M16X1.5-L0-	MF 16x1.5	1,5	100	15	58	12	9	12	4		
TC115-M18X1.5-L0-	MF 18x1.5	1,5	110	17	66	14	11	14	4		

Ordering example for the WY80FC grade: TC115-M8X1-L0-WY80FC

/ ★ New addition to the product range

HSS-E-PM machine taps

mm

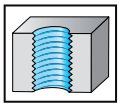
Prototex® TiNi

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | B=3,5-5 | 44HRC, 1400 –700 N/mm²

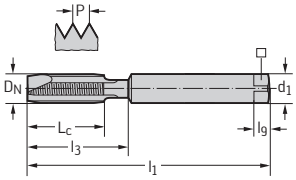
MF
DIN 13

6HX



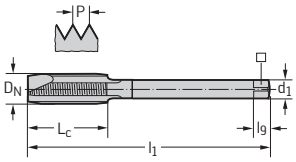
	P	M	K	N	S	H	O
TiCN	●●	●●		●	●●		
Uncoated	●●	●●		●	●●		

~DIN 371



Designation TiCN	Designation uncoated	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
21216106-M8X0.75	212161-M8X0.75	MF 8x0.75	0,75	80	10	29	8	6,2	9	3
21216106-M8X1	212161-M8X1	MF 8x1	1	90	12	29	8	6,2	9	3

DIN 374



Designation TiCN	Designation uncoated	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
21266106-M10X1.25	212661-M10X1.25	MF 10x1.25	1,25	100	20	77	7	5,5	8	3
21266106-M12X1	212661-M12X1	MF 12x1	1	100	16	73	9	7	10	4
21266106-M12X1.25	212661-M12X1.25	MF 12x1.25	1,25	100	21	73	9	7	10	4
21266106-M12X1.5	212661-M12X1.5	MF 12x1.5	1,5	100	21	73	9	7	10	4
21266106-M14X1	212661-M14X1	MF 14x1	1	100	16	71	11	9	12	4
21266106-M14X1.5	212661-M14X1.5	MF 14x1.5	1,5	100	21	71	11	9	12	4
21266106-M16X1	212661-M16X1	MF 16x1	1	100	18	58	12	9	12	4

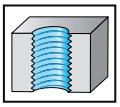
WALTER SELECT
●● Primary application
● Other application

HSS-E machine taps
TC216 Perform mm

– For long-chipping materials

UNC
ASME B1.1

2B



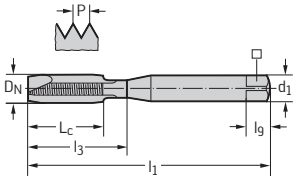
≤ 3,5×D_N

B=3,5-5

32HRC
1000
–350
N/mm²

	P	M	K	N	S	H	O
WY80AA	●●	●●	●●	●●			

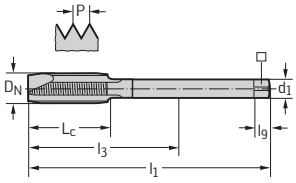
DIN 371



Designation	D_N-P	D_N mm	l_1 h9 mm	L_c mm	l_3 mm	d_1 mm	□ mm	l_9 mm	N	WY80AA
TC216-UNC6-C0-	UNC 6-32	3,505	56	11	20	4	3	6	3	●●
TC216-UNC8-C0-	UNC 8-32	4,166	63	12	21	4,5	3,4	6	3	●●
TC216-UNC10-C0-	UNC 10-24	4,826	70	13	25	6	4,9	8	3	●●
TC216-UNC1/4-C0-	UNC 1/4-20	6,35	80	15	30	7	5,5	8	3	●●
TC216-UNC5/16-C0-	UNC 5/16-18	7,938	90	18	35	8	6,2	9	3	●●
TC216-UNC3/8-C0-	UNC 3/8-16	9,525	100	20	39	10	8	11	3	●●

Ordering example for the WY80AA grade: TC216-UNC6-C0-WY80AA

DIN 376



Designation	D_N-P	D_N mm	l_1 h9 mm	L_c mm	l_3 mm	d_1 mm	□ mm	l_9 mm	N	WY80AA
TC216-UNC1/2-L0-	UNC 1/2-13	12,7	110	23	83	9	7	10	4	●●
TC216-UNC5/8-L0-	UNC 5/8-11	15,875	110	25	68	12	9	12	4	●●
TC216-UNC3/4-L0-	UNC 3/4-10	19,05	125	30	81	14	11	14	4	●●

Ordering example for the WY80AA grade: TC216-UNC1/2-L0-WY80AA

B 3

HSS-E-PM machine taps

mm

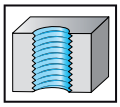
Prototex® TiNi

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | B=3,5-5 | 44HRC, 1400 –700 N/mm²

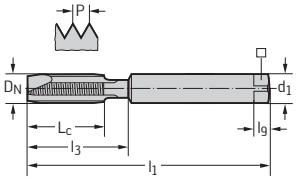
UNC
ASME B1.1

3B



	P	M	K	N	S	H	O
TiCN	●●	●●		●	●●		
Uncoated	●●	●●		●	●●		

~DIN 2184-1

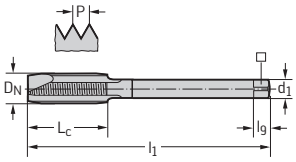


Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 h9 mm	L_c mm	l_3 mm	d_1 mm	□ mm	l_9 mm	N
2220706-UNC2	22207-UNC2	UNC 2-56	2,184	45	9	9	2,8	2,1	5	2
2220706-UNC4	22207-UNC4	UNC 4-40	2,845	56	10	10	3,5	2,7	6	2
2220706-UNC6	22207-UNC6	UNC 6-32	3,505	56	12	12	4	3	6	3
2220706-UNC8	22207-UNC8	UNC 8-32	4,166	63	13	13	4,5	3,4	6	3
2220706-UNC10	22207-UNC10	UNC 10-24	4,826	70	16	16	6	4,9	8	3
2220706-UNC1/4	22207-UNC1/4	UNC 1/4-20	6,35	80	15	25	7	5,5	8	3
2220706-UNC5/16	22207-UNC5/16	UNC 5/16-18	7,938	90	18	29,5	8	6,2	9	3
2220706-UNC3/8	22207-UNC3/8	UNC 3/8-16	9,525	100	20	33,5	10	8	11	3

≤ UNC 10: Without reduced neck after the thread

B 3

DIN 2184-1



Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 h9 mm	L_c mm	l_3 mm	d_1 mm	□ mm	l_9 mm	N
2225706-UNC7/16	22257-UNC7/16	UNC 7/16-14	11,113	100	20	76	8	6,2	9	4
2225706-UNC1/2	22257-UNC1/2	UNC 1/2-13	12,7	110	23	83	9	7	10	4
2225706-UNC5/8	22257-UNC5/8	UNC 5/8-11	15,875	110	25	68	12	9	12	4

WALTER SELECT

●● Primary application

● Other application

HSS-E-PM machine taps

mm

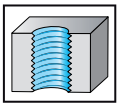
Prototex® TiNi

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | B=3,5-5 | 44HRC, 1400 –700 N/mm²

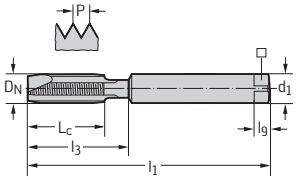
UNC
ASME B1.1

2B



	P	M	K	N	S	H	O
TiCN	●●	●●		●	●●		
Uncoated	●●	●●		●	●●		

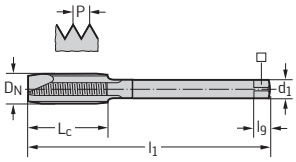
~DIN 2184-1



Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 h9 mm	L_c mm	l_3 mm	d_1 mm	□ mm	l_9 mm	N
2221706-UNC2	22217-UNC2	UNC 2-56	2,184	45	9	9	2,8	2,1	5	2
2221706-UNC4	22217-UNC4	UNC 4-40	2,845	56	10	10	3,5	2,7	6	2
2221706-UNC5	22217-UNC5	UNC 5-40	3,175	56	10	10	3,5	2,7	6	2
2221706-UNC6	22217-UNC6	UNC 6-32	3,505	56	12	12	4	3	6	3
2221706-UNC8	22217-UNC8	UNC 8-32	4,166	63	13	13	4,5	3,4	6	3
2221706-UNC10	22217-UNC10	UNC 10-24	4,826	70	16	16	6	4,9	8	3
2221706-UNC1/4	22217-UNC1/4	UNC 1/4-20	6,35	80	15	25	7	5,5	8	3
2221706-UNC5/16	22217-UNC5/16	UNC 5/16-18	7,938	90	18	29,5	8	6,2	9	3
2221706-UNC3/8	22217-UNC3/8	UNC 3/8-16	9,525	100	20	33,5	10	8	11	3

≤ UNC 10: Without reduced neck after the thread

DIN 2184-1



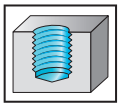
Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 h9 mm	L_c mm	l_3 mm	d_1 mm	□ mm	l_9 mm	N
2226706-UNC7/16	22267-UNC7/16	UNC 7/16-14	11,113	100	20	76	8	6,2	9	4
2226706-UNC1/2	22267-UNC1/2	UNC 1/2-13	12,7	110	23	83	9	7	10	4
2226706-UNC9/16	22267-UNC9/16	UNC 9/16-12	14,288	110	25	81	11	9	12	4
2226706-UNC5/8	22267-UNC5/8	UNC 5/8-11	15,875	110	25	68	12	9	12	4
2226706-UNC3/4	22267-UNC3/4	UNC 3/4-10	19,05	125	30	81	14	11	14	4

HSS-E machine taps
TC115 Perform mm

– For long-chipping materials

UNC
ASME B1.1

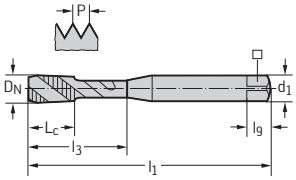
2B



≤ 3×D_N | C=2-3 | 45° | 32HRC, 1000 – 350 N/mm²

	P	M	K	N	S	H	O
WY80AA	●●	●●	●●	●			

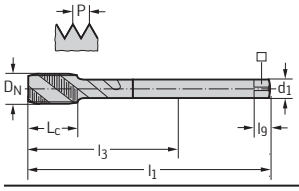
DIN 371



Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA
TC115-UNC6-C0-	UNC 6-32	3,505	56	6,5	20	4	3	6	3	⊠
TC115-UNC8-C0-	UNC 8-32	4,166	63	7	21	4,5	3,4	6	3	⊠
TC115-UNC10-C0-	UNC 10-24	4,826	70	8	25	6	4,9	8	3	⊠
TC115-UNC1/4-C0-	UNC 1/4-20	6,35	80	10	30	7	5,5	8	3	⊠
TC115-UNC5/16-C0-	UNC 5/16-18	7,938	90	12	35	8	6,2	9	3	⊠
TC115-UNC3/8-C0-	UNC 3/8-16	9,525	100	15	39	10	8	11	3	⊠

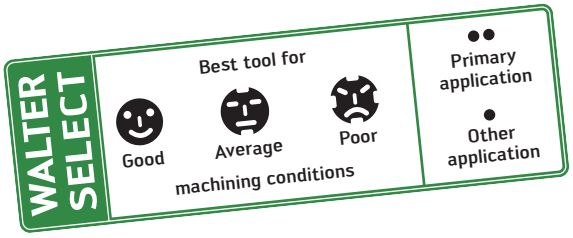
Ordering example for the WY80AA grade: TC115-UNC6-C0-WY80AA

DIN 376



Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA
TC115-UNC1/2-L0-	UNC 1/2-13	12,7	110	18	83	9	7	10	3	⊠
TC115-UNC5/8-L0-	UNC 5/8-11	15,875	110	20	68	12	9	12	3	⊠
TC115-UNC3/4-L0-	UNC 3/4-10	19,05	125	25	81	14	11	14	4	⊠

Ordering example for the WY80AA grade: TC115-UNC1/2-L0-WY80AA

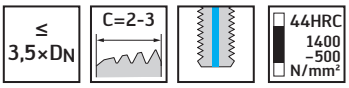


HSS-E machine taps

mm

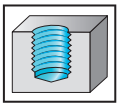
Paradur® HT

– For long-chipping and short-chipping materials



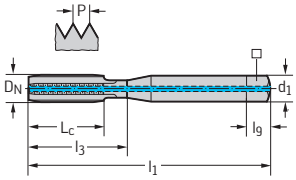
UNC
ASME B1.1

2B



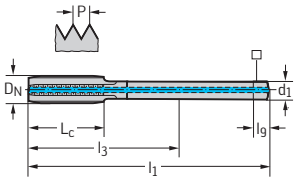
	P	M	K	N	S	H	O
TiN	●●		●●	●			●

DIN 2184-1



Designation TiN	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
2231115-UNC1/4	UNC 1/4-20	6,35	80	15	30	7	5,5	8	3
2231115-UNC5/16	UNC 5/16-18	7,938	90	18	35	8	6,2	9	3
2231115-UNC3/8	UNC 3/8-16	9,525	100	20	39	10	8	11	3

DIN 2184-1



Designation TiN	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
2236115-UNC1/2	UNC 1/2-13	12,7	110	23	83	9	7	10	3
2236115-UNC5/8	UNC 5/8-11	15,875	110	25	68	12	9	12	3
2236115-UNC3/4	UNC 3/4-10	19,05	125	30	81	14	11	14	3
2236115-UNC1	UNC 1"-8	25,4	160	36	113	18	14,5	17	4

HSS-E-PM machine taps

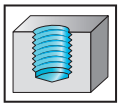
mm

Paradur® Ni

– For long-chipping materials

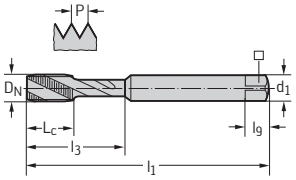
UNC
ASME B1.1

2B



	P	M	K	N	S	H	O
TiCN	●				●●		
Uncoated	●				●●		

~DIN 2184-1

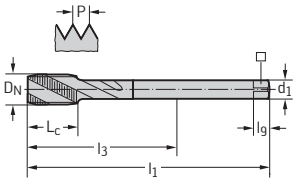


Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
22410206-UNC2	224102-UNC2	UNC 2-56	2,184	45	9	9	2,8	2,1	5	3
22410206-UNC3	224102-UNC3	UNC 3-48	2,515	50	9	9	2,8	2,1	5	3
22410206-UNC4	224102-UNC4	UNC 4-40	2,845	56	10	10	3,5	2,7	6	3
22410206-UNC6	224102-UNC6	UNC 6-32	3,505	56	12	12	4	3	6	3
22410206-UNC8	224102-UNC8	UNC 8-32	4,166	63	13	13	4,5	3,4	6	3
22410206-UNC10	224102-UNC10	UNC 10-24	4,826	70	16	16	6	4,9	8	3
22410206-UNC1/4	224102-UNC1/4	UNC 1/4-20	6,35	80	15	25	7	5,5	8	3
22410206-UNC5/16	224102-UNC5/16	UNC 5/16-18	7,938	90	18	29,5	8	6,2	9	3
22410206-UNC3/8	224102-UNC3/8	UNC 3/8-16	9,525	100	20	33,5	10	8	11	4

≤ UNC 10: Without reduced neck after the thread

B 3

DIN 2184-1



Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
22460206-UNC7/16	224602-UNC7/16	UNC 7/16-14	11,113	100	20	76	8	6,2	9	4
22460206-UNC1/2	224602-UNC1/2	UNC 1/2-13	12,7	110	23	83	9	7	10	4
22460206-UNC5/8	224602-UNC5/8	UNC 5/8-11	15,875	110	25	68	12	9	12	4
22460206-UNC3/4	224602-UNC3/4	UNC 3/4-10	19,05	125	30	81	14	11	14	5

WALTER SELECT

●● Primary application

● Other application

HSS-E-PM machine taps

mm

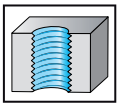
Prototex® TiNi

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | B=3,5-5 | 44HRC | 1400 –700 N/mm²

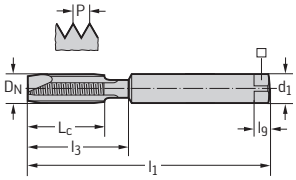
UNF
ASME B1.1

3B



	P	M	K	N	S	H	O
TiCN	●●	●●		●	●●		
Uncoated	●●	●●		●	●●		

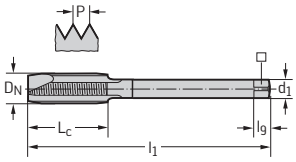
~DIN 2184-1



Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 h9 mm	L_c mm	l_3 mm	d_1 mm	□ mm	l_9 mm	N
2320706-UNF4	23207-UNF4	UNF 4-48	2,845	56	10	10	3,5	2,7	6	2
2320706-UNF5	23207-UNF5	UNF 5-44	3,175	56	10	10	3,5	2,7	6	2
2320706-UNF6	23207-UNF6	UNF 6-40	3,505	56	12	12	4	3	6	3
2320706-UNF8	23207-UNF8	UNF 8-36	4,166	63	13	13	4,5	3,4	6	3
2320706-UNF10	23207-UNF10	UNF 10-32	4,826	70	16	16	6	4,9	8	3
2320706-UNF1/4	23207-UNF1/4	UNF 1/4-28	6,35	80	15	25	7	5,5	8	3
2320706-UNF5/16	23207-UNF5/16	UNF 5/16-24	7,938	90	18	29,5	8	6,2	9	3
2320706-UNF3/8	23207-UNF3/8	UNF 3/8-24	9,525	100	20	33,5	10	8	11	3

≤ UNF 10: Without reduced neck after the thread

DIN 2184-1



Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 h9 mm	L_c mm	l_3 mm	d_1 mm	□ mm	l_9 mm	N
2325706-UNF7/16	23257-UNF7/16	UNF 7/16-20	11,113	100	20	76	8	6,2	9	4
2325706-UNF1/2	23257-UNF1/2	UNF 1/2-20	12,7	100	23	73	9	7	10	4
2325706-UNF5/8	23257-UNF5/8	UNF 5/8-18	15,875	100	25	58	12	9	12	4

HSS-E-PM machine taps

mm

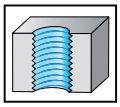
Prototex® TiNi

– Recommended with oil
– For long-chipping materials

≤ 2×D_N | B=3,5-5 | 44HRC, 1400 –700 N/mm²

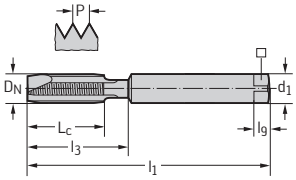
UNF
ASME B1.1

2B



	P	M	K	N	S	H	O
TiCN	●●	●●		●	●●		
Uncoated	●●	●●		●	●●		

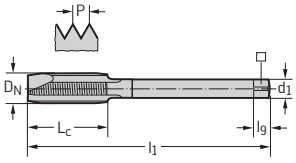
~DIN 2184-1



Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 h9 mm	L_c mm	l_3 mm	d_1 mm	□ mm	l_9 mm	N
2321706-UNF5	23217-UNF5	UNF 5-44	3,175	56	10	10	3,5	2,7	6	2
2321706-UNF6	23217-UNF6	UNF 6-40	3,505	56	12	12	4	3	6	3
2321706-UNF10	23217-UNF10	UNF 10-32	4,826	70	16	16	6	4,9	8	3
2321706-UNF1/4	23217-UNF1/4	UNF 1/4-28	6,35	80	15	25	7	5,5	8	3
2321706-UNF5/16	23217-UNF5/16	UNF 5/16-24	7,938	90	18	29,5	8	6,2	9	3
2321706-UNF3/8	23217-UNF3/8	UNF 3/8-24	9,525	100	20	33,5	10	8	11	3

≤ UNF 10: Without reduced neck after the thread

DIN 2184-1



Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 h9 mm	L_c mm	l_3 mm	d_1 mm	□ mm	l_9 mm	N
2326706-UNF7/16	23267-UNF7/16	UNF 7/16-20	11,113	100	20	76	8	6,2	9	4
2326706-UNF1/2	23267-UNF1/2	UNF 1/2-20	12,7	100	23	73	9	7	10	4
2326706-UNF5/8	23267-UNF5/8	UNF 5/8-18	15,875	100	25	58	12	9	12	4

WALTER SELECT

●● Primary application

● Other application

HSS-E-PM machine taps

mm

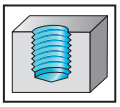
Paradur® Ni

– For long-chipping materials

≤ 1,5×D_N | C=2-3 | 25° | 44HRC, 1400 –700 N/mm²

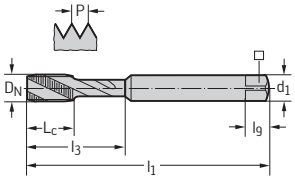
UNF
ASME B1.1

3B



	P	M	K	N	S	H	O
TiCN	●				●●		
Uncoated	●				●●		

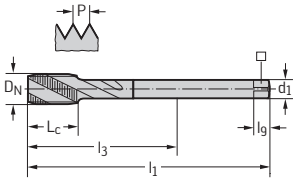
~DIN 2184-1



Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
23410406-UNF8	234104-UNF8	UNF 8-36	4,166	63	13	42	4,5	3,4	6	3
23410406-UNF10	234104-UNF10	UNF 10-32	4,826	70	16	16	6	4,9	8	3
23410406-UNF12	234104-UNF12	UNF 12-28	5,486	80	15	23	6	4,9	8	3
23410406-UNF1/4	234104-UNF1/4	UNF 1/4-28	6,35	80	15	25	7	5,5	8	3
23410406-UNF5/16	234104-UNF5/16	UNF 5/16-24	7,938	90	18	29,5	8	6,2	9	3
23410406-UNF3/8	234104-UNF3/8	UNF 3/8-24	9,525	100	20	33,5	10	8	11	4

≤ UNF 10: Without reduced neck after the thread

DIN 2184-1



Designation TiCN	Designation uncoated	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
23460406-UNF7/16	234604-UNF7/16	UNF 7/16-20	11,113	100	20	76	8	6,2	9	4
23460406-UNF1/2	234604-UNF1/2	UNF 1/2-20	12,7	100	23	73	9	7	10	4
23460406-UNF5/8	234604-UNF5/8	UNF 5/8-18	15,875	100	25	58	12	9	12	4

B 3

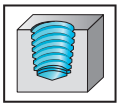
HSS-E machine taps

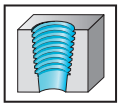
mm

Paradur® Ni

– For long-chipping materials

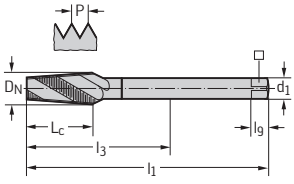
NPT
ASME B1.20.1





	P	M	K	N	S	H	O
TiCN	●				●●		
Uncoated	●				●●		

PWZ

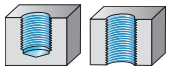


Designation TiCN	Designation uncoated	D_N-P	D_N mm	Threads per inch	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N
2546706-NPT1/16	25467-NPT1/16	NPT 1/16-27	7,717	27	80	14	56	8	6,2	6	3
2546706-NPT1/8	25467-NPT1/8	NPT 1/8-27	10,065	27	90	14	61	11	9	9	4
2546706-NPT1/4	25467-NPT1/4	NPT 1/4-18	13,372	18	100	20	56	14	11	11	4
2546706-NPT3/8	25467-NPT3/8	NPT 3/8-18	16,812	18	110	20	65	16	12	12	5
2546706-NPT1/2	25467-NPT1/2	NPT 1/2-14	20,947	14	125	26	78	18	14,5	15	5
2546706-NPT3/4	25467-NPT3/4	NPT 3/4-14	26,292	14	140	26	75	22	18	18	5
2546706-NPT1	25467-NPT1	NPT 1"-11.5	32,914	12	150	31	81	28	22	22	5

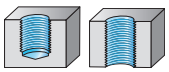
Taper ratio 1:16

B 3

Solid carbide taps product range overview M – Metric thread

Machining		
Thread depth	**2 × D_N**	
Designation	**TC388 Supreme**	**TC389 Supreme**
Dimension range	M 3–M 16	M 3–M 16
Tolerance	6HX	6HX
Coolant supply	External	External
Chamfer form	C	D
Coating/grade	WJ30BA	WE10BA
Version length	M	M
Page	378	378
		

Solid carbide taps product range overview G

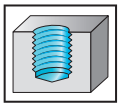
Machining	
Thread depth	**2 × D_N**
Designation	**TC388 Supreme**
Dimension range	G 1/8-28– G 1/4-19
Tolerance	6HX
Coolant supply	External
Chamfer form	C
Coating/grade	WJ30BA
Version length	M
Page	379
	

Solid carbide machine taps
TC388 Supreme mm

– Taps for hardened materials
– Drill core hole at upper tolerance end

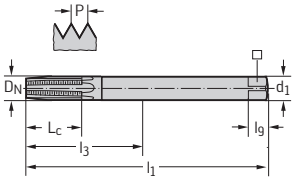
≤ 2×D_N | C=2-3 | 58HRC / 50HRC

M DIN 13 | 6HX



	P	M	K	N	S	H	O
WJ30BA					●	●●	

~DIN 371



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h6 mm	□ mm	l_9 mm	N	WJ30BA
TC388-M3-C0-	M 3	0,5	56	8	35	3,5	2,7	6	4	☺
TC388-M4-C0-	M 4	0,7	63	11	42	4,5	3,4	6	5	☺
TC388-M5-C0-	M 5	0,8	70	13,5	47	6	4,9	8	5	☺
TC388-M6-C0-	M 6	1	80	16,5	57	6	4,9	8	5	☺
TC388-M8-C0-	M 8	1,25	90	21,5	66	8	6,2	9	5	☺
TC388-M10-C0-	M 10	1,5	100	27	72	10	8	11	5	☺
TC388-M12-C0-	M 12	1,75	110	32	68	12	9	12	6	☺
TC388-M16-C0-	M 16	2	110	41	65	16	12	15	6	☺

Without reduced neck after the thread
Ordering example for the WJ30BA grade: TC388-M3-C0-WJ30BA

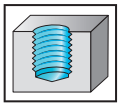
B 3

Solid carbide machine taps
TC389 Supreme mm

– Taps for hardened materials
– Drill core hole at upper tolerance end

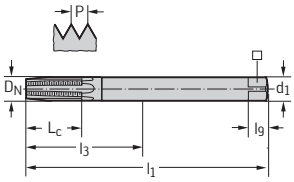
≤ 2×D_N | D=3,5-5 | 65HRC / 55HRC

M DIN 13 | 6HX



	P	M	K	N	S	H	O
WE10BA					●	●●	

~DIN 371



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h6 mm	□ mm	l_9 mm	N	WE10BA
TC389-M3-CD-	M 3	0,5	56	9	35	3,5	2,7	6	4	☺
TC389-M4-CD-	M 4	0,7	63	12	42	4,5	3,4	6	5	☺
TC389-M5-CD-	M 5	0,8	70	14,5	47	6	4,9	8	5	☺
TC389-M6-CD-	M 6	1	80	18	57	6	4,9	8	5	☺
TC389-M8-CD-	M 8	1,25	90	23,5	66	8	6,2	9	5	☺
TC389-M10-CD-	M 10	1,5	100	29	72	10	8	11	5	☺
TC389-M12-CD-	M 12	1,75	110	34,5	68	12	9	12	6	☺
TC389-M16-CD-	M 16	2	110	44	65	16	12	15	6	☺

Without reduced neck after the thread
Ordering example for the WE10BA grade: TC389-M3-CD-WE10BA

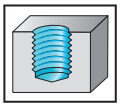
☺☺☺ / ★ New addition to the product range

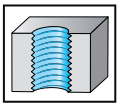
Solid carbide machine taps
TC388 Supreme mm

– Taps for hardened materials
– Drill core hole at upper tolerance end

≤ 2×D_N | C=2-3 | 58HRC / 50HRC

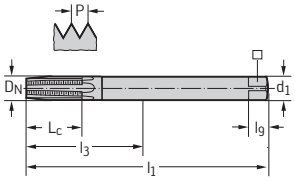
G
DIN EN ISO 228





	P	M	K	N	S	H	O
WJ30BA					●	●●	

~DIN 371



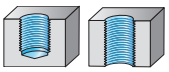
Designation	D_N-P	D_N mm	Threads per inch	l_1 mm	L_c mm	l_3 mm	d_1 h6 mm	□ mm	l_9 mm	N	WJ30BA
TC388-G1/8-C0-	G 1/8-28	9,728	28	90	23,5	62	10	8	11	5	☻
TC388-G1/4-C0-	G 1/4-19	13,157	19	100	32,5	56	14	11	14	6	☻

Without reduced neck after the thread
Ordering example for the WJ30BA grade: TC388-G1/8-C0-WJ30BA

B 3

☻☻☻ / ★ New addition to the product range

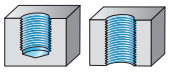
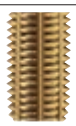
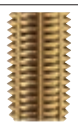
HSS-E(-PM) and solid carbide thread formers product range overview M – Metric thread

Machining						
Thread depth	**3 × D_N**			**3,5 × D_N**		
Designation	**TC420 Supreme**	**TC410 Advance**	**TC410 Advance**	**TC420 Supreme**	**TC430 Supreme**	**TC410 Advance**
Dimension range	M 2–M 20	M 1–M 24	M 3 LH–M 16 LH	M 2–M 20	M 3–M 16	M 2–M 24
Tolerance	6HX / 6GX	6HX / 6GX / 7GX	6HX	6HX / 6GX	6HX / 6GX	6HX / 6GX / 7GX
Coolant supply	External	External	External	External/radial	External/radial	External
Chamfer form	C	C / D	C	C / E	C	C
Coating/grade	WW60AD / WW60BA	WY80AD	WY80AD	WW60AD / WW60BA	WW60AD / WW60EL	WY80AD
Cutting tool material	HSS-E-PM	HSS-E	HSS-E	HSS-E-PM	HSS-E-PM	HSS-E
Page	383	396	398	386	392	401
						

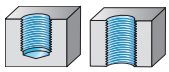
Machining			
Thread depth	**3 × D_N**	**3,5 × D_N**	
Designation	**TC420 Supreme**	**TC420 Supreme**	**TC430 Supreme**
Dimension range	M 5–M 16	M 2–M 16	M 8–M 16
Tolerance	6HX	6HX	6HX
Coolant supply	Axial	External	Axial
Chamfer form	C	E	C
Coating/grade	WW60AD / WW60BA	WW60AD / WW60BA	WW60AD
Cutting tool material	HSS-E-PM	HSS-E-PM	HSS-E-PM
Page	384	391	393
			

B 3

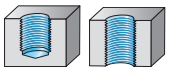
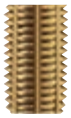
HSS-E(-PM) and solid carbide thread formers product range overview MF – Metric fine-pitch thread

Machining					
Thread depth	**3,5 × D_N**			**3,5 × D_N**	
Designation	**TC420 Supreme**	**TC430 Supreme**	**TC410 Advance**	**TC420 Supreme**	**TC430 Supreme**
Dimension range	MF 8x1– MF 16x1.5	MF 8x1– MF 16x1.5	MF 4x0.5– MF 30x2	MF 8x1– MF 14x1.5	MF 8x1– M 16x1.5
Tolerance	6HX / 6GX	6HX	6HX / 6GX	6HX	6HX
Coolant supply	External/radial	External/radial	External	Axial	Axial
Chamfer form	C	C	C / E	C	C
Coating/grade	WW60AD / WW60BA	WW60AD / WW60EL	WY80AD	WW60AD	WW60AD
Cutting tool material	HSS-E-PM	HSS-E-PM	HSS-E	HSS-E-PM	HSS-E-PM
Page	404	406	408	404	406
					

HSS-E and solid carbide thread formers product range overview UNC / UNF

Machining		
Thread depth	**3,5 × D_N**	
Designation	**TC410 Advance**	**TC410 Advance**
Dimension range	UNC 2-56– UNC 5/8-11	UNF 2-64– UNF 5/8-18
Tolerance	2BX	2BX
Coolant supply	External	External
Chamfer form	C	C
Coating/grade	WY80AD	WY80AD
Cutting tool material	HSS-E	HSS-E
Page	410	411
		

HSS-E and solid carbide thread formers product range overview G

Machining	
Thread depth	**3,5 × D_N**
Designation	**TC410 Advance**
Dimension range	G 1/8-28– G 1"-11
Tolerance	NORMAL
Coolant supply	External
Chamfer form	C
Coating/grade	WY80AD
Cutting tool material	HSS-E
Page	412
	

Designation key
HSS-E(-PM) thread formers

Example:

T	C	4	20	–	M10	–	C	1	–	W	W	60	AD
1	2	3	4	5	6		7	8		Grade			

1	2	3	4
Tool group	**Generation**	**Tool type**	**Tool type**
T Threading		**4** Thread formers	**10 / 20** Universal 200–1 200 N/mm² **30** ISO P 200–1 200 N/mm²

5	6	7	8
1. Delimiters	**Thread dimensions**	**Tolerance/shank type**	**Modification**
– Metric **.** DIN/ANSI		**C** 6HX, 2BX Reinforced shank **E** 6GX Reinforced shank **F** 7GX Reinforced shank **L** 6HX, 2BX Reduced shank **N** 6GX Reduced shank **P** 7GX Reduced shank	**0** External coolant without lubrication grooves **1** Axial internal coolant, without lubrication grooves **2** Radial internal coolant **6** External coolant with lubrication grooves **E** Chamfer form E **H** Extended shank XL

Grade designation key
for solid carbide and HSS-E(-PM) cutting tool materials

Example:

W	W	60	AD
Walter	1	2	3

1	2	3
Substrate	**Application range**	**Coating**
Solid carbide	Wear resistance 05 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 Toughness	**AD** TiN **BA** TiCN **EL** AlCrN
HSS-E-PM **W**		
HSS-E **Y**		

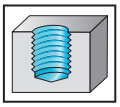
HSS-E-PM machine thread formers
TC420 Supreme mm

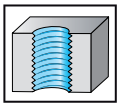
≤ 3×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

– For long-chipping materials

M
DIN 13

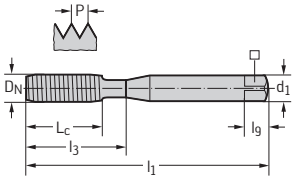
6HX





	P	M	K	N	S	H	O
WW60AD	●●	●	●	●●	●		
WW60BA	●●	●	●	●●	●		

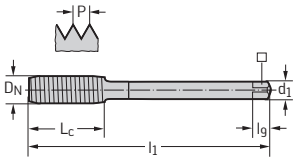
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-C0-	M 2	0,4	45	4	11	2,8	2,1	5	3	✕	✕
TC420-M2.5-C0-	M 2.5	0,45	50	4	14	2,8	2,1	5	3	✕	✕
TC420-M3-C0-	M 3	0,5	56	6	18	3,5	2,7	6	4	✕	✕
TC420-M3.5-C0-	M 3.5	0,6	56	7	20	4	3	6	4	✕	✕
TC420-M4-C0-	M 4	0,7	63	7	21	4,5	3,4	6	5	✕	✕
TC420-M5-C0-	M 5	0,8	70	8	25	6	4,9	8	5	✕	✕
TC420-M6-C0-	M 6	1	80	10	30	6	4,9	8	5	✕	✕
TC420-M8-C0-	M 8	1,25	90	12	35	8	6,2	9	5	✕	✕
TC420-M10-C0-	M 10	1,5	100	15	39	10	8	11	6	✕	✕

Ordering example for the WW60AD grade: TC420-M2-C0-WW60AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-L0-	M 12	1,75	110	16	83	9	7	10	6	✕	✕
TC420-M14-L0-	M 14	2	110	20	81	11	9	12	6	✕	✕
TC420-M16-L0-	M 16	2	110	20	68	12	9	12	6	✕	✕
TC420-M20-L0-	M 20	2,5	140	25	95	16	12	15	7	✕	

Ordering example for the WW60AD grade: TC420-M12-L0-WW60AD

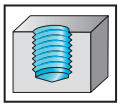
B 3

HSS-E-PM machine thread formers
TC420 Supreme mm

– For long-chipping materials

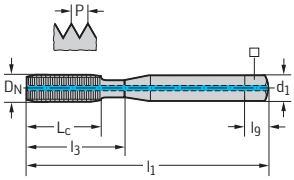
≤ 3×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

M DIN 13 | 6HX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

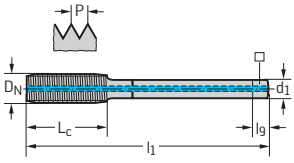
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M5-C1-	M 5	0,8	70	8	25	6	4,9	8	5	✕	✕
TC420-M6-C1-	M 6	1	80	10	30	6	4,9	8	5	✕	✕
TC420-M8-C1-	M 8	1,25	90	12	35	8	6,2	9	5	✕	✕
TC420-M10-C1-	M 10	1,5	100	15	39	10	8	11	6	✕	✕

Ordering example for the WW60AD grade: TC420-M5-C1-WW60AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-L1-	M 12	1,75	110	16	83	9	7	10	6	✕	✕
TC420-M14-L1-	M 14	2	110	20	81	11	9	12	6	✕	✕
TC420-M16-L1-	M 16	2	110	20	68	12	9	12	6	✕	✕

Ordering example for the WW60AD grade: TC420-M12-L1-WW60AD

B 3

WALTER SELECT

Best tool for machining conditions: Good | Average | Poor

●● Primary application

● Other application

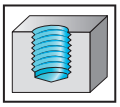
HSS-E-PM machine thread formers
TC420 Supreme mm

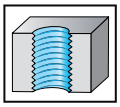
– For long-chipping materials

≤ 3×D_N | C=2-3 | 36HRC | 1200 –200 N/mm²

M
DIN 13

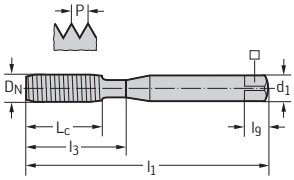
6GX





	P	M	K	N	S	H	O
WW60AD	●●	●	●	●●	●		
WW60BA	●●	●	●	●●	●		

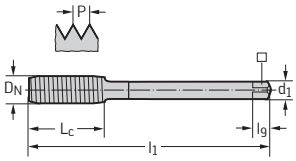
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-E0-	M 2	0,4	45	4	11	2,8	2,1	5	3	✱	✱
TC420-M2.5-E0-	M 2.5	0,45	50	4	14	2,8	2,1	5	3	✱	✱
TC420-M3-E0-	M 3	0,5	56	6	18	3,5	2,7	6	4	✱	✱
TC420-M3.5-E0-	M 3.5	0,6	56	7	20	4	3	6	4	✱	✱
TC420-M4-E0-	M 4	0,7	63	7	21	4,5	3,4	6	5	✱	✱
TC420-M5-E0-	M 5	0,8	70	8	25	6	4,9	8	5	✱	✱
TC420-M6-E0-	M 6	1	80	10	30	6	4,9	8	5	✱	✱
TC420-M8-E0-	M 8	1,25	90	12	35	8	6,2	9	5	✱	✱
TC420-M10-E0-	M 10	1,5	100	15	39	10	8	11	6	✱	✱

Ordering example for the WW60AD grade: TC420-M2-E0-WW60AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-N0-	M 12	1,75	110	16	83	9	7	10	6	✱	
TC420-M14-N0-	M 14	2	110	20	81	11	9	12	6	✱	
TC420-M16-N0-	M 16	2	110	20	68	12	9	12	6	✱	

Ordering example for the WW60AD grade: TC420-M12-N0-WW60AD

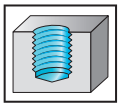
B 3

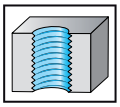
HSS-E-PM machine thread formers
TC420 Supreme mm

– For long-chipping materials

M
DIN 13

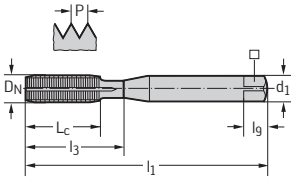
6HX





	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174

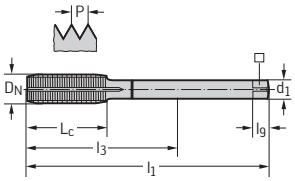


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-C6-	M 2	0,4	45	4	11	2,8	2,1	5	3	✕	✕
TC420-M2.5-C6-	M 2.5	0,45	50	4	14	2,8	2,1	5	3	✕	✕
TC420-M3-C6-	M 3	0,5	56	6	18	3,5	2,7	6	4	✕	✕
TC420-M3.5-C6-	M 3.5	0,6	56	7	20	4	3	6	4	✕	✕
TC420-M4-C6-	M 4	0,7	63	7	21	4,5	3,4	6	5	✕	✕
TC420-M5-C6-	M 5	0,8	70	8	25	6	4,9	8	5	✕	✕
TC420-M6-C6-	M 6	1	80	10	30	6	4,9	8	5	✕	✕
TC420-M8-C6-	M 8	1,25	90	12	35	8	6,2	9	5	✕	✕
TC420-M10-C6-	M 10	1,5	100	15	39	10	8	11	6	✕	✕

Ordering example for the WW60AD grade: TC420-M2-C6-WW60AD

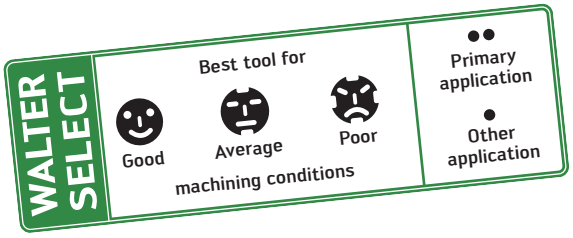
B 3

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-L6-	M 12	1,75	110	16	83	9	7	10	6	✕	✕
TC420-M14-L6-	M 14	2	110	20	81	11	9	12	6	✕	✕
TC420-M16-L6-	M 16	2	110	20	68	12	9	12	6	✕	✕
TC420-M20-L6-	M 20	2,5	140	25	95	16	12	15	7	✕	✕

Ordering example for the WW60AD grade: TC420-M12-L6-WW60AD

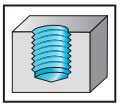


HSS-E-PM machine thread formers
TC420 Supreme mm

– For long-chipping materials

M
DIN 13

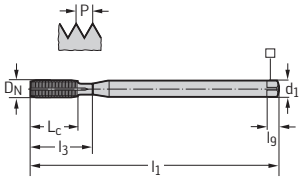
6HX



≤ 3,5×D_N | C=2-3 | XL (l_1) | 36HRC, 1200 –200 N/mm²

	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		

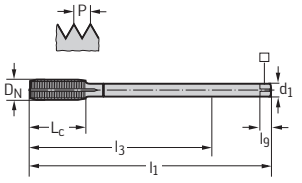
~DIN 371 XL



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M3-CH-	M 3	0,5	125	6	18	3,5	2,7	6	4	●
TC420-M4-CH-	M 4	0,7	125	7	21	4,5	3,4	6	5	●
TC420-M5-CH-	M 5	0,8	140	8	25	6	4,9	8	5	●
TC420-M6-CH-	M 6	1	160	10	30	6	4,9	8	5	●

Ordering example for the WW60AD grade: TC420-M3-CH-WW60AD

~DIN376 XL



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M8-LH-	M 8	1,25	180	13	157	6	4,9	8	5	●
TC420-M10-LH-	M 10	1,5	200	15	177	7	5,5	8	6	●
TC420-M12-LH-	M 12	1,75	220	16	193	9	7	10	6	●
TC420-M16-LH-	M 16	2	220	20	178	12	9	12	6	●

Ordering example for the WW60AD grade: TC420-M8-LH-WW60AD

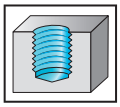
B 3

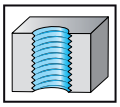
HSS-E-PM machine thread formers
TC420 Supreme mm

– For long-chipping materials

≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

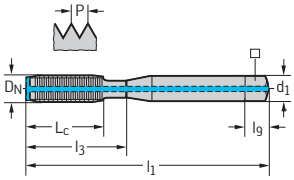
M DIN 13 | 6HX





	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

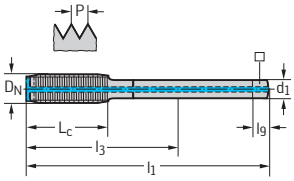
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M5-C2-	M 5	0,8	70	8	25	6	4,9	8	5	✕	✕
TC420-M6-C2-	M 6	1	80	10	30	6	4,9	8	5	✕	✕
TC420-M8-C2-	M 8	1,25	90	12	35	8	6,2	9	5	✕	✕
TC420-M10-C2-	M 10	1,5	100	15	39	10	8	11	6	✕	✕

Ordering example for the WW60AD grade: TC420-M5-C2-WW60AD

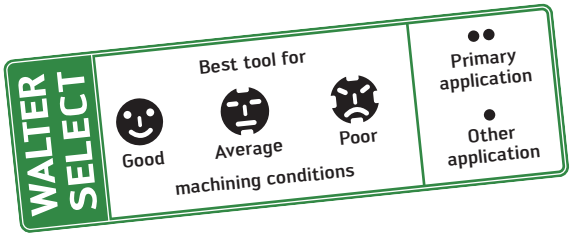
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-L2-	M 12	1,75	110	16	83	9	7	10	6	✕	✕
TC420-M14-L2-	M 14	2	110	20	81	11	9	12	6	✕	✕
TC420-M16-L2-	M 16	2	110	20	68	12	9	12	6	✕	✕
TC420-M20-L2-	M 20	2,5	140	25	95	16	12	15	7	✕	✕

Ordering example for the WW60AD grade: TC420-M12-L2-WW60AD

B 3

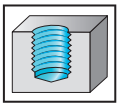


HSS-E-PM machine thread formers
TC420 Supreme mm

≤ 3,5×D_N | E=1,5-2 | 36HRC, 1200 –200 N/mm²

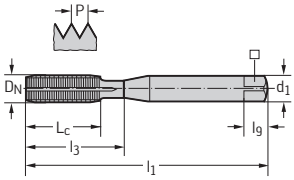
– For long-chipping materials

M DIN 13 | 6HX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

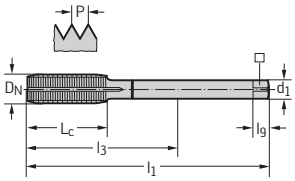
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-CE-	M 2	0,4	45	4	11	2,8	2,1	5	3	✕	✕
TC420-M2.5-CE-	M 2.5	0,45	50	4	14	2,8	2,1	5	3	✕	✕
TC420-M3-CE-	M 3	0,5	56	6	18	3,5	2,7	6	4	✕	✕
TC420-M3.5-CE-	M 3.5	0,6	56	7	20	4	3	6	4	✕	✕
TC420-M4-CE-	M 4	0,7	63	7	21	4,5	3,4	6	5	✕	✕
TC420-M5-CE-	M 5	0,8	70	8	25	6	4,9	8	5	✕	✕
TC420-M6-CE-	M 6	1	80	10	30	6	4,9	8	5	✕	✕
TC420-M8-CE-	M 8	1,25	90	12	35	8	6,2	9	5	✕	✕
TC420-M10-CE-	M 10	1,5	100	15	39	10	8	11	6	✕	✕

Ordering example for the WW60AD grade: TC420-M2-CE-WW60AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-LE-	M 12	1,75	110	16	83	9	7	10	6	✕	✕
TC420-M14-LE-	M 14	2	110	20	81	11	9	12	6	✕	✕
TC420-M16-LE-	M 16	2	110	20	68	12	9	12	6	✕	✕

Ordering example for the WW60AD grade: TC420-M12-LE-WW60AD

B 3

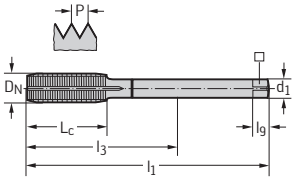
HSS-E-PM machine thread formers
TC420 Supreme mm

– For long-chipping materials

M	6GX		
DIN 13			

	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174

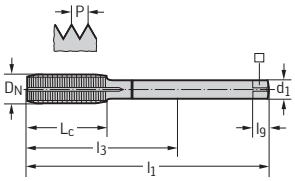


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-E6-	M 2	0,4	45	4	11	2,8	2,1	5	3	✕	✕
TC420-M2.5-E6-	M 2.5	0,45	50	4	14	2,8	2,1	5	3	✕	✕
TC420-M3-E6-	M 3	0,5	56	6	18	3,5	2,7	6	4	✕	✕
TC420-M3.5-E6-	M 3.5	0,6	56	7	20	4	3	6	4	✕	✕
TC420-M4-E6-	M 4	0,7	63	7	21	4,5	3,4	6	5	✕	✕
TC420-M5-E6-	M 5	0,8	70	8	25	6	4,9	8	5	✕	✕
TC420-M6-E6-	M 6	1	80	10	30	6	4,9	8	5	✕	✕
TC420-M8-E6-	M 8	1,25	90	12	35	8	6,2	9	5	✕	✕
TC420-M10-E6-	M 10	1,5	100	15	39	10	8	11	6	✕	✕

Ordering example for the WW60AD grade: TC420-M2-E6-WW60AD

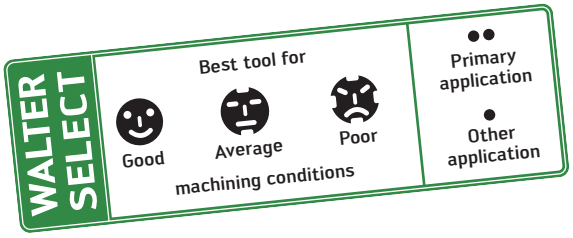
B 3

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-N6-	M 12	1,75	110	16	83	9	7	10	6	✕	
TC420-M14-N6-	M 14	2	110	20	81	11	9	12	6	✕	
TC420-M16-N6-	M 16	2	110	20	68	12	9	12	6	✕	

Ordering example for the WW60AD grade: TC420-M12-N6-WW60AD



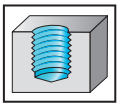
HSS-E-PM machine thread formers
TC420 Supreme mm

– For long-chipping materials

≤ 3,5×D_N	E=1,5-2	36HRC 1200 –200 N/mm²

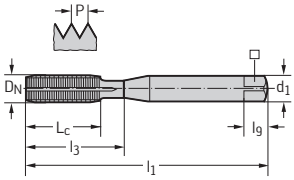
M
DIN 13

6GX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

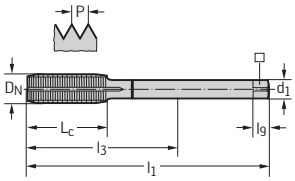
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M2-EE-	M 2	0,4	45	4	11	2,8	2,1	5	3	✕	✕
TC420-M2.5-EE-	M 2.5	0,45	50	4	14	2,8	2,1	5	3	✕	✕
TC420-M3-EE-	M 3	0,5	56	6	18	3,5	2,7	6	4	✕	✕
TC420-M4-EE-	M 4	0,7	63	7	21	4,5	3,4	6	5	✕	✕
TC420-M5-EE-	M 5	0,8	70	8	25	6	4,9	8	5	✕	✕
TC420-M6-EE-	M 6	1	80	10	30	6	4,9	8	5	✕	✕
TC420-M8-EE-	M 8	1,25	90	12	35	8	6,2	9	5	✕	✕
TC420-M10-EE-	M 10	1,5	100	15	39	10	8	11	6	✕	✕

Ordering example for the WW60AD grade: TC420-M2-EE-WW60AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-NE-	M 12	1,75	110	16	83	9	7	10	6	✕	
TC420-M14-NE-	M 14	2	110	20	81	11	9	12	6	✕	
TC420-M16-NE-	M 16	2	110	20	68	12	9	12	6	✕	

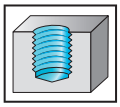
Ordering example for the WW60AD grade: TC420-M12-NE-WW60AD

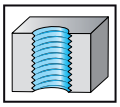
HSS-E-PM machine thread formers
TC430 Supreme mm

– For long-chipping materials
– ISO-M with oil only

≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

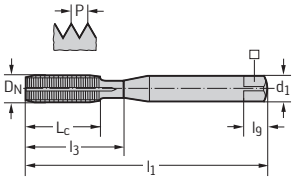
M DIN 13 | 6HX





	P	M	K	N	S	H	O
WW60EL	●●	●	●	●			
WW60AD	●●	●	●	●			

DIN 2174

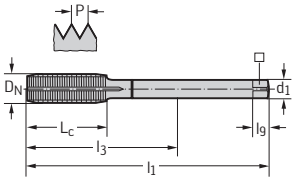


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60EL	WW60AD
TC430-M3-C6-	M 3	0,5	56	6	18	3,5	2,7	6	4	⊠	
TC430-M4-C6-	M 4	0,7	63	7	21	4,5	3,4	6	5	⊠	
TC430-M5-C6-	M 5	0,8	70	8	25	6	4,9	8	5	⊠	
TC430-M6-C6-	M 6	1	80	10	30	6	4,9	8	5	⊠	
TC430-M8-C6-	M 8	1,25	90	12	35	8	6,2	9	6	⊠	⊠
TC430-M10-C6-	M 10	1,5	100	15	39	10	8	11	7	⊠	⊠

Ordering example for the WW60AD grade: TC430-M8-C6-WW60AD

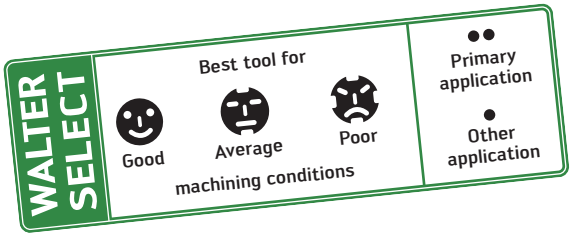
B 3

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60EL	WW60AD
TC430-M12-L6-	M 12	1,75	110	16	83	9	7	10	8	⊠	⊠
TC430-M16-L6-	M 16	2	110	20	68	12	9	12	8		⊠

Ordering example for the WW60AD grade: TC430-M12-L6-WW60AD

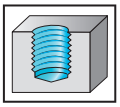


HSS-E-PM machine thread formers
TC430 Supreme mm

– For long-chipping materials
– ISO-M with oil only

M
DIN 13

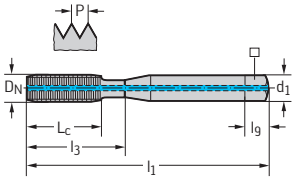
6HX



≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WW60AD	●●	●	●	●			

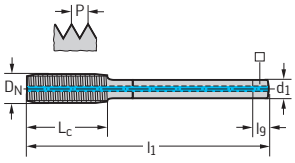
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC430-M8-C1-	M 8	1,25	90	12	35	8	6,2	9	6	●
TC430-M10-C1-	M 10	1,5	100	15	39	10	8	11	7	●

Ordering example for the WW60AD grade: TC430-M8-C1-WW60AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC430-M12-L1-	M 12	1,75	110	16	83	9	7	10	8	●
TC430-M16-L1-	M 16	2	110	20	68	12	9	12	8	●

Ordering example for the WW60AD grade: TC430-M12-L1-WW60AD

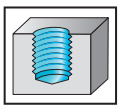
B 3

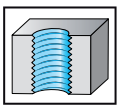
HSS-E-PM machine thread formers
TC430 Supreme mm

– For long-chipping materials
– ISO-M with oil only

M
DIN 13

6HX

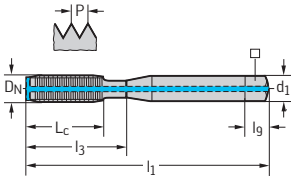




≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WW60AD	●●	●	●	●			

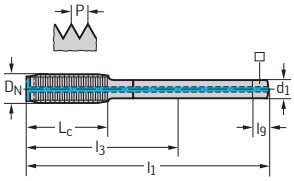
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC430-M8-C2-	M 8	1,25	90	12	35	8	6,2	9	6	●
TC430-M10-C2-	M 10	1,5	100	15	39	10	8	11	7	●

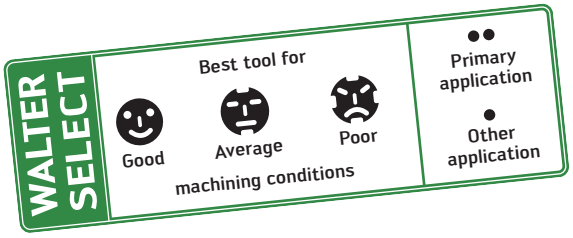
Ordering example for the WW60AD grade: TC430-M8-C2-WW60AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC430-M12-L2-	M 12	1,75	110	16	83	9	7	10	8	●
TC430-M16-L2-	M 16	2	110	20	68	12	9	12	8	●

Ordering example for the WW60AD grade: TC430-M12-L2-WW60AD



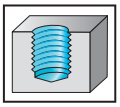
HSS-E-PM machine thread formers
TC430 Supreme mm

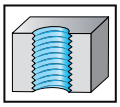
– For long-chipping materials
– ISO-M with oil only

≤ 3,5×D_N | C=2-3 | 36HRC, 1200 –200 N/mm²

M
DIN 13

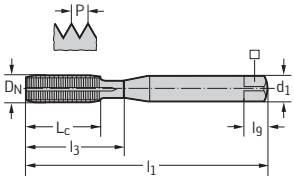
6GX





	P	M	K	N	S	H	O
WW60AD	●●	●	●	●			

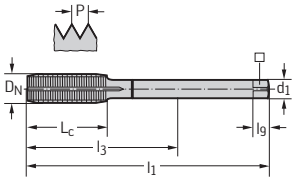
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC430-M8-E6-	M 8	1,25	90	12	35	8	6,2	9	6	●
TC430-M10-E6-	M 10	1,5	100	15	39	10	8	11	7	●

Ordering example for the WW60AD grade: TC430-M8-E6-WW60AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC430-M12-N6-	M 12	1,75	110	16	83	9	7	10	8	●
TC430-M16-N6-	M 16	2	110	20	68	12	9	12	8	●

Ordering example for the WW60AD grade: TC430-M12-N6-WW60AD

B 3

HSS-E machine thread formers
TC410 Advance mm

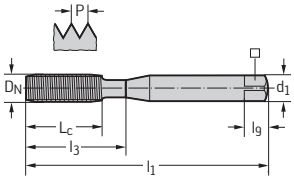
– For long-chipping materials

M DIN 13	6HX		

≤ 3×D_N | C=2-3 | 36HRC, 1200 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●●	●	●	●●	●		

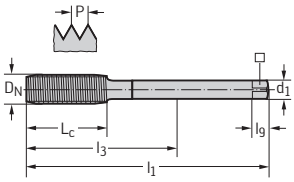
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M1-C0-	M 1	0,25	40	5	5	2,5	2,1	5	3	
TC410-M1.1-C0-	M 1.1	0,25	40	5	5	2,5	2,1	5	3	
TC410-M1.2-C0-	M 1.2	0,25	40	5	5	2,5	2,1	5	3	
TC410-M1.4-C0-	M 1.4	0,3	40	7	7	2,5	2,1	5	3	
TC410-M1.6-C0-	M 1.6	0,35	40	7	7	2,5	2,1	5	3	
TC410-M1.7-C0-	M 1.7	0,35	40	7	7	2,5	2,1	5	3	
TC410-M1.8-C0-	M 1.8	0,35	40	7	7	2,5	2,1	5	3	
TC410-M2-C0-	M 2	0,4	45	6	11	2,8	2,1	5	3	
TC410-M2.2-C0-	M 2.2	0,45	45	7	12	2,8	2,1	5	3	
TC410-M2.3-C0-	M 2.3	0,4	45	7	12	2,8	2,1	5	3	
TC410-M2.5-C0-	M 2.5	0,45	50	8	13	2,8	2,1	5	3	
TC410-M2.6-C0-	M 2.6	0,45	50	8	14	2,8	2,1	5	3	
TC410-M3-C0-	M 3	0,5	56	9	18	3,5	2,7	6	4	
TC410-M3.5-C0-	M 3.5	0,6	56	11	20	4	3	6	4	
TC410-M4-C0-	M 4	0,7	63	12	21	4,5	3,4	6	5	
TC410-M5-C0-	M 5	0,8	70	13	25	6	4,9	8	5	
TC410-M6-C0-	M 6	1	80	15	30	6	4,9	8	5	
TC410-M7-C0-	M 7	1	80	15	30	7	5,5	8	5	
TC410-M8-C0-	M 8	1,25	90	18	35	8	6,2	9	5	
TC410-M10-C0-	M 10	1,5	100	20	39	10	8	11	6	

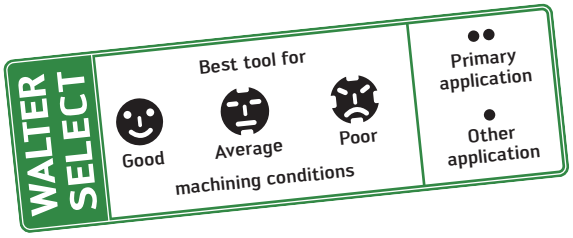
Ordering example for the WY80AD grade: TC410-M1-C0-WY80AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M12-L0-	M 12	1,75	110	23	83	9	7	10	6	
TC410-M14-L0-	M 14	2	110	25	81	11	9	12	6	
TC410-M16-L0-	M 16	2	110	25	68	12	9	12	6	
TC410-M18-L0-	M 18	2,5	125	30	81	14	11	14	7	
TC410-M20-L0-	M 20	2,5	140	30	95	16	12	15	7	
TC410-M24-L0-	M 24	3	160	36	113	18	14,5	17	8	

Ordering example for the WY80AD grade: TC410-M12-L0-WY80AD



HSS-E machine thread formers
TC410 Advance mm

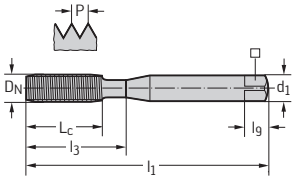
– For long-chipping materials

M	6HX		
DIN 13			

≤ 3×D_N	D=3,5-5	36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●●	●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M2-CD-	M 2	0,4	45	6	11	2,8	2,1	5	3	●●●
TC410-M3-CD-	M 3	0,5	56	9	18	3,5	2,7	6	4	●●●
TC410-M4-CD-	M 4	0,7	63	12	21	4,5	3,4	6	5	●●●
TC410-M5-CD-	M 5	0,8	70	13	25	6	4,9	8	5	●●●
TC410-M6-CD-	M 6	1	80	15	30	6	4,9	8	5	●●●
TC410-M8-CD-	M 8	1,25	90	18	35	8	6,2	9	5	●●●

Ordering example for the WY80AD grade: TC410-M2-CD-WY80AD

B 3

●●● / ★ New addition to the product range

HSS-E machine thread formers
TC410 Advance mm

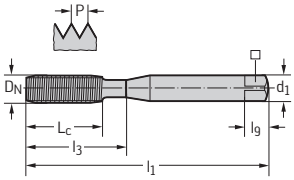
– For long-chipping materials

M	6HX		
DIN 13			

≤ 3×D_N | C=2-3 | LH | 36HRC, 1200 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●●	●	●	●●	●		

DIN 2174

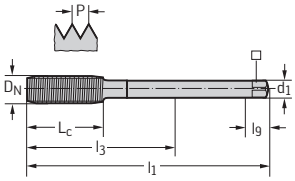


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M3-CL-	M 3 - LH	0,5	56	9	18	3,5	2,7	6	4	●
TC410-M4-CL-	M 4 - LH	0,7	63	12	21	4,5	3,4	6	5	●
TC410-M5-CL-	M 5 - LH	0,8	70	13	25	6	4,9	8	5	●
TC410-M6-CL-	M 6 - LH	1	80	15	30	6	4,9	8	5	●
TC410-M8-CL-	M 8 - LH	1,25	90	18	35	8	6,2	9	5	●
TC410-M10-CL-	M 10 - LH	1,5	100	20	39	10	8	11	6	●

Ordering example for the WY80AD grade: TC410-M3-CL-WY80AD

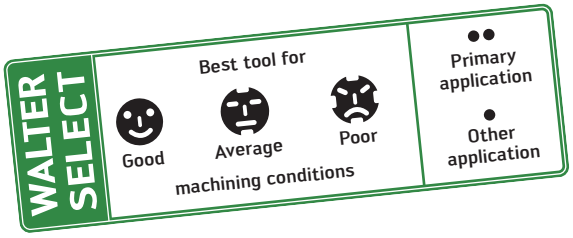
B 3

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M12-LL-	M 12 - LH	1,75	110	23	83	9	7	10	6	●
TC410-M16-LL-	M 16 - LH	2	110	25	68	12	9	12	6	●

Ordering example for the WY80AD grade: TC410-M12-LL-WY80AD



HSS-E machine thread formers
TC410 Advance mm

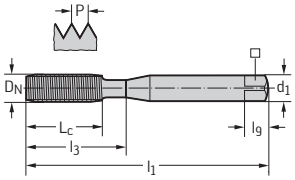
– For long-chipping materials

M	6GX		
DIN 13			

≤ 3×D_N | C=2-3 | 36HRC, 1200 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●●	●	●	●●	●		

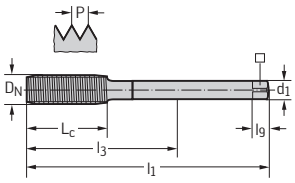
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M2-E0-	M 2	0,4	45	6	11	2,8	2,1	5	3	●●
TC410-M2.5-E0-	M 2.5	0,45	50	8	14	2,8	2,1	5	3	●●
TC410-M3-E0-	M 3	0,5	56	9	18	3,5	2,7	6	4	●●
TC410-M3.5-E0-	M 3.5	0,6	56	11	20	4	3	6	4	●●
TC410-M4-E0-	M 4	0,7	63	12	21	4,5	3,4	6	5	●●
TC410-M5-E0-	M 5	0,8	70	13	25	6	4,9	8	5	●●
TC410-M6-E0-	M 6	1	80	15	30	6	4,9	8	5	●●
TC410-M8-E0-	M 8	1,25	90	18	35	8	6,2	9	5	●●
TC410-M10-E0-	M 10	1,5	100	20	39	10	8	11	6	●●

Ordering example for the WY80AD grade: TC410-M2-E0-WY80AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M12-N0-	M 12	1,75	110	23	83	9	7	10	6	●●

Ordering example for the WY80AD grade: TC410-M12-N0-WY80AD

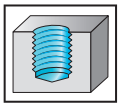
B 3

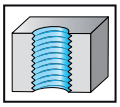
●● / ★ New addition to the product range

HSS-E machine thread formers
TC410 Advance mm

– For long-chipping materials

M	7GX		
DIN 13			

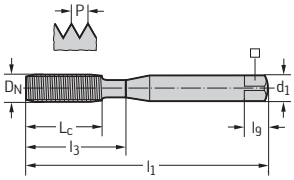




≤ 3×D_N | C=2-3 | 36HRC, 1200 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●●	●	●	●●	●		

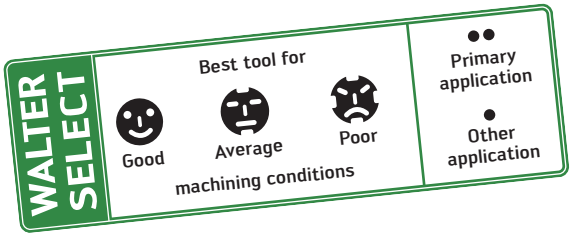
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_g mm	N	WY80AD
TC410-M2-F0-	M 2	0,4	45	6	11	2,8	2,1	5	3	●
TC410-M2.5-F0-	M 2.5	0,45	50	8	14	2,8	2,1	5	3	●
TC410-M3-F0-	M 3	0,5	56	9	18	3,5	2,7	6	4	●
TC410-M4-F0-	M 4	0,7	63	12	21	4,5	3,4	6	5	●
TC410-M5-F0-	M 5	0,8	70	13	25	6	4,9	8	5	●
TC410-M6-F0-	M 6	1	80	15	30	6	4,9	8	5	●
TC410-M8-F0-	M 8	1,25	90	18	35	8	6,2	9	5	●
TC410-M10-F0-	M 10	1,5	100	20	39	10	8	11	6	●

Ordering example for the WY80AD grade: TC410-M2-F0-WY80AD

B 3



HSS-E machine thread formers
TC410 Advance mm

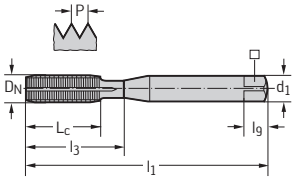
– For long-chipping materials

M DIN 13	6HX		

≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●●	●●	●	●●	●		

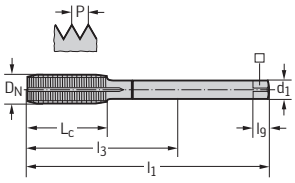
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M2-C6-	M 2	0,4	45	6	11	2,8	2,1	5	3	●●●
TC410-M2.5-C6-	M 2.5	0,45	50	8	13	2,8	2,1	5	3	●●●
TC410-M3-C6-	M 3	0,5	56	9	18	3,5	2,7	6	4	●●●
TC410-M3.5-C6-	M 3.5	0,6	56	11	20	4	3	6	4	●●●
TC410-M4-C6-	M 4	0,7	63	12	21	4,5	3,4	6	5	●●●
TC410-M5-C6-	M 5	0,8	70	13	25	6	4,9	8	5	●●●
TC410-M6-C6-	M 6	1	80	15	30	6	4,9	8	5	●●●
TC410-M7-C6-	M 7	1	80	15	30	7	5,5	8	5	●●●
TC410-M8-C6-	M 8	1,25	90	18	35	8	6,2	9	5	●●●
TC410-M10-C6-	M 10	1,5	100	20	39	10	8	11	6	●●●

Ordering example for the WY80AD grade: TC410-M2-C6-WY80AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M12-L6-	M 12	1,75	110	23	83	9	7	10	6	●●●
TC410-M14-L6-	M 14	2	110	25	81	11	9	12	6	●●●
TC410-M16-L6-	M 16	2	110	25	68	12	9	12	6	●●●
TC410-M18-L6-	M 18	2,5	125	30	81	14	11	14	7	●●●
TC410-M20-L6-	M 20	2,5	140	30	95	16	12	15	7	●●●
TC410-M24-L6-	M 24	3	160	36	113	18	14,5	17	8	●●●

Ordering example for the WY80AD grade: TC410-M12-L6-WY80AD

B 3

●●● / ★ New addition to the product range

HSS-E machine thread formers
TC410 Advance mm

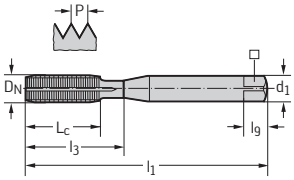
– For long-chipping materials

M	6GX		
DIN 13			

≤ 3,5×D_N | C=2-3 | 36HRC, 1200 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●●	●●	●	●●	●		

DIN 2174

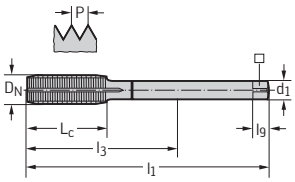


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M2-E6-	M 2	0,4	45	6	11	2,8	2,1	5	3	●
TC410-M2.5-E6-	M 2.5	0,45	50	8	14	2,8	2,1	5	3	●
TC410-M3-E6-	M 3	0,5	56	9	18	3,5	2,7	6	4	●
TC410-M3.5-E6-	M 3.5	0,6	56	11	20	4	3	6	4	●
TC410-M4-E6-	M 4	0,7	63	12	21	4,5	3,4	6	5	●
TC410-M5-E6-	M 5	0,8	70	13	25	6	4,9	8	5	●
TC410-M6-E6-	M 6	1	80	15	30	6	4,9	8	5	●
TC410-M8-E6-	M 8	1,25	90	18	35	8	6,2	9	5	●
TC410-M10-E6-	M 10	1,5	100	20	39	10	8	11	6	●

Ordering example for the WY80AD grade: TC410-M2-E6-WY80AD

B 3

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M12-N6-	M 12	1,75	110	23	83	9	7	10	6	●

Ordering example for the WY80AD grade: TC410-M12-N6-WY80AD

WALTER SELECT

Best tool for machining conditions: Good, Average, Poor

●● Primary application

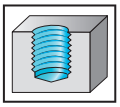
● Other application

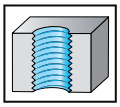
HSS-E machine thread formers
TC410 Advance mm

– For long-chipping materials

M
DIN 13

7GX

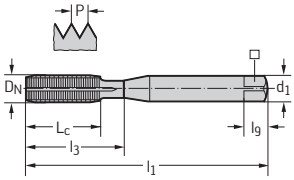




≤ 3,5×D_N | C=2-3 | 36HRC, 1200 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●●	●●	●	●●	●		

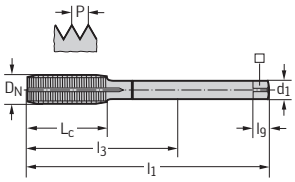
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M2-F6-	M 2	0,4	45	6	11	2,8	2,1	5	3	●●
TC410-M2.5-F6-	M 2.5	0,45	50	8	14	2,8	2,1	5	3	●●
TC410-M3-F6-	M 3	0,5	56	9	18	3,5	2,7	6	4	●●
TC410-M4-F6-	M 4	0,7	63	12	21	4,5	3,4	6	5	●●
TC410-M5-F6-	M 5	0,8	70	13	25	6	4,9	8	5	●●
TC410-M6-F6-	M 6	1	80	15	30	6	4,9	8	5	●●
TC410-M8-F6-	M 8	1,25	90	18	35	8	6,2	9	5	●●
TC410-M10-F6-	M 10	1,5	100	20	39	10	8	11	6	●●

Ordering example for the WY80AD grade: TC410-M2-F6-WY80AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M12-P6-	M 12	1,75	110	23	83	9	7	10	6	●●

Ordering example for the WY80AD grade: TC410-M12-P6-WY80AD

B 3

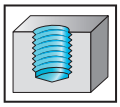
●● / ★ New addition to the product range

HSS-E-PM machine thread formers
TC420 Supreme mm

– For long-chipping materials

MF
DIN 13

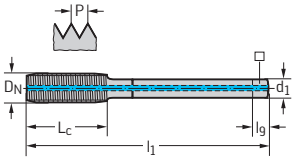
6HX



≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC420-M8X1-L1-	MF 8x1	1	90	12	67	6	4,9	8	5	✱
TC420-M10X1-L1-	MF 10x1	1	90	12	67	7	5,5	8	6	✱
TC420-M12X1-L1-	MF 12x1	1	100	13	73	9	7	10	6	✱
TC420-M12X1.5-L1-	MF 12x1.5	1,5	100	13	73	9	7	10	6	✱
TC420-M14X1.5-L1-	MF 14x1.5	1,5	100	15	71	11	9	12	6	✱

Ordering example for the WW60AD grade: TC420-M8X1-L1-WW60AD

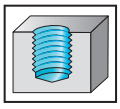
B 3

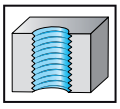
HSS-E-PM machine thread formers
TC420 Supreme mm

– For long-chipping materials

MF
DIN 13

6HX

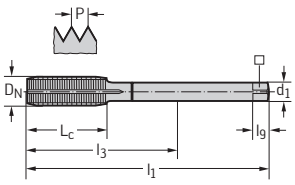




≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M8X1-L6-	MF 8x1	1	90	12	67	6	4,9	8	5	✱	✱
TC420-M10X1-L6-	MF 10x1	1	90	12	67	7	5,5	8	6	✱	✱
TC420-M12X1-L6-	MF 12x1	1	100	13	73	9	7	10	6	✱	✱
TC420-M12X1.5-L6-	MF 12x1.5	1,5	100	13	73	9	7	10	6	✱	✱
TC420-M14X1-L6-	MF 14x1	1	100	15	71	11	9	12	6	✱	✱
TC420-M14X1.25-L6-	MF 14x1.25	1,25	100	15	71	11	9	12	6	✱	✱
TC420-M14X1.5-L6-	MF 14x1.5	1,5	100	15	71	11	9	12	6	✱	✱
TC420-M16X1.5-L6-	MF 16x1.5	1,5	100	15	58	12	9	12	6	✱	✱

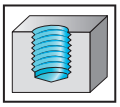
Ordering example for the WW60AD grade: TC420-M8X1-L6-WW60AD

HSS-E-PM machine thread formers
TC420 Supreme mm

– For long-chipping materials

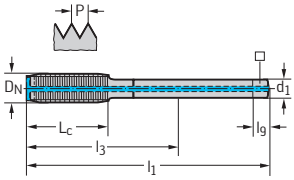
≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

MF DIN 13 | 6HX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M8X1-L2-	MF 8x1	1	90	12	67	6	4,9	8	5	✖	✖
TC420-M10X1-L2-	MF 10x1	1	90	12	67	7	5,5	8	6	✖	✖
TC420-M12X1-L2-	MF 12x1	1	100	13	73	9	7	10	6	✖	✖
TC420-M12X1.5-L2-	MF 12x1.5	1,5	100	13	73	9	7	10	6	✖	✖
TC420-M14X1.5-L2-	MF 14x1.5	1,5	100	15	71	11	9	12	6	✖	✖
TC420-M16X1.5-L2-	MF 16x1.5	1,5	100	15	58	12	9	12	6	✖	✖

Ordering example for the WW60AD grade: TC420-M8X1-L2-WW60AD

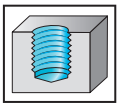
B 3

HSS-E-PM machine thread formers
TC420 Supreme mm

– For long-chipping materials

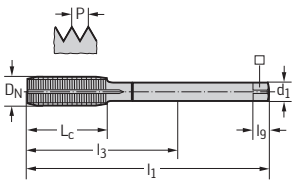
≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

MF DIN 13 | 6GX



	P	M	K	N	S	H	O
WW60AD	●●	●●	●	●●	●		
WW60BA	●●	●●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M8X1-N6-	MF 8x1	1	90	12	67	6	4,9	8	5	✖	✖
TC420-M10X1-N6-	MF 10x1	1	90	12	67	7	5,5	8	6	✖	✖
TC420-M12X1-N6-	MF 12x1	1	100	13	73	9	7	10	6	✖	✖
TC420-M12X1.5-N6-	MF 12x1.5	1,5	100	13	73	9	7	10	6	✖	✖
TC420-M14X1.5-N6-	MF 14x1.5	1,5	100	15	71	11	9	12	6	✖	✖
TC420-M16X1.5-N6-	MF 16x1.5	1,5	100	15	58	12	9	12	6	✖	✖

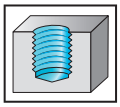
Ordering example for the WW60AD grade: TC420-M8X1-N6-WW60AD

HSS-E-PM machine thread formers
TC430 Supreme mm

– For long-chipping materials
– ISO-M with oil only

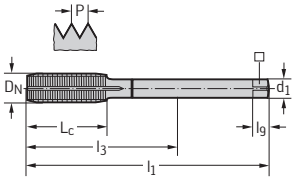
≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

MF DIN 13 | 6HX



	P	M	K	N	S	H	O
WW60EL	●●	●	●	●			
WW60AD	●●	●	●	●			

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60EL	WW60AD
TC430-M8X1-L6-	MF 8x1	1	90	12	67	6	4,9	8	6	✕	✕
TC430-M10X1-L6-	MF 10x1	1	90	12	67	7	5,5	8	7	✕	✕
TC430-M10X1.25-L6-	MF 10x1.25	1,25	100	15	77	7	5,5	8	7	✕	✕
TC430-M12X1-L6-	MF 12x1	1	100	13	73	9	7	10	8	✕	✕
TC430-M12X1.25-L6-	MF 12x1.25	1,25	100	13	73	9	7	10	8	✕	✕
TC430-M12X1.5-L6-	MF 12x1.5	1,5	100	13	73	9	7	10	8	✕	✕
TC430-M14X1.5-L6-	MF 14x1.5	1,5	100	15	71	11	9	12	8	✕	✕
TC430-M16X1.5-L6-	MF 16x1.5	1,5	100	15	58	12	9	12	8	✕	✕

Ordering example for the WW60AD grade: TC430-M8X1-L6-WW60AD

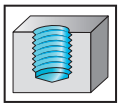
B 3

HSS-E-PM machine thread formers
TC430 Supreme mm

– For long-chipping materials
– ISO-M with oil only

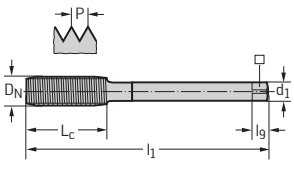
≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

MF DIN 13 | 6HX



	P	M	K	N	S	H	O
WW60AD	●●	●	●	●			

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC430-M8X1-L1-	MF 8x1	1	90	12	67	6	4,9	8	6	✕
TC430-M10X1-L1-	MF 10x1	1	90	12	67	7	5,5	8	7	✕
TC430-M10X1.25-L1-	MF 10x1.25	1,25	100	15	77	7	5,5	8	7	✕
TC430-M12X1-L1-	MF 12x1	1	100	13	73	9	7	10	8	✕
TC430-M12X1.25-L1-	MF 12x1.25	1,25	100	13	73	9	7	10	8	✕
TC430-M12X1.5-L1-	MF 12x1.5	1,5	100	13	73	9	7	10	8	✕
TC430-M14X1.5-L1-	MF 14x1.5	1,5	100	15	71	11	9	12	8	✕
TC430-M16X1.5-L1-	MF 16x1.5	1,5	100	15	58	12	9	12	8	✕

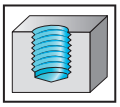
Ordering example for the WW60AD grade: TC430-M8X1-L1-WW60AD

HSS-E-PM machine thread formers
TC430 Supreme mm

– For long-chipping materials
– ISO-M with oil only

MF
DIN 13

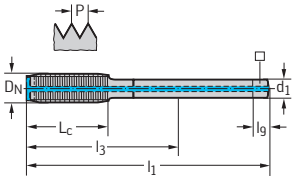
6HX



≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

	P	M	K	N	S	H	O
WW60AD	●●	●	●	●			

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD
TC430-M8X1-L2-	MF 8x1	1	90	12	67	6	4,9	8	6	●
TC430-M10X1-L2-	MF 10x1	1	90	12	67	7	5,5	8	7	●
TC430-M10X1.25-L2-	MF 10x1.25	1,25	100	15	77	7	5,5	8	7	●
TC430-M12X1-L2-	MF 12x1	1	100	13	73	9	7	10	8	●
TC430-M12X1.25-L2-	MF 12x1.25	1,25	100	13	73	9	7	10	8	●
TC430-M12X1.5-L2-	MF 12x1.5	1,5	100	13	73	9	7	10	8	●
TC430-M14X1.5-L2-	MF 14x1.5	1,5	100	15	71	11	9	12	8	●
TC430-M16X1.5-L2-	MF 16x1.5	1,5	100	15	58	12	9	12	8	●

Ordering example for the WW60AD grade: TC430-M8X1-L2-WW60AD

B 3

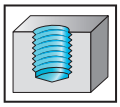
HSS-E machine thread formers
TC410 Advance mm

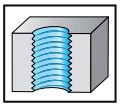
– For long-chipping materials

≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

MF
DIN 13

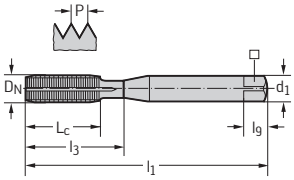
6HX





	P	M	K	N	S	H	O
WY80AD	●●	●●	●	●●	●		

DIN 2174

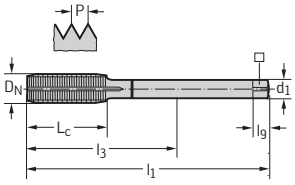


Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M4X0.5-C6-	MF 4x0.5	0,5	63	12	21	4,5	3,4	6	5	●
TC410-M5X0.5-C6-	MF 5x0.5	0,5	70	13	25	6	4,9	8	5	●
TC410-M6X0.5-C6-	MF 6x0.5	0,5	80	15	30	6	4,9	8	5	●
TC410-M6X0.75-C6-	MF 6x0.75	0,75	80	15	30	6	4,9	8	5	●
TC410-M7X0.75-C6-	MF 7x0.75	0,75	80	15	30	7	5,5	8	5	●

Ordering example for the WY80AD grade: TC410-M4X0.5-C6-WY80AD

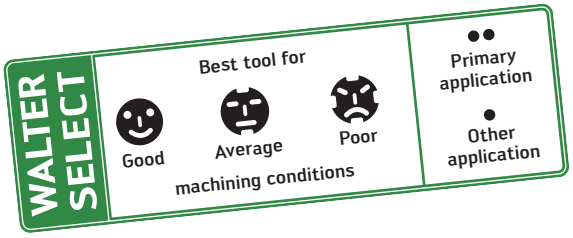
B 3

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M8X0.5-L6-	MF 8x0.5	0,5	80	15	15	6	4,9	8	5	●
TC410-M8X0.75-L6-	MF 8x0.75	0,75	80	15	15	6	4,9	8	5	●
TC410-M8X1-L6-	MF 8x1	1	90	18	18	6	4,9	8	5	●
TC410-M10X1-L6-	MF 10x1	1	90	20	20	7	5,5	8	6	●
TC410-M10X1.25-L6-	MF 10x1.25	1,25	100	20	20	7	5,5	8	6	●
TC410-M12X1-L6-	MF 12x1	1	100	21	73	9	7	10	6	●
TC410-M12X1.25-L6-	MF 12x1.25	1,25	100	21	73	9	7	10	6	●
TC410-M12X1.5-L6-	MF 12x1.5	1,5	100	21	73	9	7	10	6	●
TC410-M14X1.5-L6-	MF 14x1.5	1,5	100	21	71	11	9	12	6	●
TC410-M16X1.5-L6-	MF 16x1.5	1,5	100	21	58	12	9	12	6	●
TC410-M18X1.5-L6-	MF 18x1.5	1,5	110	24	66	14	11	14	7	●
TC410-M20X1.5-L6-	MF 20x1.5	1,5	125	24	80	16	12	15	7	●
TC410-M20X2-L6-	MF 20x2	2	140	30	95	16	12	15	7	●
TC410-M22X1.5-L6-	MF 22x1.5	1,5	125	24	78	18	14,5	17	7	●
TC410-M24X1.5-L6-	MF 24x1.5	1,5	140	26	93	18	14,5	17	8	●
TC410-M24X2-L6-	MF 24x2	2	140	26	93	18	14,5	17	8	●
TC410-M27X1.5-L6-	MF 27x1.5	1,5	140	26	77	20	16	19	8	●
TC410-M27X2-L6-	MF 27x2	2	140	26	77	20	16	19	8	●
TC410-M30X1.5-L6-	MF 30x1.5	1,5	150	26	85	22	18	21	8	●
TC410-M30X2-L6-	MF 30x2	2	150	26	85	22	18	21	8	●

Ordering example for the WY80AD grade: TC410-M8X0.5-L6-WY80AD



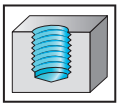
HSS-E machine thread formers
TC410 Advance mm

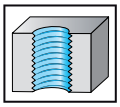
– For long-chipping materials

≤ 3,5×D_N | E=1,5-2 | 36HRC 1200 –200 N/mm²

MF
DIN 13

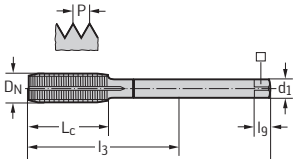
6GX





	P	M	K	N	S	H	O
WY80AD	●●	●	●	●●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-M10X1-NE-	MF 10x1	1	90	20	20	7	5,5	8	6	●●●
TC410-M12X1.5-NE-	MF 12x1.5	1,5	100	21	73	9	7	10	6	●●●
TC410-M14X1.5-NE-	MF 14x1.5	1,5	100	21	71	11	9	12	7	●●●
TC410-M16X1.5-NE-	MF 16x1.5	1,5	100	21	58	12	9	12	7	●●●

Ordering example for the WY80AD grade: TC410-M10X1-NE-WY80AD

B 3

●●● / ★ New addition to the product range

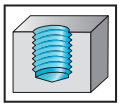
HSS-E machine thread formers
TC410 Advance mm

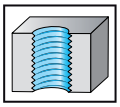
– For long-chipping materials

≤ 3,5×D_N	C=2-3	36HRC 1200 –200 N/mm²

UNC
ASME B1.1

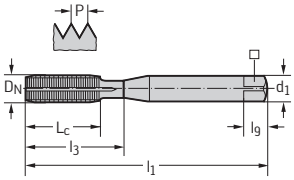
2BX





	P	M	K	N	S	H	O
WY80AD	●●	●●	●	●●	●		

DIN 2184-1

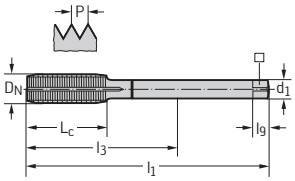


Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-UNC2-C6-	UNC 2-56	2,184	45	7	12	2,8	2,1	5	3	●●●
TC410-UNC4-C6-	UNC 4-40	2,845	56	9	18	3,5	2,7	6	3	●●●
TC410-UNC6-C6-	UNC 6-32	3,505	56	11	20	4	3	6	4	●●●
TC410-UNC8-C6-	UNC 8-32	4,166	63	12	21	4,5	3,4	6	5	●●●
TC410-UNC10-C6-	UNC 10-24	4,826	70	13	25	6	4,9	8	5	●●●
TC410-UNC1/4-C6-	UNC 1/4-20	6,35	80	15	30	7	5,5	8	5	●●●
TC410-UNC5/16-C6-	UNC 5/16-18	7,938	90	18	35	8	6,2	9	5	●●●
TC410-UNC3/8-C6-	UNC 3/8-16	9,525	100	20	39	10	8	11	5	●●●

Ordering example for the WY80AD grade: TC410-UNC2-C6-WY80AD

B 3

DIN 2184-1



Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-UNC7/16-L6-	UNC 7/16-14	11,113	100	20	76	8	6,2	9	6	●●●
TC410-UNC1/2-L6-	UNC 1/2-13	12,7	110	23	83	9	7	10	6	●●●
TC410-UNC5/8-L6-	UNC 5/8-11	15,875	110	25	68	12	9	12	6	●●●

Ordering example for the WY80AD grade: TC410-UNC7/16-L6-WY80AD

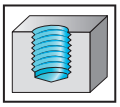
●●● / ★ New addition to the product range

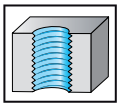
HSS-E machine thread formers
TC410 Advance mm

– For long-chipping materials

UNF
ASME B1.1

2BX

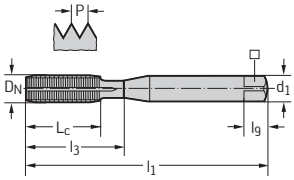




≤ 3,5×D_N | C=2-3 | 36HRC, 1200 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●●	●●	●	●●	●		

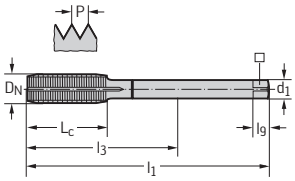
DIN 2184-1



Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-UNF2-C6-	UNF 2-64	2,184	45	7	12	2,8	2,1	5	3	●●
TC410-UNF4-C6-	UNF 4-48	2,845	56	9	18	3,5	2,7	6	3	●●
TC410-UNF6-C6-	UNF 6-40	3,505	56	11	20	4	3	6	4	●●
TC410-UNF8-C6-	UNF 8-36	4,166	63	12	21	4,5	3,4	6	5	●●
TC410-UNF10-C6-	UNF 10-32	4,826	70	13	25	6	4,9	8	5	●●
TC410-UNF1/4-C6-	UNF 1/4-28	6,35	80	15	30	7	5,5	8	5	●●
TC410-UNF5/16-C6-	UNF 5/16-24	7,938	90	18	35	8	6,2	9	5	●●
TC410-UNF3/8-C6-	UNF 3/8-24	9,525	90	20	39	10	8	11	5	●●

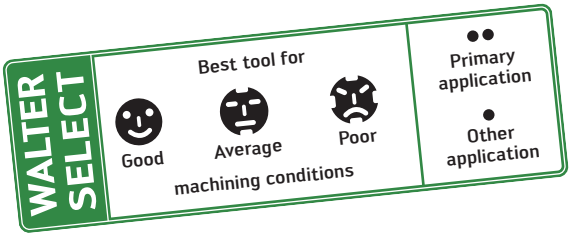
Ordering example for the WY80AD grade: TC410-UNF2-C6-WY80AD

DIN 2184-1



Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-UNF7/16-L6-	UNF 7/16-20	11,113	100	20	76	8	6,2	9	6	●●
TC410-UNF1/2-L6-	UNF 1/2-20	12,7	100	21	73	9	7	10	6	●●
TC410-UNF5/8-L6-	UNF 5/8-18	15,875	100	21	58	12	9	12	6	●●

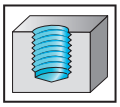
Ordering example for the WY80AD grade: TC410-UNF7/16-L6-WY80AD

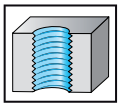


HSS-E machine thread formers
TC410 Advance mm

– For long-chipping materials

G
DIN EN ISO 228

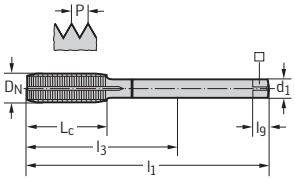




≤ 3,5×D_N | C=2-3 | 36HRC, 1200 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●●	●●	●	●●	●		

DIN 2189



Designation	D_N-P	D_N mm	Threads per inch	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC410-G1/8-N6-	G 1/8-28	9,728	28	90	20	20	7	5,5	8	5	●●●
TC410-G1/4-N6-	G 1/4-19	13,157	19	100	21	71	11	9	12	6	●●●
TC410-G3/8-N6-	G 3/8-19	16,662	19	100	21	58	12	9	12	6	●●●
TC410-G1/2-N6-	G 1/2-14	20,955	14	125	24	80	16	12	15	8	●●●
TC410-G3/4-N6-	G 3/4-14	26,441	14	140	26	77	20	16	19	8	●●●
TC410-G1-N6-	G 1"-11	33,249	11	160	28	93	25	20	23	8	●●●

Ordering example for the WY80AD grade: TC410-G1/8-N6-WY80AD

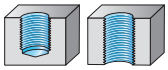
B 3

●●● / ★ New addition to the product range

Product range overview – Thread milling cutters

Machining	Universal					
Thread depth	**2 × D_N**		**2,5 × D_N**		**3 × D_N**	
Designation	**TC620 Supreme**	**T2711**	**TC620 Supreme**	**T2712**	**T2713**	
Description	Multiple-row thread milling cutter	Thread milling cutter with indexable inserts	Multiple-row thread milling cutter	Thread milling cutter with indexable inserts	Thread milling cutter with indexable inserts	
Coolant supply	Axial	Axial/radial	Axial	Axial/radial	Axial/radial	
Coating/grade	WB10TJ	WSM37S	WB10TJ	WSM37S	WSM37S	
Shank	DIN 6535 HA	DIN 1835 B	DIN 6535 HA	DIN 1835 B	DIN 1835 B / Walter Capto™	
Helix angle	20°	–	20°	–	–	
Thread type | Page	M / MF | 417 UNC | 418	M / MF | 422 UNC / UNF / UN | 428	M / MF | 417	M / MF | 424 UNC / UNF / UN | 430 G (BSP) | 436	M / MF | 426 UNC / UNF / UN | 432 G (BSP) | 436	
						

B 4

	Specific	
		
	$2 \times D_N$	$2{,}5 \times D_N$
	TC685 Supreme	**TC685 Supreme**
	Orbital drill thread milling cutter for hard machining	Orbital drill thread milling cutter for hard machining
	External/axial	External/axial
	WB10RC	WB10RC
	DIN 6535 HA	DIN 6535 HA
	-15°	-15°
	M / MF I 419	M / MF I 420
		

Designation key
Solid carbide thread milling cutters

Example:

T	C	6	85	–	M10	–	A	1	D	–	W	B	10	RC
1	2	3	4	5	6		7	8	9		Grade			

1	2	3	4
Tool group	**Generation**	**Tool type**	**Tool type**
T Threading		6 Solid carbide thread milling cutters	10 Universal, 1.5 × D_N 11 Universal, 2.0 × D_N 20 Universal, multiple-row 85 ISO H, orbital drill thread milling cutter

5	6	7	8	9
1. Delimiters	**Thread dimensions**	**Shank type**	**Cooling**	**Thread depth**
– Metric		A Parallel shank W Weldon shank	0 External coolant 1 Axial internal coolant	D 2.0 × D_N E 2.5 × D_N

B 4

Grade designation key
for solid carbide and HSS cutting tool materials

Example:

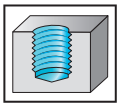
W	B	10	RC
Walter	1	2	3

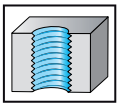
1	2	3
Substrate	**Application range**	**Coating**
Solid carbide: B, J HSS	Wear resistance 05 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 Toughness	RC TiAlN RD TiAlN (+ ZrN) TJ TiAlN

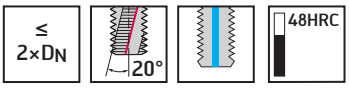
Multiple-row thread milling cutters
TC620 Supreme mm

– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

M-MF
DIN 13



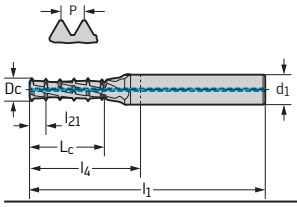




	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool

Shank DIN 6535 HA



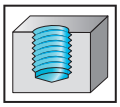
Designation	P mm	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
TC620-M4-A1D-	0,70	3,1	1,4	8,4	21	57	6	3	☹
TC620-M5-A1D-	0,80	3,9	1,6	10,4	21	57	6	3	☹
TC620-M6-A1D-	1,00	4,7	2	12	21	57	6	4	☹
TC620-M8-A1D-	1,25	6,3	2,5	16,3	27	63	8	4	☹
TC620-M10-A1D-	1,50	7,9	3	21	27	63	8	4	☹
TC620-M12-A1D-	1,75	9,6	3,5	24,5	32	72	10	4	☹
TC620-M14-A1D-	2,00	11,2	4	28	38	83	12	4	☹
TC620-M16-A1D-	2,00	13,1	4	32	44	92	16	5	☹
TC620-M20-A1D-	2,50	16,4	5	40	58	106	18	5	☹

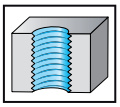
Ordering example for the WB10TJ grade: TC620-M4-A1D-WB10TJ

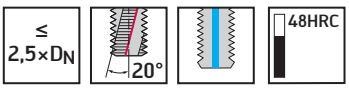
Multiple-row thread milling cutters
TC620 Supreme mm

– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

M-MF
DIN 13



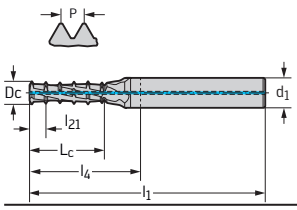




	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool

Shank DIN 6535 HA



Designation	P mm	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
TC620-M4-A1E-	0,70	3,1	2,1	10,5	21	57	6	3	☹
TC620-M5-A1E-	0,80	3,9	2,4	12,8	21	57	6	3	☹
TC620-M6-A1E-	1,00	4,7	3	15	21	57	6	4	☹
TC620-M8-A1E-	1,25	6,3	3,75	20	27	63	8	4	☹
TC620-M10-A1E-	1,50	7,9	4,5	27	36	72	8	4	☹
TC620-M12-A1E-	1,75	9,6	5,25	31,5	43	83	10	4	☹
TC620-M14-A1E-	2,00	11,2	6	36	55	100	12	4	☹
TC620-M16-A1E-	2,00	13,1	6	42	58	106	16	5	☹
TC620-M20-A1E-	2,50	16,4	7,5	52,5	68	116	18	5	☹

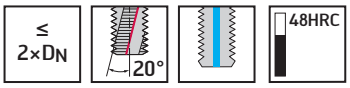
Ordering example for the WB10TJ grade: TC620-M4-A1E-WB10TJ

B 4

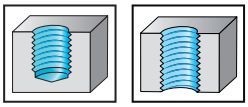
☹☹☹ / ★ New addition to the product range

Multiple-row thread milling cutters
TC620 Supreme mm

– Universal multiple-row thread milling cutter
– For high cutting speeds and high feeds per tooth

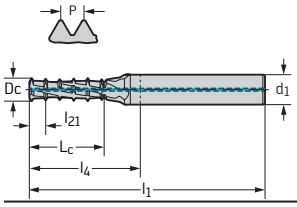


UNC
ASME B1.1



	P	M	K	N	S	H	O
WB10TJ	●●	●●	●●	●●	●●		●

Tool	Designation	Threads per inch mm	D_c mm	l_{21} mm	L_c mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10TJ
Shank DIN 6535 HA	TC620-UNC8-A1D-	32	3,1	1,59	8,7	21	57	6	3	●
	TC620-UNC10-A1D-	24	3,5	2,12	10,5	21	57	6	3	●
	TC620-UNC1/4-A1D-	20	4,7	2,54	12,7	21	57	6	3	●
	TC620-UNC5/16-A1D-	18	6,1	2,82	16,9	27	63	8	4	●
	TC620-UNC3/8-A1D-	16	7,4	3,18	19,1	27	63	8	4	●
	TC620-UNC1/2-A1D-	13	10,1	3,91	25,4	38	83	12	4	●
	TC620-UNC5/8-A1D-	11	12,7	4,62	32,3	44	92	16	4	●
	TC620-UNC3/4-A1D-	10	15,5	5,08	38,1	56	104	16	5	●



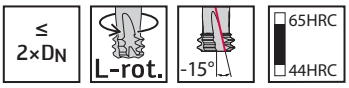
Ordering example for the WB10TJ grade: TC620-UNC8-A1D-WB10TJ

B 4

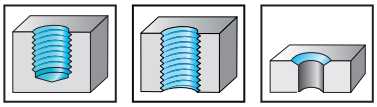
● ● ● / ★ New addition to the product range

Orbital drill thread milling cutter
TC685 Supreme mm

– Orbital drill thread milling cutter for hardened materials
– Chamfer, core hole and thread in one operation



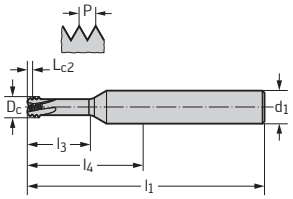
M-MF
DIN 13



	P	M	K	N	S	H	O
WB10RC	●		●		●	●●	

Tool

Shank DIN 6535 HA

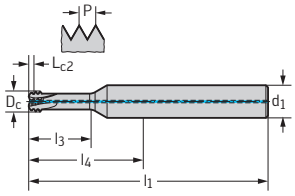


Designation	P mm	D_c mm	L_{c2} mm	l_3 mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10RC
TC685-M3-A0D-	0,5	2,4	0,55	6,8	14	50	6	4	
TC685-M4-A0D-	0,7	3,1	0,77	9,1	14	50	6	4	
TC685-M5-A0D-	0,8	3,9	0,89	11,2	21	57	6	4	

Maximum thread nominal diameter for fine-pitch threads: Dc × 1.94
Example: TC685-M4../3.1 mm × 1.94 = 6.01 mm/MF 6 x 0.7 possible
Ordering example for the WB10RC grade: TC685-M3-A0D-WB10RC

Tool

Shank DIN 6535 HA



Designation	P mm	D_c mm	L_{c2} mm	l_3 mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10RC
TC685-M6-A1D-	1	4,6	1,11	13,5	21	57	6	4	
TC685-M8-A1D-	1,25	6,2	1,39	17,9	27	63	8	4	
TC685-M10-A1D-	1,5	7,8	1,68	22,3	27	63	8	4	
TC685-M12-A1D-	1,75	9	1,96	26,6	32	72	10	4	
TC685-M14-A1D-	2	10,5	2,25	31	38	83	12	4	
TC685-M16-A1D-	2	12,5	2,28	35	44	92	16	4	

Maximum thread nominal diameter for fine-pitch threads: Dc × 1.94
Example: TC685-M8../6.2 mm × 1.94 = 12.03 mm/MF 12 x 1.25 possible
Ordering example for the WB10RC grade: TC685-M6-A1D-WB10RC

B 4

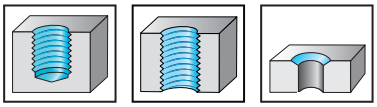
/ ★ New addition to the product range

Orbital drill thread milling cutter
TC685 Supreme mm

– Orbital drill thread milling cutter for hardened materials
– Chamfer, core hole and thread in one operation

≤ 2,5×D_N | L-rot. | -15° | 65HRC – 44HRC

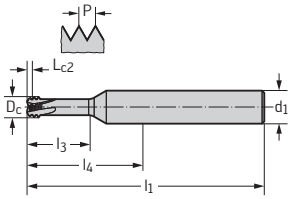
M-MF
DIN 13



	P	M	K	N	S	H	O
WB10RC	●		●		●	●●	

Tool

Shank DIN 6535 HA

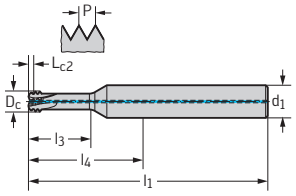


Designation	P mm	D_c mm	L_{c2} mm	l_3 mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10RC
TC685-M3-A0E-	0,5	2,4	0,55	8,3	14	50	6	4	●
TC685-M4-A0E-	0,7	3,1	0,77	11,1	21	57	6	4	●
TC685-M5-A0E-	0,8	3,9	0,89	13,7	21	57	6	4	●

Maximum thread nominal diameter for fine-pitch threads: Dc × 1.94
Example: TC685-M4../3.1 mm × 1.94 = 6.01 mm/MF 6 x 0.7 possible
Ordering example for the WB10RC grade: TC685-M3-A0E-WB10RC

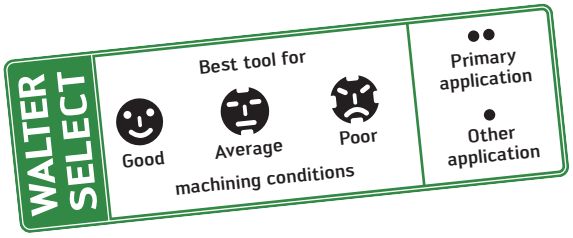
Tool

Shank DIN 6535 HA



Designation	P mm	D_c mm	L_{c2} mm	l_3 mm	l_4 mm	l_1 mm	d_1 mm	Z	WB10RC
TC685-M6-A1E-	1	4,6	1,11	16,5	21	57	6	4	●
TC685-M8-A1E-	1,25	6,2	1,39	21,9	27	63	8	4	●
TC685-M10-A1E-	1,5	7,8	1,68	27,3	27	63	8	4	●
TC685-M12-A1E-	1,75	9	1,96	32,6	32	72	10	4	●
TC685-M14-A1E-	2	10,5	2,25	38	38	83	12	4	●
TC685-M16-A1E-	2	12,5	2,28	43	44	92	16	4	●

Maximum thread nominal diameter for fine-pitch threads: Dc × 1.94
Example: TC685-M8../6.2 mm × 1.94 = 12.03 mm/MF 12 x 1.25 possible
Ordering example for the WB10RC grade: TC685-M6-A1E-WB10RC



Designation key for indexable insert thread milling cutters

Tool:

T	2	7	11	–	29	-	W	32	-	3	-	09	-	3	-	24
1	2	3	4	5	6		7	8		9		10		11		12

1 – Tool group

T Threading

2 – Generation

3 – Tool type

7 Indexable insert thread milling cutter

4 – Tool type

11 Universal With triangular insert $2.0 \times D_N$

12 Universal With triangular insert $2.5 \times D_N$

13 Universal With triangular insert $3.0 \times D_N$/modular

5 – 1. Delimiters

– Metric

. Inch

6 – Cutting diameter

7 – Adaptor type

W Weldon shank

C Walter Capto™

8 – Adaptor size

9 – Number of teeth

10 – Insert size

11 – Number of cutting rows

12 – Cutting row spacing

Indexable insert:

P26300	-	09	02	-	D	6	7		W	SM	37	S
1		2	3		4	5	6		Walter	7	8	9

1 – Family

P26300 Triangular thread milling insert, positive

P26310 Triangular thread milling insert, positive, for single-row tools

2 – Insert size

06
09
11
14
22

3 – Insert radius/thread specification

01 = 0,1 mm
02 = 0,2 mm
04 = 0,4 mm
G11 = G thread, 11 TPI

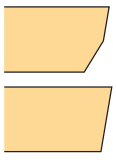
4 – Chip breaker groove

D = 10°

5 – Cutting edge

6

6 – Flank face design



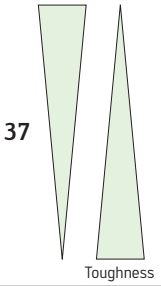
1

7

7 – Application

SM Can be used universally with ISO P, M, K, S and H materials

8 – ISO application range



Cutting tool materials for: 7 thread milling

9 – Generation

S Tiger·tec® Silver

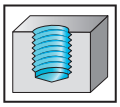
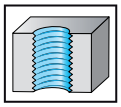
B 4

Indexable insert thread milling cutter
T2711 mm


– Radius correction values: See technical information
– D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness

M
DIN 13

MF
DIN 13

≤ 2×D_N

	P	M	K	N	S	H	O
T2711	●●	●●	●●	●	●●	●	●

Tool	Designation	D_N	P_{max} mm	D_c mm	l_{21} mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B	T2711-19-W20-3-06-2-24	M 24	3,00	19	24	51	110	20	3	6	P26300-06 ..
	T2711-24-W25-3-09-2-31.5	M 30	3,50	24	31,5	64,5	132	25	3	6	P26300-09 ..
	T2711-52-W40-4-14-2-60	M 64	6,00	52	60	135	217	40	4	8	P26300-14 ..
Shank DIN 1835 B	T2711-29-W32-3-09-3-24	M 36	4,00	29	24	76,5	149	32	3	9	P26300-09 ..
	T2711-35-W32-3-11-3-27	M 42	4,50	35	27	89,5	160	32	3	9	P26300-11 ..
	T2711-40-W40-3-14-3-30	M 48	5,00	40	30	103	187	40	3	9	P26300-14 ..
	T2711-44-W40-3-14-3-33	M 56	5,50	44	33	119	202	40	3	9	

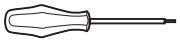
Bodies and assembly parts are included in the scope of delivery.

B 4

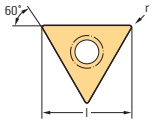
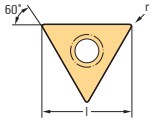
Assembly parts

	D_c [mm]	19	24–29	35	40–52
	Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm
	Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm

Accessories

	D_c [mm]	19	24–35	40–52
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
	Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
	P26300-0601-D67	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D67		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D67	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D67		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D67	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D67		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D67		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	
	P26300-0601-D61	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D61		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D61	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D61		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1101-D61	11	0,1	1,50–2,50	18–10	10,85	3	●	●	●		●	●	
	P26300-1102-D61		0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D61	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D61		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D61		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	

HC = Coated carbide

B 4

Tool selection

Metric thread

Family	Body designation	l_3 [mm]	Coarse pitch thread M24 / M27	M30 / M33	M36 / M39	M42 / M45	M48 / M52	M56 / M59	M64 / M68	Fine pitch thread D_N [mm]	P [mm] 1,5	2	2,5	3	3,5	4	4,5	5	5,5	6
T2711	T2711-19-W20-3-06-2-24	51	0602							≥ 24	0601	0601		0602						
	T2711-24-W25-3-09-2-31.5	64,5		0902						≥ 30	0901				0902					
	T2711-29-W32-3-09-3-24	76,5			0902					≥ 36	0901	0901		0902		0902				
	T2711-35-W32-3-11-3-27	89,5				1102				≥ 42				1102			1102			
	T2711-40-W40-3-14-3-30	103					1404			≥ 48	1401	1401	1401	1402				1404		
	T2711-44-W40-3-14-3-33	119						1404		≥ 56	1401			1402					1404	
	T2711-52-W40-4-14-2-60	135							1404	≥ 64	1401	1401	1401	1402		1402		1404		1404

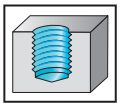
Example: With the T2711-29-W32-3-09-3-24 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), an M36 or M39 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 or 4 mm, when the nominal diameter is ≥ 36 mm.

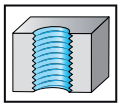
Indexable insert thread milling cutter
T2712 mm

– Radius correction values: See technical information
– D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness

M
DIN 13

MF
DIN 13





≤ 2,5×D_N

	P	M	K	N	S	H	O
T2712	●●	●●	●●	●	●●		●

Tool	Designation	D_N	P_{max} mm	P_{max} TPI	D_c mm	l_{21} mm	L_c mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of index-able inserts	Type
Shank DIN 1835 B	T2712-24-W25-3-09-2-31.5	M 30	3,50	-	24	31,5	63	79,5	147	25	3	6	P26300-09 ..
	T2712-29-W32-3-09-2-36	M 36	4,00	-	29	36	72	94,5	167	32	3	6	
	T2712-35-W32-3-11-2-40.5	M 42	4,50	-	35	40,5	81	110,5	180	32	3	6	P26300-11 ..
	T2712-40-W40-3-14-2-50	M 48	5,00	-	40	50	100	127	211	40	3	6	P26300-14 ..
Shank DIN 1835 B	T2712-19-W20-3-06	M24	3,00	8	19	-	-	63	123	20	3	3	P26300-06 ..
	T2712-24-W25-3-09	M30	3,50	7	24	-	-	79,5	148	25	3	3	P26300-09 ..
	T2712-29-W32-3-09	M36	4,00	6	29	-	-	94,5	167	32	3	3	
	T2712-35-W32-3-11	M42	4,50	6	35	-	-	110,5	181	32	3	3	P26300-11 ..
	T2712-40-W40-3-14	M48	5,00	5	40	-	-	127	211	40	3	3	P26300-14 ..
	T2712-44-W40-3-14	M56	5,50	5	44	-	-	147	230	40	3	3	
	T2712-52-W40-4-14	M64	6,00	4	52	-	-	167	249	40	4	4	

Bodies and assembly parts are included in the scope of delivery.

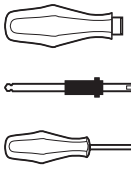
B 4

●●● / ★ New addition to the product range

Assembly parts

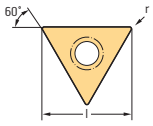
D_c [mm]	19	24–29	35	40–52
Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm
Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm

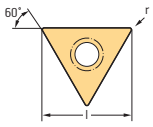
Accessories



D_c [mm]	19	24–35	40–52
Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

Thread milling cutter inserts P26300





Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
P26300-0601-D67	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
P26300-0602-D67		0,2	3,00	8	6,58	3	●	●	●		●	●	
P26300-0901-D67	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
P26300-0902-D67		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
P26300-1401-D67	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
P26300-1402-D67		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
P26300-1404-D67		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	
P26300-0601-D61	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
P26300-0602-D61		0,2	3,00	8	6,58	3	●	●	●		●	●	
P26300-0901-D61	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
P26300-0902-D61		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
P26300-1101-D61	11	0,1	1,50–2,50	18–10	10,85	3	●	●	●		●	●	
P26300-1102-D61		0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
P26300-1401-D61	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
P26300-1402-D61		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
P26300-1404-D61		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	

HC = Coated carbide

B 4

Tool selection

Metric thread

Family	Body designation	l_3 [mm]	Coarse pitch thread M24 / M27	M30 / M33	M36 / M39	M42 / M45	M48 / M52	M56 / M59	M64 / M68	D_N [mm]	Fine pitch thread P [mm] 1,5	2	2,5	3	3,5	4	4,5	5	5,5	6
T2712	T2712-24-W25-3-09-2-31.5	79,5		0902						≥ 30	0901				0902					
	T2712-29-W32-3-09-2-36	94,5			0902					≥ 36	0901	0901		0902		0902				
	T2712-35-W32-3-11-2-40.5	110,5				1102				≥ 42	1101						1102			
	T2712-40-W40-3-14-2-50	127					1404			≥ 48		1401	1401					1404		
T2712	T2712-19-W20-3-06	63	0602							≥ 24		0601		0602						
	T2712-24-W25-3-09	79,5		0902						≥ 30		0901			0902					
	T2712-29-W32-3-09	94,5			0902					≥ 36		0901			0902					
	T2712-35-W32-3-11	110,5				1102				≥ 42		1101			1102					
	T2712-40-W40-3-14	127					1404			≥ 48		1401			1402			1404		
	T2712-44-W40-3-14	147						1404		≥ 56		1401			1402			1404		
	T2712-52-W40-4-14	167							1404	≥ 64		1401			1402			1404		

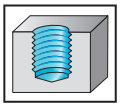
Example: With the T2712-29-W32-3-09-2-36 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), an M36 or M39 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 or 4 mm, when the nominal diameter is ≥ 36 mm.

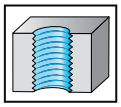
Indexable insert thread milling cutter
T2713 mm

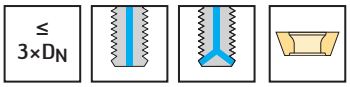
– Radius correction values: See technical information
– D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness

M
DIN 13

MF
DIN 13







	P	M	K	N	S	H	O
T2713	●●	●●	●●	●	●●		●

Tool	Designation	D_N	P_{max} mm	P_{max} TPI	D_c mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B	T2713-19-W20-3-06	M24	3,00	8	19	75	135	20	3	3	P26300-06 ..
	T2713-24-W25-3-09	M30	3,50	7	24	94,5	163	25	3	3	P26300-09 ..
	T2713-29-W32-3-09	M36	4,00	6	29	112,5	185	32	3	3	
	T2713-35-W32-3-11	M42	4,50	6	35	131,5	202	32	3	3	P26300-11 ..
	T2713-40-W40-3-14	M48	5,00	5	40	151	235	40	3	3	P26300-14 ..
	T2713-44-W40-3-14	M56	5,50	5	44	175	258	40	3	3	
	T2713-52-W40-4-14	M64	6,00	4	52	199	281	40	4	4	
Walter Capto™ in accordance with ISO 26623	T2713-60-C5-4-14	M72	6,00	4	60	115	152	50	4	4	P26300-14 ..
	T2713-73-C6-5-14	M85	6,00	4	73	125	170	63	5	5	
	★ T2713-94-C8-5-22	M125	10,00	4	94	140	199	80	5	5	P26300-22 ..

Bodies and assembly parts are included in the scope of delivery.

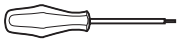
B 4

●●● / ★ New addition to the product range

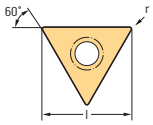
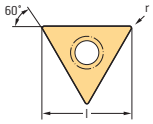
Assembly parts

D_c [mm]	19	24–29	35	40–73	94
 Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS1495 (Torx 20IP) 5,0 Nm
Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS1495 (TorxIP) 5,0 Nm

Accessories

D_c [mm]	19	24–35	40–73	94
 Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
 Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)	FS2015 (Torx 20IP)
 Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)	FS1486 (Torx 20IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
	P26300-0601-D67	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D67		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D67	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D67		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D67	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D67		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D67		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	
	P26300-0601-D61	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D61		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D61	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D61		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1101-D61	11	0,1	1,50–2,50	18–10	10,85	3	●	●	●		●	●	
	P26300-1102-D61		0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D61	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D61		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D61		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	
	P26300-2204-D61	22	0,4	6,00–10,00	4	21,38	3	●	●	●		●	●	

HC = Coated carbide

B4

Tool selection

Metric thread

Family	Body designation	l_3 [mm]	Coarse pitch thread: M24 / M27	M30 / M33	M36 / M39	M42 / M45	M48 / M52	M56 / M59	M64 / M68	D_N [mm]	Fine pitch thread: P [mm] 1,5–2,5	3	3,5	4	4,5	5	5,5	6	7–10
T2713	T2713-19-W20-3-06	75	0602							≥ 24	0601	0602							
	T2713-24-W25-3-09	94,5		0902						≥ 30	0901	0902							
	T2713-29-W32-3-09	112,5			0902					≥ 36	0901	0902							
	T2713-35-W32-3-11	131,5				1102				≥ 42	1101	1102							
	T2713-40-W40-3-14	151					1404			≥ 48	1401	1402			1404				
	T2713-44-W40-3-14	175						1404		≥ 56	1401	1402			1404				
	T2713-52-W40-4-14	199							1404	≥ 64	1401	1402			1404				
	T2713-60-C5-4-14	115								≥ 72	1401	1402			1404				
	T2713-73-C6-5-14	125								≥ 85	1401	1402			1404				
	T2713-94-C8-5-22	140								≥ 125								2204	

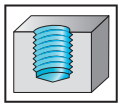
Example: With the T2713-29-W32-3-09 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), an M36 or M39 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 or 4 mm, when the nominal diameter is ≥ 36 mm.

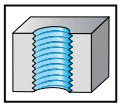
Indexable insert thread milling cutter
T2711 mm

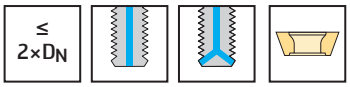
– Radius correction values: See technical information
– D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness

UNC
ASME B1.1

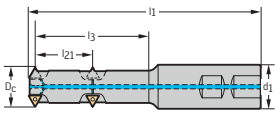
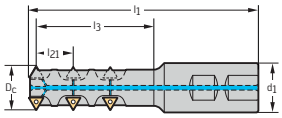
UNF
ASME B1.1







	P	M	K	N	S	H	O
T2711	●●	●●	●●	●	●●	●	●

Tool	Designation	D_N	P_{max} TPI	D_c mm	l_{21} mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B 	T2711-20-W20-3-06-2-25.4	UNC 1	8	20	25,4	53,9	113	20	3	6	P26300-06 ..
	T2711-26-W25-3-09-2-32.7	UNC 1.1/4	7	26	32,66	68	135	25	3	6	P26300-09 ..
Shank DIN 1835 B 	T2711-31-W32-3-09-3-25.4	UNC 1.1/2	6	31	25,4	80,7	153	32	3	9	P26300-09 ..

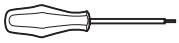
Bodies and assembly parts are included in the scope of delivery.

B 4

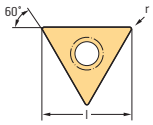
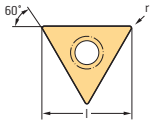
Assembly parts

	D_c [mm]	20	26–31
	Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm
	Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm

Accessories

	D_c [mm]	20	26–31
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)
	Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
	P26300-0601-D67	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D67		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D67	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D67		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D67	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D67		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D67		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	
	P26300-0601-D61	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D61		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D61	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D61		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1101-D61	11	0,1	1,50–2,50	18–10	10,85	3	●	●	●		●	●	
	P26300-1102-D61		0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D61	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D61		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D61		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	

HC = Coated carbide

B 4

Tool selection

UN threads

Family	Body designation	l_3 [mm]	UNC 1"	UNC 1 1/4"	UNC 1 1/2"	UNF 1"	UNF 1 1/8"	UNF 1 1/4"	UNF 1 3/8"	UNF 1 1/2"	UN D_N	UN TPI 18*	UN TPI 16	UN TPI 14	UN TPI 12	UN TPI 8	UN TPI 6
T2711	T2711-20-W20-3-06-2-25.4	53,9	0602			0601	0601	0601	0601	0601	≥ 1,00"	0601	0601	0601	0601	0602	
	T2711-26-W25-3-09-2-32.7	68		0902							≥ 1,25"			0901			
	T2711-31-W32-3-09-3-25.4	80,7			0902					0901	≥ 1,50"	0901	0901	0901	0901	0902	0902

Example: With the T2711-31-W32-3-09-3-25.4 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 and 6 TPI, when their nominal diameter is ≥ 1.5".

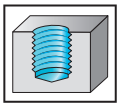
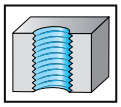
* = UNEF

Indexable insert thread milling cutter
T2712 mm


– Radius correction values: See technical information
– D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness

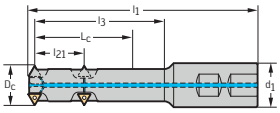
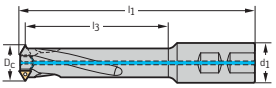
UNC
ASME B1.1

UNF
ASME B1.1

≤ 2,5×D_N

	P	M	K	N	S	H	O
T2712	●●	●●	●●	●	●●		●

Tool	Designation	D_N	P_{max} TPI	P_{max} mm	D_c mm	l_{21} mm	L_c mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of index-able inserts	Type
Shank DIN 1835 B	T2712-26-W25-3-09-2-32.7	UNC 1 1/4	7	-	26	32,66	65,32	84	151	25	3	6	P26300-09 ..
	T2712-31-W32-3-09-2-38.1	UNC 1 1/2	6	-	31	38,1	76,2	99,8	172	32	3	6	
Shank DIN 1835 B	T2712-19-W20-3-06	1,00"	8	3,00	19	-	-	63	123	20	3	3	P26300-06 ..
	T2712-24-W25-3-09	1,25"	7	3,50	24	-	-	79,5	148	25	3	3	P26300-09 ..
	T2712-29-W32-3-09	1,50"	6	4,00	29	-	-	94,5	167	32	3	3	
	T2712-35-W32-3-11	1,75"	6	4,50	35	-	-	110,5	181	32	3	3	P26300-11 ..
	T2712-40-W40-3-14	2,00"	5	5,00	40	-	-	127	211	40	3	3	P26300-14 ..
	T2712-44-W40-3-14	2,25"	5	5,50	44	-	-	147	230	40	3	3	
	T2712-52-W40-4-14	2,75"	4	6,00	52	-	-	167	249	40	4	4	

Bodies and assembly parts are included in the scope of delivery.

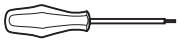
B 4

●●● / ★ New addition to the product range

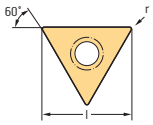
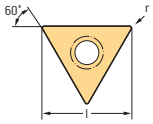
Assembly parts

D_c [mm]	19	24–31	35	40–52
 Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm
Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm

Accessories

D_c [mm]	19	24–31	40–52
 Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
 Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
 Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
	P26300-0601-D67	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D67		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D67	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D67		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D67	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D67		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D67		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	
	P26300-0601-D61	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D61		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D61	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D61		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1101-D61	11	0,1	1,50–2,50	18–10	10,85	3	●	●	●		●	●	
	P26300-1102-D61		0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D61	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D61		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D61		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	

HC = Coated carbide

B 4

Tool selection

UN threads

Family	Body designation	l_3 [mm]	UNC 1"	UNC 1 1/4"	UNC 1 1/2"	UNC 2 1/4"	UNC ≥ 2 3/4"	UNF 1"	UNF 1 1/8"	UNF 1 1/4"	UNF 1 3/8"	UNF 1 1/2"	D_N	UN TPI 18–10	UN TPI 8	UN TPI 6	UN TPI 5	UN TPI 4,5	UN TPI 4
T2712	T2712-26-W25-3-09-2-32.7	83,88		0902									≥ 1,25"						
	T2712-31-W32-3-09-2-38.1	99,75			0902							0901	≥ 1,50"	0901*	0902	0902			
T2712	T2712-19-W20-3-06	63	0602					0601	0601	0601	0601	0601	≥ 1,00"	0601	0602				
	T2712-24-W25-3-09	79,5		0902					0901	0901	0901	0901	≥ 1,25"	0901	0902				
	T2712-29-W32-3-09	94,5			0902						0901	0901	≥ 1,50"	0901	0902				
	T2712-35-W32-3-11	110,5											≥ 1,75"	1101	1102				
	T2712-40-W40-3-14	127											≥ 2,00"	1401	1402		1404		
	T2712-44-W40-3-14	147				1404							≥ 2,25"	1401	1402		1404		
	T2712-52-W40-4-14	167					1404						≥ 2,75"	1401	1402		1404		

Example: With the T2712-31-W32-3-09-2-38.1 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 and 6 TPI, when their nominal diameter is ≥ 1.5".

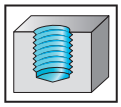
* Exceptions: 13/11.5 and 11 TPI cannot be machined.

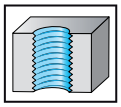
Indexable insert thread milling cutter
T2713 mm

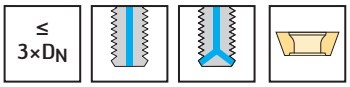
– Radius correction values: See technical information
– D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness

UNC
ASME B1.1

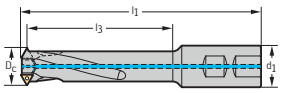
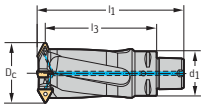
UNF
ASME B1.1







	P	M	K	N	S	H	O
T2713	●●	●●	●●	●	●●		●

Tool	Designation	D_N	P_{max} TPI	P_{max} mm	D_c mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B 	T2713-19-W20-3-06	1,00"	8	3,00	19	75	135	20	3	3	P26300-06 ..
	T2713-24-W25-3-09	1,25"	7	3,50	24	94,5	163	25	3	3	P26300-09 ..
	T2713-29-W32-3-09	1,50"	6	4,00	29	112,5	185	32	3	3	
	T2713-35-W32-3-11	1,75"	6	4,50	35	131,5	202	32	3	3	P26300-11 ..
	T2713-40-W40-3-14	2,00"	5	5,00	40	151	235	40	3	3	P26300-14 ..
	T2713-44-W40-3-14	2,25"	5	5,50	44	175	258	40	3	3	
	T2713-52-W40-4-14	2,75"	4	6,00	52	199	281	40	4	4	
Walter Capto™ in accordance with ISO 26623 	T2713-60-C5-4-14	3,00"	4	6,00	60	115	152	50	4	4	P26300-14 ..
	T2713-73-C6-5-14	3,50"	4	6,00	73	125	170	63	5	5	
	★ T2713-94-C8-5-22	5,00"	4	10,00	94	140	199	80	5	5	P26300-22 ..

Bodies and assembly parts are included in the scope of delivery.

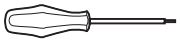
B 4

●●● / ★ New addition to the product range

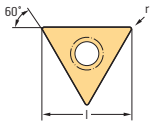
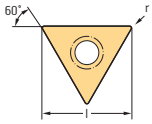
Assembly parts

D_c [mm]	19	24–29	35	40–73	94
 Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS1495 (Torx 20IP) 5,0 Nm
Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS1495 (TorxIP) 5,0 NM

Accessories

D_c [mm]	19	24–35	40–73	94
 Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
 Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)	FS2015 (Torx 20IP)
 Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)	FS1486 (Torx 20IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
	P26300-0601-D67	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D67		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D67	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D67		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D67	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D67		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D67		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	
	P26300-0601-D61	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D61		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D61	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D61		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1101-D61	11	0,1	1,50–2,50	18–10	10,85	3	●	●	●		●	●	
	P26300-1102-D61		0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D61	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D61		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D61		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	
	P26300-2204-D61	22	0,4	6,00–10,00	4	21,38	3	●	●	●		●	●	

HC = Coated carbide

B4

Tool selection

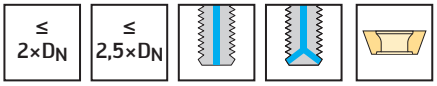
UN threads

Family	Body designation	l_3 [mm]	UNC 1"	UNC 1 1/4"	UNC 1 1/2"	UNC 2 1/4"	UNC 2 3/4"	UNC ≥ 3"	UNC ≥ 3 1/2"	UNF 1"	UNF 1 1/8"	UNF 1 1/4"	UNF ≥ 1 3/8"	UN D_N	UN TPI 18–10	UN TPI 8	UN TPI 6	UN TPI 5	UN TPI 4,5	UN TPI 4
T2713	T2713-19-W20-3-06	75	0602							0601	0601	0601	0601	≥ 1,00"	0601	0602				
	T2713-24-W25-3-09	94,5		0902							0901	0901	0901	≥ 1,25"	0901	0902				
	T2713-29-W32-3-09	112,5			0902								0901	≥ 1,50"	0901	0902				
	T2713-35-W32-3-11	131,5												≥ 1,75"	1101	1102				
	T2713-40-W40-3-14	151												≥ 2,00"	1401	1402		1404		
	T2713-44-W40-3-14	175				1404								≥ 2,25"	1401	1402		1404		
	T2713-52-C5-4-14	199					1404	1404	1404					≥ 2,75"	1401	1402		1404		
	T2713-60-C5-4-14	115						1404	1404					≥ 3,00"	1401	1402		1404		
	T2713-73-C6-5-14	125							1404					≥ 3,50"	1401	1402		1404		
	T2713-94-C8-5-22	140												≥5,00"						2204

Example: With the T2713-29-W32-3-09 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 to 6 TPI, when the nominal diameter is ≥ 1.5".

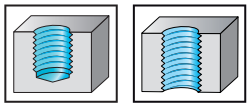
Indexable insert thread milling cutter
T2711 / T2712 inch

– Radius correction values: See technical information
– D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness

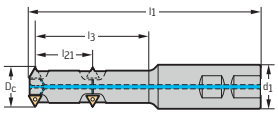
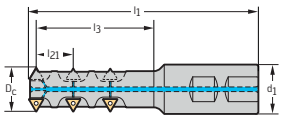
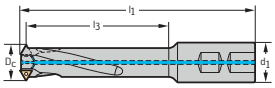


UNC
ASME B1.1

UNF
ASME B1.1



	P	M	K	N	S	H	O
T2711	●●	●●	●●	●	●●	●	●
T2712	●●	●●	●●	●	●●		●

Tool	Designation	D_N	P_{max} TPI	P_{max} mm	D_c Inch	l_{21} Inch	l_3 Inch	l_1 Inch	d_1 Inch	Z	No. of index-able inserts	Type
Weldon-Inch	T2711.20-W19-3-06-2-25.4	UNC 1	8	-	0,787	1,000	2,122	4,461	0,750	3	6	P26300-06 ..
	T2711.26-W26-3-09-2-32.7	UNC 1.1/4	7	-	1,024	1,286	2,677	5,299	1,000	3	6	P26300-09 ..
Weldon-Inch	T2711.31-W31-3-09-3-25.4	UNC 1.1/2	6	-	1,220	1,000	3,177	5,892	1,250	3	9	P26300-09 ..
												
Weldon-Inch	T2712.20-W19-3-06	UNC 1	8	3,00	0,787	-	2,618	4,953	0,750	3	3	P26300-06 ..
	T2712.23-W26-3-09	UNC 1 1/8	7	3,50	0,886	-	2,992	5,695	1,000	3	3	P26300-09 ..
	T2712.28-W31-3-09	UNC 1 3/8	6	4,00	1,083	-	3,622	6,482	1,250	3	3	

Bodies and assembly parts are included in the scope of delivery.

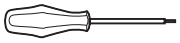
B 4

● ● ● / ★ New addition to the product range

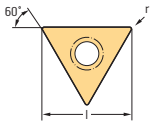
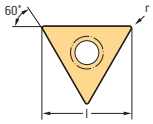
Assembly parts

	D_c [Inch]	0,787	0,886–1,220
	Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm
	Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm

Accessories

	D_c [Inch]	0,787	0,886 –1,220
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)
	Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
	P26300-0601-D67	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D67		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D67	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D67		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D67	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D67		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D67		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	
	P26300-0601-D61	6	0,1	1,50–2,50	18–10	6,73	3	●	●	●		●	●	
	P26300-0602-D61		0,2	3,00	8	6,58	3	●	●	●		●	●	
	P26300-0901-D61	9	0,1	1,50–2,50	18–10	9,48	3	●	●	●		●	●	
	P26300-0902-D61		0,2	3,00–4,00	8–6	9,34	3	●	●	●		●	●	
	P26300-1101-D61	11	0,1	1,50–2,50	18–10	10,85	3	●	●	●		●	●	
	P26300-1102-D61		0,2	3,00–4,50	8–6	10,71	3	●	●	●		●	●	
	P26300-1401-D61	14	0,1	1,50–2,50	18–10	13,87	3	●	●	●		●	●	
	P26300-1402-D61		0,2	3,00–4,50	8–6	13,72	3	●	●	●		●	●	
	P26300-1404-D61		0,4	5,00–6,00	5–4	13,43	3	●	●	●		●	●	

HC = Coated carbide

B 4

Tool selection

UN threads

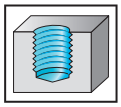
Family	Body designation	l_3 [inches]	UNC 1"	UNC 1 1/8"	UNC 1 1/4"	UNC 1 3/8"	UNC 1 1/2"	UNF 1"	UNF 1 1/8"	UNF 1 1/4"	UNF 1 3/8"	UNF 1 1/2"	UN D_N	UN TPI 18–10	UN TPI 8	UN TPI 6
T2711	T2711.20-W19-3-06-2-25.4	2.122"	0602					0601	0601	0601	0601	0601	≥ 1,000"	0601	0602	
	T2711.26-W26-3-09-2-32.7	2.677"			0902								≥ 1,250"			
	T2711.31-W31-3-09-3-25.4	3.177"					0902					0901	≥ 1,500"	0901	0902	0902
T2712	T2712.20-W19-3-06	2.618"	0602					0601	0601	0601	0601	0601	≥ 1,000"	0601	0602	
	T2712.23-W26-3-09	2.992"		0902	0902				0901	0901	0901	0901	≥ 1,125"	0901	0902	
	T2712.28-W31-3-09	3.622"				0902	0902				0901	0901	≥ 1,375"	0901	0902	0902

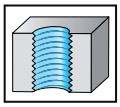
Example: With the T2711.31-W31-3-09-3-25.4 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 or 6 TPI, when the nominal diameter is ≥ 1.5".

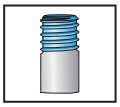
Indexable insert thread milling cutter
T2712 / T2713 mm

– Radius correction values: See technical information
– D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness

G
DIN EN ISO 228





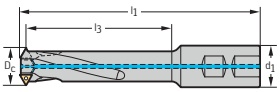


≤ 2,5×D_N | ≤ 3×D_N

	P	M	K	N	S	H	O
T2712 / T2713	●●	●●	●●	●	●●		●

Tool

Shank DIN 1835 B

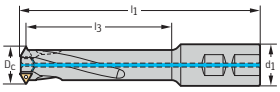


Designation	D_N	P_{max} mm	P_{max} TPI	D_c mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of indexable inserts	Type
★ T2712-24-W25-3-09	G 1"	3,50	7	24	79,5	148	25	3	3	P26310-09G11 ..
★ T2712-29-W32-3-09	G1 1/8"	4,00	6	29	94,5	167	32	3	3	
★ T2712-40-W40-3-14	G 1 1/2"	5,00	5	40	127	211	40	3	3	P26310-14G11 ..
★ T2712-44-W40-3-14	G 1 3/4"	5,50	5	44	147	230	40	3	3	
★ T2712-52-W40-4-14	G 2"	6,00	4	52	167	249	40	4	4	

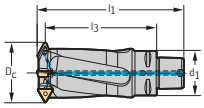
Bodies and assembly parts are included in the scope of delivery.

Tool

Shank DIN 1835 B



Walter Capto™ in accordance with ISO 26623



Designation	D_N	P_{max} mm	P_{max} TPI	D_c mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of indexable inserts	Type
★ T2713-24-W25-3-09	G 1"	3,50	7	24	94,5	163	25	3	3	P26310-09G11 ..
★ T2713-29-W32-3-09	G1 1/8"	4,00	6	29	112,5	185	32	3	3	
★ T2713-40-W40-3-14	G 1 1/2"	5,00	5	40	151	235	40	3	3	P26310-14G11 ..
★ T2713-44-W40-3-14	G 1 3/4"	5,50	5	44	175	258	40	3	3	
★ T2713-52-W40-4-14	G 2"	6,00	4	52	199	281	40	4	4	
★ T2713-60-C5-4-14	G 2 1/4"	6,00	4	60	115	152	50	4	4	P26310-14G11 ..
★ T2713-73-C6-5-14	G 2 3/4"	6,00	4	73	125	170	63	5	5	

Bodies and assembly parts are included in the scope of delivery.

B 4

★ New addition to the product range

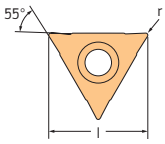
Assembly parts

D_c [mm]	24–29	40–73
Clamping screw for indexable insert Tightening torque	FS2111 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm
Coolant screw Tightening torque	FS2111 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm

Accessories

D_c [mm]	24–29	40–73
Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
Interchangeable blade	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
Screwdriver for indexable insert	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

Thread milling cutter inserts P26310



Designation	Size	r mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
P26310-09G11-D61	9	0,2	11	9,34	3	●	●	●		●	●	
P26310-14G11-D61	14	0,2	11	13,72	3	●	●	●		●	●	

Partial profile indexable inserts for producing the flattened profile in accordance with DIN EN ISO 228.

HC = Coated carbide

B 4

Tool selection

G thread (BSP)

Family	Body designation	Insert	l3 [mm]	G 1"	G 1 1/8"	G 1 1/4"	G 1 1/2"	G 1 3/4"	G 2"	G 2 1/4"	G 2 1/2"	G 2 3/4"	G 3"	≥ G 3 1/2"
T2712	T2712-24-W25-3-09	09G11	79,5	●●	●●	●●	●●	●	●	●	●	●	●	●
	T2712-29-W32-3-09		94,5		●●	●●	●●	●●	●	●	●	●	●	●
	T2712-40-W40-3-14	14G11	127				●●	●●	●●	●●	●	●	●	●
	T2712-44-W40-3-14		147					●●	●●	●●	●	●	●	●
	T2712-52-W40-4-14		167						●●	●●	●●	●	●	●
T2713	T2713-24-W25-3-09	09G11	94,5	●●	●●	●●	●●	●	●	●	●	●	●	●
	T2713-29-W32-3-09		112,5		●●	●●	●●	●●	●	●	●	●	●	●
	T2713-40-W40-3-14	14G11	151				●●	●●	●●	●●	●	●	●	●
	T2713-44-W40-3-14		175					●●	●●	●●	●	●	●	●
	T2713-52-W40-4-14		199						●●	●●	●●	●	●	●
	T2713-60-C5-4-14		115							●●	●●	●●	●	●
	T2713-73-C6-5-14		125									●●	●●	●●

Example: With the T2712-29-W32-3-09 body and the P26310-09G11.. indexable insert, G threads from 1 1/8" can be produced.

●● **Primary application:** High level of cost efficiency for small and large batch sizes

● **Additional application:** Cost-effective for small batch sizes (in order to achieve a good surface quality, the feed per tooth must be reduced. This results in longer machining times.)

Cutting data
Thread forming and tapping

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

= Cooling lubricant recommended

E = Emulsion
O = Oil
v_c = Cutting speed

Material group	Overview of the main material groups and code letters			Brinell hardiness HB	Tensile strength R_m N/mm²	Machining group [1]	HSS-E(-PM) thread formers, Coated, v_c [m/min] 1,5 × D_N	2 × D_N	2,5 × D_N	
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	46	37	32	E
		C > 0.25%... ≤ 0.55%	Annealed	190	640	P2	47	38	33	E
		C > 0.25%... ≤ 0.55%	Heat-treated	210	710	P3	29	23	20	E
		C > 0.55%	Annealed	190	640	P4	29	23	20	E
		C > 0.55%	Heat-treated	300	1010	P5	17	14	12	E
		Free-machining steel (short-chipping)	Annealed	220	750	P6	29	23	20	E
	Low-alloy steel	Annealed		175	590	P7	47	38	33	E
		Heat-treated		285	960	P8	15	12	11	E
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	29	23	20	E
		Hardened and tempered		300	1010	P12	17	14	12	E
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	13	10	9	E O
		Martensitic, heat-treated		330	1110	P15	5	4	3	O
M	Stainless steel	Austenitic, quench hardened		200	680	M1	15	12	11	E O
		Austenitic, precipitation hardened (PH)		300	1010	M2	5	4	4	O
		Austenitic/ferritic, duplex		230	780	M3	5	4	4	E O
K	Malleable cast iron	Ferritic		200	400	K1				
		Pearlitic		260	700	K2				
	Grey cast iron	Low tensile strength		180	200	K3				
		High tensile strength/austenitic		245	350	K4				
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	29	23	20	E
		Pearlitic		265	700	K6	14	12	10	E
	GGV (CGI)			230	400	K7				
N	Wrought aluminium alloys	Not hardenable		30	–	N1	56	45	39	E
		Hardenable, hardened		100	340	N2	52	43	37	E
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	48	39	34	E
		≤ 12% Si, hardenable, hardened		90	310	N4	48	39	34	E
		> 12% Si, not hardenable		130	450	N5				
	Magnesium alloys			70	250	N6				
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7	21	17	15	E
		Brass, bronze, red brass		90	310	N8				
		Cu alloys, short-chipping		110	380	N9				
		High-tensile, Ampco		300	1010	N10				
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	8	6	5	E
			Hardened	280	940	S2				
		Ni- or Co-based	Annealed	250	840	S3	8	6	5	O
			Hardened	350	1180	S4				
			Cast	320	1080	S5				
	Titanium alloys	Pure titanium		200	680	S6				
		α and β alloys, hardened		375	1260	S7				
		β alloys		410	1400	S8				
	Tungsten alloys			300	1010	S9				
	Molybdenum alloys			300	1010	S10				
H	Hardened steel	Hardened and tempered		50 HRC	–	H1				
		Hardened and tempered		55 HRC	–	H2				
		Hardened and tempered		60 HRC	–	H3				
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4				
O	Thermoplastics	Without abrasive fillers				O1				
	Thermosets	Without abrasive fillers				O2				
	Plastic, glass-fibre-reinforced	GFRP				O3				
	Plastic, carbon-fibre-reinforced	CFRP				O4				
	Plastic, aramid-fibre-reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

[1] The classification of the machining groups can be found from page B 1174 onwards in the Walter General Catalogue 2017.
[3] Water-miscible coolants must not be used when machining magnesium-based alloys.
*For materials with a hardness of more than 63 HRC, reduce the cutting speed by 50–75%.

HSS-E(-PM) taps							TC388 tap		TC389 tap*		
Uncoated			Coated				WJ30BA		WE10BA		
v_c [m/min]			v_c [m/min]				v_c [m/min]		v_c [m/min]		
1,5 × D_N	2 × D_N	2,5 × D_N	1,5 × D_N	2 × D_N	2,5 × D_N		1,5 × D_N	2 × D_N	1,5 × D_N	2 × D_N	
16	13	12	37	30	26	E					
20	17	14	37	31	26	E					
10	9	7	23	19	17	E					
10	9	7	23	19	16	E					
6	5	4	14	12	10	E					
10	9	7	23	19	16	E					
20	17	14	37	30	26	E					
5	4	4	12	10	9	E					
3	3	2	7	6	5	E					
3	2	2	5			O					
10	9	7	23	19	16	E					
6	5	4	14	12	10	E					
3	3	2	7	6	5	O					
3	2	2	7	6	5	E					
3	2	2	5	4	3	E					
4	3	3	8	7	6	E					
2	2	1	5	4	3	E					
2	2	2	6	5	4	E					
10	9	7	22	18	16	E					
7	5	5	11	9	8	E					
19	16	13	44	36	32	E					
13	10	9	17	14	12	E					
10	9	7	22	18	16	E					
7	5	5	12	10	9	E					
6	5	4	10	8	7	E					
10	8	7	8	7	6	E					
19	16	13	32	26	22	E					
17	14	12	22	18	16	E					
17	14	12	22	18	16	E					
16	13	11	25	21	18	E					
26	21	19	34	28	24	O					
9	7	6	14	12	10	E					
24	21	18	36	29	25	E					
31	25	21	48	40	34	E					
2						E					
3	3	2				E					
2	2	2	3			E					
3	3	2				E					
2	2	2	3			O					
2	2	2	3			O					
10	8	7	8	7	6	E					
3	2	2	4	4		O					
3	2	2	4	4		O					
2	2	2	2	2		O	6	5	6	5	O
5	5	4	7	5		O	17	14	17	14	O
						O	10	8			E O
						O	4	3	4	3	E O
						O			2	1,5	E O
						O	4	3	4	3	E O
28	23	19	22	18	15	E					
11	9	8	13	10	9	E					
6	5	4	8	6	5	E					
6	5	4	8	6	5	E					
6	5	4	8	6	5	E					
13	11	9	19	16	13	E					

Cutting data
Solid carbide thread milling

= Cooling lubricant recommended

E = Emulsion
M = MQL
A = Compressed air
v_c = Cutting speed [m/min]
f_z = Feed rate per tooth [mm]

●● = Recommended strategy
● = Possible strategy

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]		TC620 Strategy: Synchronous milling	TC620 Strategy: Asynchronous milling	TC620 Strategy: Non-cutting pass
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	E M	●	●●	●
		C > 0.25 ... ≤ 0.55%	Annealed	190	640	P2	E M	●	●●	●
		C > 0.25 ... ≤ 0.55%	Heat-treated	210	710	P3	E M	●	●●	●
		C > 0.55%	Annealed	190	640	P4	E M	●	●●	●
		C > 0.55%	Heat-treated	300	1010	P5	E M	●	●●	●
		Free-machining steel (short-chipping)	Annealed	220	750	P6	E M	●	●●	●
	Low-alloy steel	Annealed		175	590	P7	E M	●	●●	●●
		Heat-treated		285	960	P8	E M	●	●●	●
		Heat-treated		380	1280	P9	E M	●	●●	●
		Heat-treated		430	1480	P10	E M	●	●●	●
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	E M	●	●●	●●
		Hardened and tempered		300	1010	P12	E M	●	●●	●
		Hardened and tempered		380	1280	P13	E M	●	●●	●
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	E M	●	●●	●●
		Martensitic, heat-treated		330	1110	P15	E M	●	●●	●
M	Stainless steel	Austenitic, quench hardened		200	680	M1	E	●●	●	●●
		Austenitic, precipitation hardened (PH)		300	1010	M2	E	●●	●	●●
		Austenitic/ferritic, duplex		230	780	M3	E	●●	●	●●
K	Malleable cast iron	Ferritic		200	400	K1	E M	●	●●	●
		Pearlitic		260	700	K2	E M	●	●●	●
	Grey cast iron	Low tensile strength		180	200	K3	E M	●	●●	●
		High tensile strength/austenitic		245	350	K4	E M	●	●●	●
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	E M	●	●●	●
		Pearlitic		265	700	K6	E M	●	●●	●
	GGV (CGI)			230	400	K7	E M	●	●●	●
N	Wrought aluminium alloys	Not hardenable		30	–	N1	E M	●●	●	●
		Hardenable, hardened		100	340	N2	E M	●●	●	●
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	E M	●●	●	●
		≤ 12% Si, hardenable, hardened		90	310	N4	E M	●●	●	●
		> 12% Si, not hardenable		130	450	N5	E M	●●	●	●
	Magnesium-based alloys [3]			70	250	N6	A	●●	●	●
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7	E M	●●	●	●●
		Brass, bronze, red brass		90	310	N8	E M	●●	●	●
		Cu alloys, short-chipping		110	380	N9	E M	●●	●	●
		High-tensile, Ampco		300	1010	N10	E M	●●	●	●
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	E	●●	●	●●
			Hardened	280	940	S2	E	●●	●	●●
		Ni- or Co-based	Annealed	250	840	S3	E	●●	●	●●
			Hardened	350	1180	S4	E	●●	●	●●
			Cast	320	1080	S5	E	●●	●	●●
	Titanium alloys	Pure titanium		200	680	S6	E	●●	●	●●
		α and β alloys, hardened		375	1260	S7	E	●●	●	●
		β alloys		410	1400	S8	E	●●	●	●
	Tungsten alloys			300	1010	S9	E	●●	●	●
	Molybdenum alloys			300	1010	S10	E	●●	●	●
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	M A	●	●●	●
		Hardened and tempered		55 HRC	–	H2	M			
		Hardened and tempered		60 HRC	–	H3	M			
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	M A			
O	Thermoplastics	Without abrasive fillers				O1	E M	●●	●	●
	Thermosets	Without abrasive fillers				O2	E M	●●	●	●
	Plastic, glass-fibre-reinforced	GFRP				O3	E M	●●	●	●
	Plastic, carbon-fibre-reinforced	CFRP				O4	E M	●●	●	●
	Plastic, aramid-fibre-reinforced	AFRP				O5	E M	●●	●	●
	Graphite (technical)			65		O6	E M	●●	●	●

[1] The classification of the machining groups can be found from page B 1174 onwards in the Walter General Catalogue 2017.
[3] Water-miscible coolants must not be used when machining magnesium alloys.
* The TC685 is a left-hand cutting version. Machining is therefore performed synchronously.

	TC620				TC685*			
	v_c [m/min]	f_z [mm]			v_c	f_z [mm]		
	WB10TJ	D_c ≤ 6 mm	D_c > 6 mm and ≤ 12 mm	D_c > 12 mm	WB10RC	D_c ≤ 4 mm	D_c > 4 mm and ≤ 8 mm	D_c > 8
	115	0,07	0,11	0,15				
	155	0,07	0,11	0,15				
	130	0,07	0,11	0,15				
	130	0,07	0,11	0,15				
	95	0,07	0,11	0,15				
	130	0,07	0,11	0,15				
	130	0,07	0,11	0,15				
	80	0,05	0,09	0,13				
	75	0,05	0,09	0,13				
	65	0,05	0,09	0,13	70	0,015	0,030	0,050
	150	0,07	0,11	0,15				
	110	0,07	0,11	0,15				
	90	0,07	0,11	0,15				
	55	0,07	0,11	0,15				
	45	0,07	0,11	0,15				
	70	0,05	0,09	0,13				
	40	0,05	0,09	0,13				
	45	0,04	0,07	0,10				
	105	0,07	0,12	0,17	90	0,020	0,045	0,070
	100	0,07	0,12	0,17	90	0,020	0,045	0,070
	130	0,07	0,12	0,17	100	0,020	0,045	0,070
	110	0,07	0,11	0,15	90	0,020	0,045	0,070
	105	0,07	0,11	0,15	90	0,020	0,045	0,070
	100	0,07	0,11	0,15	90	0,020	0,045	0,070
	85	0,07	0,11	0,15	80	0,020	0,045	0,070
	400	0,07	0,12	0,17				
	400	0,07	0,12	0,17				
	400	0,07	0,12	0,17				
	400	0,07	0,12	0,17				
	170	0,07	0,12	0,17				
	400	0,07	0,12	0,17				
	360	0,07	0,12	0,17				
	360	0,07	0,12	0,17				
	360	0,07	0,12	0,17				
	50	0,05	0,09	0,13				
	35	0,07	0,11	0,15				
	25	0,07	0,11	0,15				
	40	0,07	0,11	0,15				
	25	0,05	0,09	0,13				
	25	0,05	0,09	0,13				
	40	0,07	0,11	0,15				
	40	0,05	0,09	0,13				
	20	0,05	0,09	0,13				
	50	0,05	0,09	0,13	30	0,010	0,020	0,050
	60	0,05	0,09	0,13	30	0,010	0,020	0,050
	55	0,05	0,09	0,13	55	0,012	0,030	0,050
					50	0,010	0,022	0,040
					45	0,008	0,020	0,030
					50	0,010	0,022	0,040
	290	0,06	0,1	0,14				
	145	0,06	0,1	0,14				
	65	0,06	0,1	0,14				
	65	0,06	0,1	0,14				
	65	0,06	0,1	0,14				
	215	0,06	0,1	0,14				

Cutting data
Indexable insert thread milling

= Cooling lubricant recommended

E = Emulsion
M = MQL
A = Compressed air
v_c = Cutting speed [m/min]
f_z = Feed rate per tooth [mm]

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]		T2711 / T2712 / T2713		
									f_z (mm)	
								v_c (m/min)	Insert size 06	Insert size 09 / 11 / 14
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	E M	200	0,3	0,4
		C > 0.25 ... ≤ 0.55%	Annealed	190	640	P2	E M	200	0,3	0,4
		C > 0.25 ... ≤ 0.55%	Heat-treated	210	710	P3	E M	200	0,3	0,4
		C > 0.55%	Annealed	190	640	P4	E M	200	0,3	0,4
		C > 0.55%	Heat-treated	300	1010	P5	E M	200	0,3	0,4
		Free-machining steel (short-chipping)	Annealed	220	750	P6	E M	200	0,3	0,4
	Low-alloy steel	Annealed		175	590	P7	E M	200	0,3	0,4
		Heat-treated		285	960	P8	E M	200	0,3	0,4
		Heat-treated		380	1280	P9	E M	150	0,25	0,35
		Heat-treated		430	1480	P10	E M	100	0,2	0,3
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	E M	200	0,3	0,4
		Hardened and tempered		300	1010	P12	E M	200	0,3	0,4
		Hardened and tempered		380	1280	P13	E M	150	0,3	0,4
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	E M	200	0,25	0,35
		Martensitic, heat-treated		330	1110	P15	E M	150	0,25	0,35
M	Stainless steel	Austenitic, quench hardened		200	680	M1	E	200	0,2	0,3
		Austenitic, precipitation hardened (PH)		300	1010	M2	E	150	0,2	0,3
		Austenitic/ferritic, duplex		230	780	M3	E	80	0,2	0,3
K	Malleable cast iron	Ferritic		200	400	K1	E M	200	0,3	0,4
		Pearlitic		260	700	K2	E M	200	0,3	0,4
	Grey cast iron	Low tensile strength		180	200	K3	E M	250	0,3	0,4
		High tensile strength/austenitic		245	350	K4	E M	200	0,3	0,4
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	E M	200	0,3	0,4
		Pearlitic		265	700	K6	E M	200	0,3	0,4
	GGV (CGI)			230	400	K7	E M	200	0,3	0,4
N	Wrought aluminium alloys	Not hardenable		30	–	N1	E M	–	–	–
		Hardenable, hardened		100	340	N2	E M	–	–	–
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	E M	–	–	–
		≤ 12% Si, hardenable, hardened		90	310	N4	E M	–	–	–
		> 12% Si, not hardenable		130	450	N5	E M	200	0,3	0,4
	Magnesium-based alloys [3]			70	250	N6	A	250	0,3	0,4
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7	E M	–	–	–
		Brass, bronze, red brass		90	310	N8	E M	–	–	–
		Cu alloys, short-chipping		110	380	N9	E M	–	–	–
		High-tensile, Ampco		300	1010	N10	E M	–	–	–
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	E	40	0,25	0,25
			Hardened	280	940	S2	E	25	0,15	0,15
		Ni- or Co-based	Annealed	250	840	S3	E	40	0,25	0,25
			Hardened	350	1180	S4	E	25	0,15	0,15
			Cast	320	1080	S5	E	30	0,2	0,2
	Titanium alloys	Pure titanium		200	680	S6	E	40	0,25	0,25
		α and β alloys, hardened		375	1260	S7	E	40	0,25	0,25
		β alloys		410	1400	S8	E	30	0,2	0,2
	Tungsten alloys			300	1010	S9	E	40	0,25	0,25
	Molybdenum alloys			300	1010	S10	E	40	0,25	0,25
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	M A	45	0,2	0,3
		Hardened and tempered		55 HRC	–	H2	M	–	–	–
		Hardened and tempered		60 HRC	–	H3	M	–	–	–
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	M A	45	0,2	0,3
O	Thermoplastics	Without abrasive fillers				O1	E M	200	0,3	0,4
	Thermosets	Without abrasive fillers				O2	E M	150	0,3	0,4
	Plastic, glass-fibre-reinforced	GFRP				O3	E M	50	0,3	0,4
	Plastic, carbon-fibre-reinforced	CFRP				O4	E M	50	0,3	0,4
	Plastic, aramid-fibre-reinforced	AFRP				O5	E M	50	0,3	0,4
	Graphite (technical)			65		O6	E M	200	0,3	0,4

[1] The classification of the machining groups can be found from page B 1174 onwards in the Walter General Catalogue 2017.
[3] Water-miscible coolants must not be used when machining magnesium alloys.

Machining must be performed synchronously. The specified cutting data are target values under good machining conditions.

Remedy for vibrations:
– Use indexable inserts with D61 geometry
– Reduce v_c by 25–50% and/or increase f_z by 25–50%
– Radial cutting pass

T2711/T2712: One radial cut is recommended
T2713: Radial cutting pass may be required.

Radius correction values for thread milling Walter T2711 / T2712 / T2713

Metric thread in accordance with DIN 13

Thread nominal diameter D_N	P	r	Radius correction		
			Minimum dimension for H tolerances	Middle of the tolerance range for a 6H tolerance	Middle of the tolerance range for a 6G tolerance
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
≥ 24	1,5	0,1	-0,05	-0,10	-0,12
	2	0,1	-0,10	-0,15	-0,17
	3	0,2	-0,10	-0,16	-0,19
	3,5	0,2	-0,15	-0,22	-0,24
	4	0,2	-0,20	-0,27	-0,30
	4,5	0,2	-0,25	-0,33	-0,36
	5	0,4	-0,10	-0,18	-0,22
	5,5	0,4	-0,15	-0,24	-0,27
	6	0,4	-0,20	-0,29	-0,33
	8	0,4	-0,40	-0,51	-0,56
	10	0,4	-0,59	-0,71	–

Based on the pitch diameter tolerances in accordance with DIN ISO 965-1. Valid from M24.

UN/UNC/UNF/UNEF thread in accordance with ASME B1.1

Thread nominal diameter D_N	P	r	Radius correction		
			Minimum dimension	Middle of the tolerance range for a 2B tolerance	Middle of the tolerance range for a 3B tolerance
[inches]	[TPI]	[mm]	[mm]	[mm]	[mm]
≥ 1 "	18	0,1	-0,04	-0,08	-0,07
	16	0,1	-0,06	-0,10	-0,09
	14	0,1	-0,08	-0,12	-0,11
	12	0,1	-0,11	-0,16	-0,15
	8	0,2	-0,12	-0,17	-0,16
	7	0,2	-0,16	-0,22	-0,21
	6	0,2	-0,22	-0,29	-0,27
	5	0,4	-0,11	-0,18	-0,16
	4,5	0,4	-0,16	-0,24	-0,22
	4	0,4	-0,23	-0,32	-0,30

Based on the pitch diameter tolerances in accordance with ASME B1.1. Valid from UNC 1.

Pipe thread G (BSP) in accordance with DIN EN ISO 228

Thread nominal diameter D_N	P	r	Radius correction	
			Minimum dimension	Middle of the tolerance range
[inches]	[TPI]	[mm]	[mm]	[mm]
≥ 1" and < 2 1/4"	11	0,2	-0,11	-0,16
≥ 2 1/4 "	11	0,2	-0,11	-0,17

Based on the pitch diameter tolerances in accordance with DIN ISO 228. Valid from D_N 1" and above.

If the measured tool radius is reduced by the value stated in the "Minimum dimension" column, the thread is still in the lower tolerance range after machining and is usually too narrow. If the thread has to be milled to bring it to the middle of the tolerance range, the measured tool radius must be reduced by the value stated in the "Middle of the tolerance range" column. The thread is generally true to gauge after machining. Radius correction values can also be determined in Walter GPS.

Example of an M36 – 6H thread	P	4 mm
	r	0,2 mm
Measured tool radius		14,53 mm
Radius correction in the middle of the 6H tolerance range		- 0,27 mm
Tool radius to be used		= 14.26 mm

Radius correction values for solid carbide thread milling cutters Walter TC620 / TC685

Metric thread in accordance with DIN 13

Thread nominal diameter D_N	P	Radius correction		
		Minimum dimension for H tolerances	Middle of the tolerance range for a 6H tolerance	Middle of the tolerance range for a 6G tolerance
[mm]	[mm]		[mm]	[mm]
≥ 3 and ≤ 22	0,50	Rprg.	-0,025	-0,035
	0,70	Rprg.	-0,030	-0,041
	0,80	Rprg.	-0,031	-0,043
	1,00	Rprg.	-0,038	-0,051
	1,25	Rprg.	-0,040	-0,054
	1,50	Rprg.	-0,045	-0,061
	1,75	Rprg.	-0,050	-0,067
	2,00	Rprg.	-0,053	-0,072
	2,50	Rprg.	-0,056	-0,077

Based on the pitch diameter tolerances in accordance with DIN ISO 965-1.

UN/UNC/UNF/UNEF thread in accordance with ASME B1.1

Thread nominal diameter D_N	P	Radius correction		
		Minimum dimension for H tolerances	Middle of the tolerance range for a 2B tolerance	Middle of the tolerance range for a 3B tolerance
[inches]	[TPI]		[mm]	[mm]
≥ 0.164" and ≤ 0.75"	32	Rprg.	-0,023	-0,017
	24	Rprg.	-0,027	-0,020
	20	Rprg.	-0,031	-0,023
	18	Rprg.	-0,034	-0,025
	16	Rprg.	-0,036	-0,027
	13	Rprg.	-0,041	-0,030
	11	Rprg.	-0,046	-0,034
	10	Rprg.	-0,049	-0,036

Based on the pitch diameter tolerances in accordance with ASME B1.1.

B 3

B 4

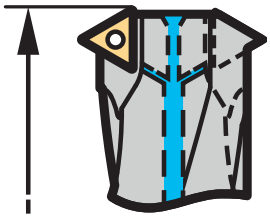
The programming radius (abbreviated to "Rprg.") can be read from the tool shank and is to be entered in the tool table of the CNC control system. The milled thread is then in the lower tolerance range and is usually too narrow. If the thread has to be milled to bring it to the middle of the tolerance range, the Rprg. must be reduced by the value stated in the "Middle of the tolerance range" column. The thread is then generally true to gauge. The radius correction values can also be determined using Walter GPS.

Example of an M8 – 6H thread with P = 1.25 mm	
Programming radius (Rprg.)	3,07 mm
Radius correction in the middle of the 6H tolerance range	- 0,04 mm
Tool radius to be used	**= 3,03 mm**

Tool application
Walter T2711 / T2712 / T2713

TOOL GAUGING

If the CNC program is created using Walter GPS, the tool must be gauged as shown in the diagram on the right. The thread depth that was entered is then reached.

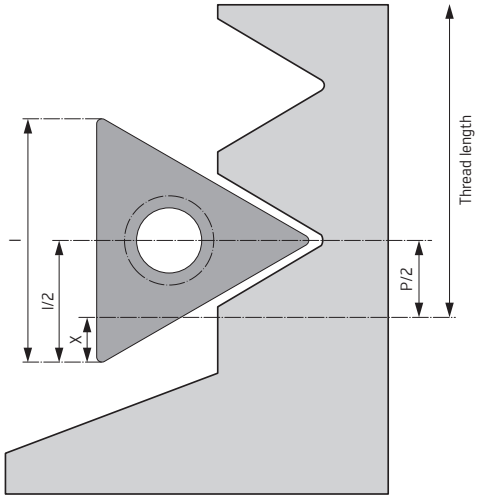


UNUSABLE LENGTH

The thread length includes the last thread ridge plus half a pitch. Since l/2 is greater than P/2, this results in an "unusable length" (X), which must be taken into consideration during programming.
This is calculated as half of the insert length (l/2) minus half of the thread pitch (P/2). When creating CNC programs, Walter GPS takes the "unusable length" into account.

Example: M36 with P26300-0902.. thread milling cutter insert.

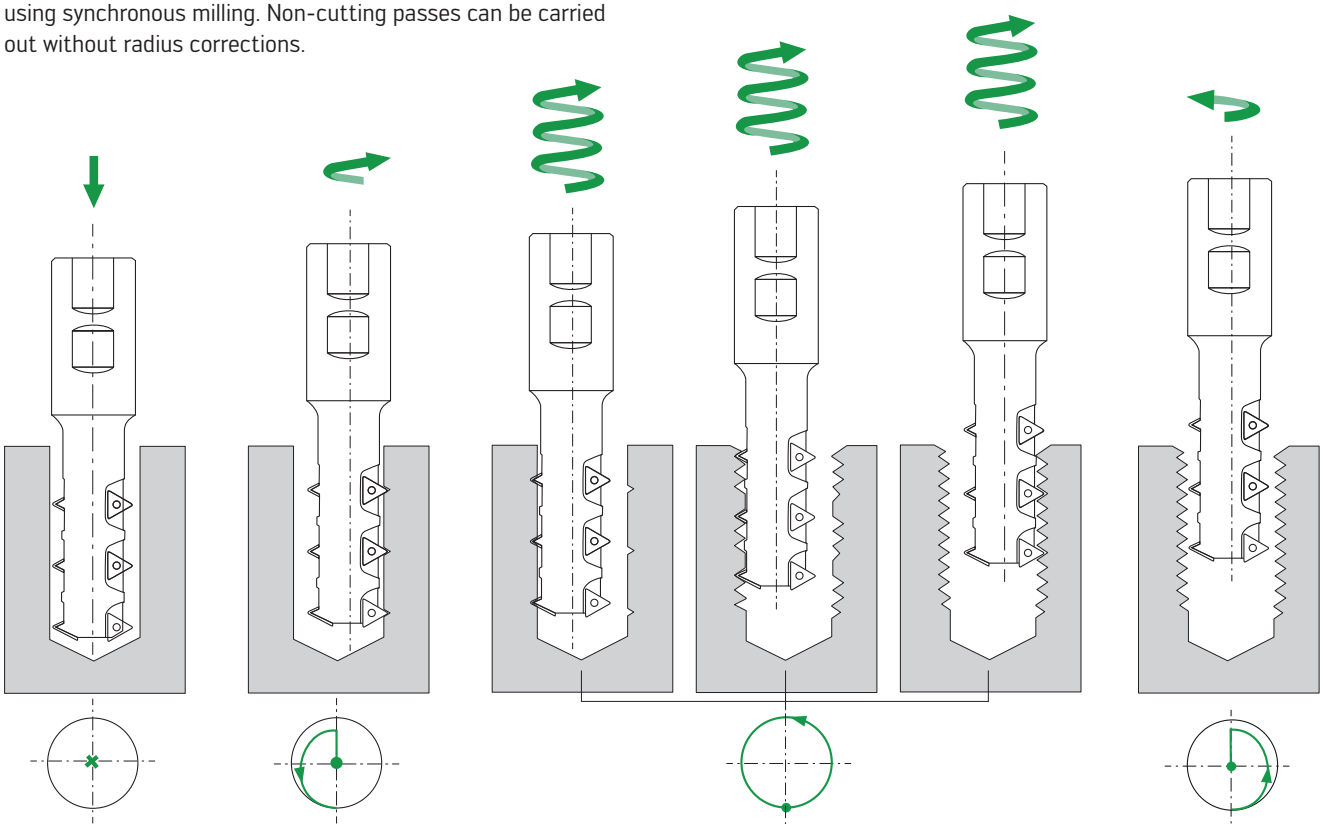
Unusable length $X = l/2 - P/2 = \frac{9.34\ mm}{2} - \frac{4\ mm}{2} = 2.67\ mm$



The unusable length of the T271.. families is less than the chamfer length of a tap.

THE STRATEGY

It is recommended that the thread be produced with a radial cut using synchronous milling. Non-cutting passes can be carried out without radius corrections.



Positioning the milling cutter over core hole and plunging

Descending loop

Producing the thread using helical interpolation until the row spacing is bridged

Exit loop

Solid carbide and ceramic milling tools – C1

Milling tools with indexable inserts – C2


WALTER

Solid carbide milling tools product range overview
Shoulder milling cutters

Machining				
Helix angle	**35°**	**50°**	**30°**	
Designation	**MD133 Supreme**	**MC187 Advance**	**MC183 Advance**	**MC111 Advance**
Diameter range [mm] / [inch]	6–20 / 1/4–3/4	3-25 / 1/8–3/4	6–16	3/32–3/4
Z	5–6	4–8	6–16	4
Corner radius [mm] / [inch]	0,3–1 / 0.015–0.030	0–3 / 0.015–0.060	0	0
Page	452	455	456	457
				

Solid carbide milling tools product range overview
Shoulder/slot milling cutters

Machining						
Helix angle	**35°**	**30°**	**50°**	**50°**	**30°**	**50°**
Designation	**AH4135217 AH4137217 Proto·max™$_{ST}$**	**MB266 Supreme**	**MC388 Advance**	**MC089 Advance**	**MC281 Advance**	**MC326 Supreme**
Diameter range [mm] / [inch]	3/8–3/4	1/4–1	2–12 / 1/8–1/2	4–16	1–4	1/4–1
Z	5	3	3–4	4	2	4–5
Corner radius [mm] / [inch]	0.030–0.060	0.015–0.120	0–3	0	0,2–0,5	0.030–0.125
Page	458	459	460	462	463	464
						

C1

Solid carbide milling tools product range overview
Shoulder/slot milling cutters

Machining				
Helix angle	**30°**	**40°**		**35°**
Designation	**MC213 Advance MC216 Advance**	**MC319 Advance**	**MC320 Advance**	**MC232 Perform**
Diameter range [mm] /[inch]	3/32–3/4	5–25	4–25 / 1/4–3/4	2–20 / 1/8–3/4
Z	2–4	4	3–8	2–4
Corner radius [mm]	0–0.120	0	0	0–4 / 0–0.125
Page	464	466	467	469
				

Solid carbide milling tools product range overview
Copy milling cutters

Machining	
Helix angle	**30°**
Designation	**MC480 Advance MC482 Advance**
Diameter range [inch]	0,4–16 / 1/8–1/2
Z	2–4
Corner radius [inch]	0,2–4 / 0.063–0.250
Page	475
	

C1

Designation key – Solid carbide milling tools

Example:

M	C	3	26	–	12.0	A	4	B	200	A	–	W	K	40	TF
1	2	3	4	5	6	7	8	9	10	11		Grade			

1 Tool group

M	Milling

2 Generation

3 Tool type

0	Face milling cutters
1	Shoulder milling cutters
2	Shoulder/slot/porcupine milling cutters Helix angle ≤ 39°
3	Shoulder/slot/porcupine milling cutters Helix angle ≥ 40°
4	Ball nose mill/ copy milling cutters
5	Profiling cutters
7	Slot drill mills/ circular interpolation mills

4 Tool type

00	Universal	Helix angle 0°, chamfer milling cutters 60°
01	Universal	Helix angle 0°, chamfer milling cutters 90°
02	Universal	Helix angle 0°, chamfer milling cutters 120°
03	Universal	Helix angle 0°, quadrant profiling cutters
04	Universal	Helix angle 0°, front/back deburrers
11	Universal	Helix angle 30°, type N
12	Universal	Helix angle 30°, type HSC
13	Universal	Helix angle 30°, type HSC, long version
16	Universal	Helix angle 30°, type 30
19	Universal	Helix angle 40°, knurled profile with internal cooling
20	Universal	Helix angle 40°, knurled profile
21	Universal	Helix angle 45°, short version
22	Universal	Helix angle 45°, type N
24	Universal	Helix angle 45°, type 45
26	Universal	Helix angle 50°, unequal groove depth, differential pitch
29	Universal	Helix angle 60°, type N, multipurpose cutter
32	Universal	Helix angle 35°
33	Universal	Helix angle 35° + chip breaker
41	ISO P	Helix angle 50°, HPC, differential pitch
51	ISO M	Helix angle 35 °/ 38°, without IC
65	ISO N	Helix angle 30°, Al geometry, RAPAX G30 roughing profile, Axial internal coolant
66	ISO N	Helix angle 30°, Al geometry, Axial internal coolant
80	ISO H	Helix angle 30°, HSC type H = Helix angle 30°, HSC, type H
81	ISO H	Helix angle 30°, mini HSC T, type H = Helix angle 30°, mini HSC T, type H
82	ISO H	Helix angle 30°, mini HSC R, type H = Helix angle 30°, mini HSC R, type H
83	ISO H	Helix angle 30°, multi-flute, type H = Helix angle 30°, multi-flute, type H
87	ISO H	Helix angle 50°, multi-flute, type H = Helix angle 50°, multi-flute, type H
88	ISO H	Helix angle 50°, HPC type H = Helix angle 50°, HPC, type H
89	ISO H	Helix angle 50°, high-feed, type H = Helix angle 50°, high-feed, type H

5 Delimiters

–	Metric
.	Inch

6 Cutting diameter

7 Shank type

A	Parallel shank
E	ConeFit
W	Weldon shank

8 Number of teeth

9 Design standard

A	DIN 6527 K
B	DIN 6527 L
C	ANSI stub
D	ANSI standard
L	P Standard L
M	P Standard Mini
P	P Standard
S	P Standard S
X	P Standard XL

10 Corner radius

11 Variant

A	l3 XS
B	l3 S $2 \times D_c$*
C	l3 M $3 \times D_c$*
D	l3 L $4 \times D_c$*
E	l3 XL $5 \times D_c$*
F	l3 XXL $6 \times D_c$*
G	l3 XXXL $8 \times D_c$*
H	l3 XXXXL $10 \times D_c$*
J	Lc S $3 \times D_c$*
K	Lc M $4 \times D_c$*
L	Lc L $5 \times D_c$*
V	Conical neck α ≤ 3°
W	Conical neck α ≤ 6°
X	Conical neck α ≤ 12°

* Standard values

C1

Grade designation key
for solid carbide and HSS cutting tool materials

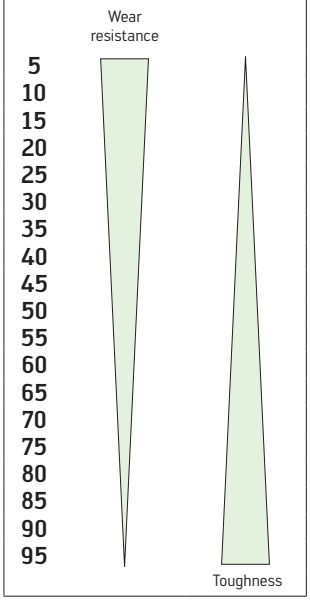
Example:

W	K	40	TF
Walter	1	2	3

1 Substrate

Solid carbide	B
	J
	K
HSS	

2 Application range



3 Coating

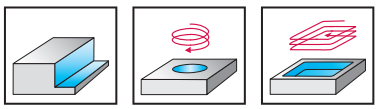
TF	TiAlN
UU	Uncoated
CA	CrN
RC	TiAlN + AlTi
TZ	AlTiN + ZrN
ED	AlCrN
TG	TiAlSiN
RD	AlTiN + ZrN
RA	TiAlN + TiAl

C1

Solid carbide shoulder milling cutters
MD133 Supreme mm /
MD133 Supreme inch

Z= 5–6

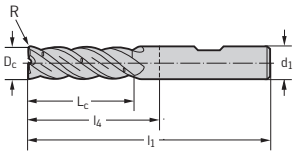
– Chip breaker



	P	M	K	N	S	H	O
WJ30RA		●●		●	●		
WJ30RD	●●		●				

P STANDARD L

Shank DIN 6535 HB

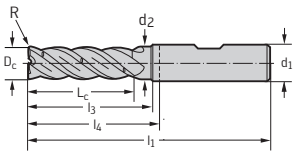


Designation	D_c h10 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RA	WJ30RD
MD133-06.0W5L030J-	6	0,3	19	65	29	6	5	☺	☹
MD133-08.0W5L040J-	8	0,4	25	68	32	8	5	☺	☹
MD133-10.0W5L050J-	10	0,5	32	80	40	10	5	☺	☹
MD133-12.0W5L060J-	12	0,6	38	93	48	12	5	☺	☹
MD133-16.0W6L080J-	16	0,8	50	115	62	16	6	☺	☹
MD133-20.0W6L100J-	20	1	63	125	75	20	6	☺	☹

Shoulder milling $a_e \leq 0.10 \times D_c$ for ISO P
Shoulder milling $a_e \leq 0.03 \times D_c$ for ISO M and ISO S
Ordering example for the WJ30RD grade: MD133-06.0W5L030J-WJ30RD

P STANDARD L

Shank DIN 6535 HB



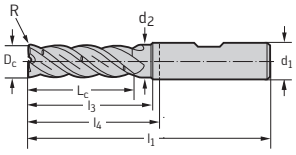
Designation	D_c h10 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RA	WJ30RD
MD133-06.0W5L030D-	6	0,3	19	27	5,5	65	29	6	5	☺	☹
MD133-08.0W5L040D-	8	0,4	25	30	7,5	68	32	8	5	☺	☹
MD133-10.0W5L050D-	10	0,5	32	38	9,5	80	40	10	5	☺	☹
MD133-12.0W5L060D-	12	0,6	38	46	11,4	93	48	12	5	☺	☹
MD133-16.0W6L080D-	16	0,8	50	60	15,2	115	62	16	6	☺	☹
MD133-20.0W6L100D-	20	1	63	73	19	125	75	20	6	☺	☹

Shoulder milling $a_e \leq 0.10 \times D_c$ for ISO P
Shoulder milling $a_e \leq 0.03 \times D_c$ for ISO M and ISO S
Ordering example for the WJ30RD grade: MD133-06.0W5L030D-WJ30RD

C1

P STANDARD L

Shank DIN 6535 HB



Designation	D_c h10 Inch/ no.	R Inch	L_c Inch	l_3 Inch	d_2 Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WJ30RA	WJ30RD
MD133.6.35W5L038D-	1/4"	0,015	0,875	1,000	0,237	2,500	1,437	0,250	5	☺	☹
MD133.9.53W5L038D-	3/8"	0,015	1,250	1,500	0,356	3,250	1,687	0,375	5	☺	☹
MD133.12.7W5L076D-	1/2"	0,030	1,750	2,125	0,475	4,000	2,217	0,500	5	☺	☹
MD133.15.9W6L076D-	5/8"	0,030	2,000	2,500	0,594	4,500	2,594	0,625	6	☺	☹
MD133.19.1W6L076D-	3/4"	0,030	2,500	3,000	0,713	5,500	3,469	0,750	6	☺	☹

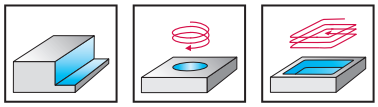
Shoulder milling $a_e \leq 0.10 \times D_c$ for ISO P
Shoulder milling $a_e \leq 0.03 \times D_c$ for ISO M and ISO S
Ordering example for the WJ30RD grade: MD133.6.35W5L038D-WJ30RD

Solid carbide shoulder milling cutters
MD133 Supreme mm

Z= 5–6

35°

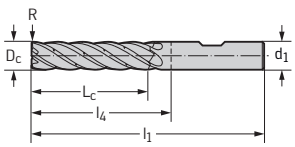
– Chip breaker



	P	M	K	N	S	H	O
WJ30RA		●●		●	●		
WJ30RD	●●		●				

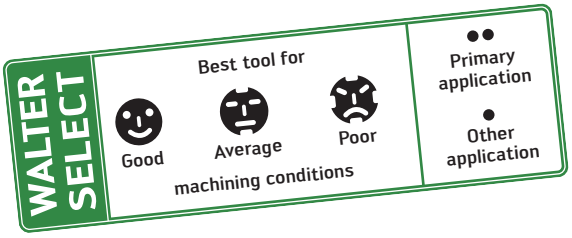
P STANDARD L

Shank DIN 6535 HB



Designation	D_c h10 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RA	WJ30RD
MD133-06.0W5L030K-	6	0,3	25	65	29	6	5	☺	☺
MD133-08.0W5L040K-	8	0,4	34	80	44	8	5	☺	☺
MD133-10.0W5L050K-	10	0,5	42	90	50	10	5	☺	☺
MD133-12.0W5L060K-	12	0,6	50	100	55	12	5	☺	☺
MD133-16.0W6L080K-	16	0,8	66	125	77	16	6	☺	☺
MD133-20.0W6L100K-	20	1	83	145	95	20	6	☺	☺

Shoulder milling $a_e \leq 0.05 \times D_c$ for ISO P
Shoulder milling $a_e \leq 0.025 \times D_c$ for ISO M and ISO S
Ordering example for the WJ30RD grade: MD133-06.0W5L030K-WJ30RD

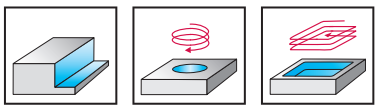


C1

Solid carbide shoulder milling cutters
MD133 Supreme mm /
MD133 Supreme inch

Z= 5–6

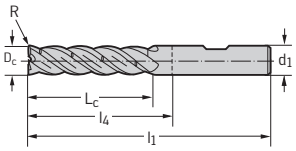
– Chip breaker



	P	M	K	N	S	H	O
WJ30RA		●●		●	●		
WJ30RD	●●		●				

P STANDARD XL

Shank DIN 6535 HB

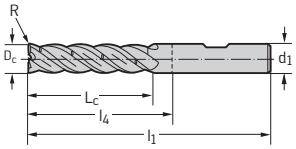


Designation	D_c h10 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RA	WJ30RD
MD133-06.0W5X030L-	6	0,3	31	80	40	6	5	☻	☻
MD133-08.0W5X040L-	8	0,4	41	87	51	8	5	☻	☻
MD133-10.0W5X050L-	10	0,5	52	100	60	10	5	☻	☻
MD133-12.0W5X060L-	12	0,6	62	116	71	12	5	☻	☻
MD133-16.0W6X080L-	16	0,8	82	141	93	16	6	☻	☻
MD133-20.0W6X100L-	20	1	103	165	115	20	6	☻	☻

Shoulder milling $a_e \leq 0.03 \times D_c$ for ISO P
Shoulder milling $a_e \leq 0.015 \times D_c$ for ISO M and ISO S
Ordering example for the WJ30RD grade: MD133-06.0W5X030L-WJ30RD

P STANDARD XL

Shank DIN 6535 HB

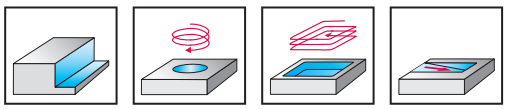


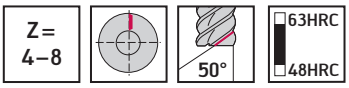
Designation	D_c h10 Inch/no.	R Inch	L_c Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WJ30RA	WJ30RD
MD133.6.35W5X038L-	1/4"	0,015	1,375	3,000	1,937	0,250	5	☻	☻
MD133.9.53W5X038L-	3/8"	0,015	2,000	4,000	2,437	0,375	5	☻	☻
MD133.12.7W5X076L-	1/2"	0,030	2,750	5,000	3,217	0,500	5	☻	☻
MD133.15.9W6X076L-	5/8"	0,030	3,250	5,500	3,594	0,625	6	☻	☻
MD133.19.1W6X076L-	3/4"	0,030	3,875	6,500	4,469	0,750	6	☻	☻

Shoulder milling $a_e \leq 0.03 \times D_c$ for ISO P
Shoulder milling $a_e \leq 0.015 \times D_c$ for ISO M and ISO S
Ordering example for the WJ30RD grade: MD133.6.35W5X038L-WJ30RD

C1

Solid carbide shoulder milling cutters
MC187 Advance mm / MC187 Advance inch

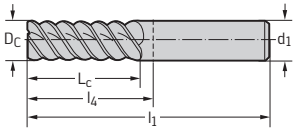




	P	M	K	N	S	H	O
WB10TG						●●	

DIN 6527 L

Shank DIN 6535 HA

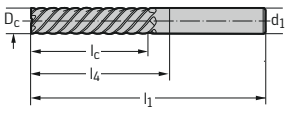


Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WB10TG
MC187-03.0A4B-	3	8	57	21	6	4	☺
MC187-04.0A4B-	4	11	57	21	6	4	☺
MC187-05.0A4B-	5	13	57	21	6	4	☺
MC187-06.0A6B-	6	13	57	21	6	6	☺
MC187-08.0A6B-	8	19	63	27	8	6	☺
MC187-10.0A6B-	10	22	72	32	10	6	☺
MC187-12.0A6B-	12	26	83	38	12	6	☺
MC187-16.0A6B-	16	32	92	44	16	6	☺
MC187-20.0A8B-	20	38	104	54	20	8	☺
MC187-25.0A8B-	25	45	121	65	25	8	☺

Shoulder milling $a_e \leq 0.1 \times D_c$
Ordering example for the WB10TG grade: MC187-03.0A4B-WB10TG

P STANDARD L

Shank DIN 6535 HA

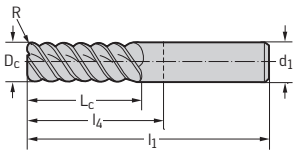


Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WB10TG
MC187-06.0A6L-	6	26	75	34	6	6	☺
MC187-08.0A6L-	8	36	80	44	8	6	☺
MC187-10.0A6L-	10	46	100	60	10	6	☺
MC187-12.0A6L-	12	55	110	65	12	6	☺
MC187-16.0A6L-	16	66	130	82	16	6	☺
MC187-20.0A8L-	20	80	145	95	20	8	☺
MC187-25.0A8L-	25	90	153	97	25	8	☺

Shoulder milling $a_e \leq 0.1 \times D_c$
Ordering example for the WB10TG grade: MC187-06.0A6L-WB10TG

DIN 6527 L

Shank DIN 6535 HA



Designation	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WB10TG
MC187-03.0A4B050-	3	0,5	8	57	21	6	4	☺
MC187-04.0A4B050-	4	0,5	11	57	21	6	4	☺
MC187-04.0A4B100-	4	1	11	57	21	6	4	☺
MC187-05.0A6B050-	5	0,5	13	57	21	6	6	☺
MC187-05.0A6B100-	5	1	13	57	21	6	6	☺
MC187-06.0A6B050-	6	0,5	13	57	21	6	6	☺
MC187-06.0A6B100-	6	1	13	57	21	6	6	☺
MC187-08.0A6B050-	8	0,5	19	63	27	8	6	☺
MC187-08.0A6B100-	8	1	19	63	27	8	6	☺
MC187-08.0A6B200-	8	2	19	63	27	8	6	☺
MC187-10.0A6B050-	10	0,5	22	72	32	10	6	☺
MC187-10.0A6B100-	10	1	22	72	32	10	6	☺
MC187-10.0A6B200-	10	2	22	72	32	10	6	☺
MC187-12.0A6B050-	12	0,5	26	83	38	12	6	☺

Shoulder milling $a_e \leq 0.1 \times D_c$
Ordering example for the WB10TG grade: MC187-03.0A4B050-WB10TG

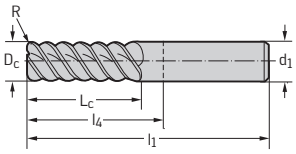
Continued

C1

Continued

DIN 6527 L

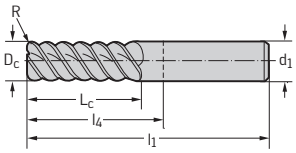
Designation	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WB10TG
Shank DIN 6535 HA								
MC187-12.0A6B100-	12	1	26	83	38	12	6	☺
MC187-12.0A6B200-	12	2	26	83	38	12	6	☺
MC187-12.0A6B300-	12	3	26	83	38	12	6	☺



Shoulder milling $a_e \leq 0.1 \times D_c$
Ordering example for the WB10TG grade: MC187-03.0A4B050-WB10TG

STANDARD

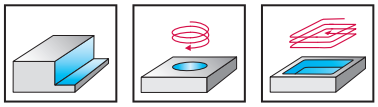
Designation	D_c h9 Inch/no.	R Inch	L_c Inch	l_1 Inch	l_4 Inch	d_1 h5 Inch	Z	WB10TG
Shank DIN 6535 HA								
MC187.3.18A4D038-	1/8"	0,015	0,500	2,500	1,083	0,250	4	☺
MC187.4.76A4D038-	3/16"	0,015	0,625	2,500	1,083	0,250	4	☺
MC187.6.35A6D038-	1/4"	0,015	0,750	3,000	1,583	0,250	6	☺
MC187.7.94A6D051-	5/16"	0,020	0,813	3,000	1,437	0,375	6	☺
MC187.9.53A6D076-	3/8"	0,030	0,875	3,000	1,437	0,375	6	☺
MC187.12.7A6D076-	1/2"	0,030	1,000	4,500	2,717	0,500	6	☺
MC187.15.9A6D152-	5/8"	0,060	1,250	5,000	3,094	0,625	6	☺
MC187.19.1A8D152-	3/4"	0,060	1,500	5,000	2,969	0,750	8	☺

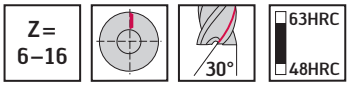


Shoulder milling $a_e \leq 0.1 \times D_c$
Ordering example for the WB10TG grade: MC187.3.18A4D038-WB10TG

Solid carbide shoulder milling cutters
MC183 Advance mm

C1

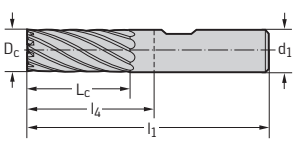




	P	M	K	N	S	H	O
WB10TG						●●	

DIN 6527 L

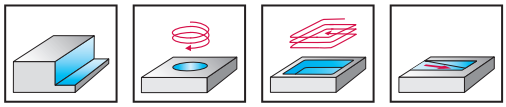
Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WB10TG
Shank DIN 6535 HB							
MC183-06.0W6B-	6	13	57	21	6	6	☺
MC183-08.0W8B-	8	19	63	27	8	8	☺
MC183-10.0W10B-	10	22	72	32	10	10	☺
MC183-12.0W12B-	12	26	83	38	12	12	☺
MC183-16.0W16B-	16	32	92	44	16	16	☺

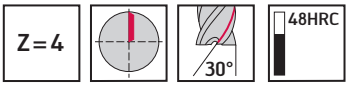


Shoulder milling $a_e \leq 0.05 \times D_c$
Ordering example for the WB10TG grade: MC183-06.0W6B-WB10TG

Solid carbide shoulder milling cutters
MC111 Advance inch

– Type N 30

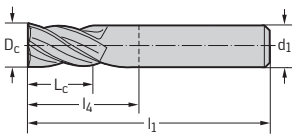




	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

STANDARD

Shank DIN 6535 HA

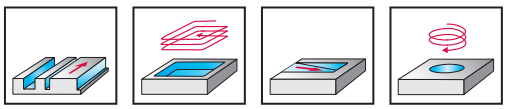


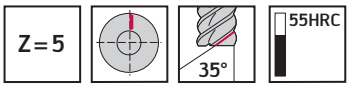
Designation	D_c h10 Inch/no.	L_c Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WJ30TF
MC111.2.38A4D-	3/32"	0,375	2,500	1,083	0,250	4	●
MC111.3.18A4D-	1/8"	0,500	2,500	1,083	0,250	4	●
MC111.4.76A4D-	3/16"	0,625	2,500	1,083	0,250	4	●
MC111.6.35A4D-	1/4"	0,750	2,500	1,083	0,250	4	●
MC111.7.94A4D-	5/16"	0,813	3,000	1,437	0,375	4	●
MC111.9.53A4D-	3/8"	0,875	3,000	1,437	0,375	4	●
MC111.12.7A4D-	1/2"	1,000	3,500	1,717	0,500	4	●
MC111.15.9A4D-	5/8"	1,250	3,500	1,594	0,625	4	●
MC111.19.1A4D-	3/4"	1,500	4,000	1,969	0,750	4	●

Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WJ30TF grade: MC111.2.38A4D-WJ30TF

C1

Solid carbide shoulder/slot milling cutters
AH4135217 inch / AH4137217 inch
Proto·max™ ST

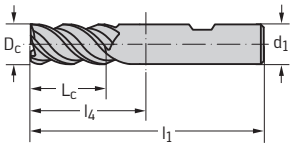




TAZ	P	M	K	N	S	H	O
	●●	●					

STANDARD

Shank DIN 6535 HB

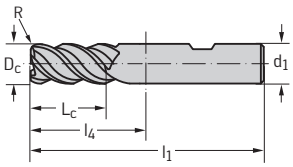


Designation TAZ	D_c h9 Inch/no.	L_c Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z
AH4135217-3/8	3/8"	0,875	3,000	1,437	0,375	5
AH4135217-1/2	1/2"	1,063	3,500	1,717	0,500	5
AH4135217-5/8	5/8"	1,250	3,500	1,594	0,625	5
AH4135217-3/4	3/4"	1,500	4,000	1,969	0,750	5

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

STANDARD

Shank DIN 6535 HB



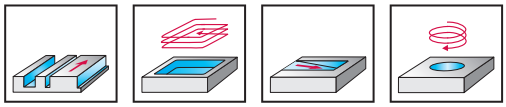
Designation TAZ	D_c h9 Inch/no.	R Inch	L_c Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z
AH4137217-3/8-0.030	3/8"	0,030	0,875	3,000	1,437	0,375	5
AH4137217-1/2-0.030	1/2"	0,030	1,063	3,500	1,717	0,500	5
AH4137217-1/2-0.060	1/2"	0,060	1,063	3,500	1,717	0,500	5
AH4137217-3/4-0.030	3/4"	0,030	1,500	4,000	1,969	0,750	5
AH4137217-3/4-0.060	3/4"	0,060	1,500	4,000	1,969	0,750	5

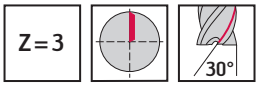
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

C1

Solid carbide shoulder/slot milling cutters
MB266 Supreme inch

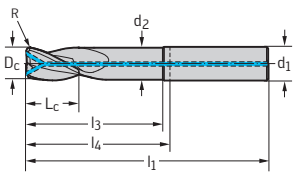
– Long reach



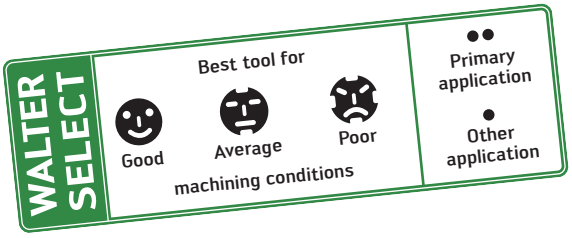


	P	M	K	N	S	H	O
WJ30UU				●●			

P STANDARD XL	Designation	D_c h9 Inch/ no.	R Inch	L_c Inch	l_3 Inch	d_2 Inch	l_1 Inch	l_4 Inch	d_1 h5 Inch	Z	WJ30UU
Shank DIN 6535 HA	MB266.6.35A3X038B-	1/4"	0,015	0,375	1,500	0,236	3,000	1,583	0,250	3	☺
	MB266.6.35A3X076B-	1/4"	0,030	0,375	1,500	0,236	3,000	1,583	0,250	3	☺
	MB266.9.53A3X038B-	3/8"	0,015	0,500	1,550	0,355	3,250	1,687	0,375	3	☺
	MB266.9.53A3X076B-	3/8"	0,030	0,500	1,550	0,355	3,250	1,687	0,375	3	☺
	MB266.12.7A3X038B-	1/2"	0,015	0,625	2,125	0,470	4,000	2,217	0,500	3	☺
	MB266.12.7A3X038C-	1/2"	0,015	1,250	3,125	0,470	5,000	3,217	0,500	3	☺
	MB266.12.7A3X076B-	1/2"	0,030	0,625	2,125	0,470	4,000	2,217	0,500	3	☺
	MB266.12.7A3X076C-	1/2"	0,030	1,250	3,125	0,470	5,000	3,217	0,500	3	☺
	MB266.12.7A3X152C-	1/2"	0,060	1,250	3,125	0,470	5,000	3,217	0,500	3	☺
	MB266.12.7A3X305C-	1/2"	0,120	1,250	3,125	0,470	5,000	3,217	0,500	3	☺
	MB266.15.9A3X038C-	5/8"	0,015	1,625	3,125	0,600	5,000	3,148	0,625	3	☺
	MB266.15.9A3X076C-	5/8"	0,030	1,625	3,125	0,600	5,000	3,148	0,625	3	☺
	MB266.15.9A3X152C-	5/8"	0,060	1,625	3,125	0,600	5,000	3,148	0,625	3	☺
	MB266.15.9A3X305C-	5/8"	0,120	1,625	3,125	0,600	5,000	3,148	0,625	3	☺
	MB266.19.1A3X038C-	3/4"	0,015	1,625	3,125	0,715	5,000	3,156	0,750	3	☺
	MB266.19.1A3X076B-	3/4"	0,030	1,000	2,125	0,715	4,000	2,156	0,750	3	☺
	MB266.19.1A3X076C-	3/4"	0,030	1,625	3,125	0,715	5,000	3,156	0,750	3	☺
	MB266.19.1A3X152B-	3/4"	0,060	1,000	2,125	0,715	4,000	2,156	0,750	3	☺
	MB266.19.1A3X305C-	3/4"	0,120	1,625	3,125	0,715	5,000	3,156	0,750	3	☺
	MB266.25.4A3X038B-	1"	0,015	1,250	2,125	0,955	5,000	2,717	1,000	3	☺
	MB266.25.4A3X076B-	1"	0,030	1,250	2,125	0,955	5,000	2,717	1,000	3	☺
	MB266.25.4A3X152B-	1"	0,060	1,250	2,125	0,955	5,000	2,717	1,000	3	☺
	MB266.25.4A3X305B-	1"	0,120	1,250	2,125	0,955	5,000	2,717	1,000	3	☺

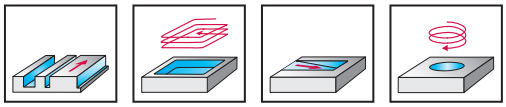


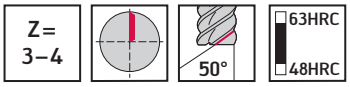
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30UU grade: MB266.6.35A3X038B-WJ30UU



C1

Solid carbide shoulder/slot milling cutters
MC388 Advance mm / MC388 Advance inch





	P	M	K	N	S	H	O
WB10TG	●					●●	

DIN 6527 L

	Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WB10TG
Shank DIN 6535 HA	MC388-06.0A4B-	6	13	57	21	6	4	☺
	MC388-08.0A4B-	8	19	63	27	8	4	☺
	MC388-10.0A4B-	10	22	72	32	10	4	☺
	MC388-12.0A4B-	12	26	83	38	12	4	☺
Shank DIN 6535 HB	MC388-06.0W4B-	6	13	57	21	6	4	☺
	MC388-08.0W4B-	8	19	63	27	8	4	☺
	MC388-10.0W4B-	10	22	72	32	10	4	☺
	MC388-12.0AWB-	12	26	83	38	12	4	☺

Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_a$
Ordering example for the WB10TG grade: MC388-06.0A4B-WB10TG

DIN 6527 L

	Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WB10TG
Shank DIN 6535 HA	MC388-02.0A3B-	2	7	57	21	6	3	☺
	MC388-03.0A3B-	3	8	57	21	6	3	☺
	MC388-04.0A3B-	4	11	57	21	6	3	☺
	MC388-05.0A3B-	5	13	57	21	6	3	☺
	MC388-06.0A4L-	6	13	65	29	6	4	☺
	MC388-08.0A4L-	8	19	80	44	8	4	☺
	MC388-10.0A4L-	10	22	100	60	10	4	☺
	MC388-12.0A4L-	12	26	100	55	12	4	☺

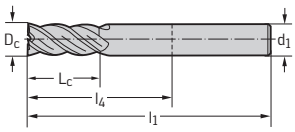
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_a$
Ordering example for the WB10TG grade: MC388-02.0A3B-WB10TG

Continued

Continued

P STANDARD L

Shank DIN 6535 HA

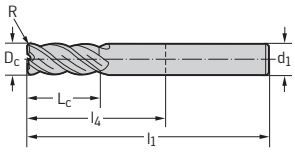


Designation	D_c h10 Inch/no.	L_c Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WB10TG
MC388.3.18A3L-	1/8"	0,500	2,500	1,083	0,250	3	☺
MC388.4.76A3L-	3/16"	0,625	2,500	1,083	0,250	3	☺
MC388.6.35A4L-	1/4"	0,750	2,500	1,083	0,250	4	☺
MC388.9.53A4L-	3/8"	0,875	3,000	1,437	0,375	4	☺
MC388.12.7A4L-	1/2"	1,000	3,500	1,717	0,500	4	☺

Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_a$
Ordering example for the WB10TG grade: MC388.3.18A3L-WB10TG

DIN 6527 L

Shank DIN 6535 HA

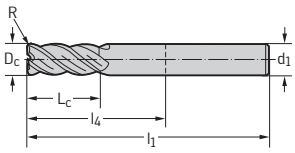


Designation	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WB10TG
MC388-02.0A3B050-	2	0,5	7	57	21	6	3	☺
MC388-03.0A3B050-	3	0,5	8	57	21	6	3	☺
MC388-04.0A3B050-	4	0,5	11	57	21	6	3	☺
MC388-04.0A3B100-	4	1	11	57	21	6	3	☺
MC388-05.0A3B050-	5	0,5	13	57	21	6	3	☺
MC388-05.0A3B100-	5	1	13	57	21	6	3	☺
MC388-06.0A4L050-	6	0,5	13	65	29	6	4	☺
MC388-06.0A4L100-	6	1	13	65	29	6	4	☺
MC388-08.0A4L050-	8	0,5	19	80	44	8	4	☺
MC388-08.0A4L100-	8	1	19	80	44	8	4	☺
MC388-08.0A4L200-	8	2	19	80	44	8	4	☺
MC388-10.0A4L050-	10	0,5	22	100	60	10	4	☺
MC388-10.0A4L100-	10	1	22	100	60	10	4	☺
MC388-10.0A4L200-	10	2	22	100	60	10	4	☺
MC388-12.0A4L050-	12	0,5	26	100	55	12	4	☺
MC388-12.0A4L100-	12	1	26	100	55	12	4	☺
MC388-12.0A4L200-	12	2	26	100	55	12	4	☺
MC388-12.0A4L300-	12	3	26	100	55	12	4	☺

Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_a$
Ordering example for the WB10TG grade: MC388-02.0A3B050-WB10TG

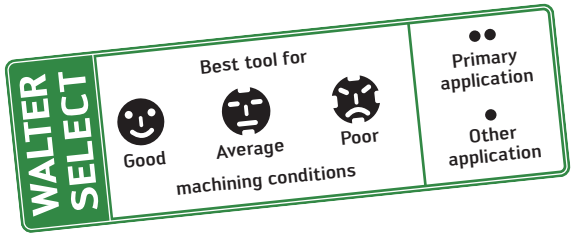
P STANDARD L

Shank DIN 6535 HA



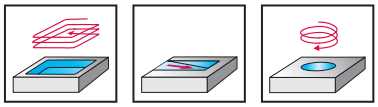
Designation	D_c h10 Inch/no.	R Inch	L_c Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WB10TG
MC388.3.18A3L038-	1/8"	0,015	0,500	2,500	1,083	0,250	3	☺
MC388.4.76A3L038-	3/16"	0,015	0,625	2,500	1,083	0,250	3	☺
MC388.6.35A4L038-	1/4"	0,015	0,750	2,500	1,083	0,250	4	☺
MC388.9.53A4L076-	3/8"	0,030	0,875	3,000	1,437	0,375	4	☺
MC388.12.7A4L076-	1/2"	0,030	1,000	3,500	1,717	0,500	4	☺

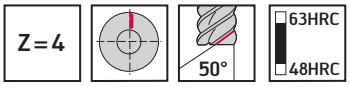
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_a$
Ordering example for the WB10TG grade: MC388.3.18A3L038-WB10TG



C1

Solid carbide shoulder/slot milling cutters
MC089 Advance mm

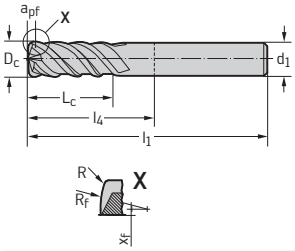




	P	M	K	N	S	H	O
WB10TG						●●	

DIN 6527 L

Shank DIN 6535 HA



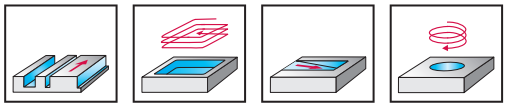
Designation	D_c h9 mm	a_{pf} mm	x_f mm	R_f mm	R_{ers} mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WB10TG
MC089-04.0A4B050-	4	0,12	0,6	4	0,618	0,5	11	57	21	6	4	☻
MC089-05.0A4B050-	5	0,15	0,7	6	0,656	0,5	13	57	21	6	4	☻
MC089-06.0A4B050-	6	0,2	0,7	9	0,693	0,5	15	57	21	6	4	☻
MC089-08.0A4B100-	8	0,25	0,78	12	1,226	1	20	63	27	8	4	☻
MC089-10.0A4B150-	10	0,3	0,8	15	1,773	1,5	26	72	32	10	4	☻
MC089-12.0A4B150-	12	0,4	1	18	1,875	1,5	30	83	38	12	4	☻
MC089-16.0A4B200-	16	0,5	1,5	24	2,465	2	36	92	44	16	4	☻

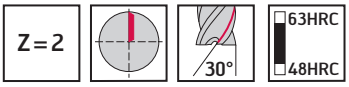
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WB10TG grade: MC089-04.0A4B050-WB10TG

C1

Solid carbide shoulder/slot milling cutters
MC281 Advance mm

– Long reach

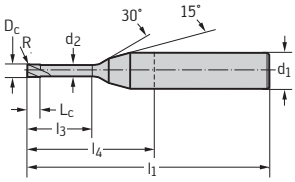




	P	M	K	N	S	H	O
WB10TG						●●	

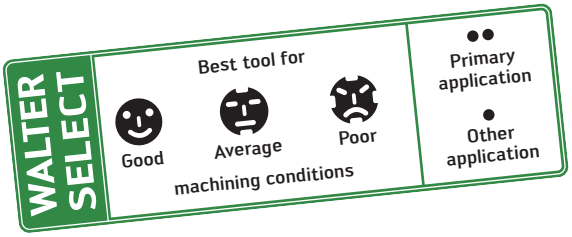
P STANDARD MINI

Shank DIN 6535 HA



Designation	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WB10TG
MC281-01.0A2M020B-	1	0,2	1	2	1,0	50	22	4	2	☻
MC281-01.0A2M020F-	1	0,2	1	6	1,0	50	22	4	2	☻
MC281-01.0A2M020H-	1	0,2	1	10	1,0	50	22	4	2	☻
MC281-1.25A2M020D-	1,25	0,2	1,25	5	1,2	50	22	4	2	☻
MC281-01.5A2M020C-	1,5	0,2	1,5	4	1,5	50	22	4	2	☻
MC281-01.5A2M020E-	1,5	0,2	1,5	8	1,5	50	22	4	2	☻
MC281-01.5A2M020G-	1,5	0,2	1,5	12	1,5	50	22	4	2	☻
MC281-02.0A2M020B-	2	0,2	2	4	2,0	50	22	4	2	☻
MC281-02.0A2M020C-	2	0,2	2	6	2,0	50	22	4	2	☻
MC281-02.0A2M020F-	2	0,2	2	12	2,0	50	22	4	2	☻
MC281-02.0A2M020G-	2	0,2	2	16	2,0	50	22	4	2	☻
MC281-03.0A2M020C-	3	0,2	3	8	3,0	50	22	4	2	☻
MC281-03.0A2M020E-	3	0,2	3	16	3,0	50	22	4	2	☻
MC281-03.0A2M020F-	3	0,2	3	20	3,0	60	32	4	2	☻
MC281-04.0A2M050C-	4	0,5	4	12	4,0	65	29	6	2	☻
MC281-04.0A2M050E-	4	0,5	4	20	4,0	65	29	6	2	☻

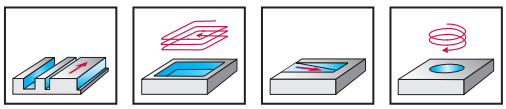
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$
Ordering example for the WB10TG grade: MC281-01.0A2M020B-WB10TG

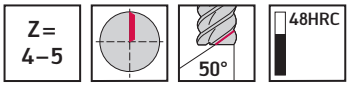


C1

Solid carbide shoulder/slot milling cutters
MC326 Supreme inch

– Long reach
– Type N 50

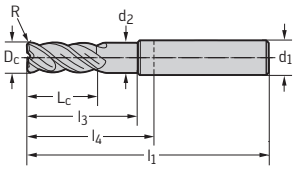




	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

P STANDARD L

Shank DIN 6535 HA

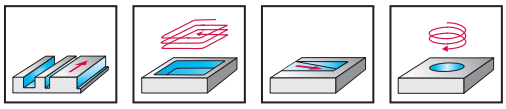


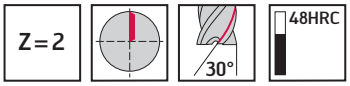
Designation	D_c h9 Inch/ no.	R Inch	L_c Inch	l_3 Inch	d_2 Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WK40TF
MC326.6.35A4L076C-	1/4"	0,030	0,750	1,375	0,237	3,000	1,583	0,250	4	●
MC326.7.94A4L076C-	5/16"	0,030	0,813	1,500	0,297	3,500	1,937	0,375	4	●
MC326.9.53A4L076C-	3/8"	0,030	0,875	1,500	0,356	3,500	1,937	0,375	4	●
MC326.9.53A4L152C-	3/8"	0,060	0,875	1,500	0,356	3,500	1,937	0,375	4	●
MC326.11.1A4L076C-	7/16"	0,030	1,000	2,875	0,416	4,750	2,967	0,500	4	●
MC326.12.7A4L076C-	1/2"	0,030	1,000	2,875	0,475	4,750	2,967	0,500	4	●
MC326.12.7A4L152C-	1/2"	0,060	1,000	2,875	0,475	4,750	2,967	0,500	4	●
MC326.15.9A4L076C-	5/8"	0,030	1,250	3,000	0,594	5,000	3,217	0,625	4	●
MC326.15.9A4L152C-	5/8"	0,060	1,250	3,000	0,594	5,000	3,217	0,625	4	●
MC326.19.1A4L152C-	3/4"	0,060	1,500	3,000	0,713	5,250	3,219	0,750	4	●
MC326.25.4A5L152C-	1"	0,060	1,625	3,250	0,960	5,500	3,217	1,000	5	●
MC326.25.4A5L318C-	1"	0,125	1,625	3,250	0,960	5,500	3,217	1,000	5	●

Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326.6.35A4L076C-WK40TF

Solid carbide shoulder/slot milling cutters
MC216 Advance inch

– Type 30

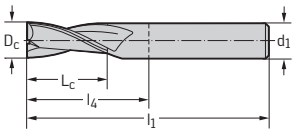




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

STANDARD

Shank DIN 6535 HA



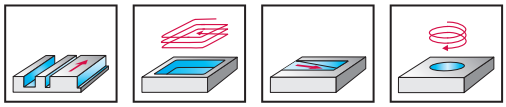
Designation	D_c h10 Inch/no.	L_c Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WJ30TF
MC216.2.38A2D-	3/32"	0,375	2,500	1,083	0,250	2	●
MC216.3.18A2D-	1/8"	0,500	2,500	1,083	0,250	2	●
MC216.4.76A2D-	3/16"	0,625	2,500	1,083	0,250	2	●
MC216.6.35A2D-	1/4"	0,750	2,500	1,083	0,250	2	●
MC216.7.94A2D-	5/16"	0,813	3,000	1,437	0,375	2	●
MC216.9.53A2D-	3/8"	0,875	3,000	1,437	0,375	2	●
MC216.12.7A2D-	1/2"	1,000	3,500	1,717	0,500	2	●
MC216.15.9A2D-	5/8"	1,250	3,500	1,594	0,625	2	●
MC216.19.1A2D-	3/4"	1,500	4,000	1,969	0,750	2	●

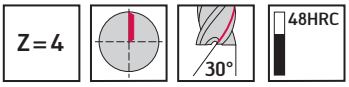
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WJ30TF grade: MC216.2.38A2D-WJ30TF

C1

Solid carbide shoulder/slot milling cutters
MC213 Advance inch

– Long reach
– Type HSC 30

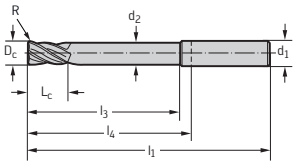




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

P STANDARD L

Shank DIN 6535 HA



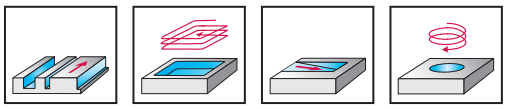
Designation	D_c h10 Inch/ no.	R Inch	L_c Inch	l_3 Inch	d_2 Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WJ30TF
MC213.6.35A4L038C-	1/4"	0,015	0,750	1,375	0,237	3,000	1,583	0,250	4	●
MC213.6.35A4L076C-	1/4"	0,030	0,750	1,375	0,237	3,000	1,583	0,250	4	●
MC213.9.53A4L038C-	3/8"	0,015	0,875	1,500	0,356	3,500	1,937	0,375	4	●
MC213.9.53A4L076C-	3/8"	0,030	0,875	1,500	0,356	3,500	1,937	0,375	4	●
MC213.12.7A4L076C-	1/2"	0,030	1,000	2,875	0,475	4,750	2,967	0,500	4	●
MC213.12.7A4L152C-	1/2"	0,060	1,000	2,875	0,475	4,750	2,967	0,500	4	●
MC213.12.7A4L305C-	1/2"	0,120	1,000	2,875	0,475	4,750	2,967	0,500	4	●
MC213.15.9A4L076C-	5/8"	0,030	1,250	3,000	0,594	5,000	3,094	0,625	4	●
MC213.15.9A4L152C-	5/8"	0,060	1,250	3,000	0,594	5,000	3,094	0,625	4	●
MC213.19.1A4L152C-	3/4"	0,060	1,500	3,000	0,713	5,250	3,219	0,750	4	●
MC213.19.1A4L305C-	3/4"	0,120	1,500	3,000	0,713	5,250	3,219	0,750	4	●

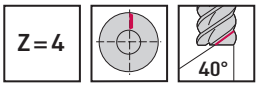
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30TF grade: MC213.6.35A4L038C-WJ30TF

C1

Solid carbide shoulder/slot milling cutters
MC319 Advance mm

– Long reach

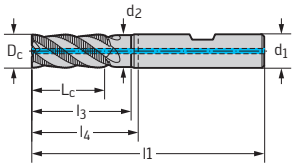




	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

DIN 6527 L

Shank DIN 6535 HB



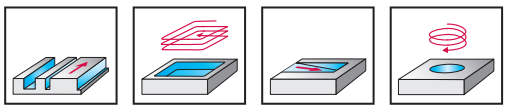
Designation	D_c h12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WK40TF
MC319-05.0W4BC-	5	13	16	4,8	57	21	6	4	●
MC319-06.0W4BC-	6	13	13	5,6	57	21	6	4	●
MC319-07.0W4BC-	7	16	26	6,5	63	27	8	4	●
MC319-08.0W4BC-	8	19	25	7,5	63	27	8	4	●
MC319-09.0W4BC-	9	19	31	8,8	72	32	10	4	●
MC319-10.0W4BC-	10	22	30	9,5	72	32	10	4	●
MC319-11.0W4BC-	11	26	35	10,5	83	38	12	4	●
MC319-12.0W4BC-	12	26	36	11,4	83	38	12	4	●
MC319-13.0W4BC-	13	26	35	12,4	83	38	14	4	●
MC319-14.0W4BC-	14	26	36	13,3	83	38	14	4	●
MC319-15.0W4BC-	15	32	41	14,3	92	44	16	4	●
MC319-16.0W4BC-	16	32	42	15,2	92	44	16	4	●
MC319-18.0W4BC-	18	32	42	17,1	92	44	18	4	●
MC319-20.0W4BC-	20	38	52	19	104	54	20	4	●
MC319-25.0W4BC-	25	45	63	23,8	121	65	25	4	●

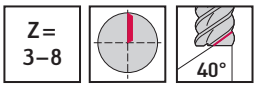
Slot milling $a_p \leq 2.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WK40TF grade: MC319-05.0W4BC-WK40TF

C1

Solid carbide shoulder/slot milling cutters
MC320 Advance mm /
MC320 Advance inch

– Long reach

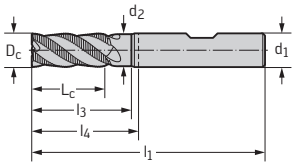




	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

DIN 6527 L

Shank DIN 6535 HB

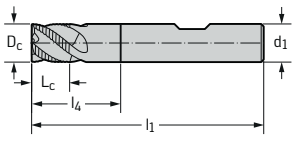


Designation	D_c h12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WK40TF
MC320-04.0W3BC-	4	8	15	3,8	57	21	6	3	●
MC320-04.0W4BC-	4	11	15	3,8	57	21	6	4	●
MC320-05.0W3BC-	5	10	16	4,8	57	21	6	3	●
MC320-05.0W4BC-	5	13	16	4,8	57	21	6	4	●
MC320-06.0W3BC-	6	10	19	5,5	57	21	6	3	●
MC320-06.0W4BC-	6	13	19	5,5	57	21	6	4	●
MC320-06.0W5BC-	6	13	19	5,5	57	21	6	5	●
MC320-08.0W4BC-	8	19	25	7,5	63	27	8	4	●
MC320-08.0W5BC-	8	19	25	7,5	63	27	8	5	●
MC320-10.0W4BC-	10	22	30	9,5	72	32	10	4	●
MC320-10.0W5BC-	10	22	30	9,5	72	32	10	5	●
MC320-12.0W4BC-	12	26	36	11,4	83	38	12	4	●
MC320-12.0W5BC-	12	26	36	11,4	83	38	12	5	●
MC320-14.0W4BC-	14	26	36	13,3	83	38	14	4	●
MC320-14.0W5BC-	14	26	36	13,3	83	38	14	5	●
MC320-16.0W4BC-	16	32	42	15,2	92	44	16	4	●
MC320-16.0W6BC-	16	32	42	15,2	92	44	16	6	●
MC320-18.0W4BC-	18	32	42	17,1	92	44	18	4	●
MC320-18.0W6BC-	18	32	42	17,1	92	44	18	6	●
MC320-20.0W4BC-	20	38	52	19	104	54	20	4	●
MC320-20.0W6BC-	20	38	52	19	104	54	20	6	●
MC320-20.0W8BC-	20	38	52	19	104	54	20	8	●
MC320-25.0W4BC-	25	45	63	23,8	121	65	25	4	●
MC320-25.0W6BC-	25	45	63	23,8	121	65	25	6	●
MC320-25.0W8BC-	25	45	63	23,8	121	65	25	8	●

Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WK40TF grade: MC320-04.0W3BC-WK40TF

DIN 6527 K

Shank DIN 6535 HB



Designation	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WK40TF
MC320-06.0W3A-	6	7	54	18	6	3	●
MC320-06.0W4A-	6	7	54	18	6	4	●
MC320-08.0W3A-	8	9	58	18	8	3	●
MC320-08.0W4A-	8	9	58	18	8	4	●
MC320-10.0W3A-	10	11	66	26	10	3	●
MC320-10.0W4A-	10	11	66	26	10	4	●
MC320-12.0W3A-	12	12	73	28	12	3	●
MC320-12.0W4A-	12	12	73	28	12	4	●
MC320-16.0W3A-	16	16	82	34	16	3	●
MC320-16.0W4A-	16	16	82	34	16	4	●
MC320-20.0W3A-	20	20	92	42	20	3	●
MC320-20.0W4A-	20	20	92	42	20	4	●
MC320-25.0W3A-	25	26	121	65	25	3	●
MC320-25.0W4A-	25	26	121	65	25	4	●

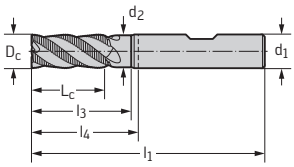
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WK40TF grade: MC320-06.0W3A-WK40TF

Continued

Continued

STANDARD

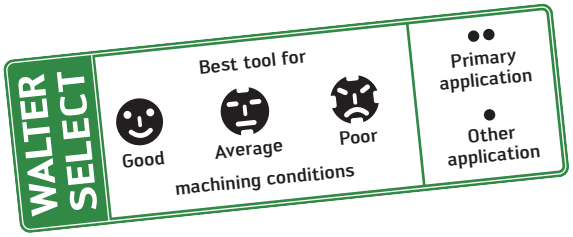
Shank DIN 6535 HB



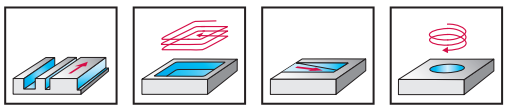
Designation	D_c h12 Inch/ no.	L_c Inch	l_3 Inch	d_2 Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WK40TF
MC320.6.35W4DC-	1/4"	0,750	0,875	0,230	3,000	1,437	0,375	4	☻
MC320.9.52W4DC-	3/8"	0,875	1,000	0,355	3,000	1,437	0,375	4	☻
MC320.12.7W4DC-	1/2"	1,000	1,374	0,475	3,500	1,717	0,500	4	☻
MC320.15.9W4DC-	5/8"	1,250	1,500	0,594	3,500	1,594	0,625	4	☻
MC320.19.1W4DC-	3/4"	1,500	2,000	0,713	4,000	1,969	0,750	4	☻

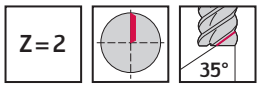
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WK40TF grade: MC320.9.52W4DC-WK40TF

C1



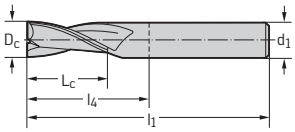
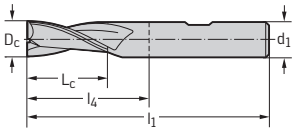
Solid carbide shoulder/slot milling cutters
MC232 Perform mm / MC232 Perform inch





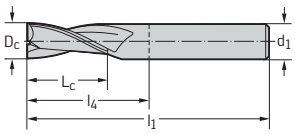
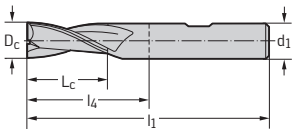
	P	M	K	N	S	H	O
WJ30ED	●●	●	●				

DIN 6527 L

Shank DIN 6535 HA	Designation	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30ED
	MC232-02.0A2B-	2	6	57	29	4	2	●
	MC232-02.5A2B-	2,5	7	57	29	4	2	●
	MC232-03.0A2B-	3	7	57	29	4	2	●
	MC232-03.5A2B-	3,5	7	57	29	4	2	●
	MC232-04.0A2B-	4	8	57	29	4	2	●
Shank DIN 6535 HB								
	MC232-05.0W2B-	5	10	57	21	6	2	●
	MC232-06.0W2B-	6	10	57	21	6	2	●
	MC232-08.0W2B-	8	16	63	27	8	2	●
	MC232-10.0W2B-	10	19	72	32	10	2	●
	MC232-12.0W2B-	12	22	83	38	12	2	●
	MC232-16.0W2B-	16	26	92	44	16	2	●
	MC232-20.0W2B-	20	32	104	54	20	2	●

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232-02.0A2B-WJ30ED

STANDARD

Shank DIN 6535 HA	Designation	D_c h12 Inch/no.	L_c Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WJ30ED
	MC232.3.18A2D-	1/8"	0,500	2,500	1,083	0,250	2	●
	MC232.6.35A2D-	1/4"	0,750	2,500	1,083	0,250	2	●
Shank DIN 6535 HB								
	MC232.9.53W2D-	3/8"	0,875	3,000	1,437	0,375	2	●
	MC232.12.7W2D-	1/2"	1,000	3,500	1,717	0,500	2	●
	MC232.15.9W2D-	5/8"	1,250	3,500	1,594	0,625	2	●
	MC232.19.1W2D-	3/4"	1,500	4,000	1,969	0,750	2	●

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232.3.18A2D-WJ30ED

C1

Solid carbide shoulder/slot milling cutters
MC232 Perform mm

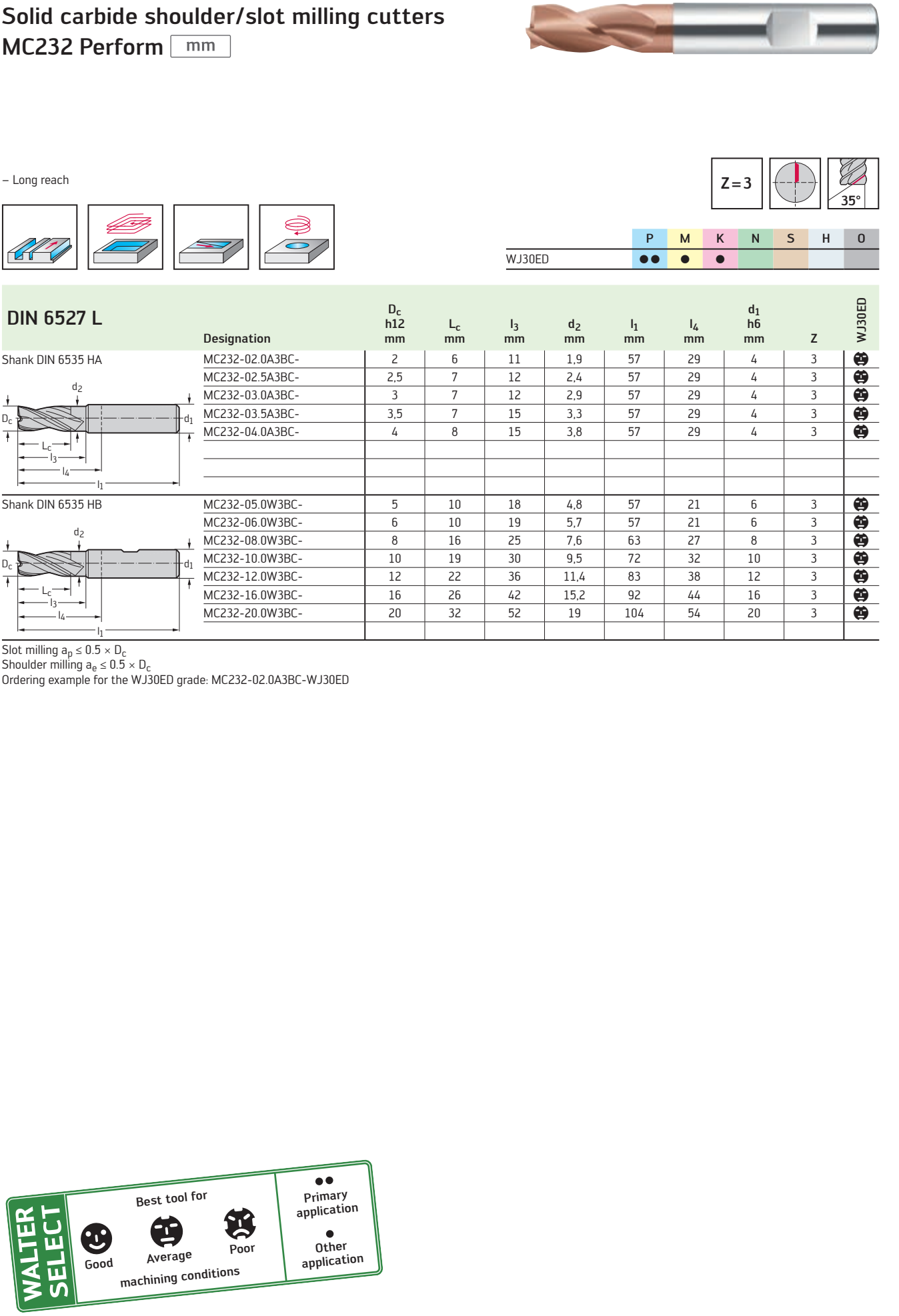
– Long reach

	P	M	K	N	S	H	O
WJ30ED	●●	●	●				

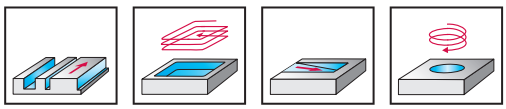
DIN 6527 L

	Designation	D_c h12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30ED
Shank DIN 6535 HA	MC232-02.0A3BC-	2	6	11	1,9	57	29	4	3	●●
	MC232-02.5A3BC-	2,5	7	12	2,4	57	29	4	3	●●
	MC232-03.0A3BC-	3	7	12	2,9	57	29	4	3	●●
	MC232-03.5A3BC-	3,5	7	15	3,3	57	29	4	3	●●
	MC232-04.0A3BC-	4	8	15	3,8	57	29	4	3	●●
Shank DIN 6535 HB	MC232-05.0W3BC-	5	10	18	4,8	57	21	6	3	●●
	MC232-06.0W3BC-	6	10	19	5,7	57	21	6	3	●●
	MC232-08.0W3BC-	8	16	25	7,6	63	27	8	3	●●
	MC232-10.0W3BC-	10	19	30	9,5	72	32	10	3	●●
	MC232-12.0W3BC-	12	22	36	11,4	83	38	12	3	●●
	MC232-16.0W3BC-	16	26	42	15,2	92	44	16	3	●●
	MC232-20.0W3BC-	20	32	52	19	104	54	20	3	●●

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232-02.0A3BC-WJ30ED



Solid carbide shoulder/slot milling cutters
MC232 Perform mm / MC232 Perform inch

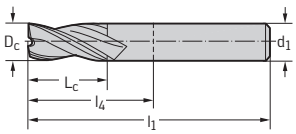


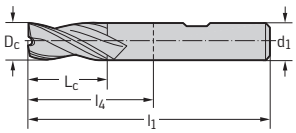
Z=3

	P	M	K	N	S	H	O
WJ30ED	●●	●	●				

DIN 6527 L

	Designation	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30ED
Shank DIN 6535 HA	MC232-02.0A3B-	2	6	57	29	4	3	●
	MC232-02.5A3B-	2,5	7	57	29	4	3	●
	MC232-03.0A3B-	3	7	57	29	4	3	●
	MC232-03.5A3B-	3,5	7	57	29	4	3	●
	MC232-04.0A3B-	4	8	57	29	4	3	●
Shank DIN 6535 HB	MC232-05.0W3B-	5	10	57	21	6	3	●
	MC232-06.0W3B-	6	10	57	21	6	3	●
	MC232-08.0W3B-	8	16	63	27	8	3	●
	MC232-10.0W3B-	10	19	72	32	10	3	●
	MC232-12.0W3B-	12	22	83	38	12	3	●
	MC232-16.0W3B-	16	26	92	44	16	3	●
	MC232-20.0W3B-	20	32	104	54	20	3	●

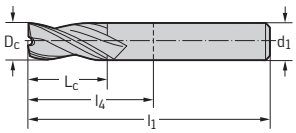


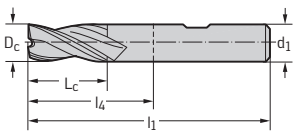


Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232-02.0A3B-WJ30ED

STANDARD

	Designation	D_c h12 Inch/no.	L_c Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WJ30ED
Shank DIN 6535 HA	MC232.3.18A3D-	1/8"	0,500	2,500	1,083	0,250	3	●
	MC232.6.35A3D-	1/4"	0,750	2,500	1,083	0,250	3	●
Shank DIN 6535 HB	MC232.9.53W3D-	3/8"	0,875	3,000	1,437	0,375	3	●
	MC232.12.7W3D-	1/2"	1,000	3,500	1,717	0,500	3	●
	MC232.15.9W3D-	5/8"	1,250	3,500	1,594	0,625	3	●
	MC232.19.1W3D-	3/4"	1,500	4,000	1,969	0,750	3	●



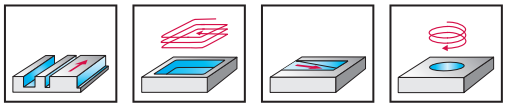


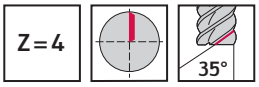
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232.3.18A3D-WJ30ED

C1

Solid carbide shoulder/slot milling cutters
MC232 Perform mm /
MC232 Perform inch

– Long reach

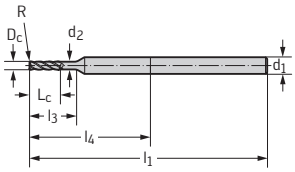




	P	M	K	N	S	H	O
WJ30ED	●●	●	●				

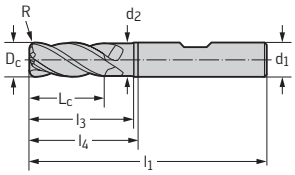
DIN 6527 L

Shank DIN 6535 HA



Designation	D_c h12 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30ED
MC232-02.0A4B020C-	2	0,2	7	11	1,9	57	29	4	4	
MC232-03.0A4B030C-	3	0,3	8	12	2,9	57	29	4	4	
MC232-04.0A4B050C-	4	0,5	11	15	3,8	57	29	4	4	

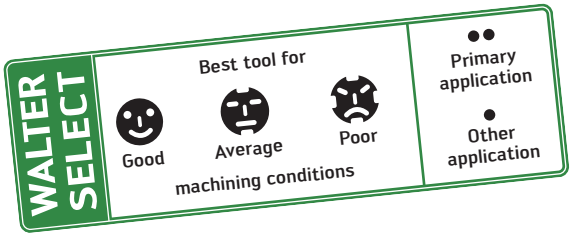
Shank DIN 6535 HB



Designation	D_c h12 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30ED
MC232-05.0W4B050C-	5	0,5	13	18	4,8	57	21	6	4	
MC232-06.0W4B050C-	6	0,5	13	19	5,7	57	21	6	4	
MC232-06.0W4B080C-	6	0,8	13	19	5,7	57	21	6	4	
MC232-06.0W4B100C-	6	1	13	19	5,7	57	21	6	4	
MC232-08.0W4B050C-	8	0,5	19	25	7,6	63	27	8	4	
MC232-08.0W4B080C-	8	0,8	19	25	7,6	63	27	8	4	
MC232-08.0W4B100C-	8	1	19	25	7,6	63	27	8	4	
MC232-08.0W4B150C-	8	1,5	19	25	7,6	63	27	8	4	
MC232-08.0W4B200C-	8	2	19	25	7,6	63	27	8	4	
MC232-10.0W4B050C-	10	0,5	22	30	9,5	72	27	10	4	
MC232-10.0W4B080C-	10	0,8	22	30	9,5	72	32	10	4	
MC232-10.0W4B100C-	10	1	22	30	9,5	72	32	10	4	
MC232-10.0W4B150C-	10	1,5	22	30	9,5	72	32	10	4	
MC232-10.0W4B200C-	10	2	22	30	9,5	72	32	10	4	
MC232-12.0W4B050C-	12	0,5	26	36	11,4	83	38	12	4	
MC232-12.0W4B080C-	12	0,8	26	36	11,4	83	38	12	4	
MC232-12.0W4B100C-	12	1	26	36	11,4	83	38	12	4	
MC232-12.0W4B150C-	12	1,5	26	36	11,4	83	38	12	4	
MC232-12.0W4B200C-	12	2	26	36	11,4	83	38	12	4	
MC232-12.0W4B250C-	12	2,5	26	36	11,4	83	38	12	4	
MC232-12.0W4B300C-	12	3	26	36	11,4	83	38	12	4	
MC232-16.0W4B050C-	16	0,5	32	42	15,2	92	44	16	4	
MC232-16.0W4B100C-	16	1	32	42	15,2	92	44	16	4	
MC232-16.0W4B200C-	16	2	32	42	15,2	92	44	16	4	
MC232-16.0W4B250C-	16	2,5	32	42	15,2	92	44	16	4	
MC232-16.0W4B300C-	16	3	32	42	15,2	92	44	16	4	
MC232-16.0W4B400C-	16	4	32	42	15,2	92	44	16	4	
MC232-20.0W4B050C-	20	0,5	38	52	19	104	54	20	4	
MC232-20.0W4B100C-	20	1	38	52	19	104	54	20	4	
MC232-20.0W4B200C-	20	2	38	52	19	104	54	20	4	
MC232-20.0W4B250C-	20	2,5	38	52	19	104	54	20	4	
MC232-20.0W4B300C-	20	3	38	52	19	104	54	20	4	
MC232-20.0W4B400C-	20	4	38	52	19	104	54	20	4	

Continued

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232-02.0A4B020C-WJ30ED



C1

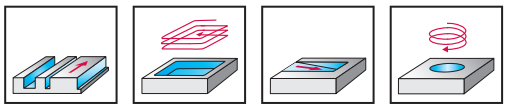
Continued

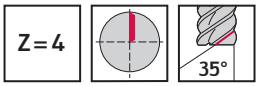
STANDARD	Designation	D_c h12 Inch/ no.	R Inch	L_c Inch	l_3 Inch	d_2 Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WJ30ED
Shank DIN 6535 HA	MC232.3.18A4D038C-	1/8"	0,015	0,500	0,625	0,119	2,500	1,083	0,250	4	
	MC232.6.35A4D038C-	1/4"	0,015	0,750	1,000	0,237	2,500	1,083	0,250	4	
	MC232.6.35A4D076C-	1/4"	0,030	0,750	1,000	0,237	2,500	1,083	0,250	4	
Shank DIN 6535 HB	MC232.9.53W4D038C-	3/8"	0,015	0,875	1,125	0,356	3,000	1,437	0,375	4	
	MC232.9.53W4D076C-	3/8"	0,030	0,875	1,125	0,356	3,000	1,437	0,375	4	
	MC232.12.7W4D038C-	1/2"	0,015	1,000	1,500	0,475	3,500	1,717	0,500	4	
	MC232.12.7W4D076C-	1/2"	0,030	1,000	1,500	0,475	3,500	1,717	0,500	4	
	MC232.12.7W4D152C-	1/2"	0,060	1,000	1,500	0,475	3,500	1,717	0,500	4	
	MC232.12.7W4D318C-	1/2"	0,125	1,000	1,500	0,475	3,500	1,717	0,500	4	
	MC232.15.9W4D318C-	5/8"	0,125	1,250	1,563	0,594	3,500	1,594	0,625	4	
	MC232.19.1W4D076C-	3/4"	0,030	1,500	1,875	0,713	4,000	1,969	0,750	4	
	MC232.19.1W4D318C-	3/4"	0,125	1,500	1,875	0,713	4,000	1,969	0,750	4	

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232.3.18A4D038C-WJ30ED

Solid carbide shoulder/slot milling cutters
MC232 Perform mm

– Long reach





	P	M	K	N	S	H	O
WJ30ED	●●	●	●				

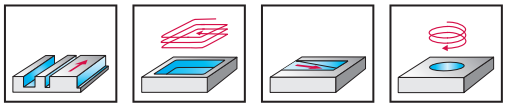
DIN 6527 L	Designation	D_c h12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30ED
Shank DIN 6535 HA	MC232-02.0A4BC-	2	7	11	1,9	57	29	4	4	
	MC232-02.5A4BC-	2,5	8	12	2,4	57	29	4	4	
	MC232-03.0A4BC-	3	8	12	2,9	57	29	4	4	
	MC232-03.5A4BC-	3,5	10	15	3,3	57	29	4	4	
	MC232-04.0A4BC-	4	11	15	3,8	57	29	4	4	
Shank DIN 6535 HB	MC232-05.0W4BC-	5	13	18	4,8	57	21	6	4	
	MC232-06.0W4BC-	6	13	19	5,7	57	21	6	4	
	MC232-08.0W4BC-	8	19	25	7,6	63	27	8	4	
	MC232-10.0W4BC-	10	22	30	9,5	72	32	10	4	
	MC232-12.0W4BC-	12	26	36	11,4	83	38	12	4	
	MC232-16.0W4BC-	16	32	42	15,2	92	44	16	4	
	MC232-20.0W4BC-	20	38	52	19	104	54	20	4	

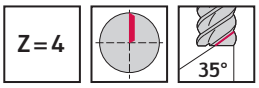
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232-02.0A4BC-WJ30ED

C1

/ ★ New addition to the product range

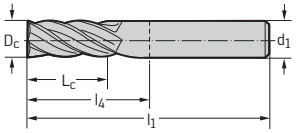
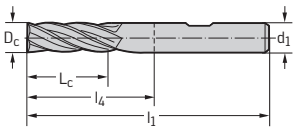
Solid carbide shoulder/slot milling cutters
MC232 Perform mm / MC232 Perform inch





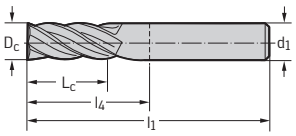
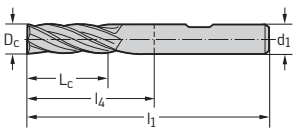
	P	M	K	N	S	H	O
WJ30ED	●●	●	●				

DIN 6527 L

Shank DIN 6535 HA	Designation	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30ED
	MC232-02.0A4B-	2	7	57	29	4	4	●
	MC232-02.5A4B-	2,5	8	57	29	4	4	●
	MC232-03.0A4B-	3	8	57	29	4	4	●
	MC232-03.5A4B-	3,5	10	57	29	4	4	●
	MC232-04.0A4B-	4	11	57	29	4	4	●
Shank DIN 6535 HB								
	MC232-05.0W4B-	5	13	57	21	6	4	●
	MC232-06.0W4B-	6	13	57	21	6	4	●
	MC232-08.0W4B-	8	19	63	27	8	4	●
	MC232-10.0W4B-	10	22	72	32	10	4	●
	MC232-12.0W4B-	12	26	83	38	12	4	●
	MC232-16.0W4B-	16	32	92	44	16	4	●
	MC232-20.0W4B-	20	38	104	54	20	4	●

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232-02.0A4B-WJ30ED

STANDARD

Shank DIN 6535 HA	Designation	D_c h12 Inch/no.	L_c Inch	l_1 Inch	l_4 Inch	d_1 h6 Inch	Z	WJ30ED
	MC232.3.18A4D-	1/8"	0,500	2,500	1,083	0,250	4	●
	MC232.6.35A4D-	1/4"	0,750	2,500	1,083	0,250	4	●
Shank DIN 6535 HB								
	MC232.9.53W4D-	3/8"	0,875	3,000	1,437	0,375	4	●
	MC232.12.7W4D-	1/2"	1,000	3,500	1,717	0,500	4	●
	MC232.15.9W4D-	5/8"	1,250	3,500	1,594	0,625	4	●
	MC232.19.1W4D-	3/4"	1,500	4,000	1,969	0,750	4	●

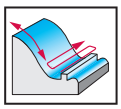
Shoulder milling $a_e \leq 0.5 \times D_c$
Slot milling $a_p \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232.3.18A4D-WJ30ED

C1

Solid carbide ball-nose end mills
MC482 Advance mm / MC482 Advance inch

Z= 2–4

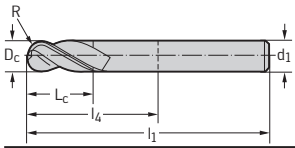
63HRC
48HRC



	P	M	K	N	S	H	O
WB10TG						●●	

DIN 6527 K

Shank DIN 6535 HA

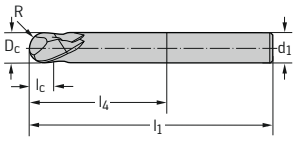


Designation	D_c h7 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WB10TG
MC482-03.0A2B-	3	1,5	2,4	57	21	6	2	☺
MC482-04.0A2B-	4	2	3,2	57	21	6	2	☺
MC482-05.0A2B-	5	2,5	4	57	21	6	2	☺
MC482-06.0A2B-	6	3	4,8	57	21	6	2	☺
MC482-08.0A2B-	8	4	6,4	63	27	8	2	☺

Ordering example for the WB10TG grade: MC482-03.0A2B-WB10TG

DIN 6527 L

Shank DIN 6535 HA

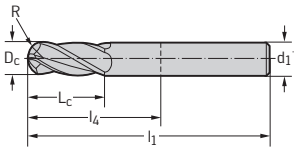


Designation	D_c h7 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WB10TG
MC482-06.0A2L-	6	3	4,8	80	44	6	2	☺
MC482-08.0A2L-	8	4	6,4	100	64	8	2	☺
MC482-10.0A2L-	10	5	8	100	60	10	2	☺
MC482-12.0A2L-	12	6	9,6	100	55	12	2	☺

Ordering example for the WB10TG grade: MC482-06.0A2L-WB10TG

DIN 6527 L

Shank DIN 6535 HA



Designation	D_c h7 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WB10TG
MC482-06.0A4B-	6	3	4,8	57	21	6	4	☺
MC482-08.0A4B-	8	4	6,4	63	27	8	4	☺
MC482-10.0A4B-	10	5	8	72	32	10	4	☺
MC482-12.0A4B-	12	6	9,6	83	38	12	4	☺
MC482-16.0A4B-	16	8	12,8	92	44	16	4	☺

Ordering example for the WB10TG grade: MC482-06.0A4B-WB10TG

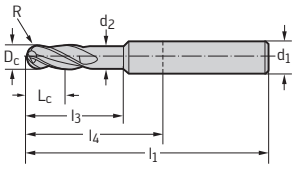
Continued

C1

Continued

P STANDARD XL

Shank DIN 6535 HA

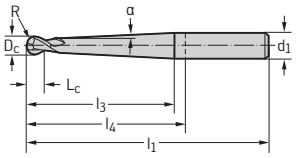


Designation	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WB10TG
MC482-06.0A4BC-	6	3	4,8	18	5,9	63	27	8	4	☻
MC482-08.0A4BC-	8	4	6,4	24	7,9	72	32	10	4	☻
MC482-10.0A4BC-	10	5	8	30	9,9	83	38	12	4	☻
MC482-12.0A4BC-	12	6	9,6	36	11,8	83	38	12	4	☻
MC482-16.0A4BC-	16	8	12,8	42	15,8	92	44	16	4	☻

Ordering example for the WB10TG grade: MC482-06.0A4BC-WB10TG

P STANDARD XL

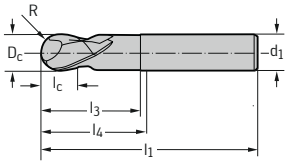
Shank DIN 6535 HA



Designation	D_c h7 mm	R mm	L_c mm	l_3 mm	α	l_1 mm	l_4 mm	d_1 h5 mm	Z	WB10TG
MC482-01.0A2PV-	1	0,5	0,8	17	2,5°	57	21	6	2	☻
MC482-01.0A2PW-	1	0,5	0,8	17	4°	57	21	6	2	☻
MC482-01.5A2PV-	1,5	0,8	1,2	17	2,5°	57	21	6	2	☻
MC482-01.5A2PW-	1,5	0,8	1,2	17	4°	57	21	6	2	☻
MC482-02.0A2PV-	2	1	1,6	18	2,5°	57	21	6	2	☻
MC482-02.0A2PW-	2	1	1,6	18	4°	57	21	6	2	☻
MC482-03.0A2PV-	3	1,5	2,4	19	2,5°	57	21	6	2	☻
MC482-03.0A2PW-	3	1,5	2,4	19	4°	57	21	6	2	☻
MC482-03.0A2LV-	3	1,5	2,4	38	2,5°	80	44	6	2	☻
MC482-04.0A2PV-	4	2	3,2	20	2,5°	57	21	6	2	☻
MC482-04.0A2PW-	4	2	3,2	20	4°	57	21	6	2	☻

Ordering example for the WB10TG grade: MC482-01.0A2PV-WB10TG

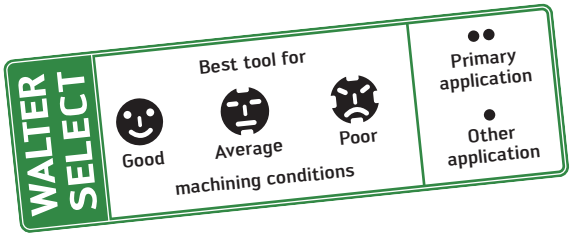
Tool



Designation	D_c h7 Inch/ no.	R Inch	L_c Inch	l_3 Inch	d_2 Inch	l_1 Inch	l_4 Inch	d_1 h5 Inch	Z	WB10TG
MC482.3.18A2PC-	1/8"	0,063	0,125	0,375	0,121	2,500	1,083	0,250	2	☻
MC482.4.76A2PC-	3/16"	0,094	0,188	0,500	0,184	2,500	1,083	0,250	2	☻
MC482.6.35A2PC-	1/4"	0,125	0,250	0,875	0,246	2,500	1,083	0,250	2	☻
MC482.9.53A2PB-	3/8"	0,188	0,375	1,000	0,369	3,000	1,437	0,375	2	☻
MC482.12.7A2PB-	1/2"	0,250	0,500	1,375	0,492	3,500	1,717	0,500	2	☻

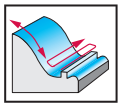
Ordering example for the WB10TG grade: MC482.3.18A2PC-WB10TG

C1



Solid carbide ball-nose end mills
MC480 Advance mm

– Long reach

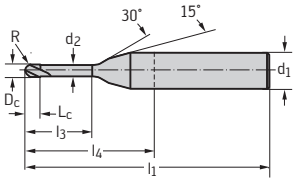


Z=2

	P	M	K	N	S	H	O
WB10TG						●●	

P STANDARD MINI

Shank DIN 6535 HA



Designation	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WB10TG
MC480-00.4A2MC-	0,4	0,2	0,3	1	0,4	38	12	4	2	☻
MC480-00.5A2MC-	0,5	0,25	0,4	1,5	0,5	38	12	4	2	☻
MC480-00.6A2MC-	0,6	0,3	0,5	2	0,6	38	12	4	2	☻
MC480-00.8A2MC-	0,8	0,4	0,6	2	0,8	38	12	4	2	☻
MC480-01.0A2MB-	1	0,5	0,8	2	1,0	50	22	4	2	☻
MC480-01.0A2ME-	1	0,5	0,8	5	1,0	50	22	4	2	☻
MC480-01.0A2MG-	1	0,5	0,8	8	1,0	50	22	4	2	☻
MC480-01.5A2MC-	1,5	0,75	1,2	4	1,5	50	22	4	2	☻
MC480-01.5A2ME-	1,5	0,75	1,2	8	1,5	50	22	4	2	☻
MC480-01.5A2MG-	1,5	0,75	1,2	12	1,5	50	22	4	2	☻
MC480-02.0A2MB-	2	1	1,6	3	2,0	50	22	4	2	☻
MC480-02.0A2MC-	2	1	1,6	6	2,0	50	22	4	2	☻
MC480-02.0A2ME-	2	1	1,6	10	2,0	50	22	4	2	☻
MC480-02.0A2MG-	2	1	1,6	16	2,0	50	22	4	2	☻
MC480-03.0A2MC-	3	1,5	2,4	8	3,0	50	22	4	2	☻
MC480-03.0A2ME-	3	1,5	2,4	16	3,0	50	22	4	2	☻
MC480-03.0A2MG-	3	1,5	2,4	25	3,0	60	32	4	2	☻
MC480-04.0A2MC-	4	2	3,2	10	4,0	65	29	6	2	☻
MC480-04.0A2ME-	4	2	3,2	20	4,0	65	29	6	2	☻
MC480-05.0A2MD-	5	2,5	4	20	5,0	65	29	6	2	☻

Ordering example for the WB10TG grade: MC480-00.4A2MC-WB10TG

C1

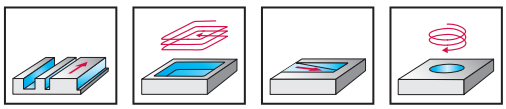
Solid carbide milling tools with ConeFit interface product range overview
Shoulder/slot milling cutters

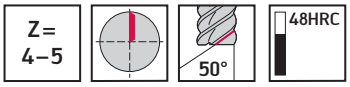
Machining		
Helix angle	**50°**	**40°**
Designation	**MC326**	**MC320**
Diameter range [mm] / [inch]	10–25 / 3/8–1	10–25
Z	4–5	4–8
Corner radius [mm] / [inch]	0–4 / 0.015-0.125	0
Page	480	482
		

C1

Solid carbide shoulder/slot milling cutters
MC326 mm / MC326 inch

– Type N 50

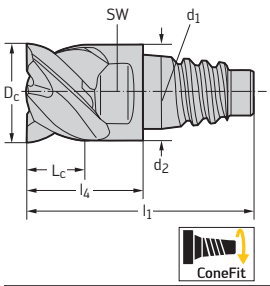




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

PWZ

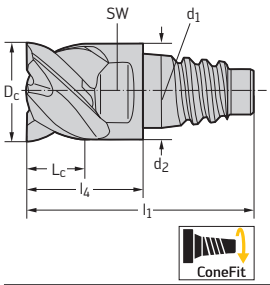
	Designation	D_c h10 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z	WJ30TF
ConeFit	MC326-10.0E4P-	10	5,5	9,7	23,6	12,4	8	E10	4	●
	MC326-12.0E4P-	12	6,5	11,7	28,3	14,5	10	E12	4	●
	MC326-16.0E4P-	16	8,5	15,5	35,7	18,7	12	E16	4	●
	MC326-20.0E4P-	20	11	19,3	40,8	21,3	16	E20	4	●
	MC326-25.0E5P-	25	13,5	24,2	49,6	25,6	20	E25	5	●



Slot milling $a_p \leq 0.4 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30TF grade: MC326-10.0E4P-WJ30TF

PWZ

	Designation	D_c h9 Inch/ no.	L_c Inch	d_2 Inch	l_1 Inch	l_4 Inch	SW Inch	d_1 Inch	Z	WJ30TF
ConeFit	MC326.9.53E4P-	3/8"	0,209	0,364	0,929	0,488	0,315	E10	4	●
	MC326.12.7E4P-	1/2"	0,276	0,484	1,114	0,575	0,394	E12	4	●
	MC326.15.9E4P-	5/8"	0,335	0,610	1,406	0,736	0,472	E16	4	●
	MC326.19.1E4P-	3/4"	0,413	0,728	1,606	0,839	0,630	E20	4	●
	MC326.25.4E5P-	1"	0,551	0,965	1,953	1,008	0,787	E25	5	●



Slot milling $a_p \leq 0.4 \times D_c$
Shoulder milling $a_e \leq 0.05 \times D_c$
Ordering example for the WJ30TF grade: MC326.9.53E4P-WJ30TF

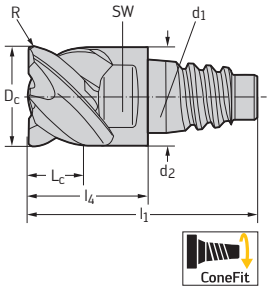
Continued

C1

Continued

PWZ

ConeFit

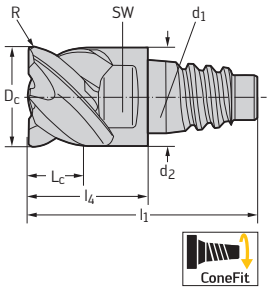


Designation	D_c h9 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z	WJ30TF
MC326-10.0E4P050-	10	0,5	5,5	9,7	23,6	12,4	8	E10	4	☹
MC326-10.0E4P100-	10	1	5,5	9,7	23,6	12,4	8	E10	4	☹
MC326-10.0E4P150-	10	1,5	5,5	9,7	23,6	12,4	8	E10	4	☹
MC326-10.0E4P200-	10	2	5,5	9,7	23,6	12,4	8	E10	4	☹
MC326-10.0E4P300-	10	3	5,5	9,7	23,6	12,4	8	E10	4	☹
MC326-12.0E4P050-	12	0,5	6,5	11,7	28,3	14,5	10	E12	4	☹
MC326-12.0E4P100-	12	1	6,5	11,7	28,3	14,5	10	E12	4	☹
MC326-12.0E4P150-	12	1,5	6,5	11,7	28,3	14,5	10	E12	4	☹
MC326-12.0E4P200-	12	2	6,5	11,7	28,3	14,5	10	E12	4	☹
MC326-12.0E4P300-	12	3	6,5	11,7	28,3	14,5	10	E12	4	☹
MC326-12.0E4P400-	12	4	6,5	11,7	28,3	14,5	10	E12	4	☹
MC326-16.0E4P050-	16	0,5	8,5	15,5	35,7	18,7	12	E16	4	☹
MC326-16.0E4P100-	16	1	8,5	15,5	35,7	18,7	12	E16	4	☹
MC326-16.0E4P150-	16	1,5	8,5	15,5	35,7	18,7	12	E16	4	☹
MC326-16.0E4P200-	16	2	8,5	15,5	35,7	18,7	12	E16	4	☹
MC326-16.0E4P300-	16	3	8,5	15,5	35,7	18,7	12	E16	4	☹
MC326-16.0E4P400-	16	4	8,5	15,5	35,7	18,7	12	E16	4	☹
MC326-20.0E4P050-	20	0,5	11	19,3	40,8	21,3	16	E20	4	☹
MC326-20.0E4P100-	20	1	11	19,3	40,8	21,3	16	E20	4	☹
MC326-20.0E4P150-	20	1,5	11	19,3	40,8	21,3	16	E20	4	☹
MC326-20.0E4P200-	20	2	11	19,3	40,8	21,3	16	E20	4	☹
MC326-20.0E4P300-	20	3	11	19,3	40,8	21,3	16	E20	4	☹
MC326-20.0E4P400-	20	4	11	19,3	40,8	21,3	16	E20	4	☹
MC326-25.0E5P100-	25	1	13,5	24,2	49,6	25,6	20	E25	5	☹
MC326-25.0E5P150-	25	1,5	13,5	24,2	49,6	25,6	20	E25	5	☹
MC326-25.0E5P200-	25	2	13,5	24,2	49,6	25,6	20	E25	5	☹
MC326-25.0E5P300-	25	3	13,5	24,2	49,6	25,6	20	E25	5	☹
MC326-25.0E5P400-	25	4	13,5	24,2	49,6	25,6	20	E25	5	☹

Slot milling $a_p \leq 0.4 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30TF grade: MC326-10.0E4P050-WJ30TF

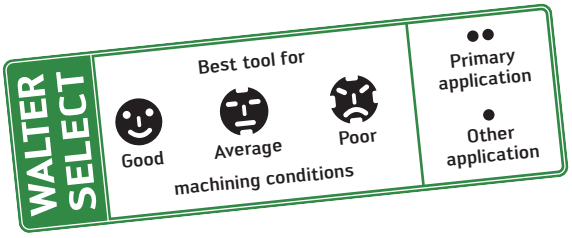
PWZ

ConeFit



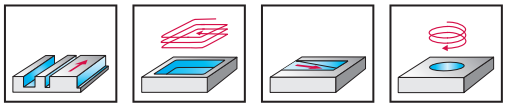
Designation	D_c h9 Inch/ no.	R Inch	L_c Inch	d_2 Inch	l_1 Inch	l_4 Inch	SW Inch	d_1 Inch	Z	WJ30TF
MC326.9.53E4P038-	3/8"	0,015	0,209	0,364	0,929	0,488	0,315	E10	4	☺
MC326.9.53E4P076-	3/8"	0,030	0,209	0,364	0,929	0,488	0,315	E10	4	☺
MC326.12.7E4P038-	1/2"	0,015	0,276	0,484	1,114	0,575	0,394	E12	4	☺
MC326.12.7E4P076-	1/2"	0,030	0,276	0,484	1,114	0,575	0,394	E12	4	☺
MC326.12.7E4P152-	1/2"	0,060	0,276	0,484	1,114	0,575	0,394	E12	4	☺
MC326.15.9E4P152-	5/8"	0,060	0,335	0,610	1,406	0,736	0,472	E16	4	☺
MC326.19.1E4P152-	3/4"	0,060	0,413	0,728	1,606	0,839	0,630	E20	4	☺
MC326.19.1E4P318-	3/4"	0,125	0,413	0,728	1,606	0,839	0,630	E20	4	☺
MC326.25.4E5P152-	1"	0,060	0,551	0,965	1,953	1,008	0,787	E25	5	☺
MC326.25.4E5P318-	1"	0,125	0,551	0,965	1,953	1,008	0,787	E25	5	☺

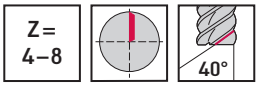
Slot milling $a_p \leq 0.4 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30TF grade: MC326.9.53E4P038-WJ30TF



C1

Solid carbide shoulder/slot milling cutters
MC320 mm

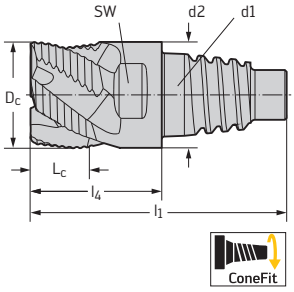




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

PWZ

ConeFit



Designation	D_c h12 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z	WJ30TF
MC320-10.0E4P-	10	5,5	9,7	23,6	12,4	8	E10	4	●
MC320-10.0E5P-	10	5,5	9,7	23,6	12,4	8	E10	5	●
MC320-12.0E4P-	12	6,5	11,7	28,3	14,5	10	E12	4	●
MC320-12.0E5P-	12	6,5	11,7	28,3	14,5	10	E12	5	●
MC320-16.0E6P-	16	8,5	15,5	35,7	18,7	12	E16	6	●
MC320-20.0E6P-	20	11	19,3	40,8	21,3	16	E20	6	●
MC320-25.0E8P-	25	25	24,2	49,6	25,6	20	E25	8	●

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30TF grade: MC320-10.0E4P-WJ30TF

C1

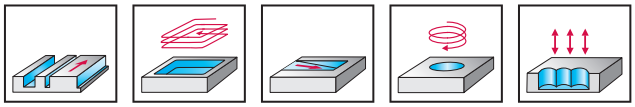
Brazed milling tools product range overview
Shoulder/slot milling cutters

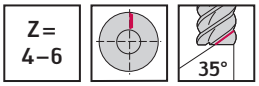
Machining				
Designation	**MC275**	**MC075**	**MC275**	**MC075**
Dia. range [mm]	8–12	8–12	12–25	16–25
Z	4–6	4	4–8	4
Shank [mm]	DIN 6535 HA	DIN 6535 HA	ConeFit	ConeFit
Page	484	484	485	485
				

C1

Ceramic shoulder/slot milling cutters
MC275 mm

– Long reach

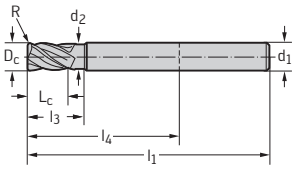




	P	M	K	N	S	H	O
WIS10					●●		

P STANDARD

Shank DIN 6535 HA

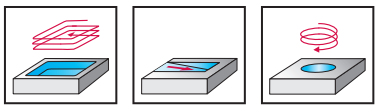


Designation	D_c h12 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WIS10
MC275-08.0A4P100C-	8	1	7	19	7,6	67	31	8	4	☻
MC275-10.0A4P100C-	10	1	7	22	9,5	75	35	10	4	☻
MC275-12.0A4P100C-	12	1	7	26	11,4	82	37	12	4	☻
MC275-12.0A6P100C-	12	1	7	26	11,4	82	37	12	6	☻

Shoulder milling $a_e \leq 0.1 \times D_c$
Slot milling $a_p \leq 0.1 \times D_c$
Ordering example for the WIS10 grade: MC275-08.0A4P100C-WIS10

Ceramic shoulder/slot milling cutters
MC075 mm

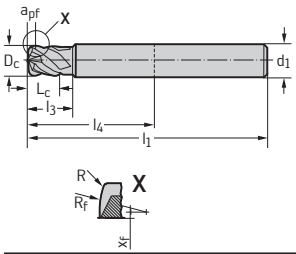
– Long reach



	P	M	K	N	S	H	O
WIS10					●●		

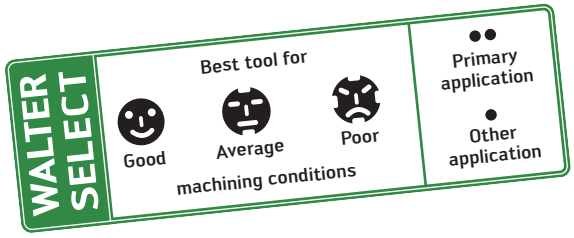
P STANDARD

Shank DIN 6535 HA



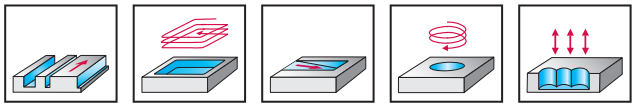
Designation	D_c h12 mm	a_{pf} mm	x_f mm	R_f mm	R_{ers} mm	R mm	L_c mm	l_1 mm	l_3 mm	l_4 mm	d_1 h6 mm	WIS10
MC075-08.0A4P100C-	8	0,25	0,78	12	1,226	1	7	67	19	31	8	☻
MC075-10.0A4P150C-	10	0,3	0,8	15	1,773	1,5	7	75	22	35	10	☻
MC075-12.0A4P150C-	12	0,4	1	18	1,875	1,5	7	82	26	37	12	☻

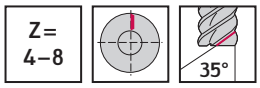
Shoulder milling $a_e \leq 0.5 \times D_a$
Ordering example for the WIS10 grade: MC075-08.0A4P100C-WIS10



C1

Ceramic shoulder/slot milling cutters
MC275 mm

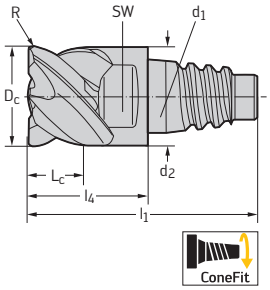




	P	M	K	N	S	H	O
WIS10					●●		

P STANDARD

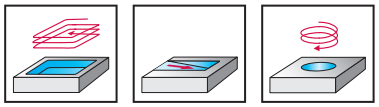
ConeFit

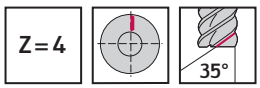


Designation	D_c h12 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z	WIS10
MC275-12.0E4P100-	12	1	7	11,7	32,6	18,8	10	E12	4	☻
MC275-12.0E6P100-	12	1	7	11,7	32,6	18,8	10	E12	6	☻
MC275-16.0E6P150-	16	1,5	9	15,5	42,7	25,7	12	E16	6	☻
MC275-16.0E8P150-	16	1,5	9	15,5	42,7	25,7	12	E16	8	☻
MC275-20.0E6P150-	20	1,5	9	19,3	47,8	28,3	16	E20	6	☻
MC275-20.0E8P150-	20	1,5	9	19,3	47,8	28,3	16	E20	8	☻
MC275-25.0E6P150-	25	1,5	9	24,2	56,6	32,6	20	E25	6	☻
MC275-25.0E8P150-	25	1,5	9	24,2	56,6	32,6	20	E25	8	☻

Shoulder milling $a_e \leq 0.1 \times D_c$
Ordering example for the WIS10 grade: MC275-12.0E4P100-WIS10

Ceramic shoulder/slot milling cutters
MC075 mm

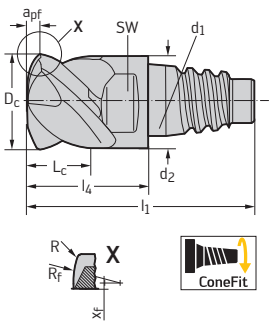




	P	M	K	N	S	H	O
WIS10					●●		

P STANDARD

ConeFit



Designation	D_c h12 mm	a_{pf} mm	x_f mm	R_f mm	R_{ers} mm	R mm	L_c mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z	WIS10
MC075-16.0E4P200-	16	0,5	1,5	24	2,465	2	9	42,7	25,7	12	E16	4	☻
MC075-20.0E4P200-	20	0,65	2,2	30	2,607	2	9	47,8	28,3	16	E20	4	☻
MC075-25.0E4P300-	25	0,75	2,8	36	3,687	3	9	56,6	32,6	20	E25	4	☻

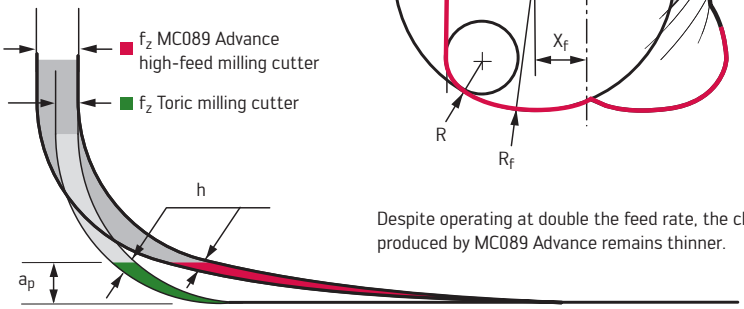
Shoulder milling $a_e \leq 0.05 \times D_c$
Ordering example for the WIS10 grade: MC075-16.0E4P200-WIS10

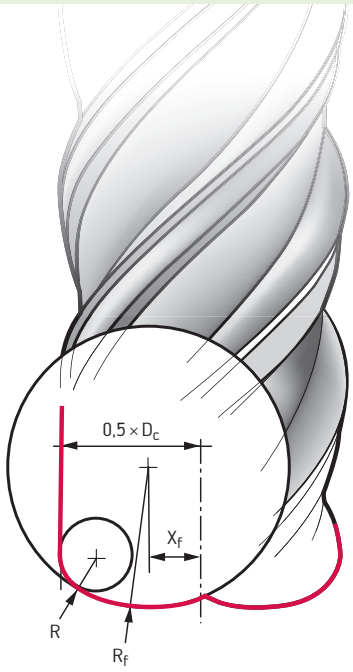
C1

High-feed geometry

MC089 Advance high-feed milling cutter

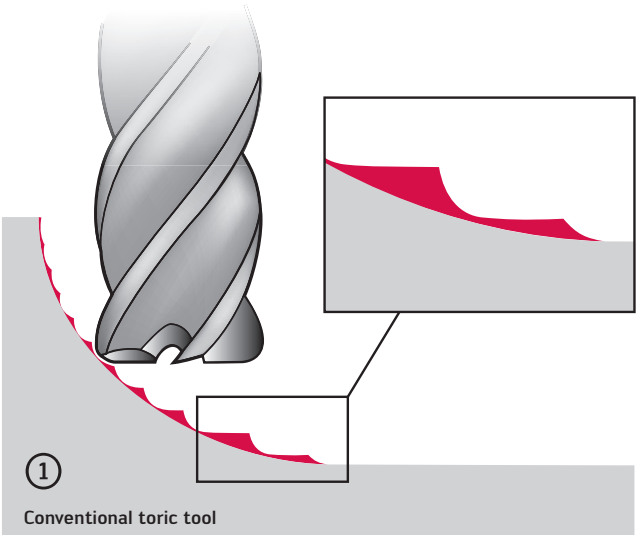
The chip thickness "h" is reduced thanks to the special end-face geometry. Extremely high feeds are possible. Forces are diverted axially towards the centre of the tool. This stabilises the machining process.



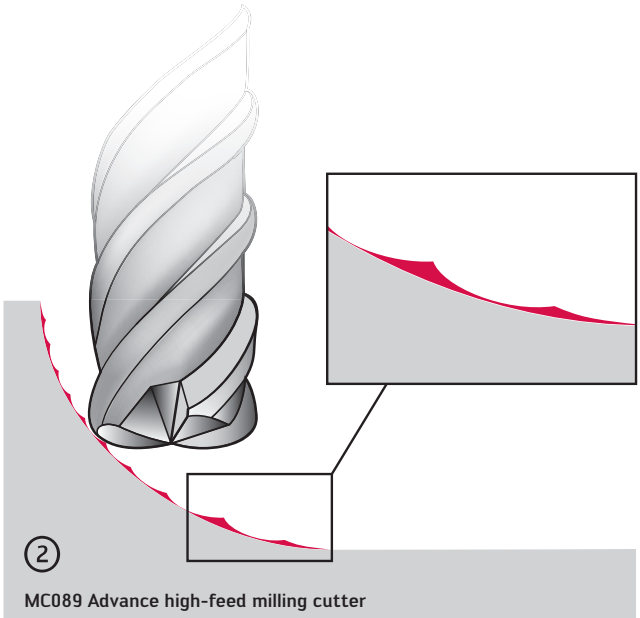


Despite operating at double the feed rate, the chip thickness (h) produced by MC089 Advance remains thinner.

In comparison with conventional toric tools (figure 1), the MC089 Advance high-feed milling cutter (figure 2) reduces the amount of residual material produced.
This is due to the special geometry that minimises the machining of residual material and increases the tool life of the subsequent finishing tool.



Conventional toric tool

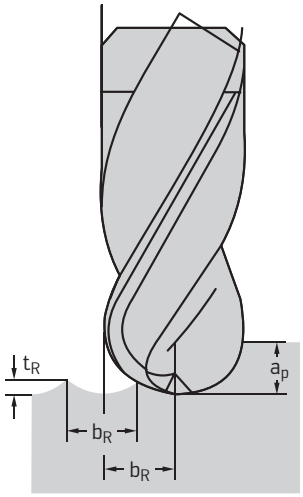


MC089 Advance high-feed milling cutter

C1

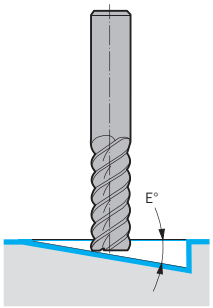
Usage recommendations for copying and finishing with the MC480 / MC482 Advance

Tool diameter D_c (mm)	Row width (b_R) for groove depth t_R = 5 µm	Row width (b_R) for groove depth t_R = 2 µm
0,4	0,09	0,05
0,5	0,10	0,06
0,6	0,11	0,07
0,8	0,12	0,08
1,0	0,14	0,09
1,5	0,17	0,11
2,0	0,20	0,12
2,5	0,22	0,14
3,0	0,25	0,16
4,0	0,28	0,18
5,0	0,31	0,20
6,0	0,34	0,22
8,0	0,40	0,25
10,0	0,45	0,28
12,0	0,49	0,31
16,0	0,56	0,36



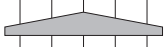
Maximum feed angle [°] on MC183 Advance, MC187 Advance, MC281 Advance, MC388 Advance

Material groups	Material	Number of teeth					
		2	3	4	5	6–8	8
H	Hard materials	2	2	1,5	1,5	1,5	1

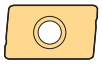
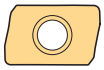
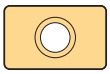
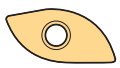
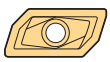


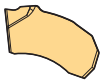
C1

Coated carbide

Walter grade designation	Standard designation	Material groups: P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Application range: 01 05 10 15 20 25 30 35 40 45	Coating process	Coating composition	Tool example
WB10TG	HC – P 10	●								PVD	TiAlSiN	
	HC – H 10						●●					

Indexable inserts for milling product range overview

Insert shape		Description	Page
	A	Positive rhombic for **Xtra·tec®**	491
	B	Positive rhombic for **Xtra·tec® XT**	490
		Positive rhombic for **Xtra·tec® XT**	495
	C	Tangential rhombic	532
	L	Positive rhombic	496
		Double-sided rhombic for **Xtra·tec®**	520
		Tangential rhombic	532
		Tangential rhombic for **Xtra·tec®**	533
		Tangential rhombic for **Walter BLAXX**	534
	M	Positive rhombic	498
	O	Positive octagonal for **Xtra·tec®**	499
		Finishing inserts	518
		Double-sided octagonal	520
	R	Positive round	503
		Double-sided round	522
	S	Positive square	506
		Double-sided square for **Xtra·tec®/Xtra·tec® XT**	522
	T	Positive triangular	514
	X	Double-sided heptagon for **Xtra·tec®**	526
		Double-sided heptagon for **Walter BLAXX**	528
	X	Tangential for **Walter BLAXX**	536
	X	Positive form inserts for copy milling cutters	514
	Z	Positive rhombic	516

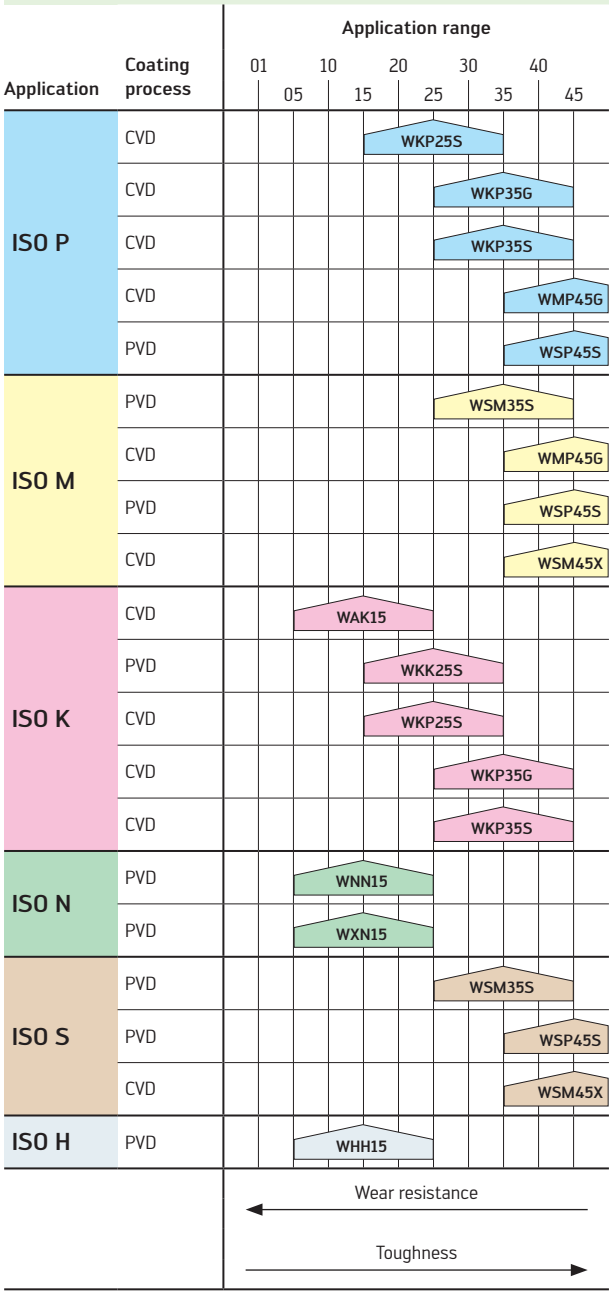
Insert shape		Description	Page
	SX . .	Indexable inserts for **Walter BLAXX** slitting cutters	538
	P 23 . .	Wendelnovex® inserts	521
	P 236 . .	Double-sided triangular for **Xtra·tec®** high-feed milling cutters	521
	P 263 . .	Positive triangular for high-feed milling cutters	501
		for copy milling cutters	500
	P 32 . .	Indexable inserts for profile milling cutters	502
	P 44 . .	Tangential rhombic	537
		Positive finishing inserts	518
		Double-sided finishing inserts	529

C2

Cutting tool materials for milling product range overview

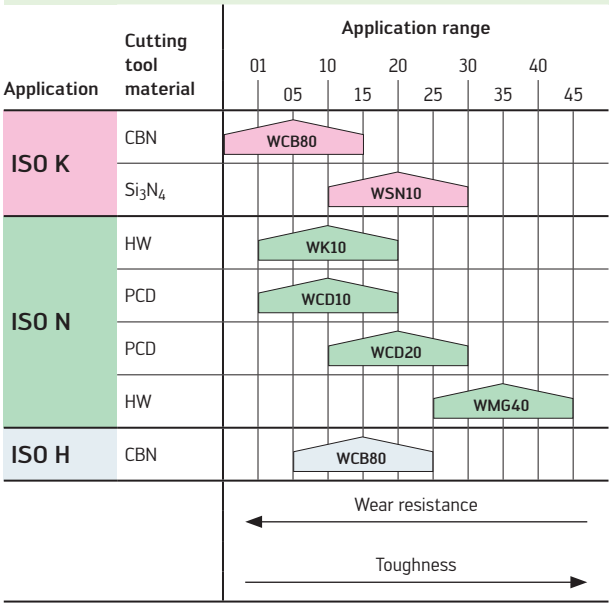
Cutting tool materials: Coated carbide

Cutting tool material applications



Cutting tool materials: Uncoated carbide, ceramic, CBN and PCD

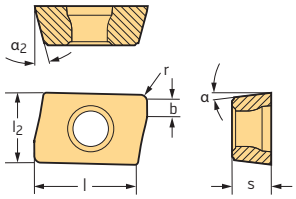
Cutting tool material applications



Si_3N_4 = Silicon nitride ceramic
HW = Uncoated carbide
CBN = Cubic boron nitride
PCD = Polycrystalline diamond

C 2

Positive rhombic
ACGT / ACMT
Tiger·tec® Gold



Indexable inserts

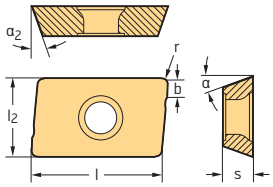
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	ACGT060204R-G65	G	2	4,4	6,7	2,38	7°	15°	0,4	0,9	☺	😐	😐	☹	😐	☹			😐	☹	☹				☹
	ACGT060204R-M85	G	2	4,4	6,7	2,38	7°	15°	0,4	0,9												☺	☺		
	ACMT060202R-G55	M	2	4,4	6,7	2,38	7°	15°	0,2	1		😐	😐	☹		☹				☹	☹				☹
	ACMT060204R-G55	M	2	4,4	6,7	2,38	7°	15°	0,4	0,9	☺	😐	😐	☹		☹	☺	😐	😐	☹	☹			😐	☹
	ACMT060208R-G55	M	2	4,4	6,7	2,38	7°	15°	0,8	0,8		😐	😐	☹		☹				☹	☹				☹
	ACMT060212R-G55	M	2	4,4	6,7	2,38	7°	15°	1,2	0,6		😐	😐	☹		☹				☹	☹				☹
	ACMT060216R-G55	M	2	4,4	6,7	2,38	7°	15°	1,6	0,1		😐	😐	☹		☹				☹	☹				☹
	ACMT060204R-K55	M	2	4,4	6,7	2,38	7°	15°	0,4	0,9		☺	☺	😐	☺	😐				☺	😐			☺	😐

HC = Coated carbide
HW = Uncoated carbide

C2

☺😐☹ / ★ New addition to the product range

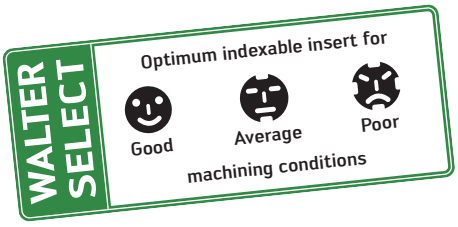
Positive rhombic
ADGT / ADHT / ADKT
Tiger·tec® Gold



Indexable inserts

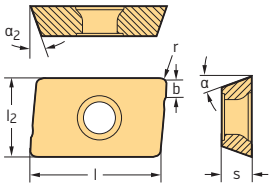
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	ADGT0803PER-D51	G	2	6,75	9,52	3,18	15°	20°	0,4	1,2	☺	😐	😐	☹		☹			😐	☹	☹				☹
	ADGT1204PER-D51	G	2	8,4	13,6	4,76	15°	20°	0,8	1,2	☺	😐	😐	☹		☹			😐	☹	☹				☹
	ADGT1606PER-D51	G	2	10,8	17,5	6,15	15°	20°	0,8	1,6	☺	😐	😐	☹		☹			😐	☹	☹				☹
	ADGT1807PER-D51	G	2	14,5	19	7,94	15°	17°	1,2	1,8	☺	😐	😐	☹		☹			😐	☹	☹				☹
	ADGT0803PER-D56	G	2	6,75	9,52	3,18	15°	20°	0,4	1,2				☹		☹									☹
	ADGT1204PER-D56	G	2	8,4	13,6	4,76	15°	20°	0,8	1,2	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹			😐	☹
	ADGT1606PER-D56	G	2	10,8	17,5	6,15	15°	20°	0,8	1,6	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹			😐	☹
	ADGT1807PER-D56	G	2	14,5	19	7,94	15°	17°	1,2	1,8	☺	😐	😐	☹		☹			😐	☹	☹				☹
	ADGT10T3PER-D67	G	2	7,25	11,3	3,97	15°	15°	0,8	1,2		😐	😐	☹	😐	☹				☹	☹			😐	☹
	ADGT10T316R-D67	G	2	7,25	11,3	3,97	15°	15°	1,6	1,2				☹	😐	☹								😐	☹
	ADGT10T330R-D67	G	2	7,25	11,3	3,97	15°	15°	3	0,8				☹	😐	☹								😐	☹
	ADGT10T332R-D67	G	2	7,25	11,3	3,97	15°	15°	3,2	0,8					😐									😐	
	ADGT1204PER-D67	G	2	8,4	13,6	4,76	15°	20°	0,8	1,2		😐	😐	☹	😐	☹				☹	☹			😐	☹
	ADGT120416R-D67	G	2	8,4	13,6	4,76	15°	20°	1,6	1				☹		☹									☹
	ADGT120430R-D67	G	2	8,4	13,6	4,76	15°	20°	3	0,8				☹		☹									☹
	ADGT1606PER-D67	G	2	10,8	17,5	6,15	15°	20°	0,8	1,6		😐	😐	☹	😐	☹				☹	☹			😐	☹
	ADGT160616R-D67	G	2	10,8	17,5	6,15	15°	20°	1,6	1				☹		☹									☹
	ADGT160630R-D67	G	2	10,8	17,5	6,15	15°	20°	3	0,8				☹		☹									☹
	ADGT0803PER-F56	G	2	6,75	9,52	3,18	15°	20°	0,4	1,2				☹	😐	☹								😐	☹
	ADGT080308R-F56	G	2	6,75	9,52	3,18	15°	20°	0,8	1,2				☹	😐	☹								😐	☹
	ADGT120404R-F56	G	2	8,4	13,6	4,76	15°	20°	0,4	1,2				☹		☹									☹
	ADGT1204PER-F56	G	2	8,4	13,6	4,76	15°	20°	0,8	1,2				☹	😐	☹								😐	☹
	ADGT120430R-F56	G	2	8,4	13,6	4,76	15°	20°	3	0,8				☹		☹									☹
	ADGT120440R-F56	G	2	8,4	13,6	4,76	15°	20°	4	0,4				☹		☹									☹
	ADGT1606PER-F56	G	2	10,8	17,5	6,15	15°	20°	0,8	1,6				☹	😐	☹								😐	☹
	ADGT160612R-F56	G	2	10,8	17,5	6,15	15°	20°	1,2	1,6				☹	😐	☹								😐	☹
	ADGT160616R-F56	G	2	10,8	17,5	6,15	15°	20°	1,6	1,4				☹		☹									☹
	ADGT160620R-F56	G	2	10,8	17,5	6,15	15°	20°	2	1,4				☹		☹									☹
	ADGT160632R-F56	G	2	10,8	17,5	6,15	15°	20°	3,2	1,2				☹		☹									☹
	ADGT160640R-F56	G	2	10,8	17,5	6,15	15°	20°	4	1				☹		☹									☹
	ADGT160650R-F56	G	2	10,8	17,5	6,15	15°	20°	5	0,4				☹	😐	☹								😐	☹
	ADGT160660R-F56	G	2	10,8	17,5	6,15	15°	20°	6	0,4					😐									😐	
	ADGT10T3PER-G77	G	2	7,25	11,3	3,97	15°	15°	0,8	1,2				😐	😐	😐								😐	😐
	ADGT1204PER-G77	G	2	8,4	13,6	4,76	15°	20°	0,8	1,2				😐	😐	😐								😐	😐
	ADGT1606PER-G77	G	2	10,8	17,5	6,15	15°	20°	0,8	1,2				😐	😐	😐								😐	😐

HC = Coated carbide
HW = Uncoated carbide



C 2

Positive rhombic
ADGT / ADHT / ADKT
Tiger·tec® Gold



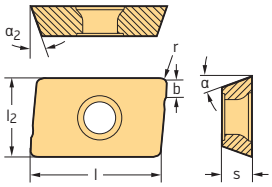
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	ADHT0803PER-G88	H	2	6,75	9,52	3,18	15°	20°	0,4	1,2												●	●		
	ADHT0803PEL-G88	H	2	6,75	9,52	3,18	15°	20°	0,4	1,2												●			
	ADHT10T3PER-G88	H	2	7,25	11,3	3,97	15°	15°	0,8	1,2												●	●		
	ADHT1204PER-G88	H	2	8,4	13,6	4,76	15°	20°	0,8	1,2												●	●		
	ADHT1204PEL-G88	H	2	8,4	13,6	4,76	15°	20°	0,8	1,2												●			
	ADHT120416R-G88	H	2	8,4	13,6	4,76	15°	20°	1,6	1												●	●		
	ADHT120416L-G88	H	2	8,4	13,6	4,76	15°	20°	1,6	1												●			
	ADHT120425R-G88	H	2	8,4	13,6	4,76	15°	20°	2,5	0,8													●		
	ADHT120425L-G88	H	2	8,4	13,6	4,76	15°	20°	2,5	0,8												●			
	ADHT120430R-G88	H	2	8,4	13,6	4,76	15°	20°	3	0,8													●		
	ADHT120430L-G88	H	2	8,4	13,6	4,76	15°	20°	3	0,8												●			
	ADHT120440R-G88	H	2	8,4	13,6	4,76	15°	20°	4	0,4													●		
	ADHT120440L-G88	H	2	8,4	13,6	4,76	15°	20°	4	0,4												●			
	ADHT1606PER-G88	H	2	10,8	17,5	6,15	15°	20°	0,8	1,6												●	●		
	ADHT1606PEL-G88	H	2	10,8	17,5	6,15	15°	20°	0,8	1,6												●			
	ADHT160616R-G88	H	2	10,8	17,5	6,15	15°	20°	1,6	1,4												●	●		
	ADHT160616L-G88	H	2	10,8	17,5	6,15	15°	20°	1,6	1,4												●			
	ADHT160625R-G88	H	2	10,8	17,5	6,15	15°	20°	2,5	1,2													●		
	ADHT160625L-G88	H	2	10,8	17,5	6,15	15°	20°	2,5	1,2												●			
	ADHT160630R-G88	H	2	10,8	17,5	6,15	15°	20°	3	1,2													●		
	ADHT160640R-G88	H	2	10,8	17,5	6,15	15°	20°	4	1													●		
	ADHT160640L-G88	H	2	10,8	17,5	6,15	15°	20°	4	1												●			
	ADKT0803PER-F56	K	2	6,75	9,52	3,18	15°	20°	0,4	1,2	●		●	●		●	●		●		●				●
	ADKT0803PEL-F56	K	2	6,75	9,52	3,18	15°	20°	0,4	1,2			●	●		●					●				●
	ADKT10T3PER-F56	K	2	7,25	11,3	3,97	15°	15°	0,8	1,2	●		●	●	●	●	●		●		●			●	●
	ADKT1204PER-F56	K	2	8,4	13,6	4,76	15°	20°	0,8	1,2	●		●	●		●	●		●		●				●
	ADKT1204PEL-F56	K	2	8,4	13,6	4,76	15°	20°	0,8	1,2			●	●		●					●				●
	ADKT1606PER-F56	K	2	10,8	17,5	6,15	15°	20°	0,8	1,6	●		●	●		●	●		●		●				●
	ADKT1606PEL-F56	K	2	10,8	17,5	6,15	15°	20°	0,8	1,6			●	●		●					●				●

HC = Coated carbide
HW = Uncoated carbide

● ● ● / ★ New addition to the product range

Positive rhombic
ADMT
Tiger·tec® Gold



Indexable inserts

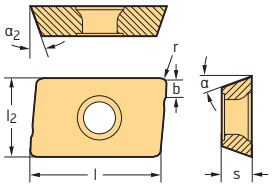
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	ADMT080304R-D56	M	2	6,75	9,52	3,18	15°	20°	0,4	1,2	☺	😐	😐	☹			☹	☺	😐	😐	☹	☹			☹
	ADMT120408R-D56	M	2	8,4	13,6	4,76	15°	20°	0,8	1,2	☺	😐	😐	☹			☹	☺	😐	😐	☹	☹			☹
	ADMT160608R-D56	M	2	10,8	17,5	6,15	15°	20°	0,8	1,6	☺	😐	😐	☹			☹	☺	😐	😐	☹	☹			☹
	ADMT180712R-D56	M	2	14,5	19	7,94	15°	17°	1,2	1,8	☺	😐	😐	☹			☹		😐	😐	☹	☹			☹

HC = Coated carbide

WALTER SELECT
Optimum indexable insert for
Good Average Poor
machining conditions

C2

Positive rhombic
ADMT
Tiger·tec® Gold



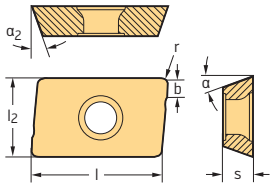
Indexable inserts

Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
ADMT080302R-F56	M	2	6,75	9,52	3,18	15°	20°	0,2	1,2		●	●	●	●		●				●	●	●		●
ADMT080304R-F56	M	2	6,75	9,52	3,18	15°	20°	0,4	1,2	●	●	●	●	●		●	●	●	●	●	●	●		●
ADMT080304L-F56	M	2	6,75	9,52	3,18	15°	20°	0,4	1,2		●	●	●			●				●	●			●
ADMT080308R-F56	M	2	6,75	9,52	3,18	15°	20°	0,8	1,2		●	●	●	●		●				●	●	●		●
ADMT080308L-F56	M	2	6,75	9,52	3,18	15°	20°	0,8	1,2		●	●	●			●				●	●			●
ADMT080312R-F56	M	2	6,75	9,52	3,18	15°	20°	1,2	1		●	●	●	●		●				●	●	●		●
ADMT080316R-F56	M	2	6,75	9,52	3,18	15°	20°	1,6	1		●	●	●	●		●				●	●	●		●
ADMT080320R-F56	M	2	6,75	9,52	3,18	15°	20°	2	1		●	●	●	●		●				●	●	●		●
ADMT10T304R-F56	M	2	7,25	11,3	3,97	15°	15°	0,4	1,2		●	●	●	●		●				●	●	●		●
ADMT10T308R-F56	M	2	7,25	11,3	3,97	15°	15°	0,8	1,2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ADMT10T312R-F56	M	2	7,25	11,3	3,97	15°	15°	1,2	1,2		●	●	●	●		●				●	●	●		●
ADMT10T316R-F56	M	2	7,25	11,3	3,97	15°	15°	1,6	1,2		●	●	●	●	●	●				●	●	●	●	●
ADMT10T320R-F56	M	2	7,25	11,3	3,97	15°	15°	2	1		●	●	●	●	●	●				●	●	●	●	●
ADMT10T325R-F56	M	2	7,25	11,3	3,97	15°	15°	2,5	1		●	●	●	●		●				●	●	●		●
ADMT10T330R-F56	M	2	7,25	11,3	3,97	15°	15°	3	0,8		●	●	●	●		●				●	●	●		●
ADMT10T332R-F56	M	2	7,25	11,3	3,97	15°	15°	3,2	0,8		●	●	●	●		●				●	●	●		●
ADMT120404R-F56	M	2	8,4	13,6	4,76	15°	20°	0,4	1,2		●	●	●	●	●	●				●	●	●	●	●
ADMT120408R-F56	M	2	8,4	13,6	4,76	15°	20°	0,8	1,2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ADMT120408L-F56	M	2	8,4	13,6	4,76	15°	20°	0,8	1,2		●	●	●			●				●	●			●
ADMT120412R-F56	M	2	8,4	13,6	4,76	15°	20°	1,2	1,2		●	●	●	●	●	●				●	●	●	●	●
ADMT120416R-F56	M	2	8,4	13,6	4,76	15°	20°	1,6	1		●	●	●	●	●	●				●	●	●	●	●
ADMT120416L-F56	M	2	8,4	13,6	4,76	15°	20°	1,6	1		●	●	●			●				●	●			●
ADMT120420R-F56	M	2	8,4	13,6	4,76	15°	20°	2	1		●	●	●	●	●	●				●	●	●	●	●
ADMT120425R-F56	M	2	8,4	13,6	4,76	15°	20°	2,5	0,8		●	●	●	●		●				●	●	●		●
ADMT120425L-F56	M	2	8,4	13,6	4,76	15°	20°	2,5	0,8		●	●	●			●				●	●			●
ADMT120430R-F56	M	2	8,4	13,6	4,76	15°	20°	3	0,8		●	●	●	●	●	●				●	●	●	●	●
ADMT120430L-F56	M	2	8,4	13,6	4,76	15°	20°	3	0,8		●	●	●			●				●	●			●
ADMT120432R-F56	M	2	8,4	13,6	4,76	15°	20°	3,2	0,8		●	●	●	●	●	●				●	●	●	●	●
ADMT120440R-F56	M	2	8,4	13,6	4,76	15°	20°	4	0,4		●	●	●	●	●	●				●	●	●	●	●
ADMT120440L-F56	M	2	8,4	13,6	4,76	15°	20°	4	0,4		●	●	●			●				●	●			●
ADMT160608R-F56	M	2	10,8	17,5	6,15	15°	20°	0,8	1,6	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ADMT160608L-F56	M	2	10,8	17,5	6,15	15°	20°	0,8	1,6		●	●	●			●				●	●			●
ADMT160612R-F56	M	2	10,8	17,5	6,15	15°	20°	1,2	1,6		●	●	●	●	●	●				●	●	●	●	●
ADMT160616R-F56	M	2	10,8	17,5	6,15	15°	20°	1,6	1,4		●	●	●	●	●	●				●	●	●	●	●
ADMT160616L-F56	M	2	10,8	17,5	6,15	15°	20°	1,6	1,4		●	●	●			●				●	●			●
ADMT160620R-F56	M	2	10,8	17,5	6,15	15°	20°	2	1,4		●	●	●	●	●	●				●	●	●	●	●
ADMT160625R-F56	M	2	10,8	17,5	6,15	15°	20°	2,5	1,2		●	●	●	●		●				●	●	●		●
ADMT160625L-F56	M	2	10,8	17,5	6,15	15°	20°	2,5	1,2		●	●	●			●				●	●			●
ADMT160630R-F56	M	2	10,8	17,5	6,15	15°	20°	3	1,2		●	●	●	●	●	●				●	●	●	●	●
ADMT160630L-F56	M	2	10,8	17,5	6,15	15°	20°	3	1,2		●	●	●			●				●	●			●
ADMT160632R-F56	M	2	10,8	17,5	6,15	15°	20°	3,2	1,2		●	●	●	●	●	●				●	●	●	●	●
ADMT160640R-F56	M	2	10,8	17,5	6,15	15°	20°	4	1		●	●	●	●	●	●				●	●	●	●	●

HC = Coated carbide

● / ★ New addition to the product range

Positive rhombic
ADMT
Tiger·tec® Gold

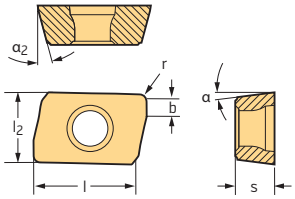


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	ADMT160640L-F56	M	2	10,8	17,5	6,15	15°	20°	4	1		☺	☺	☹			☹				☹	☹			☹
	ADMT160650R-F56	M	2	10,8	17,5	6,15	15°	20°	5			☺	☺	☹	☺	☹	☹				☹	☹	☺	☹	☹
	ADMT160660R-F56	M	2	10,8	17,5	6,15	15°	20°	6			☺	☺	☹	☺	☹	☹				☹	☹	☺	☹	☹
	ADMT180712R-F56	M	2	14,5	19	7,94	15°	17°	1,2	1,8	☺	☺	☺	☹			☹		☺	☺	☹	☹			☹
	ADMT080304R-G56	M	2	6,75	9,52	3,18	15°	20°	0,4	1,2		☺	☺	☺	☺		☺				☺	☺	☺		☺
	ADMT10T308R-G56	M	2	7,25	11,3	3,97	15°	15°	0,8	1,2		☺	☺	☺	☺		☺				☺	☺	☺		☺
	ADMT120408R-G56	M	2	8,4	13,6	4,76	15°	20°	0,8	1,2		☺	☺	☺	☺		☺				☺	☺	☺		☺
	ADMT160608R-G56	M	2	10,8	17,5	6,15	15°	20°	0,8	1,6		☺	☺	☺	☺		☺				☺	☺	☺		☺

HC = Coated carbide

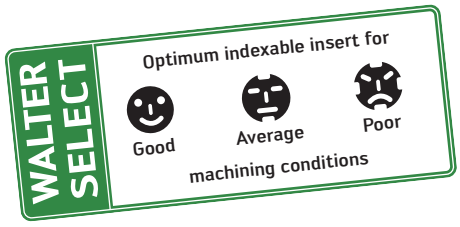
Positive rhombic
BCGT / BCMT
Tiger·tec® Gold



Indexable inserts

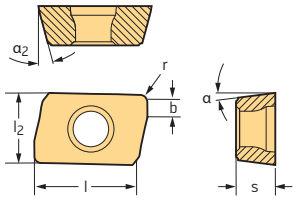
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	BCGT160508R-G55	G	2	14,9	17,3	5,75	7°	17°	0,8	2	☺	☺	☺	☹	☺		☹	☺		☺	☹	☹			☹
	BCMT160508R-F55	M	2	14,9	17,3	5,75	7°	17°	0,8	2	☺	☺	☺	☹			☹	☺	☺	☺	☹	☹			☹
	BCMT160508R-G55	M	2	14,9	17,3	5,75	7°	17°	0,8	2	☺	☺	☺	☹	☺	☹	☹	☺	☺	☺	☹	☹	☺	☹	☹

HC = Coated carbide



C 2

Positive rhombic
BCGT / BCMT
Tiger·tec® Gold

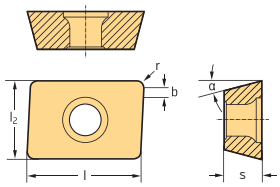


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	BCMT160508R-K55	M	2	14,9	17,3	5,75	7°	17°	0,8	2		☺	☺	😐	☺		😐				😐	😐	☺		😐

HC = Coated carbide

Positive rhombic
LDMW / LDMT
Tiger·tec® Gold



Indexable inserts

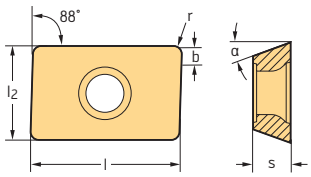
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S
	LDMW08T204R-A57	M	2	6,1	8,88	2,58	15°	0,4	0,8	😐	😣	😣						😐	😣	😣		
	LDMW14T308R-A57	M	2	9,68	14,1	4,08	15°	0,8	1,2	😐	😣	😣						😐	😣	😣		
	LDMW170408R-A57	M	2	11,78	17,24	4,92	15°	0,8	1,6	😐	😣	😣						😐	😣	😣		
	LDMT08T204R-D51	M	2	6,1	8,88	2,58	15°	0,4	0,8	☺	😐	😐	😣		😣			😐	😣	😣		😣
	LDMT14T308R-D51	M	2	9,68	14,1	4,08	15°	0,8	1,2	☺	😐	😐	😣		😣			😐	😣	😣		😣
	LDMT170408R-D51	M	2	11,78	17,24	4,92	15°	0,8	1,6	☺	😐	😐	😣		😣			😐	😣	😣		😣
	LDMT170412R-D51	M	2	11,78	17,24	4,92	15°	1,2	1,6		😐	😐	😣		😣				😣	😣		😣
	LDMT08T204R-D57	M	2	6,1	8,88	2,58	15°	0,4	0,8	☺	😐	😐	😣	😐	😣		😐	😐	😣	😣	😐	😣
	LDMT14T308R-D57	M	2	9,68	14,1	4,08	15°	0,8	1,2	☺	😐	😐	😣	😐	😣		😐	😐	😣	😣	😐	😣
	LDMT170408R-D57	M	2	11,78	17,24	4,92	15°	0,8	1,6	☺	😐	😐	😣	😐	😣		😐	😐	😣	😣	😐	😣
	LDMT08T204R-F57	M	2	6,1	8,88	2,58	15°	0,4	0,8	☺	😐	😐	😣	😐	😣	☺		😐	😣	😣	😐	😣
	LDMT14T308R-F57	M	2	9,68	14,1	4,08	15°	0,8	1,2	☺	😐	😐	😣	😐	😣	☺		😐	😣	😣	😐	😣
	LDMT170408R-F57	M	2	11,78	17,24	4,92	15°	0,8	1,6	☺	😐	😐	😣	😐	😣	☺		😐	😣	😣	😐	😣

HC = Coated carbide

C 2

☺ 😐 😣 / ★ New addition to the product range

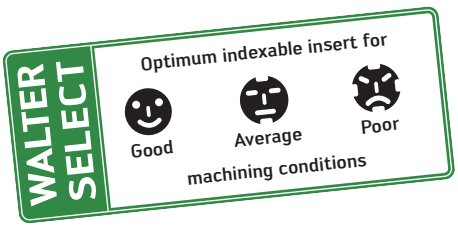
Positive rhombic
LPGW / LPGT / LPMW / LPMT
Tiger·tec® Silver



Indexable inserts

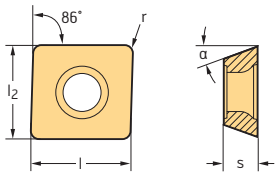
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	LPGW070304R-A57	G	2	6,35	7,94	3,18	11°	0,4	1,2	☺	😐	☹			☺	😐	☹		
	LPGW15T308R-A57	G	2	9,52	15	3,97	11°	0,8	1,4	☺	😐	☹			☺	😐	☹		
	LPGW150412R-A57	G	2	12,7	15,88	4,76	11°	1,2	1,6	☺	😐	☹			☺	😐	☹		
	LPGT070304R-F55	G	2	6,35	7,94	3,18	11°	0,4	1,2		😐	☹		☹			☹		☹
	LPGT15T308R-F55	G	2	9,52	15	3,97	11°	0,8	1,4	☺	😐	☹	😐	☹		😐	☹	😐	☹
	LPGT150412R-F55	G	2	12,7	15,88	4,76	11°	1,2	1,6	☺	😐	☹	😐	☹		😐	☹	😐	☹
	LPGT1506PPR-F57	G	2	12,7	15,88	6,35	11°	1,2	1,6		😐	☹		☹			☹		☹
	LPMW15T308TR-A27	M	2	9,52	15	3,97	11°	0,8		😐	☹					😐	☹		
	LPMW150412TR-A27	M	2	12,7	15,88	4,76	11°	1,2		😐	☹					😐	☹		
	LPMW150612TR-A27	M	2	12,7	15,88	6,35	11°	1,2			☹						☹		
	LPMT070304R-D51	M	2	6,35	7,94	3,18	11°	0,4	1,2	☺	😐	☹	😐	☹		😐	☹	😐	☹
	LPMT15T308R-D51	M	2	9,52	15	3,97	11°	0,8	1,4	☺	😐	☹	😐	☹		😐	☹	😐	☹
	LPMT150412R-D51	M	2	12,7	15,88	4,76	11°	1,2	1,6	☺	😐	☹	😐	☹		😐	☹	😐	☹
	LPMT150612R-D51	M	2	12,7	15,88	6,35	11°	1,2			😐	☹		☹			☹		☹
	LPMT150612R-D57	M	2	12,7	15,88	6,35	11°	1,2		☺	😐	☹		☹		😐	☹		☹

HC = Coated carbide



C 2

Positive rhombic
MPHX / MPHW / MPHT / MPMX / MPMT
Tiger·tec® Gold



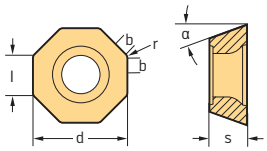
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	S HC WSM35S	S HC WSP45S
	MPHX060304-A57	H	2	6,35	6,35	3,18	11°	0,4	●	●	●				●	●	●	●			
	MPHX080305-A57	H	2	8,3	8,3	3,18	11°	0,5	●	●	●				●	●	●	●			
	MPHW120408-A57	H	2	12,7	12,7	4,76	11°	0,8	●	●	●				●	●	●	●			
	MPHX060304-G88	H	2	6,35	6,35	3,18	11°	0,4											●		
	MPHX080305-G88	H	2	8,3	8,3	3,18	11°	0,5											●		
	MPHT120408-G88	H	2	12,7	12,7	4,76	11°	0,8											●		
	MPMX060304-F57	M	2	6,35	6,35	3,18	11°	0,4		●	●		●				●	●		●	
	MPMX080305-F57	M	2	8,3	8,3	3,18	11°	0,5		●	●		●				●	●		●	
	MPMT120408-F57	M	2	12,7	12,7	4,76	11°	0,8		●	●	●	●	●			●	●		●	●

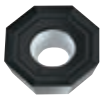
HC = Coated carbide

● ● ● / ★ New addition to the product range

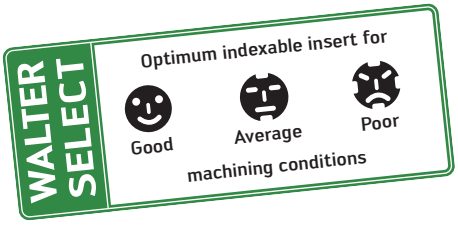
Positive octagonal
ODHW / ODHT / ODMT / ODMW
Tiger·tec® Gold



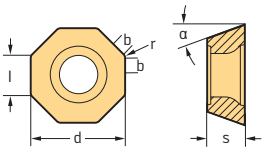
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	d mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	ODHW050408-A57	H	8	5,26	12,7	4,76	15°	0,8			☒	☒								☒	☒							
	ODHW060512-A57	H	8	6,58	15,88	5,56	15°	1,2			☒	☒								☒	☒							
	ODHW050412-A57	H	8	5,26	12,7	4,76	15°	1,2														☺						
	ODHW060516-A57	H	8	6,58	15,88	5,56	15°	1,6														☺						
	ODHT050408-F57	H	8	5,26	12,7	4,76	15°	0,8			😐	😐	☒			☒				☒	☒							☒
	ODHT060512-F57	H	8	6,58	15,88	5,56	15°	1,2			😐	😐	☒			☒				☒	☒							☒
	ODHW0504ZZN-A57	H	8	5,26	12,7	4,76	15°	0,8	1,2	😐	☒	☒					☺		😐	☒	☒							
	ODHW0605ZZN-A57	H	8	6,58	15,88	5,56	15°	0,8	1,6	😐	☒	☒					☺		😐	☒	☒							
	ODHT0504ZZN-F57	H	8	5,26	12,7	4,76	15°	0,8	1,2	☺	😐	😐	☒	😐		☒			😐	☒	☒				😐		☒
	ODHT0605ZZN-F57	H	8	6,58	15,88	5,56	15°	0,8	1,6	☺	😐	😐	☒	😐		☒			😐	☒	☒				😐		☒
	ODHT0605ZZN-G77	H	8	6,58	15,88	5,56	15°	0,8	1,6				☒			☒												☒
	ODHT0504ZZN-G77	H	8	5,26	12,7	4,76	15°	0,8	1,6				☒			☒												☒
	ODHT0605ZZN-G88	H	8	6,58	15,88	5,56	15°	0,8	1,6														☺	☺			
	ODHT0504ZZN-G88	H	8	5,26	12,7	4,76	15°	0,8	1,2														☺	☺			
	ODMT050408-D57	M	8	5,26	12,7	4,76	15°	0,8		☺	😐	😐	☒	😐		☒		😐	😐	☒	☒				😐		☒
	ODMT060512-D57	M	8	6,58	15,88	5,56	15°	1,2		☺	😐	😐	☒	😐		☒		😐	😐	☒	☒				😐		☒
	ODMT0504ZZN-D57	M	8	5,26	12,7	4,76	15°	0,8	1,2	☺	😐	😐	☒	😐	☒	☒		😐	😐	☒	☒				😐	☒	☒
	ODMT0605ZZN-D57	M	8	6,58	15,88	5,56	15°	0,8	1,6	☺	😐	😐	☒	😐	☒	☒		😐	😐	☒	☒				😐	☒	☒

HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide



Positive octagonal
ODHW / ODHT / ODMT / ODMW
Tiger·tec® Gold

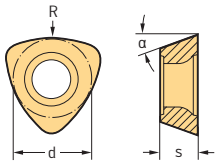


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	d mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	ODMW050408T-A27	M	8	5,26	12,7	4,76	15°	0,8		☻	☹	☹						☻	☻	☹	☹							
	ODMW060508T-A27	M	8	6,58	15,88	5,56	15°	0,8		☻	☹	☹						☻	☻	☹	☹							
	ODMW050408-A57	M	8	5,26	12,7	4,76	15°	0,8		☻	☹	☹					☺	☻	☻	☹	☹							
	ODMW060508-A57	M	8	6,58	15,88	5,56	15°	0,8		☻	☹	☹					☺	☻	☻	☹	☹							

HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide

Positive triangular
P26315 / P26325
Tiger·tec® Silver



Indexable inserts

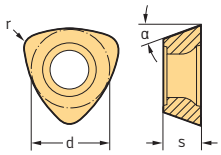
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	R mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	P26315R10	M	3	6,75	2,78	14°	10	☺	☹	☹		☹	☻	☹		☹
	P26315R12	M	3	8,5	3,18	14°	12,5	☺	☹	☹		☹	☻	☹		☹
	P26315R15	M	3	10,5	3,97	14°	15	☺	☹	☹		☹	☻	☹		☹
	P26315R16	M	3	10,5	3,97	14°	16	☺	☹	☹		☹	☻	☹		☹
	P26315R20	M	3	12,5	4,76	11°	20	☺	☹	☹		☹	☻	☹		☹
	P26315R25	M	3	12,7	4,76	11°	25	☺	☹	☹		☹	☻	☹		☹
	P26315R31	M	3	12,7	4,76	11°	31,5	☺	☹	☹		☹	☻	☹		☹
	P26315R09.52	M	3	6,75	2,78	14°	9,5		☹					☹		
	P26315R12.7	M	3	8,5	3,18	14°	12,7		☹					☹		
	P26315R15.87	M	3	10,5	3,97	14°	15,9		☹					☹		
	P26315R19.05	M	3	12,5	4,76	11°	19,1		☹					☹		
	P26315R25.4	M	3	12,7	4,76	11°	25,4		☹					☹		
	P26325R31	M	3	13,52	5,59	14°	31,5	☺	☹	☹		☹	☻	☹		☹

HC = Coated carbide

☺☻☹ / ★ New addition to the product range

Positive triangular
P26335 / P26337 / P26339

Tiger·tec® Gold



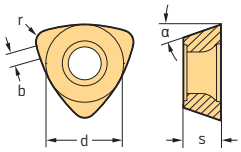
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S
	P26335R10	M	3	6,75	3,18	14°	0,8	☺	😐	😐	☹	😐	☹	😐	☹	☹	😐	☹
	P26335R14	M	3	9,52	3,97	14°	1,2	☺	😐	😐	☹	😐	☹	😐	☹	☹	😐	☹
	P26335R25	M	3	13	5,56	14°	2	☺	😐	😐	☹	😐	☹	😐	☹	☹	😐	☹
	P26337R10	M	3	6,75	3,18	14°	0,8	☺	😐	😐	☹		☹	😐	☹	☹		☹
	P26337R14	M	3	9,52	3,97	14°	1,2	☺	😐	😐	☹		☹	😐	☹	☹		☹
	P26337R25	M	3	13	5,56	14°	2	☺	😐	😐	☹		☹	😐	☹	☹		☹
	P26339R10	M	3	6,75	3,18	14°	0,8	☺	😐	😐	☹	😐	☹	😐	☹	☹	😐	☹
	P26339R14	M	3	9,52	3,97	14°	1,2	☺	😐	😐	☹	😐	☹	😐	☹	☹	😐	☹
	P26339R25	M	3	13	5,56	14°	2	☺	😐	😐	☹	😐	☹	😐	☹	☹	😐	☹

HC = Coated carbide

Positive triangular
P26379

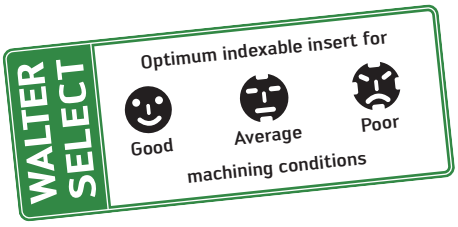
Tiger·tec® Gold



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S
	P26379-R10	M	3	6,75	3,18	14°	0,8	0,9		😐	😐	☹		☹		☹	☹		☹
	P26379-R14	M	3	9,52	3,97	14°	1,2	1		😐	😐	☹		☹		☹	☹		☹
	P26379-R25	M	3	13	5,56	14°	2	1,1		😐	😐	☹		☹		☹	☹		☹

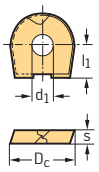
HC = Coated carbide



C 2

Profile milling inserts
P3204 / P3201

Tiger·tec®



Indexable inserts

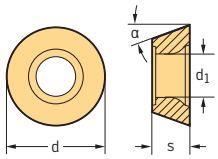
	Designation	Tolerance class	Number of cutting edges	D_c -0,03 mm	s mm	l_1 mm	d_1 mm	P HC WKP25S	P HC WKP25	P HC WKP35S	P HC WKP35	P HC WSP45S	P HC WSP46	M HC WSM35S	M HC WSM36	M HC WSP45S	M HC WSP46	K HC WKP25	K HC WKP25S	K HC WKP35S	K HC WKP35	S HC WSM35S	S HC WSM36	S HC WSP45S	S HC WSP46	H HC WHH15
	P3204-D08	H	2	8	2	4	3						☹		☺		☹						☺		☹	☺
	P3204-D10	H	2	10	2,5	5	4						☹		☺		☹						☺		☹	☺
	P3204-D12	H	2	12	2,5	6	5						☹		☺		☹						☺		☹	☺
	P3204-D16	H	2	16	3	6	5						☹		☺		☹						☺		☹	☺
	P3204-D20	H	2	20	3	6	5						☹		☺		☹						☺		☹	☺
	P3204-D25	H	2	25	4	9	6						☹		☺		☹						☺		☹	☺
	P3204-D30	H	2	30	5	10	8						☹		☺		☹						☺		☹	☺
	P3204-D32	H	2	32	5	10	8						☹		☺		☹						☺		☹	☺
	P3204-D07.94	H	2	7,94	2	4	3						☹		☺		☹						☺		☹	☺
	P3204-D09.52	H	2	9,53	2,5	5	4						☹		☺		☹						☺		☹	☺
	P3204-D12.7	H	2	12,7	2,5	6	5						☹		☺		☹						☺		☹	☺
	P3204-D15.87	H	2	15,88	3	6	5						☹		☺		☹						☺		☹	☺
	P3204-D19.05	H	2	19,05	3	6	5						☹		☺		☹						☺		☹	☺
	P3204-D25.4	H	2	25,4	4	9	6						☹		☺		☹						☺		☹	☺
	P3204-D31.75	H	2	31,75	5	10	8						☹		☺		☹						☺		☹	☺
	P3201-D08	H	2	8	2	4	3																			☺
	P3201-D10	H	2	10	2,5	5	4		☺		☹							☺			☹					☺
	P3201-D12	H	2	12	2,5	6	5		☺		☹							☺			☹					☺
	P3201-D16	H	2	16	3	6	5		☺		☹							☺			☹					☺
	P3201-D20	H	2	20	3	6	5		☺		☹							☺			☹					☺
	P3201-D25	H	2	25	4	9	6		☺		☹							☺			☹					☺
	P3201-D30	H	2	30	5	10	8																			☺
	P3201-D32	H	2	32	5	10	8																			☺
	P3201-D07.94	H	2	7,94	2	4	3																			☺
	P3201-D09.52	H	2	9,53	2,5	5	4																			☺
	P3201-D12.7	H	2	12,7	2,5	6	5																			☺
	P3201-D15.87	H	2	15,88	3	6	5																			☺
	P3201-D19.05	H	2	19,05	3	6	5																			☺
	P3201-D25.4	H	2	25,4	4	9	6																			☺
	P3201-D31.75	H	2	31,75	5	10	8																			☺

HC = Coated carbide

C2

☺☹ / ★ New addition to the product range

Positive round
ROHX / ROMX
Tiger·tec® Gold



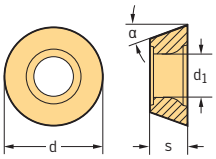
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	d_1 mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WMP45G	P HC WSP45S	M HC WMP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	ROHX10T3M0T-A27	H	4	10	3,97	11°	4,4		✕	✕								✕	✕			
	ROHX1204M0T-A27	H	4	12	4,76	11°	4,4		✕	✕								✕	✕			
	ROHX1605M0T-A27	H	6	16	5,56	15°	5,5		✕	✕								✕	✕			
	ROHX2006M0T-A27	H	8	20	6,35	15°	6,5		✕	✕								✕	✕			
	ROHX0803M0-D57	H	4	8	3,18	11°	3,4		●	●		✕		●		✕		✕	✕	●		✕
	ROHX10T3M0-D57	H	4	10	3,97	11°	4,4		●	●	✕	✕	✕	●		✕		✕	✕	●		✕
	ROHX1204M0-D57	H	4	12	4,76	11°	4,4		●	●	✕	✕	✕	●		✕		✕	✕	●		✕
	ROHX1605M0-D57	H	6	16	5,56	15°	5,5		●	●		✕		●		✕		✕	✕	●		✕
	ROHX2006M0-D57	H	8	20	6,35	15°	6,5		●	●		✕		●		✕		✕	✕	●		✕
	ROHX0803M0-D67	H	4	8	3,18	11°	3,4					✕		●		✕				●		✕
	ROHX10T3M0-D67	H	4	10	3,97	11°	4,4				✕	✕	✕	●		✕				●		✕
	ROHX1204M0-D67	H	4	12	4,76	11°	4,4				✕	✕	✕	●		✕				●		✕
	ROHX1605M0-D67	H	6	16	5,56	15°	5,5					✕		●		✕				●		✕
	ROHX10T3M0-F67	H	4	10	3,97	11°	4,4		●	●	✕	✕	✕	●		✕		✕	✕	●		✕
	ROHX1204M0-F67	H	4	12	4,76	11°	4,4		●	●	✕	✕	✕	●		✕		✕	✕	●		✕
	ROMX0803M0-D57	M	4	8	3,18	11°	3,4		●	●		✕		●		✕		✕	✕	●		✕
	ROMX10T3M0-D57	M	4	10	3,97	11°	4,4		●	●		✕		●	✕	✕		✕	✕	●	✕	✕
	ROMX1204M0-D57	M	4	12	4,76	11°	4,4		●	●		✕		●	✕	✕		✕	✕	●	✕	✕
	ROMX1605M0-D57	M	6	16	5,56	15°	5,5		●	●		✕		●		✕		✕	✕	●		✕
	ROMX2006M0-D57	M	8	20	6,35	15°	6,5		●	●		✕		●		✕		✕	✕	●		✕
	ROMX10T3M0-D67	M	4	10	3,97	11°	4,4					✕		●	✕	✕				●	✕	✕
	ROMX1204M0-D67	M	4	12	4,76	11°	4,4					✕		●	✕	✕				●	✕	✕
	ROMX10T3M0-F67	M	4	10	3,97	11°	4,4					✕		●	✕	✕				●	✕	✕
	ROMX1204M0-F67	M	4	12	4,76	11°	4,4					✕		●	✕	✕				●	✕	✕

HC = Coated carbide

WALTER SELECT
Optimum indexable insert for
Good
Average
Poor
machining conditions

Positive round
RDGT / RDHW / RDMW / RDMT
Tiger·tec® Gold



Indexable inserts

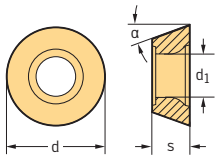
	Designation	Tolerance class	d mm	s mm	α	d_1 mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	N HF WMG40	S HC WSM35S	S HC WSP45S	H HC WHH15	O HF WMG40
	RDGT0803M0-G85	G	8	3,18	15°	3,4																	☻
	RDGT10T3M0-G85	G	10	3,97	15°	4,4																	☻
	RDGT1204M0-G85	G	12	4,76	15°	4,4																	☻
	RDGT1605M0-G85	G	16	5,56	15°	5,5																	☻
	RDGT2006M0-G85	G	20	6,35	15°	6,5																	☻
	RDGT0803M0-G88	G	8	3,18	15°	3,4											☻	☻					
	RDGT10T3M0-G88	G	10	3,97	15°	4,4											☻	☻					
	RDGT1204M0-G88	G	12	4,76	15°	4,4											☻	☻					
	RDGT1605M0-G88	G	16	5,56	15°	5,5											☻	☻					
	RDGT2006M0-G88	G	20	6,35	15°	6,5											☻	☻					
	RDHW0803M0T-A27	H	8	3,18	15°	3,4	☻	☻	☻					☻	☻	☻							
	RDHW10T3M0T-A27	H	10	3,97	15°	4,4	☻	☻	☻					☻	☻	☻							
	RDHW1204M0T-A27	H	12	4,76	15°	4,4	☻	☻	☻					☻	☻	☻							
	RDHW1605M0T-A27	H	16	5,56	15°	5,5	☻	☻	☻					☻	☻	☻							
	RDHW2006M0T-A27	H	20	6,35	15°	6,5	☻	☻	☻					☻	☻	☻							
	RDHW0803M0-A57	H	8	3,18	15°	3,4	☻						☻	☻								☻	
	RDHW10T3M0-A57	H	10	3,97	15°	4,4	☻							☻								☻	
	RDHW1204M0-A57	H	12	4,76	15°	4,4	☻							☻								☻	
	RDHW1605M0-A57	H	16	5,56	15°	5,5	☻						☻	☻								☻	
	RDHW2006M0-A57	H	20	6,35	15°	6,5	☻							☻								☻	
	RDMW0803M0T-A27	M	8	3,18	15°	3,4	☻	☻	☻					☻	☻	☻							
	RDMW10T3M0T-A27	M	10	3,97	15°	4,4	☻	☻	☻					☻	☻	☻							
	RDMW1204M0T-A27	M	12	4,76	15°	4,4	☻	☻	☻					☻	☻	☻							
	RDMW1605M0T-A27	M	16	5,56	15°	5,5	☻	☻	☻					☻	☻	☻							
	RDMW2006M0T-A27	M	20	6,35	15°	6,5	☻	☻	☻					☻	☻	☻							
	RDMT0803M0-D57	M	8	3,18	15°	3,4	☻	☻	☻	☻	☻	☻		☻	☻	☻				☻	☻		
	RDMT10T3M0-D57	M	10	3,97	15°	4,4	☻	☻	☻	☻	☻	☻		☻	☻	☻				☻	☻		
	RDMT1204M0-D57	M	12	4,76	15°	4,4	☻	☻	☻	☻	☻	☻		☻	☻	☻				☻	☻		
	RDMT1605M0-D57	M	16	5,56	15°	5,5	☻	☻	☻	☻	☻	☻		☻	☻	☻				☻	☻		
	RDMT2006M0-D57	M	20	6,35	15°	6,5	☻	☻	☻	☻	☻	☻		☻	☻	☻				☻	☻		

HC = Coated carbide
HW = Uncoated carbide
HF = Uncoated fine-grained carbide

C2

☻☻☻ / ★ New addition to the product range

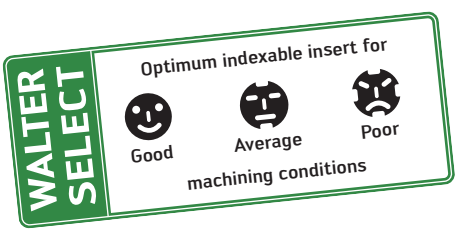
Positive round
RDGX / RDHX / RDMX
Tiger·tec® Gold



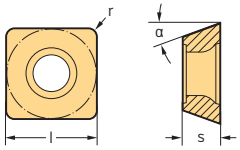
Indexable inserts

	Designation	Tolerance class	d mm	s mm	α	d_1 mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HF WMG40	S HC WSM35S	S HC WSP45S	H HC WHH15	O HF WMG40
	RDGX12T3M0-G85	G	12	3,97	15°	4,4														☺
	RDHX1003M0T-A27	H	10	3,18	15°	4,4	☺	☹	☹				☺	☹	☹					
	RDHX12T3M0T-A27	H	12	3,97	15°	4,4	☺	☹	☹				☺	☹	☹					
	RDHX1604M0T-A27	H	16	4,76	15°	5,5	☺	☹	☹				☺	☹	☹					
	RDHX2006M0T-A27	H	20	6,35	15°	5,5			☹						☹					
	RDHX0501M0-A57	H	5	1,59	15°	2,2	☺						☺						☺	
	RDHX07T1M0-A57	H	7	1,98	15°	2,8	☺						☺						☺	
	RDHX0702M0-A57	H	7	1,59	15°	2,8													☺	
	RDHX1003M0-A57	H	10	3,18	15°	4,4	☺						☺						☺	
	RDHX12T3M0-A57	H	12	3,97	15°	4,4	☺						☺						☺	
	RDHX1604M0-A57	H	16	4,76	15°	5,5	☺						☺						☺	
	RDMX1003M0T-A27	M	10	3,18	15°	4,4	☺	☹	☹				☺	☹	☹					
	RDMX12T3M0T-A27	M	12	3,97	15°	4,4	☺	☹	☹				☺	☹	☹					
	RDMX1604M0T-A27	M	16	4,76	15°	5,5	☺	☹	☹				☺	☹	☹					

HC = Coated carbide
HF = Uncoated fine-grained carbide



Positive square
SDHT / SDMW / SDMT
Tiger·tec® Gold



Indexable inserts

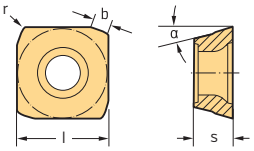
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDHT06T204-G88	H	4	6,35	2,78	15°	0,4													●	●			
	SDHT09T304-G88	H	4	9,52	3,97	15°	0,4													●	●			
	SDHT09T308-G88	H	4	9,52	3,97	15°	0,8													●	●			
	SDHT120408-G88	H	4	12,7	4,76	15°	0,8													●	●			
	SDMW06T204-A57	M	4	6,35	2,78	15°	0,4	◐	◐	◐							◐	◐	◐					
	SDMW09T308-A57	M	4	9,52	3,97	15°	0,8	◐	◐	◐							◐	◐	◐					
	SDMW09T320-A57	M	4	9,52	3,97	15°	2		◐	★	◐	◐		◐		◐		◐	★			◐		◐
	SDMW120408-A57	M	4	12,7	4,76	15°	0,8	◐	◐	◐							◐	◐	◐					
	SDMW120425-A57	M	4	12,7	4,76	15°	2,5		◐	★	◐	◐		◐		◐		◐	★			◐		◐
	SDMT06T204-D51	M	4	6,35	2,78	15°	0,4	●	◐	◐	◐			◐			◐	◐	◐					◐
	SDMT09T308-D51	M	4	9,52	3,97	15°	0,8	●	◐	◐	◐			◐			◐	◐	◐					◐
	SDMT120408-D51	M	4	12,7	4,76	15°	0,8	●	◐	◐	◐			◐			◐	◐	◐					◐
	SDMT06T204-D57	M	4	6,35	2,78	15°	0,4	●	◐	◐	◐	◐		◐		◐	◐	◐	◐			◐		◐
	SDMT09T308-D57	M	4	9,52	3,97	15°	0,8	●	◐	◐	◐	◐		◐		◐	◐	◐	◐			◐		◐
	SDMT120408-D57	M	4	12,7	4,76	15°	0,8	●	◐	◐	◐	◐		◐		◐	◐	◐	◐			◐		◐
	SDMT06T204-F57	M	4	6,35	2,78	15°	0,4	●	◐	◐	◐	◐	◐	◐	●		◐	◐	◐			◐	◐	◐
	SDMT06T208-F57	M	4	6,35	2,78	15°	0,8		◐	★	◐			◐				◐	★					◐
	SDMT06T212-F57	M	4	6,35	2,78	15°	1,2		◐	◐	◐	◐	◐	◐				◐	◐			◐	◐	◐
	SDMT09T304-F57	M	4	9,52	3,97	15°	0,4		◐	★	◐			◐				◐	★					◐
	SDMT09T308-F57	M	4	9,52	3,97	15°	0,8	●	◐	◐	◐	◐	◐	◐	●		◐	◐	◐			◐	◐	◐
	SDMT09T312-F57	M	4	9,52	3,97	15°	1,2		◐	★	◐			◐				◐	★					◐
	SDMT09T316-F57	M	4	9,52	3,97	15°	1,6		◐	★	◐			◐				◐	★					◐
	SDMT09T320-F57	M	4	9,52	3,97	15°	2		◐	◐	◐	◐	◐	◐				◐	◐			◐	◐	◐
	SDMT120408-F57	M	4	12,7	4,76	15°	0,8	●	◐	◐	◐	◐	◐	◐	●		◐	◐	◐			◐	◐	◐
	SDMT120412-F57	M	4	12,7	4,76	15°	1,2		◐	★	◐			◐				◐	★					◐
	SDMT120416-F57	M	4	12,7	4,76	15°	1,6		◐	★	◐			◐				◐	★					◐
	SDMT120420-F57	M	4	12,7	4,76	15°	2		◐	★	◐			◐				◐	★					◐
	SDMT120425-F57	M	4	12,7	4,76	15°	2,5		◐	◐	◐	◐	◐	◐				◐	◐			◐	◐	◐

HC = Coated carbide
HW = Uncoated carbide

C2

● ◐ ★ / ★ New addition to the product range

Positive square
SDMT
Tiger·tec® Gold

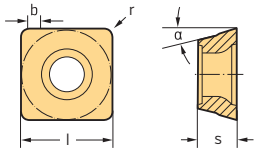


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S
	SDMT06T2ZDR-D57	M	4	6,4	2,78	15°	0,4	1,2		☺	☺	☹		☹		☹	☹		☹
	SDMT09T3ZDR-D57	M	4	9,5	3,97	15°	0,8	1,2		☺	☺	☹		☹		☹	☹		☹
	SDMT1204ZDR-D57	M	4	12,7	4,76	15°	0,8	1,8		☺	☺	☹		☹		☹	☹		☹

HC = Coated carbide

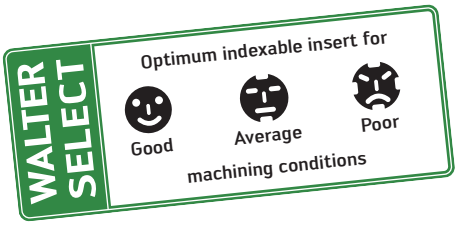
Positive square
SDGT
Tiger·tec® Gold



Indexable inserts

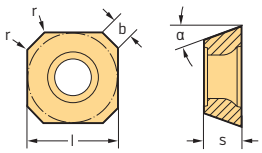
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S
	SDGT06T2PDR-D57	G	4	6,4	2,78	15°	0,4	1,2	☺	☺	☺	☹	☺	☹	☺	☹	☹	☺	☹
	SDGT09T3PDR-D57	G	4	9,5	3,97	15°	0,8	1,2	☺	☺	☺	☹	☺	☹	☺	☹	☹	☺	☹
	SDGT1204PDR-D57	G	4	12,7	4,76	15°	0,8	1,6	☺	☺	☺	☹	☺	☹	☺	☹	☹	☺	☹

HC = Coated carbide



C 2

Positive square
SDMW / SDMT / SDGT
Tiger·tec® Gold



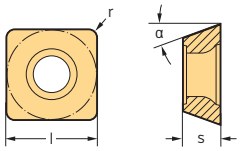
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDMW09T3AZN-A57	M	4	9,5	3,97	15°	0,3	1,2	●	●	●					●		●	●	●					
	SDMW1204AZN-A57	M	4	12,7	4,76	15°	0,3	1,4	●	●	●					●		●	●	●					
	SDMT09T3AZN-D57	M	4	9,5	3,97	15°	0,3	1,2	●	●	●	●	●		●		●	●	●	●			●		●
	SDMT1204AZN-D57	M	4	12,7	4,76	15°	0,3	1,4	●	●	●	●	●		●	●	●	●	●	●			●		●
	SDMT09T3AZN-F57	M	4	9,5	3,97	15°	0,3	1,4	●	●	●	●		●	●			●	●	●				●	●
	SDMT1204AZN-F57	M	4	12,7	4,76	15°	0,3	1,8	●	●	●	●		●	●			●	●	●				●	●
	SDGT09T3AZN-F57	G	4	9,5	3,97	15°	0,3	1,4	●	●	●	●	●		●	●		●	●	●			●		●
	SDGT1204AZN-F57	G	4	12,7	4,76	15°	0,3	1,8	●	●	●	●	●		●	●		●	●	●			●		●
	SDGT09T3AZN-G77	G	4	9,5	3,97	15°	0,3	1,2				●			●										●
	SDGT1204AZN-G77	G	4	12,7	4,76	15°	0,3	1,4				●			●										●
	SDHT09T3AZN-G88	H	4	9,5	3,97	15°	0,3	1,2													●	●			
	SDHT1204AZN-G88	H	4	12,7	4,76	15°	0,3	1,4													●	●			

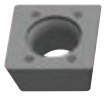
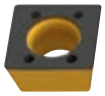
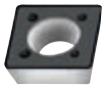
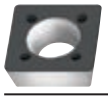
HC = Coated carbide
HW = Uncoated carbide

● / ★ New addition to the product range

Positive square
SPGT / SPHW / SPHT / SPMW / SPMT
Tiger·tec® Gold



Indexable inserts

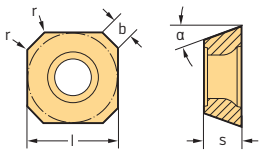
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35G	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SPGT120606-F57	G	4	12,7	6,35	11°	0,6			☹	☹	😐	☹				☹				😐	☹
	SPHW120412-A57	H	4	12,7	4,76	11°	1,2											☺				
	SPHW120416-A57	H	4	12,7	4,76	11°	1,6											☺				
	SPHW120606-A57	H	4	12,7	6,35	11°	0,6							☺								
	SPHT060304-G88	H	4	6,35	3,18	11°	0,4												☺	☺		
	SPHT09T308-G88	H	4	9,52	3,97	11°	0,8												☺	☺		
	SPHT120408-G88	H	4	12,7	4,76	11°	0,8												☺	☺		
	SPMW060304T-A27	M	4	6,35	3,18	11°	0,4	😐		☹					😐		☹					
	SPMW09T308T-A27	M	4	9,52	3,97	11°	0,8	😐		☹					😐		☹					
	SPMW120408T-A27	M	4	12,7	4,76	11°	0,8	😐		☹					😐		☹					
	SPMW120606T-A27	M	4	12,7	6,35	11°	0,6			☹							☹					
	SPMW060304-A57	M	4	6,35	3,18	11°	0,4	😐		☹				☺	😐		☹					
	SPMW09T308-A57	M	4	9,52	3,97	11°	0,8	😐		☹				☺	😐		☹					
	SPMW120408-A57	M	4	12,7	4,76	11°	0,8	😐		☹				☺	😐		☹					
	SPMT060304-D51	M	4	6,35	3,18	11°	0,4	☺		😐	☹	😐	☹		😐		☹				😐	☹
	SPMT09T308-D51	M	4	9,52	3,97	11°	0,8	☺		😐	☹	😐	☹		😐		☹				😐	☹
	SPMT120408-D51	M	4	12,7	4,76	11°	0,8	☺		😐	☹	😐	☹		😐		☹				😐	☹
	SPMT120606-D51	M	4	12,7	6,35	11°	0,6			😐	☹		☹				☹					☹
	SPMT120606-D57	M	4	12,7	6,35	11°	0,6	☺		😐	☹		☹		😐		☹					☹
	SPMT060304-F55	M	4	6,35	3,18	11°	0,4	☺	😐	😐	☹	😐	☹	☺	😐	☹	☹				😐	☹
	SPMT09T308-F55	M	4	9,52	3,97	11°	0,8	☺	😐	😐	☹	😐	☹	☺	😐	☹	☹				😐	☹
	SPMT120408-F55	M	4	12,7	4,76	11°	0,8	☺	😐	😐	☹	😐	☹	☺	😐	☹	☹				😐	☹

HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide

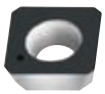
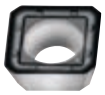
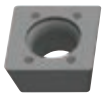
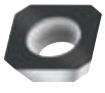
WALTER SELECT
Optimum indexable insert for
Good Average Poor
machining conditions

C 2

Positive square
SPGT / SPKT / SPMW / SPMT / SDGT
Tiger·tec® Silver



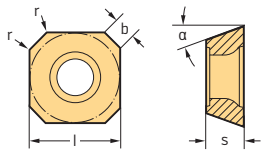
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SPGT1204AEN-K88	G	4	12,7	4,76	11°		1,5									☻	☻		
	SPKT1204AZN	K	4	12,7	4,76	11°		1,4	😐	☹	☹	😐	☹	☻	☹	☹			😐	☹
	SPKT1504AZN	K	4	15,9	4,76	11°		1,7		☹						☹				
	SPMW1204AEN-A57	M	4	12,7	4,76	11°	0,5	1,4	😐	☹				☻	😐	☹				
	SPMT1204AEN	M	4	12,7	4,76	11°	0,5	1,4	☻	☹	☹	😐	☹	☻	😐	☹			😐	☹
	SDGT09T3AEN-F57	G	4	9,5	3,97	15°	0,3	1,2	☻	😐	☹	😐	☹		😐	☹			😐	☹
	SDGT09T3AEN-G88	G	4	9,5	3,97	15°	0,3	1,2									☻	☻		
	SDHW09T3AEN-A57	H	4	9,5	3,97	15°	0,3	1,2	😐	☹				☻	😐	☹				
	SDMW09T3AEN-A57	M	4	9,5	3,97	15°	0,5	1,2	😐	☹				☻	😐	☹				
	SDMT09T3AEN-D57	M	4	9,5	3,97	15°	0,5	1,2		😐	☹	😐	☹			☹			😐	☹
	SEHW1204AFN	H	4	12,7	4,76	20°	0,8	2	😐	☹				☻	😐	☹				
	SEHW1504AFN	H	4	15,9	4,76	20°	0,8	2,1	😐	☹					😐	☹				

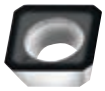
HC = Coated carbide
HW = Uncoated carbide

☻😐☹ / ★ New addition to the product range

Positive square
SPGT / SPKT / SPMW / SPMT / SDGT
Tiger·tec® Silver

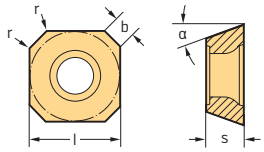


Indexable inserts

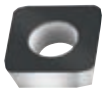
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SEHT1204AFN	H	4	12,7	4,76	20°	0,8	2		☹	☹	😐	☹			☹		🙂	😐	☹
	SEHT1204AFN-K88	H	4	12,7	4,76	20°	0,8	1,8										🙂		

HC = Coated carbide
HW = Uncoated carbide

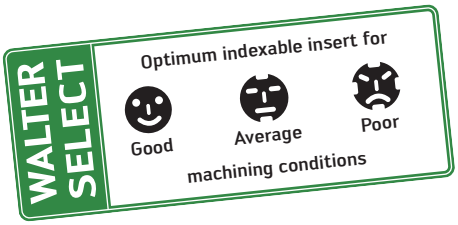
Positive square
SPJW / SPGT
Tiger·tec® Silver



Indexable inserts

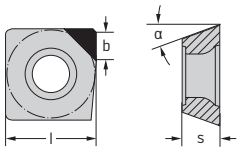
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	SPJW1204EDR	J	4	12,7	4,76	11°		1,4	😐	☹				🙂	😐	☹		
	SPJW1504EDR	J	4	15,9	4,76	11°		1,5	😐	☹					😐	☹		
	SPGT1204EDR-F55	G	4	12,7	4,76	11°	0,5	1,3	🙂	😐	☹	😐	☹	🙂	😐	☹	😐	☹

HC = Coated carbide

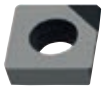


C 2

Positive square
SPHW

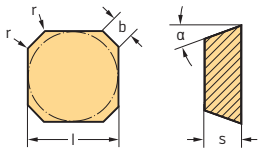


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35S	N DP WCD10	S HC WSM35S	S HC WSP45S
	SPHW1204EDR-A88	H	1	12,7	4,76	11°	1,5								☻		
	SPHW1204PDR-A88	H	1	12,7	4,76	11°	1,5								☻		

HC = Coated carbide
DP = Polycrystalline diamond

Positive square
SEKN / SEKR / SEMR
Tiger·tec® Silver



Indexable inserts

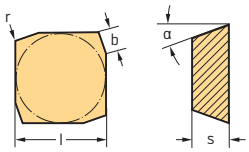
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	SEKN1203AFN	K	4	12,7	3,18	20°	0,63	1,9	☻	☹				☻	☹		
	SEKN1504AFN	K	4	15,9	4,76	20°	0,35	2	☻	☹				☻	☹		
	SEKR1203AFTN	K	4	12,7	3,18	20°	0,43	1,9		☹					☹		
	SEKR1204AFN	K	4	12,7	4,76	20°	0,34	1,9		☹					☹		
	SEMR1203AFTN	M	4	12,7	3,18	20°	0,5	1,9		☹					☹		

HC = Coated carbide

C2

☻☻☹ / ★ New addition to the product range

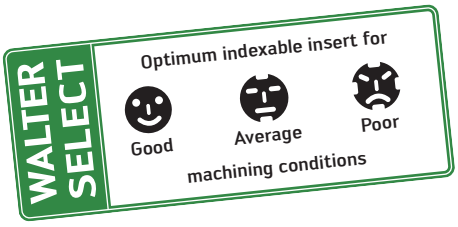
Positive square
SPFN / SPFR / SPKN / SPMN
Tiger·tec® Silver



Indexable inserts

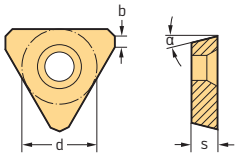
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	SPFN1204EDN	F	4	12,7	4,76	11°	0,5	1,7	☺	😐				☺	☺	😐		
	SPFN1204ZPN	F	4	12,7	4,76	11°	0,8	1,7	☺	😐					☺	😐		
	SPFR1204EDR	F	4	12,7	4,76	11°	0,5	2	☺	😐				☺	☺	😐		
	SPFR1204ZPR	F	4	12,7	4,76	11°	0,8	1,7	☺	😐				☺	☺	😐		
	SPFR1204ZPN	F	4	12,7	4,76	11°	0,8	1,7		😐						😐		
	SPKN1203EDR	K	4	12,7	3,18	11°		1,4	☺	😐					☺	😐		
	SPKN1204EDR	K	4	12,7	4,76	11°		1,4	☺	😐				☺	☺	😐		
	SPKN1504EDR	K	4	15,9	4,76	11°		1,5		😐						😐		
	SPMN1203EDR	M	4	12,7	3,18	11°	0,2	1,4		😐						😐		

HC = Coated carbide



C 2

Positive triangular
TPAW / TPJW
Tiger·tec® Silver

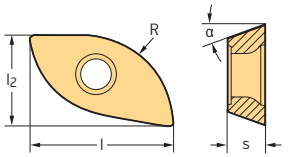


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	TPAW1604PPN	A	3	9,52	4,76	11°	1,2	☺	☹					☺	☹		
	TPAW2204PPN	A	3	12,7	4,76	11°	1,2		☹						☹		
	TPJW1604PPN	J	3	9,52	4,76	11°	1,2	☺	☹				☺	☺	☹		
	TPJW2204PPN	J	3	12,7	4,76	11°	1,2		☹				☺		☹		

HC = Coated carbide

Positive form inserts
XDGT / XDMT
Tiger·tec® Gold



Indexable inserts

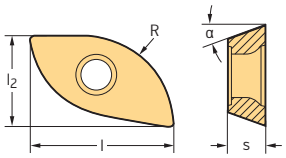
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	R mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S
	XDGT1303080R-D57	G	2	8,5	13,12	3	15°	8			☺	☹		☹			☹		☹
	XDGT16T3100R-D57	G	2	9	15,93	3,74	15°	10			☺	☹		☹			☹		☹
	XDGT2004125R-D57	G	2	11,3	19,94	4,68	15°	12,5			☺	☹		☹			☹		☹
	XDGT2405150R-D57	G	2	13,5	23,94	5,62	15°	15			☺	☹		☹			☹		☹
	XDGT2506160R-D57	G	2	14,4	25,54	6	15°	16			☺	☹		☹			☹		☹
	XDGT3207200R-D57	G	2	18	31,95	7,5	15°	20			☺	☹		☹			☹		☹
	XDGT4009250R-D57	G	2	22,5	39,95	9,39	15°	25			☺	☹		☹			☹		☹
	XDGT1303079R-D57	G	2	8,5	13,12	3	15°	7,84			☺	☹		☹			☹		☹
	XDGT16T3095R-D57	G	2	9	15,93	3,74	15°	9,53			☺	☹		☹			☹		☹
	XDGT2004127R-D57	G	2	11,3	19,94	4,68	15°	12,7			☺	☹		☹			☹		☹
	XDGT2506159R-D57	G	2	14,4	25,54	6	15°	15,88			☺	☹		☹			☹		☹
	XDGT3207191R-D57	G	2	18	31,95	7,5	15°	19,05			☺	☹		☹			☹		☹
	XDGT4009254R-D57	G	2	22,5	39,95	9,39	15°	25,4			☺	☹		☹			☹		☹

HC = Coated carbide

C 2

☺☺☹ / ★ New addition to the product range

Positive form inserts
XDGT / XDMT
Tiger·tec® Gold

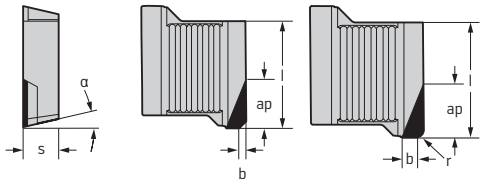


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	R mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S
	XDMT1303080R-F55	M	2	8,5	13,12	3	15°	8	●	●	●	●	●	●	●	●	●	●	●
	XDMT16T3100R-F55	M	2	9	15,93	3,74	15°	10	●	●	●	●	●	●	●	●	●	●	●
	XDMT2004125R-F55	M	2	11,3	19,94	4,68	15°	12,5	●	●	●	●	●	●	●	●	●	●	●
	XDMT2405150R-F55	M	2	13,5	23,94	5,62	15°	15	●	●	●	●	●	●	●	●	●	●	●
	XDMT2506160R-F55	M	2	14,4	25,54	6	15°	16	●	●	●	●	●	●	●	●	●	●	●
	XDMT3207200R-F55	M	2	18	31,95	7,5	15°	20	●	●	●	●	●	●	●	●	●	●	●
	XDMT4009250R-F55	M	2	22,5	39,95	9,39	15°	25	●	●	●	●	●	●	●	●	●	●	●
	XDMT1303079R-F55	M	2	8,5	13,12	3	15°	7,92	●	●	●	●		○	●	●	●		○
	XDMT16T3095R-F55	M	2	9	15,93	3,74	15°	9,53	●	●	●	●		○	●	●	●		○
	XDMT2004127R-F55	M	2	11,3	19,94	4,68	15°	12,7	●	●	●	○		○	●	●	●		○
	XDMT2506159R-F55	M	2	14,4	25,54	6	15°	15,88	●	●	●	○		○	●	●	●		○
	XDMT3207191R-F55	M	2	18	31,95	7,5	15°	19,05	●	●	●	○		○	●	●	●		○
	XDMT4009254R-F55	M	2	22,5	39,95	9,39	15°	25,4	●	●	●	○		○	●	●	●		○

HC = Coated carbide

PCD indexable inserts
XOEN



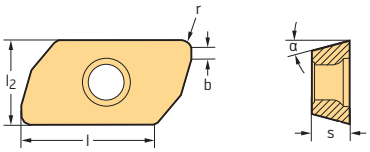
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	a_p mm	b mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35S	N DP WDN20	S HC WSM35S	S HC WSP45S
	XOEN12T308R-A-A88	E	1	12,11	4	13°	5	1,2	0,8								●		
	XOEN12T3AZR-A-A88	E	1	12,21	4	13°	5,1	0,8									●		
	XOEN12T308R-F-A88	E	1	12,11	4	13°	10,3	1,2	0,8								●		

HC = Coated carbide
DP = Polycrystalline diamond

C 2

Positive rhombic
ZDGT



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HC WNN15	N HW WK10	N HF WMG40	S HC WSM35S	S HC WSP45S	O HF WMG40
	ZDGT150404R-K85	G	2	10,5	16,2	4,76	15°	0,4	1,2								☻	☻	☻	☹			☹
	ZDGT150408R-K85	G	2	10,5	16,2	4,76	15°	0,8	1,2								☻	☻	☻	☹			☹
	ZDGT150412R-K85	G	2	10,5	16,2	4,76	15°	1,2	1,2								☻	☻	☻	☹			☹
	ZDGT150416R-K85	G	2	10,5	16,2	4,76	15°	1,6	1,2								☻	☻	☻	☹			☹
	ZDGT150420R-K85	G	2	10,5	16,2	4,76	15°	2	1,2								☻	☻	☻	☹			☹
	ZDGT150425R-K85	G	2	10,5	16,2	4,76	15°	2,5	1,2								☻	☻	☻	☹			☹
	ZDGT150430R-K85	G	2	10,5	16,2	4,76	15°	3	1,2								☻	☻	☻	☹			☹
	ZDGT150440R-K85	G	2	10,5	16,2	4,76	15°	4	1,2								☻	☻	☻	☹			☹
	ZDGT200508R-K85	G	2	14	21,2	5,56	15°	0,8	1,2									☻	☻	☹			☹
	ZDGT200512R-K85	G	2	14	21,2	5,56	15°	1,2	1,2									☻	☻	☹			☹
	ZDGT200516R-K85	G	2	14	21,2	5,56	15°	1,6	1,2									☻	☻	☹			☹
	ZDGT200520R-K85	G	2	14	21,2	5,56	15°	2	1,2									☻	☻	☹			☹
	ZDGT200530R-K85	G	2	14	21,2	5,56	15°	3	1,2									☻	☻	☹			☹
	ZDGT200540R-K85	G	2	14	21,2	5,56	15°	4	1,2									☻	☻	☹			☹
	ZDGT200550R-K85	G	2	14	21,2	5,56	15°	5	1,2									☻	☻	☹			☹
	ZDGT200560R-K85	G	2	14	21,2	5,56	15°	6	1,2									☻	☻	☹			☹
	ZDGT200564R-K85	G	2	14	21,2	5,56	15°	6,4	1,2									☻	☻	☹			☹

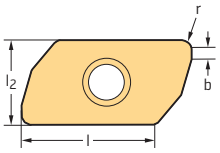
ZDGT1504 and ZDGT2005 can be used in the M2131 ramping milling cutter

HC = Coated carbide
HW = Uncoated carbide
HF = Uncoated fine-grained carbide

C2

☻☻☻ / ★ New addition to the product range

Positive rhombic
ZDGT

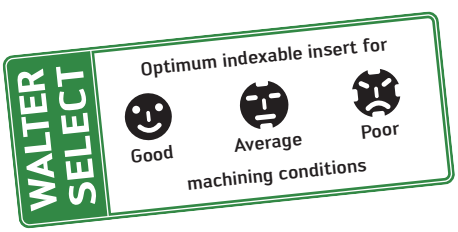


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35S	N HF WMG40	S HC WSM35S	S HC WSP45S	O HF WMG40
	ZDGT15A404R-K85	G	2	10,5	16,2	4,76	15°	0,4	1,2								☺			☺
	ZDGT15A408R-K85	G	2	10,5	16,2	4,76	15°	0,8	1,2								☺			☺
	ZDGT15A412R-K85	G	2	10,5	16,2	4,76	15°	1,2	1,2								☺			☺
	ZDGT15A416R-K85	G	2	10,5	16,2	4,76	15°	1,6	1,2								☺			☺
	ZDGT15A420R-K85	G	2	10,5	16,2	4,76	15°	2	1,2								☺			☺
	ZDGT15A425R-K85	G	2	10,5	16,2	4,76	15°	2,5	1,2								☺			☺
	ZDGT15A430R-K85	G	2	10,5	16,2	4,76	15°	3	1,2								☺			☺
	ZDGT15A440R-K85	G	2	10,5	16,2	4,76	15°	4	1,2								☺			☺
	ZDGT20A508R-K85	G	2	14	21,2	5,56	15°	0,8	1,2								☺			☺
	ZDGT20A512R-K85	G	2	14	21,2	5,56	15°	1,2	1,2								☺			☺
	ZDGT20A516R-K85	G	2	14	21,2	5,56	15°	1,6	1,2								☺			☺
	ZDGT20A520R-K85	G	2	14	21,2	5,56	15°	2	1,2								☺			☺
	ZDGT20A530R-K85	G	2	14	21,2	5,56	15°	3	1,2								☺			☺
	ZDGT20A540R-K85	G	2	14	21,2	5,56	15°	4	1,2								☺			☺
	ZDGT20A550R-K85	G	2	14	21,2	5,56	15°	5	1,2								☺			☺
	ZDGT20A560R-K85	G	2	14	21,2	5,56	15°	6	1,2								☺			☺
	ZDGT20A564R-K85	G	2	14	21,2	5,56	15°	6,4	1,2								☺			☺

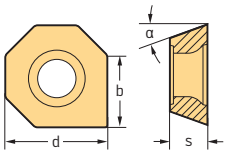
ZDGT15A4 and ZDGT20A5 can be used in the M2131 and M2331 ramping milling cutters

HC = Coated carbide
HF = Uncoated fine-grained carbide



C 2

Finishing inserts
ODHX
Tiger·tec® Gold



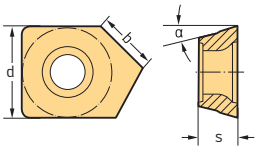
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	ODHX0504ZZR-A57	H	1	12,7	4,76	15°	7,2		☻	☻				☻		☻	☻			☻	☻
	ODHX0605ZZR-A57	H	1	15,88	5,56	15°	9,4		☻	☻				☻		☻	☻			☻	☻
	ODHX0605ZZN-A57	H	8	15,88	5,56	15°	6							☻						☻	☻
	ODHX0605ZZN-A88	H	8	15,88	5,56	15°	6							☻						☻	☻

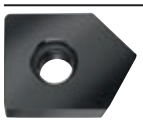
* ZZN for κ = 45° only

HC = Coated carbide

Positive square
SDHX
Tiger·tec®



Indexable inserts

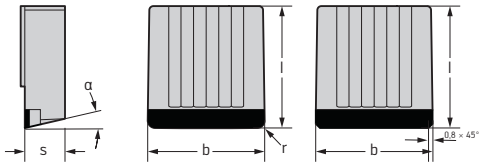
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	SDHX09T3AZR-A88	H	1	9,52	3,97	15°	5,6						☻					☻	☻
	SDHX1204AZR-A88	H	1	12,7	4,76	15°	7,5						☻					☻	☻

HC = Coated carbide

C2

☻☻☻ / ★ New addition to the product range

PCD finishing inserts
XOEX



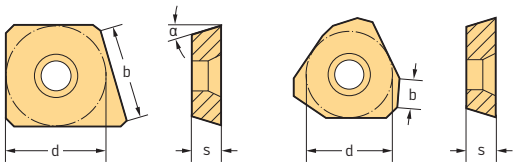
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35S	N DP WDN20	S HC WSM35S	S HC WSP45S
	XOEX12T3AZR-F-A88	E	1	12,16	4	13°	11,8								☹		
	XOEX12T308N-F-A88	E	1	12,16	4	13°	11,8								☹		

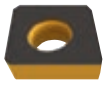
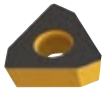
HC = Coated carbide
DP = Polycrystalline diamond

Finishing inserts
P2901 / P2903 / P2905 / SPHX

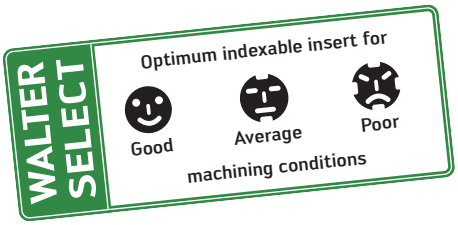
Tiger·tec®



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKP25S	K HC WKP35S	N HW WK10	N DP WCD10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	P2901-1R	H	1	12,7	4,76	11°	11						☺			☺				☺	☺
	P2903-2R	A	3	9,52	4,76	11°	3,5						☺			☺				☺	☺
	P2905-1	F	4	12,7	4,76	11°	10						☺			☺				☺	☺
	SPHX1204PDR-A88	H	1	12,7	4,76	11°	3,5										☹				

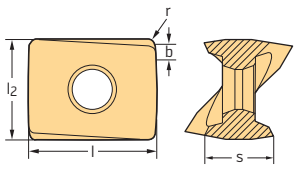
HC = Coated carbide
HW = Uncoated carbide
DP = Polycrystalline diamond



C 2

Negative rhombic
LNGX

Tiger·tec® Gold



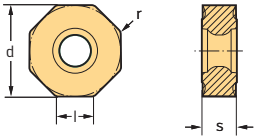
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNGX130708R-L55	G	4	11	13,7	7,74	0,8	1,2	●	●	●	●	●	●	●	●	●	●	●			●	●
	LNGX130712R-L55	G	4	11	13,7	7,74	1,2	1	●	●	●	●	●	●			●	●	●			●	●
	LNGX130716R-L55	G	4	11	13,7	7,74	1,6	0,9	●	●	●	●	●	●			●	●	●			●	●
	LNGX130720R-L55	G	4	11	13,7	7,74	2	0,7	●	●	●	●	●	●			●	●	●			●	●
	LNGX130725R-L55	G	4	11	13,7	7,74	2,5	0,6	●	●	●		●				●	●	●			●	
	LNGX130730R-L55	G	4	11	13,7	7,74	3	0,7	●	●	●						●	●	●				
	LNGX130708R-L88	G	4	11	13,7	7,74	0,8	1,2												●	●		
	LNGX130720R-L88	G	4	11	13,7	7,74	2	0,7												●			
	LNGX130730R-L88	G	4	11	13,7	7,74	3	0,7												●			

HC = Coated carbide
HW = Uncoated carbide

Negative octagonal
ONHU / ONMU

Tiger·tec® Gold



Indexable inserts

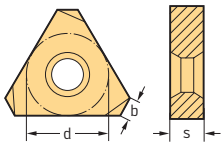
	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	ONHU050408-F57	H	16	12,7	5,26	4,86	0,8		●	★	●		●					●				●
	ONHU050408-F67	H	16	12,7	5,26	4,86	0,8		●	★	●	●	●					●			●	●
	ONMU050408-D57	M	16	12,7	5,26	4,86	0,8		●	★	●		●					●				●

HC = Coated carbide
HW = Uncoated carbide

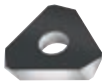
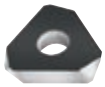
● ● ● / ★ New addition to the product range

Wendelnovex® inserts
P2352 / P23522 / P2372

Tiger·tec® Silver



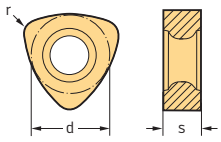
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC			M HC		K HC				N HC	HW	S HC	
							WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S
	P2352-1R	A	6	15	4,5	1,1	☺	☹						☺	☹				
	P2352-2R	A	6	18	4,5	1,1		☹							☹				
	P23522-1R	A	6	15	4,5	1,1		☹							☹				
	P2372-1R	A	6	15	4,5	1,1		☹							☹				

HC = Coated carbide
HW = Uncoated carbide

Negative triangular
P23696

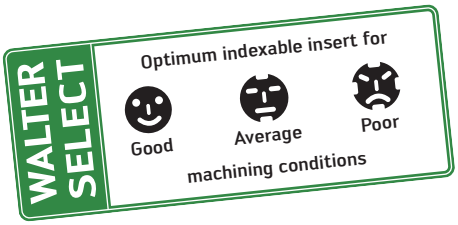
Tiger·tec® Gold



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	r mm	P HC				M HC		K HC					N HC	HW	S HC	
							WKP25S	WKP35G	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S
	P23696-1.0	M	6	9,52	5	1,2	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹
	P23696-2.0	M	6	13,5	7	1,6	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹

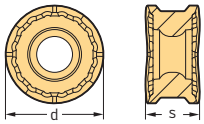
HC = Coated carbide
HW = Uncoated carbide



C 2

Negative round
RNMX

Tiger·tec® Silver



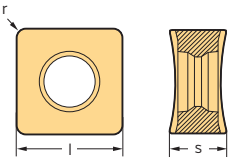
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	RNMX1206M0-D57	M	8	12	6,48			●		●								●
	RNMX1206M0-F67	M	8	12	6,48			●		●								●

HC = Coated carbide
HW = Uncoated carbide

Negative square
SNGX / SNMX

Tiger·tec® Gold



Indexable inserts

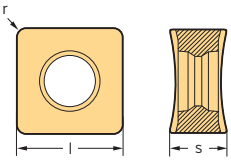
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNGX120512-F57	G	8	12,7	6,4	1,2	●	●	●	●	●	●			●	●	●			●	●
	SNMX120512-D27	M	8	12,7	6,4	1,2	●	●	●					●	●	●	●				
	SNMX120520-D27	M	8	12,7	6,4	2	●	●	●					●	●	●	●				
	SNMX160620-D27	M	8	16	7,8	2	●	●	●					●	●	●	●				
	SNMX160640-D27	M	8	16	7,8	4		●								●					
	SNMX090408-F27	M	8	9,52	5,11	0,8	●	●	●						●	●	●				
	SNMX120512-F27	M	8	12,7	6,4	1,2	●	●	●						●	●	●				
	SNMX160620-F27	M	8	16	7,8	2	●	●	●						●	●	●				

HC = Coated carbide
HW = Uncoated carbide

C2

● ● ● / ★ New addition to the product range

Negative square
SNGX / SNMX
Tiger·tec® Gold

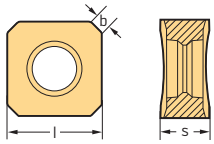


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNMX090408-F57	M	8	9,52	5,11	0,8	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹			😐	☹
	SNMX120512-F57	M	8	12,7	6,4	1,2	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹			😐	☹
	SNMX120520-F57	M	8	12,7	6,4	2	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹			😐	☹
	SNMX160620-F57	M	8	16	7,8	2	☺	😐	😐	☹		☹		😐	😐	☹	☹				☹
	SNMX160640-F57	M	8	16	7,8	4		😐	😐	☹		☹				☹	☹				☹
	SNMX090408-F67	M	8	9,52	5,11	0,8	☺	😐	😐	☹	😐	☹			😐	☹	☹			😐	☹
	SNMX120512-F67	M	8	12,7	6,4	1,2	☺	😐	😐	☹	😐	☹	☺		😐	☹	☹			😐	☹

HC = Coated carbide
HW = Uncoated carbide

Negative square
SNGX / SNHX / SNMX
Tiger·tec® Gold



Indexable inserts

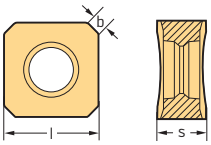
	Designation	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNGX1205ANN-F27	8	12,7	6,4	1,5	☺	😐	😐						😐	☹	☹				
	SNGX0904ANN-F57	8	9,52	5,11	1,2	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹			😐	☹
	SNGX1205ANN-F57	8	12,7	6,4	1,5	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹			😐	☹
	SNGX1606ANN-F57	8	16	7,7	1,8		😐	😐	☹		☹				☹	☹				☹
	SNGX0904ANN-F67	8	9,52	5,11	1,2	☺	😐	😐	☹	😐	☹	☺		😐	☹	☹			😐	☹
	SNGX1205ANN-F67	8	12,7	6,4	1,5	☺	😐	😐	☹	😐	☹	☺		😐	☹	☹			😐	☹

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Optimum indexable insert for
Good
Average
Poor
machining conditions

C 2

Negative square
SNGX / SNHX / SNMX
Tiger·tec® Gold

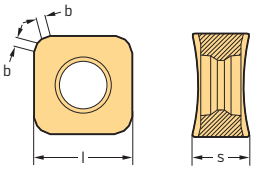


Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNHX0904ANN-K88	8	9,52	5,11	1,5												☺	☺		
	SNHX1205ANN-K88	8	12,7	6,4	1,5												☻	☻		
	SNMX0904ANN-F27	8	9,52	5,11	1,2	☺	☺	☺						☺	☹	☹				
	SNMX1205ANN-F27	8	12,7	6,4	1,5	☻	☻	☻						☻	☹	☹				
	SNMX0904ANN-F57	8	9,52	5,11	1,2	☺	☺	☺					☺	☺	☹	☹				
	SNMX1205ANN-F57	8	12,7	6,4	1,5	☻	☻	☻					☻	☻	☹	☹				
	SNMX0904ANN-F67	8	9,52	5,11	1,2	☺	☺	☺				☺		☺	☹	☹				
	SNMX1205ANN-F67	8	12,7	6,4	1,5	☻	☻	☻				☻		☻	☹	☹				

HC = Coated carbide
HW = Uncoated carbide

Negative square
SNGX
Tiger·tec® Gold



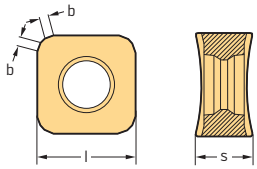
Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNGX1205ENN-F27	8	12,7	6,4	1,2	☻	☻	☻						☻	☹	☹				
	SNGX1205ENN-F57	8	12,7	6,4	1,2	☻	☻	☻	☹	☻	☹		☻	☻	☹	☹			☻	☹

HC = Coated carbide
HW = Uncoated carbide

☺☻☹ / ★ New addition to the product range

Negative square
SNGX
Tiger·tec® Gold

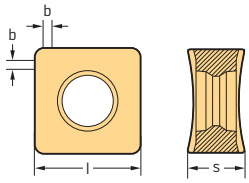


Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNGX1205ENN-F67	8	12,7	6,4	1,2	☺	😐	😐	☹	😐	☹	☺		😐	☹	☹			😐	☹

HC = Coated carbide
HW = Uncoated carbide

Negative square
SNGX
Tiger·tec® Gold



Indexable inserts

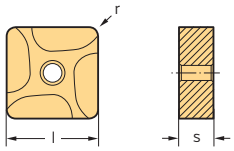
	Designation	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNGX1205ZNN-F27	8	12,7	6,4	1,2	☺	😐	😐						😐	☹	☹				
	SNGX1205ZNN-F57	8	12,7	6,4	1,2	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹			😐	☹
	SNGX1205ZNN-F67	8	12,7	6,4	1,2	☺	😐	😐	☹	😐	☹	☺		😐	☹	☹			😐	☹

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Optimum indexable insert for
Good ☺ Average 😐 Poor ☹
machining conditions

C 2

Negative square
SNEF
Tiger·tec® Gold

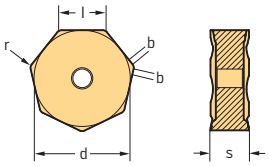


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNEF120408R-B67	E	8	12,7	4,76	0,8	2,1								☻	☻	☻	☻				
	SNEF120408R-D67	E	8	12,7	4,76	0,8	2,1							☻		☻	☻	☻				

HC = Coated carbide
HW = Uncoated carbide

Negative heptagonal
XNHF / XNMF
Tiger·tec® Gold



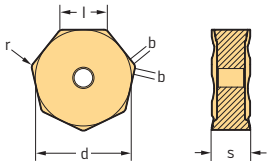
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	XNHF070508-D27	H	14	14,5	7	5,8	0,8								☻	☻	☻	☻				
	XNHF090612-D27	H	14	19,05	9	6,35	1,2								☻	☻	☻	☻				
	XNHF070508-D57	H	14	14,5	7	5,8	0,8								☻	☻	☻	☻				
	XNHF090612-D57	H	14	19,05	9	6,35	1,2								☻	☻	☻	☻				
	XNHF070508-D67	H	14	14,5	7	5,8	0,8							☻		☻	☻	☻				
	XNHF090612-D67	H	14	19,05	9	6,35	1,2							☻		☻	☻	☻				
	XNMF070508-D27	M	14	14,5	7	5,8	0,8								☻	☻	☻	☻				
	XNMF090612-D27	M	14	19,05	9	6,35	1,2								☻	☻	☻	☻				

HC = Coated carbide
HW = Uncoated carbide

☻☻☻ / ★ New addition to the product range

Negative heptagonal
XNHF / XNMF
Tiger·tec® Gold

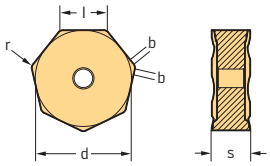


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	XNMF070508-D57	M	14	14,5	7	5,8	0,8								☹	☹	☹	☹				
	XNMF090612-D57	M	14	19,05	9	6,35	1,2								☹	☹	☹	☹				
	XNMF070508-F57	M	14	14,5	7	5,8	0,8								☹	☹	☹	☹				
	XNMF090612-F57	M	14	19,05	9	6,35	1,2								☹	☹	☹	☹				

HC = Coated carbide
HW = Uncoated carbide

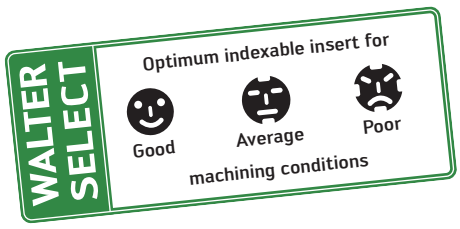
Negative heptagonal
XNHF
Tiger·tec® Gold



Indexable inserts

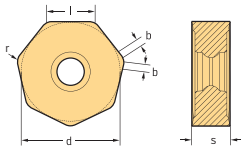
	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	XNHF0705ANN-D27	H	14	14,5	7	5,8	0,8	1,1								☹	☹	☹	☹				
	XNHF0906ANN-D27	H	14	19,05	9	6,35	0,8	1,4								☹	☹	☹	☹				
	XNHF0705ANN-D57	H	14	14,5	7	5,8	0,8	1,1								☹	☹	☹	☹				
	XNHF0906ANN-D57	H	14	19,05	9	6,35	0,8	1,4								☹	☹	☹	☹				
	XNHF0705ANN-D67	H	14	14,5	7	5,8	0,8	1,1							☺		☹	☹	☹				
	XNHF0906ANN-D67	H	14	19,05	9	6,35	0,8	1,4							☺		☹	☹	☹				

HC = Coated carbide
HW = Uncoated carbide



C 2

Negative heptagonal
XNGU / XNMU
Tiger·tec® Gold

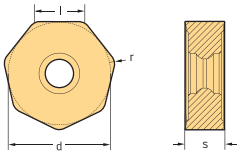


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	XNGU0705ANN-F57	G	14	14,5	6,98	4,6	0,8	1,1	●	●	●	●	●		●			●	●	●					
	XNGU0705ANN-F67	G	14	14,5	6,98	4,6	0,8	1,1	●	●	●	●	●		●			●	●	●					
	XNMU0705ANN-F27	M	14	14,5	6,98	4,6	0,8	1,1	●	●	●						●	●	●	●					
	XNMU0906ANN-F27	M	14	19,05	9,18	5,88	0,8	1,4	●	●	●						●	●	●	●					
	XNMU0705ANN-F57	M	14	14,5	6,98	4,6	0,8	1,1	●	●	●	●	●		●			●	●	●			●		
	XNMU0906ANN-F57	M	14	19,05	9,18	5,88	0,8	1,4	●	●	●	●	●		●			●	●	●			●		
	XNMU0705ANN-F67	M	14	14,5	6,98	4,6	0,8	1,1	●	●	●		●	●				●	●	●			●	●	
	XNMU0906ANN-F67	M	14	19,05	9,18	5,88	0,8	1,4	●	●	●			●				●	●	●				●	

HC = Coated carbide
HW = Uncoated carbide

Negative heptagonal
XNMU
Tiger·tec® Gold



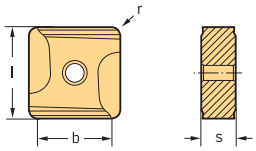
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	XNMU070508-F57	M	14	14,5	6,98	4,6	0,8	●	●	●	●	●	●			●	●	●			●	
	XNMU090612-F57	M	14	19,05	9,18	5,88	1,2	●	●	●	●		●			●	●	●				

HC = Coated carbide
HW = Uncoated carbide

● ● ● / ★ New addition to the product range

Finishing inserts
SNEF
Tiger·tec®

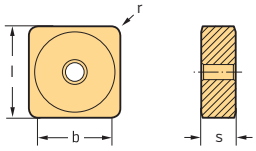


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15
	SNEF1204PNR-B67	E	4	12,7	4,76	0,8	10,8						☻								☻

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts
SNEF
Tiger·tec®



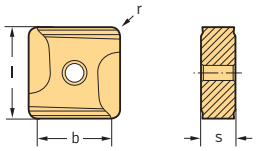
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15
	SNEF1204PNN-A27	E	8	12,7	4,76	1,2	10,3						☻								☻

HC = Coated carbide
HW = Uncoated carbide

☻☻☻ / ★ New addition to the product range

Finishing inserts
SNEX
Tiger·tec®

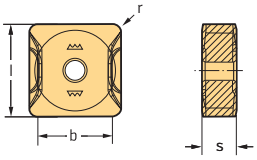


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15
	SNEX1204PNR-B67	E	4	12,7	4,76	0,8	10,8						☺								☺

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts
SNEX
Tiger·tec®

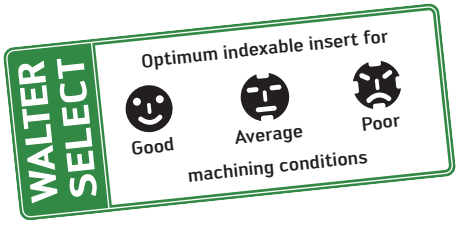


Indexable inserts

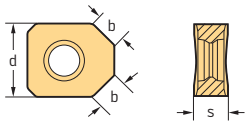
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15
	SNEX1204PNN-A27	E	4	12,7	4,76	1,2	10,3						☺								☺

HC = Coated carbide
HW = Uncoated carbide

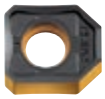
C2



Finishing inserts
XNGX
Tiger·tec®

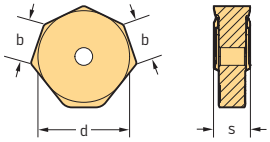


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC			M HC		K HC				N HC	N HW	S HC		H HC	O HC
							WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WHH15	WXM15
	XNGX0904ANN-F67	G	2	9,52	5,27	5						☺								☺	
	XNGX1205ANN-F67	G	2	12,7	6,02	4,7						☻								☻	☻

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts
XNHX
Tiger·tec®



Indexable inserts

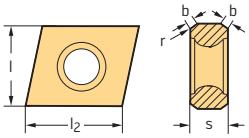
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC			M HC		K HC				N HC	N HW	S HC		H HC
							WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WHH15
	XNHX0906ANN-D67	H	4	19,05	6,35	7,5						☻								☻

HC = Coated carbide
HW = Uncoated carbide

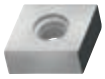
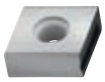
C 2

☺☺☺ / ★ New addition to the product range

Tangential rhombic
CNHQ / CNHU / CNMU
Tiger·tec® Silver



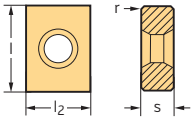
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	CNHQ0805PPN-A57T	H	2	9	8	5	0,8	1,2	●	●						●	●				
	CNHQ1206PPN-A57T	H	2	13	12	6,5	0,8	1,5	●	●						●	●				
	CNHQ1608PPN-A57T	H	2	15	16	8	1,2	1,8	●							●					
	CNHU0805PPN-D57T	H	2	9	8	5	0,8	1,2	●	●	●		●			●	●				●
	CNHU1206PPN-D57T	H	2	13	12	6,5	0,8	1,5	●	●	●		●			●	●				●
	CNHU1608PPN-D57T	H	2	15	16	8	1,2	1,8	●		●		●			●					●
	CNMU080508-D57T	M	2	9	8	5	0,8		●	●	●	●	●			●	●			●	●
	CNMU120608-D57T	M	2	13	12	6,5	0,8		●	●	●	●	●			●	●			●	●
	CNMU160812-D57T	M	2	15	16	8	1,2		●	●	●	●	●			●	●			●	●

Note: l_2 = Width of cut

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic
LNMU
Tiger·tec® Gold



Indexable inserts

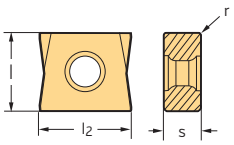
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNMU150812T-F27T	M	4	14	15	8	1,2	●	●	●						●	●	●				
	LNMU201012T-F27T	M	4	16	20	10	1,2	●		●						●		●				
	LNMU150812-F57T	M	4	14	15	8	1,2	●	●	●	●		●	●		●	●	●				●
	LNMU201012-F57T	M	4	16	20	10	1,2	●		●	●		●	●		●		●				●

HC = Coated carbide
HW = Uncoated carbide

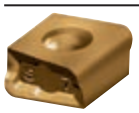
C 2

● ● ● / ★ New addition to the product range

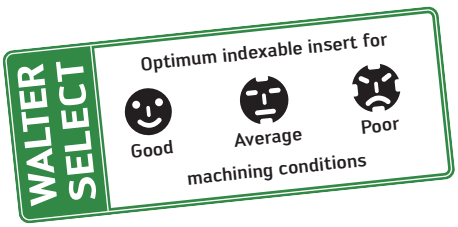
Tangential rhombic
LNHU / LNMU
Tiger·tec® Gold



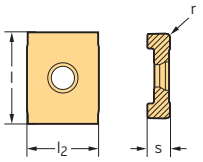
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNHU080304-B57T	H	4	9	8	3,5	0,4		☹	☹					☺		☹	☹				
	LNHU080404-B57T	H	4	9,4	8	4,5	0,4		☹	☹					☺		☹	☹				
	LNHU100508-B57T	H	4	12,3	10	5,5	0,8		☹	☹					☺		☹	☹				
	LNHU120608-B57T	H	4	13,9	12	6,5	0,8		☹	☹					☺		☹	☹				
	LNHU160812-B57T	H	4	16,9	16	8	1,2		☹	☹							☹	☹				
	LNHU080304-F57T	H	4	9	8	3,5	0,4	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹
	LNHU080404-F57T	H	4	9,4	8	4,5	0,4	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹
	LNHU100508-F57T	H	4	12,3	10	5,5	0,8	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹
	LNHU120608-F57T	H	4	13,9	12	6,5	0,8	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹
	LNHU160812-F57T	H	4	16,9	16	8	1,2	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹
	LNMU080304-B57T	M	4	9	8	3,5	0,4		☹	☹					☺		☹	☹				
	LNMU080404-B57T	M	4	9,4	8	4,5	0,4		☹	☹					☺		☹	☹				
	LNMU100508-B57T	M	4	12,3	10	5,5	0,8		☹	☹					☺		☹	☹				
	LNMU120608-B57T	M	4	13,9	12	6,5	0,8		☹	☹					☺		☹	☹				
	LNMU160812-B57T	M	4	16,9	16	8	1,2		☹	☹							☹	☹				
	LNMU080304-F57T	M	4	9	8	3,5	0,4	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹
	LNMU080404-F57T	M	4	9,4	8	4,5	0,4	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹
	LNMU100508-F57T	M	4	12,3	10	5,5	0,8	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹
	LNMU120608-F57T	M	4	13,9	12	6,5	0,8	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹
	LNMU160812-F57T	M	4	16,9	16	8	1,2	☺	☺	☺	☹	☺	☹			☺	☹	☹			☺	☹

HC = Coated carbide
HW = Uncoated carbide



Tangential rhombic
LNHX / LNMX
Tiger·tec® Gold

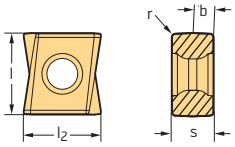


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNHX070204-F57T	H	4	7	9	2,4	0,4	●	●	●	●	●	●			●	●	●			●	●
	LNMX070204-D57T	M	4	7	9	2,4	0,4		●	●					●		●	●				
	LNMX070204-F57T	M	4	7	9	2,4	0,4	●	●	●		●				●	●	●			●	

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic
LNHU / LNMU
Tiger·tec® Gold



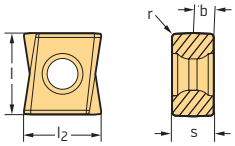
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNHU090404R-L55T	H	4	8,5	9	4,5	0,4	1,5	●	●	●	●	●	●	●	●	●	●	●			●	●
	LNHU090408R-L55T	H	4	8,5	9	4,5	0,8	1,1	●	●	●	●	●	●		●	●	●	●			●	●
	LNHU090412R-L55T	H	4	8,5	9	4,5	1,2	0,8		●	●	●	●	●				●	●			●	●
	LNHU090416R-L55T	H	4	8,5	9	4,5	1,6			●	●	●	●	●				●	●			●	●
	LNHU090420R-L55T	H	4	8,5	9	4,5	2			●	●	●	●	●				●	●			●	●
	LNHU130608R-L55T	H	4	12	13	6,8	0,8	2,2	●	●	●	●	●	●	●	●	●	●	●			●	●
	LNHU130612R-L55T	H	4	12	13	6,8	1,2	1,9		●	●	●	●	●				●	●			●	●
	LNHU130616R-L55T	H	4	12	13	6,8	1,6	1,5		●	●	●	●	●				●	●			●	●
	LNHU130620R-L55T	H	4	12	13	6,8	2	1,2		●	●	●	●	●				●	●			●	●
	LNHU130625R-L55T	H	4	12	13	6,8	2,5	0,7		●	●	●	●	●				●	●			●	●
	LNHU130630R-L55T	H	4	12	13	6,8	3			●	●	●	●	●				●	●			●	●
	LNHU130632R-L55T	H	4	12	13	6,8	3,2			●	●	●	●	●				●	●			●	●
	LNHU160708R-L55T	H	4	15,5	16	7,2	0,8	2,3	●	●	●	●	●	●	●	●	●	●	●			●	●
	LNHU160712R-L55T	H	4	15,5	16	7,2	1,2	1,9		●	●	●	●	●				●	●			●	●
	LNHU160716R-L55T	H	4	15,5	16	7,2	1,6	1,6			●	●	●	●					●			●	●

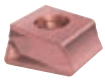
HC = Coated carbide
HW = Uncoated carbide

● ● ● / ★ New addition to the product range

Tangential rhombic
LNHU / LNMU
Tiger·tec® Gold

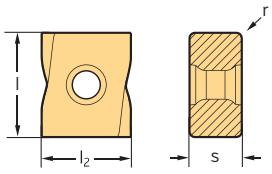


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNHU160720R-L55T	H	4	15,5	16	7,2	2	1,2		☺	☺	☹	☺	☹				☹	☹			☺	☹
	LNHU160725R-L55T	H	4	15,5	16	7,2	2,5	0,8		☺	☺	☹	☺	☹				☹	☹			☺	☹
	LNMU090404R-L55T	M	4	8,5	9	4,5	0,4	1,5	☻	☺	☹	☹		☹		☺	☺	☹	☹				☹
	LNMU130608R-L55T	M	4	12	13	6,8	0,8	2,2	☻	☺	☺	☹		☹		☺	☺	☹	☹				☹
	LNHU090404R-L65T	H	4	8,5	9	4,5	0,4	1,5				☹		☹									☹
	LNHU130608R-L65T	H	4	12	13	6,8	0,8	2,2				☹		☹									☹
	LNHU160708R-L65T	H	4	15,5	16	7,2	0,8	2,3				☹		☹									☹
	LNHU090404R-L85T	H	4	8,5	9	4,5	0,4	1,5												☻	☺		
	LNHU130608R-L85T	H	4	12	13	6,8	0,8	2,2												☻	☺		
	LNHU160708R-L85T	H	4	15,5	16	7,2	0,8	2,3												☻	☺		

HC = Coated carbide
HW = Uncoated carbide

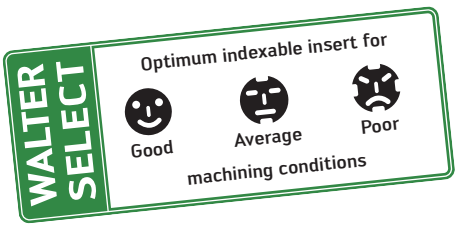
Tangential rhombic
LNMX
Tiger·tec® Gold



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNMX201012R-F27T	M	4	17,05	20	10	1,2	☺	☹	☹					☺	☺	☹	☹				
	LNMX201012R-F57T	M	4	17,05	20	10	1,2	☻	☺	☺	☹		☹		☺	☺	☹	☹				☹

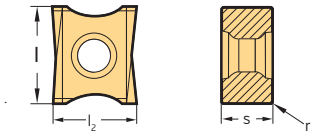
HC = Coated carbide
HW = Uncoated carbide



C 2

Tangential rhombic
LNHX

Tiger·tec® Silver



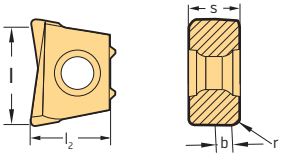
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	LNHX120604R-L65T	H	4	11	12,7	6,8	0,4														★	★

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic
XNHX

Tiger·tec® Silver



Indexable inserts

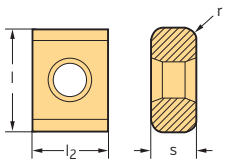
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	XNHX130608R-L65T	H	2	10,5	14	6,8	0,8	2														★	★
	XNHX130612R-L65T	H	2	10,5	14	6,8	1,2	2														★	★
	XNHX130616R-L65T	H	2	10,5	14	6,8	1,6	2														★	★
	XNHX130620R-L65T	H	2	10,5	14	6,8	2	2														★	★
	XNHX130624R-L65T	H	2	10,5	14	6,8	2,4	2														★	★
	XNHX130630R-L65T	H	2	10,5	14	6,8	3	1,4														★	★
	XNHX130632R-L65T	H	2	10,5	14	6,8	3,2	1,3														★	★
	XNHX130640R-L65T	H	2	10,5	14	6,8	4	0,5														★	★

HC = Coated carbide
HW = Uncoated carbide

C2

★ / ★ New addition to the product range

Tangential rhombic
P44280 / P44290
Tiger·tec® Silver

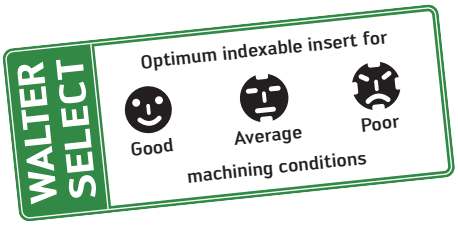


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC			M HC		K HC				N HC	HW	S HC	
								WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S
	P44280-1R08-D57	H	8	9,52	12,7	5,5	0,8	☺			😐				😐				😐	
	P44280-1R10-D57	H	8	9,52	12,7	5,5	1	☺			😐				😐				😐	
	P44280-1R125-D57	H	8	9,52	12,7	5,5	1,25	☺			😐				😐				😐	
	P44280-1R15-D57	H	8	9,52	12,7	5,5	1,5				😐								😐	
	P44280-1R20-D57	H	8	9,52	12,7	5,5	2	☺			😐				😐				😐	
	P44280-2R25-D57	H	8	9,52	12,7	6,35	2,5	☺			😐				😐				😐	
	P44280-2R30-D57	H	8	9,52	12,7	6,35	3	☺			😐				😐				😐	
	P44280-2R40-D57	H	4	9,52	12,7	6,35	4				😐								😐	
	P44290-1R08-D57	M	8	9,52	12,7	5,5	0,8	☺							😐					
	P44290-1R10-D57	M	8	9,52	12,7	5,5	1	☺							😐					
	P44290-1R125-D57	M	8	9,52	12,7	5,5	1,25	☺							😐					
	P44290-1R20-D57	M	8	9,52	12,7	5,5	2	☺							😐					
	P44290-2R25-D57	M	8	9,52	12,7	6,35	2,5	☺							😐					
	P44290-2R30-D57	M	8	9,52	12,7	6,35	3	☺							😐					

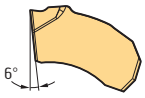
P44280: Tolerance class H
P44290: Tolerance class M

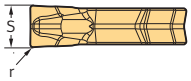
HC = Coated carbide
HW = Uncoated carbide



C 2

Slitting
SX cutting inserts
Tiger·tec® Silver





Cutting inserts

	Designation	s mm	r mm	S_{Tol} mm	P HC WKP23S	P HC WKP25S	P HC WSM33S	P HC WKP35S	P HC WSM43S	P HC WSP45S	M HC WSM23S	M HC WSM33S	M HC WSM35S	M HC WSM43S	M HC WSP45S	K HC WAK15	K HC WKP23S	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	N HW WK1	S HC WSM23S	S HC WSM33S	S HC WSM35S	S HC WSM43S	S HC WSP45S
	SX-1E150N01-SF5	1,5	0,15	±0,05			☺		☹			☺		☹											☺		☹	
	SX-2E200N02-SF5	2	0,2	±0,05			☺		☹			☺		☹											☺		☹	
	SX-3E300N02-SF5	3	0,2	±0,05			☺		☹			☺		☹											☺		☹	
	SX-4E400N02-SF5	4	0,2	±0,05			☺		☹			☺		☹											☺		☹	
	SX-5E500N04-SF5	5	0,4	±0,05			☺		☹			☺		☹											☺		☹	
	SX-1E150N01-CE4	1,5	0,15	±0,05			☺		☹			☺		☹											☺		☹	
	SX-2E200N02-CE4	2	0,2	±0,05	☻		☺		☹		☻	☺		☹			☻							☻	☺		☹	
	SX-3E300N02-CE4	3	0,2	±0,05	☻		☺		☹		☻	☺		☹			☻							☻	☺		☹	
	SX-4E400N02-CE4	4	0,2	±0,05	☻		☺		☹		☻	☺		☹			☻							☻	☺		☹	
	SX-5E500N04-CE4	5	0,4	±0,05	☻		☺		☹		☻	☺		☹			☻							☻	☺		☹	
	SX-6E600N04-CE4	6	0,4	±0,05	☻		☺		☹			☺		☹			☻								☺		☹	
	SX-1E150N01-CF6	1,5	0,15	±0,05			☺		☹			☺		☹											☺		☹	
	SX-2E200N02-CF6	2	0,2	±0,05			☺		☹			☺		☹											☺		☹	
	SX-3E300N02-CF6	3	0,2	±0,05			☺		☹			☺		☹											☺		☹	
	SX-1E150N01-SK8	1,5	0,1	±0,02																		☻					
	SX-2E200N02-SK8	2	0,2	±0,02																		☻					
	SX-3E300N02-SK8	3	0,2	±0,02																		☻					
	SX-4E400N02-SK8	4	0,2	±0,02																		☻					
	SX-5E500N04-SK8	5	0,4	±0,02																		☻					
	SX-6E600N04-SK8	6	0,4	±0,02																		☻					

l_{Tol} = Repeat accuracy when changing indexable insert
Radius tolerance r_{Tol} = ±0.05 mm

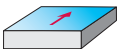
HC = Coated carbide
HW = Uncoated carbide

C2

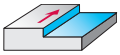
☺☻☹ / ★ New addition to the product range

Indexable insert milling cutters product range overview

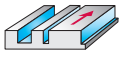
Face milling cutters

Machining						
κ	15°		45°			
Designation	**F2010**	**M4002**	**F2010**	**M4003**	**M3024 Walter BLAXX**	**M5009 Xtra·tec® XT**
Dia. range [mm]	70–305	8–102	80–315	20–160	40–160	25–100
Diameter range [inch]	2.604–11.604	0.750–4.000	3.000–12.000	0.750–6.000	1.500–6.000	1.000–4.000
Page	542	564	546	570	554	578
						

Shoulder milling cutters

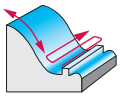
Machining					
κ	90°				
Designation	**F2010**	**M2136**	**M2331**	**M4130**	**M5130 Xtra·tec® XT**
Dia. range [mm]	80–315	50–160	32–50	16–100	10–160
Diameter range [inch]	3.000–12.000	2.000–6.000	1.500–2.000	–	0.500–6.000
Page	582	590	594	598	600
					

Slot milling cutters

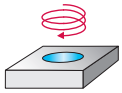
Machining				
κ	90°			
Designation	**M4791**	**M3255 Walter BLAXX**	**M4258**	**F5055 Walter BLAXX**
Dia. range [mm]	–	50–80	50–80	63–250
Diameter range [inch]	0.750–1.500	2.000–3.000	2.000–3.000	2.480–6.299
Page	616	618	622	634
				

C 2

Copy milling cutters

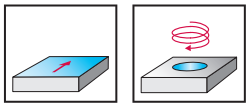
Machining	
κ	–
Designation	**M2471**
Dia. range [mm]	32–63
Diameter range [inch]	2.000–2.500
Page	640
	

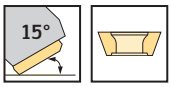
Circular interpolation cutters

Machining				
κ	**15°**	**90°**		
Designation	**M4002**	**M2331**	**M4130**	**M5130 Xtra·tec® XT**
Dia. range [mm]	8–102	32–50	16–100	10–160
Diameter range [inch]	0.750–4.000	1.500–2.000	–	0.500–6.000
Page	564	594	598	600
				

Face milling cutters
F2010 mm
SDM . 1204 ..

– Adjustable runout
– Four cutting edges per indexable insert





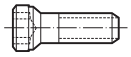
	P	M	K	N	S	H	O
F2010	●●	●●	●●		●●	●	

Tool	Designation	D_c mm	D_a * mm	d_1 mm	l_4 mm	L_c mm	a_r mm	Z	kg	No. of index-able inserts	Type
Parallel bore DIN 138 transverse keyway	F2010.B.080.Z06.08.R755M	70	93	27	50	2	11,4	6	1,3	6	SDM . 1204 ..
Parallel bore DIN 138 transverse keyway	F2010.B.100.Z07.08.R755M	90	113	32	50	2	11,4	7	1,9	7	SDM . 1204 ..
	F2010.B.125.Z08.08.R755M	115	138	40	63	2	11,4	8	3,6	8	
Parallel bore DIN 138 transverse keyway	F2010.B.160.Z10.08.R755M	150	173	40/40 B	63	2	11,4	10	5,6	10	SDM . 1204 ..
	F2010.B.200.Z12.08.R755M	190	213	60/50 B	63	2	11,4	12	8,3	12	
	F2010.B.250.Z12.08.R755M	240	263	60/50 B	63	2	11,4	12	14,8	12	
	F2010.B.250.Z16.08.R755M	240	263	60/50 B	63	2	11,4	16	14,6	16	
Parallel bore DIN 138 transverse keyway	F2010.B.315.Z14.08.R755M	305	328	60/50-60 BB	80	2	11,4	14	26,3	14	SDM . 1204 ..
	F2010.B.315.Z18.08.R755M	305	328	60/50-60 BB	80	2	11,4	18	26,2	18	

* Measured against SDM.120408
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_c [mm]	70–305
	Cartridge for tool body	FR755M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm
	Adjusting pin	FS303 (Torx 20)

Accessories

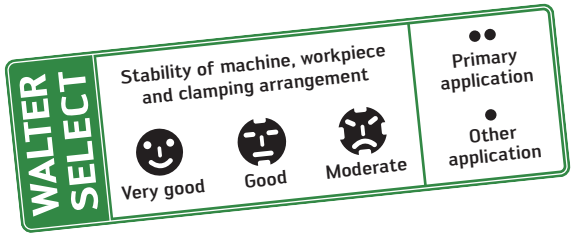
	D_c [mm]	70–305
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade for screwdriver	FS2014 (Torx 15IP)
	Torque T-handle Tightening torque	FS2041 4,5–14 Nm
	Interchangeable blade for cartridge	FS2051 (SW 4)
	Screwdriver for indexable insert	FS1485 (Torx 15IP)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDMT1204ZDR-D57	0,8	1,8		●●	●●	●			●			●	●			●
	SDMT120408-D57	0,8		●●	●●	●●	●	●●		●		●●	●●	●	●	●●		●
	SDMT120408-F57	0,8		●●	●●	●●	●	●●	●	●	●●		●●	●	●	●●	●	●
	SDMT120425-F57	2,5			●●	●●	●	●●	●	●				●	●	●●	●	●
	SDMW120408-A57	0,8		●●	●	●							●●	●	●			

SD..1204.. : If the corner radius is r > 0.8 mm, the corner area of the cartridge must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

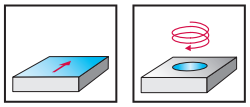
HC = Coated carbide

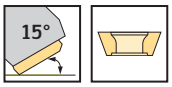


C 2

Face milling cutters
F2010 inch
SDM . 1204 ..

– Adjustable runout
– Four cutting edges per indexable insert





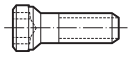
	P	M	K	N	S	H	O
F2010	●●	●●	●●		●●	●	

Tool	Designation	D_c Inch	D_a * Inch	d_1 Inch	l_4 Inch	L_c Inch	a_r Inch	Z	lbs	No. of index-able inserts	Type
Parallel bore DIN 138 transverse keyway	F2010.UB.076.Z06.08R755M	2,604	3,509	1,000	2,000	0,079	0,449	6	3,3	6	
	F2010.UB.102.Z07.08R755M	3,604	4,509	1,250	2,000	0,079	0,449	7	5,7	7	SDM . 1204 ..
	F2010.UB.127.Z08.08R755M	4,604	5,509	1,500	2,500	0,079	0,449	8	7,5	8	
Parallel bore DIN 138 transverse keyway	F2010.UB.152.Z10.08R755M	5,604	6,509	1,500	2,500	0,079	0,449	10	14,6	10	SDM . 1204 ..
Parallel bore DIN 138 transverse keyway	F2010.UB.203.Z12.08R755M	7,604	8,509	2,500	2,500	0,079	0,449	12	21,4	12	
	F2010.UB.254.Z12.08R755M	9,604	10,509	2,500	2,500	0,079	0,449	12	36,4	12	SDM . 1204 ..
	F2010.UB.254.Z16.08R755M	9,604	10,509	2,500	2,500	0,079	0,449	16	36,4	16	
Parallel bore DIN 138 transverse keyway	F2010.UB.305.Z18.08R755M	11,604	12,509	2,500	2,500	0,079	0,449	18	45,6	18	SDM . 1204 ..

* Measured against SDM.120408
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_c [Inch]	2,604	3,604	4,604–5,604	7,604–11,604
	Cartridge for tool body	FR755M	FR755M	FR755M	FR755M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm
	Adjusting pin	FS303 (Torx 20)	FS303 (Torx 20)	FS303 (Torx 20)	FS303 (Torx 20)
	Clamping screw for arbour-mounted tools	FS1519	FS1565	FS1566	

Accessories

	D_c [Inch]	2,604–11,604
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade for screwdriver	FS2014 (Torx 15IP)
	Torque T-handle Tightening torque	FS2042 4,5–14 Nm
	Interchangeable blade for cartridge	FS2051 (SW 4)
	Screwdriver for indexable insert	FS1485 (Torx 15IP)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

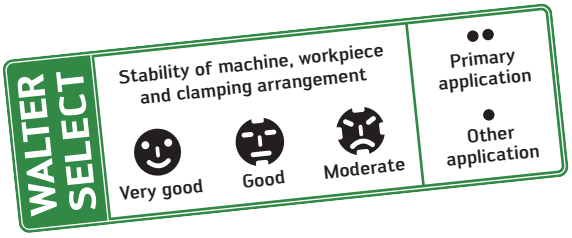
Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDMT1204ZDR-D57	0,8	1,8		●●	●●	●			●				●	●			●
	SDMT120408-D57	0,8		●●	●●	●●	●	●●		●		●●	●●	●	●	●●		●
	SDMT120408-F57	0,8		●●	●●	●●	●	●●	●	●	●●		●●	●	●	●●	●●	●	●
	SDMT120425-F57	2,5			●●	●●	●	●●	●	●				●	●	●●	●●	●	●
	SDMW120408-A57	0,8		●●	●	●							●●	●	●				

SD..1204.. : If the corner radius is r > 0.8 mm, the corner area of the cartridge must be reworked.

HC = Coated carbide

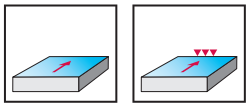
$R_{(body)} = r_{(indexable\ insert)}$

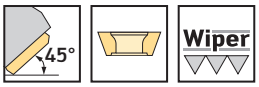


C 2

Face milling cutters
F2010 mm
SD .. 1204AZN

– Adjustable runout
– Four cutting edges per indexable insert





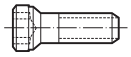
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	F2010.B.080.Z06.06.R758M	80	94	27	50	7	6	1,2	6	SD .. 1204AZN SDHX1204AZR
Parallel bore DIN 138 transverse keyway	F2010.B.100.Z07.06.R758M	100	114	32	50	7	7	1,8	7	SD .. 1204AZN SDHX1204AZR
	F2010.B.125.Z08.06.R758M	125	139	40	63	7	8	3,5	8	
Parallel bore DIN 138 transverse keyway	F2010.B.160.Z10.06.R758M	160	174	40/40 B	63	7	10	5,5	10	SD .. 1204AZN SDHX1204AZR
	F2010.B.200.Z12.06.R758M	200	214	60/50 B	63	7	12	8,3	12	
	F2010.B.250.Z12.06.R758M	250	264	60/50 B	63	7	12	14,7	12	
	F2010.B.250.Z16.06.R758M	250	264	60/50 B	63	7	16	14,6	16	
Parallel bore DIN 138 transverse keyway	F2010.B.315.Z14.06.R758M	315	329	60/50-60 BB	80	7	14	26,3	14	SD .. 1204AZN SDHX1204AZR
	F2010.B.315.Z18.06.R758M	315	329	60/50-60 BB	80	7	18	26,2	18	

Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_c [mm]	80–315
	Cartridge for tool body	FR758M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm
	Adjusting pin	FS303 (Torx 20)

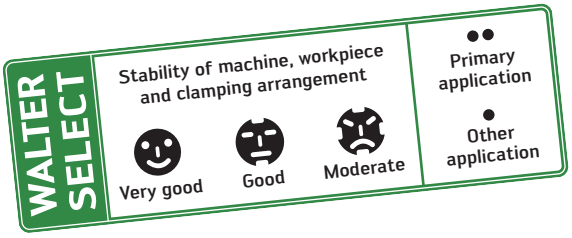
Accessories

	D_c [mm]	80–315
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade for screwdriver	FS2014 (Torx 15IP)
	Torque T-handle Tightening torque	FS2041 4,5–14 Nm
	Interchangeable blade for cartridge	FS2051 (SW 4)
	Screwdriver for indexable insert	FS1485 (Torx 15IP)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HC WNN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	SDHX1204AZR-A88		7,5								☺											☺	☺
	SDGT1204AZN-F57	0,3	1,8	☺	😐	😠	☹	😐		☹	☺		😐	☹	☹				😐		☹		
	SDGT1204AZN-G77	0,3	1,4				☹			☹											☹		
	SDHT1204AZN-G88	0,3	1,4													☺	☺	☺					
	SDMT1204AZN-D57	0,3	1,4	☺	😐	😠	☹	😐		☹	☺	😐	😐	☹	☹				😐		☹		
	SDMT1204AZN-F57	0,3	1,8	☺	😐	😠	☹		☹	☹			😐	☹	☹					☹	☹		
	SDMW1204AZN-A57	0,3	1,4	😐	☹	☹					☺		😐	☹	☹								

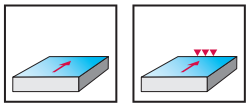
HC = Coated carbide
HW = Uncoated carbide

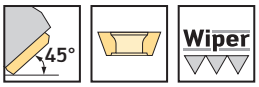


C 2

Face milling cutters
F2010 inch
SD .. 1204AZN

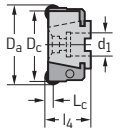
– Adjustable runout
– Four cutting edges per indexable insert

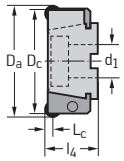


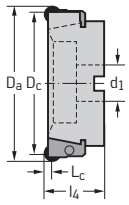


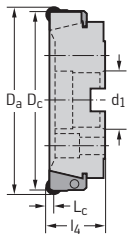
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c Inch	D_a Inch	d_1 Inch	l_4 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	F2010.UB.076.Z06.06R758M	3,000	3,551	1,000	2,000	0,276	6	2,4	6	SD .. 1204AZN SDHX1204AZR
	F2010.UB.102.Z07.06R758M	4,000	4,551	1.250	2,000	0,276	7	4,3	7	
	F2010.UB.127.Z08.06R758M	5,000	5,551	1.500	2,500	0,276	8	7,5	8	
Parallel bore DIN 138 transverse keyway	F2010.UB.152.Z10.06R758M	6,000	6,551	1.500	2,500	0,276	10	13,1	10	SD .. 1204AZN SDHX1204AZR
Parallel bore DIN 138 transverse keyway	F2010.UB.203.Z12.06R758M	8,000	8,551	2.50/4.0	2,500	0,276	12	21,6	12	SD .. 1204AZN SDHX1204AZR
	F2010.UB.254.Z12.06R758M	10,000	10,551	2.50/4.0	2,500	0,276	12	39,6	12	
	F2010.UB.254.Z16.06R758M	10,000	10,551	2.50/4.0	2,500	0,276	16	38,6	16	
Parallel bore DIN 138 transverse keyway	F2010.UB.305.Z18.06R758M	12,000	12,551	2.50/4.0/7.0	2,500	0,276	18	49,5	18	SD .. 1204AZN SDHX1204AZR





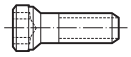




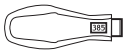
Bodies and assembly parts are included in the scope of delivery.

C 2

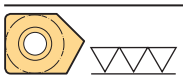
Assembly parts

	D_c [Inch]	3,000	4,000	5,000–6,000	8,000–12,000
	Cartridge for tool body	FR758M	FR758M	FR758M	FR758M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm
	Adjusting pin	FS303 (Torx 20)	FS303 (Torx 20)	FS303 (Torx 20)	FS303 (Torx 20)
	Clamping screw for arbour-mounted tools	FS1519	FS1565	FS1566	

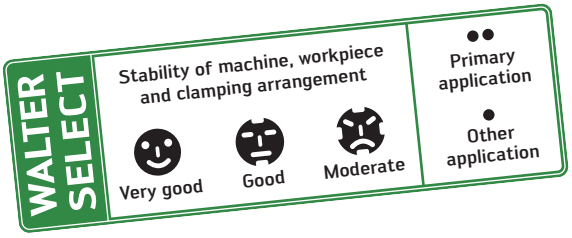
Accessories

	D_c [Inch]	3,000–12,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade for screwdriver	FS2014 (Torx 15IP)
	Torque T-handle Tightening torque	FS2042 4,5–14 Nm
	Interchangeable blade for cartridge	FS2051 (SW 4)
	Screwdriver for indexable insert	FS1485 (Torx 15IP)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HC WNN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	SDHX1204AZR-A88		7,5								☺											☺	☺
	SDGT1204AZN-F57	0,3	1,8	☺	😐	☹	☠	😐		☠	☺		😐	☠	☠				😐		☠		
	SDGT1204AZN-G77	0,3	1,4				☠			☠											☠		
	SDHT1204AZN-G88	0,3	1,4													☺	☺	☺					
	SDMT1204AZN-D57	0,3	1,4	☺	😐	☹	☠	😐		☠	☺	😐	😐	☠	☠				😐		☠		
	SDMT1204AZN-F57	0,3	1,8	☺	😐	☹	☠		☠	☠			😐	☠	☠					☠	☠		
	SDMW1204AZN-A57	0,3	1,4	😐	☠	☹					☺		😐	☠	☠								

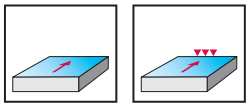
HC = Coated carbide
HW = Uncoated carbide

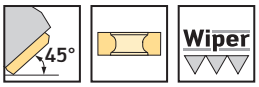


C 2

Face milling cutters
F2010 mm
XN . U0705 ..

– Adjustable runout
– 14 cutting edges per indexable insert





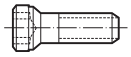
	P	M	K	N	S	H	O
F2010	●●	●●	●●		●●		

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	F2010.B.080.Z06.04.R759M	80	90	27	50	4	6	1,2	6	XN . U0705 .. XNGX0705ANN
	F2010.B.100.Z07.04.R759M	100	110	32	50	4	7	1,8	7	XN . U0705 .. XNGX0705ANN
	F2010.B.125.Z08.04.R759M	125	135	40	63	4	8	3,5	8	
	F2010.B.160.Z10.04.R759M	160	170	40/40 B	63	4	10	5,5	10	
	F2010.B.200.Z12.04.R759M	200	210	60/50 B	63	4	12	8,3	12	XN . U0705 .. XNGX0705ANN
	F2010.B.250.Z12.04.R759M	250	260	60/50 B	63	4	12	14,7	12	
	F2010.B.250.Z16.04.R759M	250	260	60/50 B	63	4	16	14,6	16	
	F2010.B.315.Z14.04.R759M	315	325	60/50-60 BB	80	4	14	26,3	14	XN . U0705 .. XNGX0705ANN
	F2010.B.315.Z18.04.R759M	315	325	60/50-60 BB	80	4	18	26,2	18	

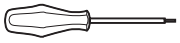
Bodies and assembly parts are included in the scope of delivery.

C 2

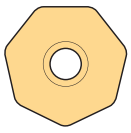
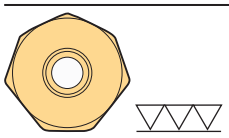
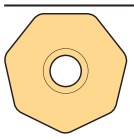
Assembly parts

	D_c [mm]	80–315
	Cartridge for tool body	FR759M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
	Clamping screw for insert Tightening torque	FS2119 (Torx 15IP) 3,0 Nm
	Adjusting pin	FS303 (Torx 20)

Accessories

	D_c [mm]	80–315
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade for screwdriver	FS2014 (Torx 15IP)
	Torque T-handle Tightening torque	FS2041 4,5–14 Nm
	Screwdriver for indexable insert	FS1485 (Torx 15IP)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	Interchangeable blade for cartridge	FS2051 (SW 4)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	XNGU0705ANN-F57	0,8	1,1	●	●	●	○	●		○			●	○	○							
	XNGU0705ANN-F67	0,8	1,1	●	●	●	○	●		○			●	○	○							
	XNGX0705ANN-F67		5,7								●										●	●
	XNMU070508-F57	0,8		●	●	●	○	●		○			●	○	○			●				
	XNMU0705ANN-F27	0,8	1,1	◐	○	○						◐	●	○	○							
	XNMU0705ANN-F57	0,8	1,1	●	●	●	○	●		○			●	○	○			●				
	XNMU0705ANN-F67	0,8	1,1	●	●	●		●	○				●	○	○			●	○			

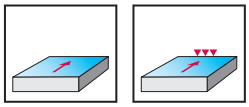
XNGX0705ANN-F67 wiper insert only in combination with XNGU0705ANN . .

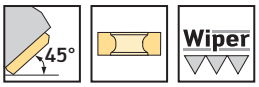
HC = Coated carbide
HW = Uncoated carbide

C 2

Face milling cutters
F2010 inch
XN . U0705 ..

– Adjustable runout
– 14 cutting edges per indexable insert





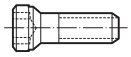
	P	M	K	N	S	H	O
F2010	●●	●●	●●		●●		

Tool	Designation	D_c Inch	D_a Inch	d_1 Inch	l_4 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	F2010.UB.076.Z06.04R759M	3,000	3,394	1,000	2,000	0,157	6	2,4	6	XN . U0705 .. XNGX0705ANN
	F2010.UB.102.Z07.04R759M	4,000	4,394	1.250	2,000	0,157	7	4,3	7	
	F2010.UB.127.Z08.04R759M	5,000	5,394	1.500	2,500	0,157	8	7,5	8	
Parallel bore DIN 138 transverse keyway	F2010.UB.152.Z10.04R759M	6,000	6,394	1.500	2,500	0,157	10	13,1	10	XN . U0705 .. XNGX0705ANN
Parallel bore DIN 138 transverse keyway	F2010.UB.203.Z12.04R759M	8,000	8,394	2.50/4.0	2,500	0,157	12	21,6	12	XN . U0705 .. XNGX0705ANN
	F2010.UB.254.Z12.04R759M	10,000	10,394	2.50/4.0	2,500	0,157	12	39,6	12	
	F2010.UB.254.Z16.04R759M	10,000	10,394	2.50/4.0	2,500	0,157	16	38,6	16	
Parallel bore DIN 138 transverse keyway	F2010.UB.305.Z18.04R759M	12,000	12,394	2.50/4.0/7.0	2,500	0,157	18	49,5	18	XN . U0705 .. XNGX0705ANN

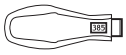
Bodies and assembly parts are included in the scope of delivery.

C 2

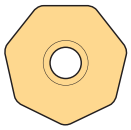
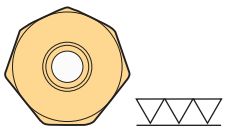
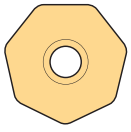
Assembly parts

	D_c [Inch]	3,000	4,000	5,000–6,000	8,000–12,000
	Cartridge for tool body	FR759M	FR759M	FR759M	FR759M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm
	Clamping screw for insert Tightening torque	FS2119 (Torx 15IP) 3,0 Nm	FS2119 (Torx 15IP) 3,0 Nm	FS2119 (Torx 15IP) 3,0 Nm	FS2119 (Torx 15IP) 3,0 Nm
	Adjusting pin	FS303 (Torx 20)	FS303 (Torx 20)	FS303 (Torx 20)	FS303 (Torx 20)
	Clamping screw for arbour-mounted tools	FS1519	FS1565	FS1566	

Accessories

	D_c [Inch]	3,000–12,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade for screwdriver	FS2014 (Torx 15IP)
	Torque T-handle Tightening torque	FS2042 4,5–14 Nm
	Interchangeable blade for cartridge	FS2051 (SW 4)
	Screwdriver for indexable insert	FS1485 (Torx 15IP)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	XNGU0705ANN-F57	0,8	1,1	●	●	●	●	●		●			●	●	●							
	XNGU0705ANN-F67	0,8	1,1	●	●	●	●	●		●			●	●	●							
	XNGX0705ANN-F67		5,7								●										●	●
	XNMU070508-F57	0,8		●	●	●	●	●		●			●	●	●			●				
	XNMU0705ANN-F27	0,8	1,1	◐	●	●						◐	●	●	●							
	XNMU0705ANN-F57	0,8	1,1	●	●	●	●	●		●			●	●	●			●				
	XNMU0705ANN-F67	0,8	1,1	●	●	●		◐	◐				●	●	●			●	◐			

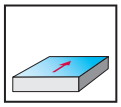
XNGX0705ANN-F67 wiper insert only in combination with XNGU0705ANN . .

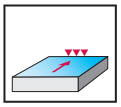
HC = Coated carbide
HW = Uncoated carbide

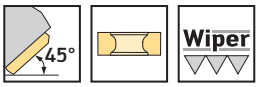
C2

Heptagon face milling cutters
M3024 mm
XN . U0705 ..
Walter BLAXX

– 14 cutting edges per indexable insert







	P	M	K	N	S	H	O
M3024	●●	●●	●●		●●		

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
ScrewFit	M3024-040-T36-03-04	40	50	T36	40		4	3	0,4	3	XN . U0705 .. XNGX0705ANN
Shank DIN 1835 B	M3024-040-W40-03-04	40	50	40	40	110	4	3	1,0	3	XN . U0705 .. XNGX0705ANN
Parallel bore DIN 138 transverse keyway	M3024-040-B16-03-04	40	50	16	40		4	3	0,5	3	XN . U0705 .. XNGX0705ANN
	M3024-050-B22-04-04	50	60	22	40		4	4	0,5	4	
	M3024-050-B22-05-04	50	60	22	40		4	5	0,5	5	
	M3024-063-B22-05-04	63	73	22	40		4	5	0,8	5	
	M3024-063-B22-06-04	63	73	22	40		4	6	0,8	6	
	M3024-080-B27-06-04	80	90	27	50		4	6	1,5	6	
	M3024-080-B27-07-04	80	90	27	50		4	7	1,5	7	
	M3024-100-B32-07-04	100	110	32	50		4	7	2,7	7	
	M3024-100-B32-08-04	100	110	32	50		4	8	2,7	8	
	M3024-125-B40-08-04	125	135	40	63		4	8	4,3	8	
	M3024-125-B40-10-04	125	135	40	63		4	10	4,3	10	

Bodies and assembly parts are included in the scope of delivery.

C 2

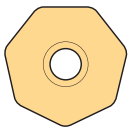
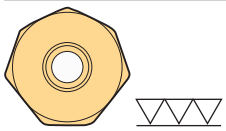
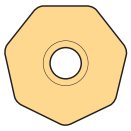
Assembly parts

	D_c [mm]	40–125
	Shim for indexable insert	AP800-XN0705 H81
	Clamping screw for shim	FS2068 (SW 3,5)
	Clamping screw for insert Tightening torque	FS2279 (Torx 15IP) 3,0 Nm

Accessories

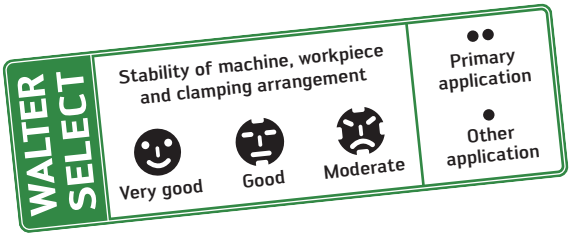
	D_c [mm]	40–125
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)
	Key for screw for shim	ISO2936-3,5 (SW 3,5)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	XNGU0705ANN-F57	0,8	1,1	☺	😐	😐	☹	😐		☹			😐	☹	☹							
	XNGU0705ANN-F67	0,8	1,1	☺	😐	😐	☹	😐		☹			😐	☹	☹							
	XNGX0705ANN-F67		5,7								☺										☺	☺
	XNMU070508-F57	0,8		☺	😐	😐	☹	😐		☹			😐	☹	☹			😐				
	XNMU0705ANN-F27	0,8	1,1	😐	☹	☹						😐	😐	☹	☹							
	XNMU0705ANN-F57	0,8	1,1	☺	😐	😐	☹	😐		☹			😐	☹	☹			😐				
	XNMU0705ANN-F67	0,8	1,1	☺	😐	😐		😐	☹				😐	☹	☹			😐	☹			

XNGX0705ANN-F67 wiper insert only in combination with XNGU0705ANN . .

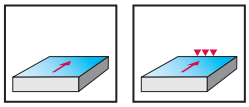
HC = Coated carbide
HW = Uncoated carbide

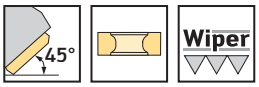


C 2

Heptagon face milling cutters
M3024 mm
XN . U0705 ..
Walter BLAXX

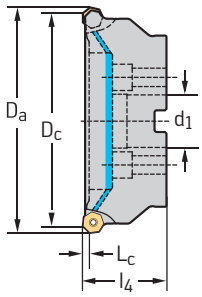
– 14 cutting edges per indexable insert





	P	M	K	N	S	H	O
M3024	●●	●●	●●		●●		

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	M3024-160-B40-09-04	160	170	40/40 B	63		4	9	6,5	9	XN . U0705 .. XNGX0705ANN
	M3024-160-B40-12-04	160	170	40/40 B	63		4	12	6,5	12	



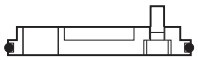
Bodies and assembly parts are included in the scope of delivery.

C 2

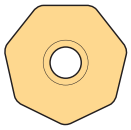
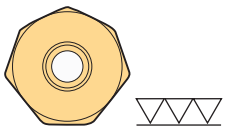
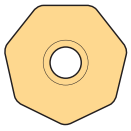
Assembly parts

	D_c [mm]	160
	Shim for indexable insert	AP800-XN0705 H81
	Clamping screw for shim	FS2068 (SW 3,5)
	Clamping screw for insert Tightening torque	FS2279 (Torx 15IP) 3,0 Nm

Accessories

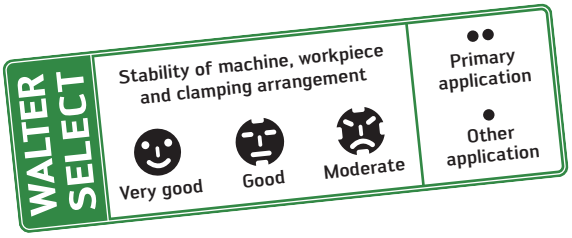
	D_c [mm]	160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)
	Key for screw for shim	ISO2936-3,5 (SW 3,5)
	Sealing disc set (incl. gasket and screws)	FS936 COMPLETE SET
	Gasket	O-R 96X4

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	XNGU0705ANN-F57	0,8	1,1	☺	😐	😐	☹	😐		☹			😐	☹	☹							
	XNGU0705ANN-F67	0,8	1,1	☺	😐	😐	☹	😐		☹			😐	☹	☹							
	XNGX0705ANN-F67		5,7								☺										☺	☺
	XNMU070508-F57	0,8		☺	😐	😐	☹	😐		☹			😐	☹	☹			😐				
	XNMU0705ANN-F27	0,8	1,1	😐	☹	☹						😐	😐	☹	☹							
	XNMU0705ANN-F57	0,8	1,1	☺	😐	😐	☹	😐		☹			😐	☹	☹			😐				
	XNMU0705ANN-F67	0,8	1,1	☺	😐	😐		😐	☹				😐	☹	☹			😐	☹			

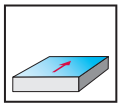
XNGX0705ANN-F67 wiper insert only in combination with XNGU0705ANN . .

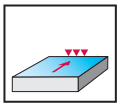
HC = Coated carbide
HW = Uncoated carbide

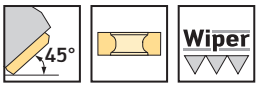


Heptagon face milling cutters
M3024 inch
XN . U0705 ..
Walter BLAXX

– 14 cutting edges per indexable insert







	P	M	K	N	S	H	O
M3024	●●	●●	●●		●●		

Tool	Designation	D_c Inch	D_a Inch	d_1 Inch	l_4 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Shank DIN 1835 B	M3024.038-W38-03-04	1,500	1,886	0,375	1,500	0,157	3	1,8	3	XN . U0705 .. XNGX0705ANN
Parallel bore DIN 138 transverse keyway	M3024.038-B13-03-04	1,500	1,886	0,500	1,575	0,157	3	0,5	3	XN . U0705 .. XNGX0705ANN
	M3024.051-B19-04-04	2,000	2,386	0,750	1,575	0,157	4	1,3	4	
	M3024.064-B26-06-04	2,500	2,886	1,000	1,575	0,157	6	1,8	6	
	M3024.076-B26-07-04	3,000	3,386	1,000	1,969	0,157	7	3,0	7	
	M3024.102-B31-08-04	4,000	4,386	1,250	1,969	0,157	8	4,8	8	
	M3024.127-B38-10-04	5,000	5,386	1,500	2,480	0,157	10	9,9	10	
	M3024.152-B38-12-04	6,000	6,386	1,500	2,480	0,157	12	15,7	12	

Bodies and assembly parts are included in the scope of delivery.

C 2

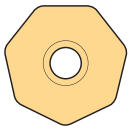
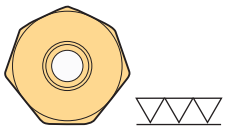
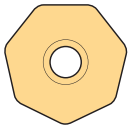
Assembly parts

	D_c [Inch]	1,500	2,000	2,500–3,000	4,000	5,000–6,000
	Shim for indexable insert	AP800-XN0705 H81	AP800-XN0705 H81	AP800-XN0705 H81	AP800-XN0705 H81	AP800-XN0705 H81
	Clamping screw for shim	FS2068 (SW 3,5)	FS2068 (SW 3,5)	FS2068 (SW 3,5)	FS2068 (SW 3,5)	FS2068 (SW 3,5)
	Clamping screw for insert Tightening torque	FS2279 (Torx 15IP) 3,0 Nm	FS2279 (Torx 15IP) 3,0 Nm	FS2279 (Torx 15IP) 3,0 Nm	FS2279 (Torx 15IP) 3,0 Nm	FS2279 (Torx 15IP) 3,0 Nm
	Clamping screw for arbour-mounted tools	FS1597	FS1523	FS1519	FS1339	FS1583

Accessories

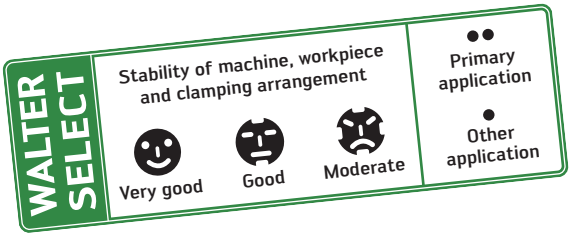
	D_c [Inch]	1,500–6,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)
	Key for screw for shim	ISO2936-3,5 (SW 3,5)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	XNGU0705ANN-F57	0,8	1,1	☺	😐	😐	☹	😐		☹			😐	☹	☹							
	XNGU0705ANN-F67	0,8	1,1	☺	😐	😐	☹	😐		☹			😐	☹	☹							
	XNGX0705ANN-F67		5,7								☺										☺	☺
	XNMU070508-F57	0,8		☺	😐	😐	☹	😐		☹			😐	☹	☹			😐				
	XNMU0705ANN-F27	0,8	1,1	😐	☹	☹						😐	😐	☹	☹							
	XNMU0705ANN-F57	0,8	1,1	☺	😐	😐	☹	😐		☹			😐	☹	☹			😐				
	XNMU0705ANN-F67	0,8	1,1	☺	😐	😐		😐	☹				😐	☹	☹			😐	☹			

XNGX0705ANN-F67 wiper insert only in combination with XNGU0705ANN . .

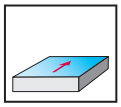
HC = Coated carbide
HW = Uncoated carbide

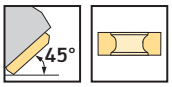


C 2

Heptagon face milling cutters
M3024 mm
XNMU0906 ..
Walter BLAXX

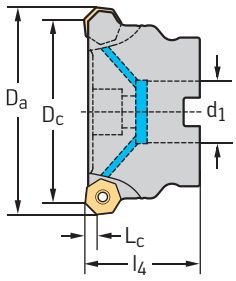
– 14 cutting edges per indexable insert

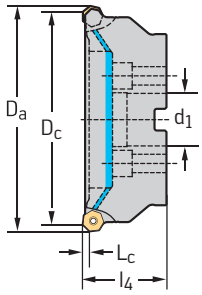




	P	M	K	N	S	H	O
M3024	●●	●●	●●		●●		

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	M3024-063-B22-05-06	63	76	22	40	6	5	0,6	5	XNMU0906 ..
	M3024-080-B27-06-06	80	93	27	50	6	6	1,4	6	
	M3024-100-B32-07-06	100	113	32	50	6	7	2,7	7	
	M3024-125-B40-08-06	125	138	40	63	6	8	4,2	8	
Parallel bore DIN 138 transverse keyway	M3024-160-B40-09-06	160	173	40/40 B	63	6	9	6,5	9	XNMU0906 ..





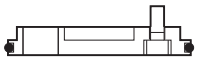
Bodies and assembly parts are included in the scope of delivery.

C2

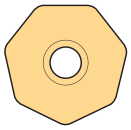
Assembly parts

	D_c [mm]	63–160
	Shim for indexable insert	AP800-XN0906 H81
	Clamping screw for shim	FS2091 (SW 5)
	Clamping screw for insert Tightening torque	FS2112 (Torx 20IP) 5,0 Nm

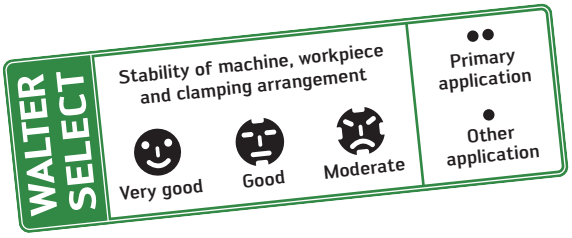
Accessories

	D_c [mm]	63–125	160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2015 (Torx 20IP)	FS2015 (Torx 20IP)
	Screwdriver	FS1486 (Torx 20IP)	FS1486 (Torx 20IP)
	Key for screw for shim	ISO2936-5 (SW 5)	ISO2936-5 (SW 5)
	Sealing disc set (incl. gasket and screws)		FS936 COMPLETE SET
	Gasket		O-R 96X4

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	XNMU090612-F57	1,2		●●	●●	●	○			○			●●	○	●					
	XNMU0906ANN-F27	0,8	1,4	●●	○	●						●●	●●	○	●					
	XNMU0906ANN-F57	0,8	1,4	●●	●●	●	○	●●		○			●●	○	●			●●		
	XNMU0906ANN-F67	0,8	1,4	●●	●●	●			○				●●	○	●				○	

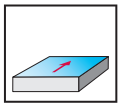
HC = Coated carbide
HW = Uncoated carbide

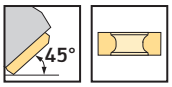


C 2

Heptagon face milling cutters
M3024 inch
XNMU0906 ..
Walter BLAXX

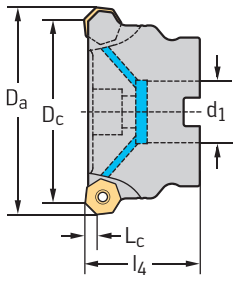
– 14 cutting edges per indexable insert

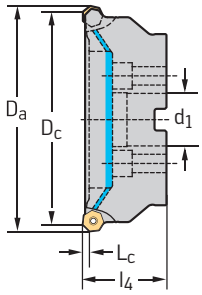




	P	M	K	N	S	H	O
M3024	●●	●●	●●		●●		

Tool	Designation	D_c Inch	D_a Inch	d_1 Inch	l_4 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	M3024.064-B26-05-06	2,500	3,006	1,000	1,575	0,236	5	1,8	5	XNMU0906 ..
	M3024.076-B26-06-06	3,000	3,506	1,000	1,969	0,236	6	2,9	6	
	M3024.102-B31-07-06	4,000	4,506	1,250	1,969	0,236	7	6,2	7	
	M3024.127-B38-08-06	5,000	5,506	1,500	2,480	0,236	8	9,8	8	
Parallel bore DIN 138 transverse keyway	M3024.152-B38-09-06	6,000	6,506	1,500	2,480	0,236	9	15,7	9	XNMU0906 ..

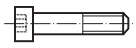




Bodies and assembly parts are included in the scope of delivery.

C2

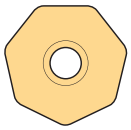
Assembly parts

	D_c [Inch]	2,500	3,000	4,000	5,000–6,000
	Shim for indexable insert	AP800-XN0906 H81	AP800-XN0906 H81	AP800-XN0906 H81	AP800-XN0906 H81
	Clamping screw for shim	FS2091 (SW 5)	FS2091 (SW 5)	FS2091 (SW 5)	FS2091 (SW 5)
	Clamping screw for insert Tightening torque	FS2112 (Torx 20IP) 5,0 Nm	FS2112 (Torx 20IP) 5,0 Nm	FS2112 (Torx 20IP) 5,0 Nm	FS2112 (Torx 20IP) 5,0 Nm
	Clamping screw for arbour-mounted tools	FS1586	FS1519	FS1339	FS1583

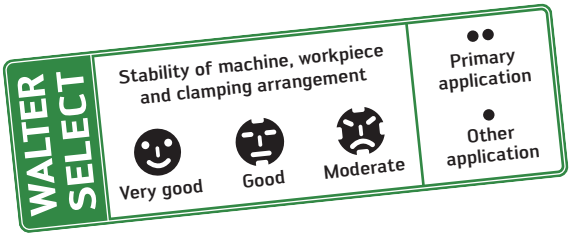
Accessories

	D_c [Inch]	2,500–6,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2015 (Torx 20IP)
	Screwdriver	FS1486 (Torx 20IP)
	Key for screw for shim	ISO2936-5 (SW 5)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	XNMU090612-F57	1,2		●●	●●	●	○			○			●●	○	○					
	XNMU0906ANN-F27	0,8	1,4	●●	○	○						●●	●●	○	○					
	XNMU0906ANN-F57	0,8	1,4	●●	●●	●	○	●●		○			●●	○	○			●●		
	XNMU0906ANN-F67	0,8	1,4	●●	●●	●			○				●●	○	○				○	

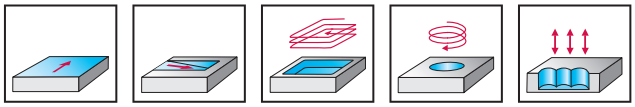
HC = Coated carbide
HW = Uncoated carbide

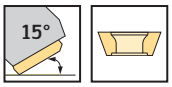


C 2

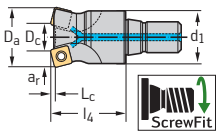
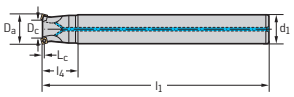
High-feed face milling cutters
M4002 mm

– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
M4002	●●	●●	●●		●●	●	

Tool	Designation	D_c mm	D_a * mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	a_r mm	Z	kg	No. of indexable inserts	Type
ScrewFit 	M4002-020-T18-02-01	8	20	T18	30		1	5,7	2	0,1	2	SDM . 06T2 ..
	M4002-025-T22-02-01,5	8	25	T22	40		1,5	8,4	2	0,1	2	SDM . 09T3 ..
	M4002-025-T22-03-01	13	25	T22	35		1	5,7	3	0,1	3	SDM . 06T2 ..
	M4002-032-T28-03-01,5	15	32	T28	40		1,5	8,4	3	0,2	3	SDM . 09T3 ..
	M4002-032-T28-04-01	20	32	T28	40		1	5,7	4	0,2	4	SDM . 06T2 ..
	M4002-035-T28-03-01,5	18	35	T28	40		1,5	8,4	3	0,2	3	SDM . 09T3 ..
	M4002-035-T28-03-01	23	35	T28	40		1	5,7	3	0,2	3	SDM . 06T2 ..
	M4002-035-T28-04-01	23	35	T28	40		1	5,7	4	0,2	4	
	M4002-040-T36-04-01,5	23	40	T36	40		1,5	8,4	4	0,3	4	SDM . 09T3 ..
	M4002-040-T36-05-01	28	40	T36	40		1	5,7	5	0,4	5	SDM . 06T2 ..
	M4002-042-T36-03-01,5	25	42	T36	40		1,5	8,4	3	0,3	3	SDM . 09T3 ..
	M4002-042-T36-04-01	30	42	T36	40		1	5,7	4	0,4	4	SDM . 06T2 ..
	M4002-042-T36-05-01	30	42	T36	40		1	5,7	5	0,4	5	
Parallel shank 	M4002-020-A20-02-01	8	20	20	30	200	1	5,7	2	0,5	2	SDM . 06T2 ..
	M4002-025-A25-03-01	13	25	25	35	200	1	5,7	3	0,8	3	
	M4002-032-A32-04-01	20	32	32	40	250	1	5,7	4	1,5	4	

* Measured using SDM.06T204, SDM.09T308, SDM.120408
Bodies and assembly parts are included in the scope of delivery.

C2

Assembly parts

	Type	SDM . 06T2 ..	SDM . 09T3 ..
	Clamping screw for insert Tightening torque	FS2084 (Torx 7IP) 0,9 Nm	FS2266 (Torx 10IP) 2,0 Nm

Accessories

	Type	SDM . 06T2 ..	SDM . 09T3 ..
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)
	Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)

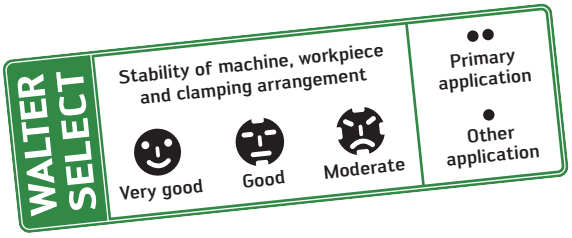
Indexable inserts

	Designation	r mm	b mm	P HC				M HC			K HC					S HC		
				WKP25S	WKP35G	WKP35S	WSP45S	WSM35S	WSM45X	WSP45S	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WSM35S	WSM45X	WSP45S
	SDMT06T2ZDR-D57	0,4	1,2		●●	●●	●●			●●				●●	●●			●●
	SDMT09T3ZDR-D57	0,8	1,2		●●	●●	●●			●●				●●	●●			●●
	SDMT06T204-D57	0,4		●	●●	●●	●●	●●		●●		●●	●●	●●	●●	●●		●●
	SDMT06T204-F57	0,4		●	●●	●●	●●	●●	●●	●●	●		●●	●●	●●	●●	●●	●●
	SDMT06T212-F57	1,2			●●	●●	●●	●●	●●	●●				●●	●●	●●	●●	●●
	SDMW06T204-A57	0,4		●●	●●	●●							●●	●●	●●			
	SDMT09T308-D57	0,8		●	●●	●●	●●	●●		●●		●●	●●	●●	●●	●●		●●
	SDMT09T308-F57	0,8		●	●●	●●	●●	●●	●●	●●	●		●●	●●	●●	●●	●●	●●
	SDMT09T320-F57	2			●●	●●	●●	●●	●●	●●				●●	●●	●●	●●	●●
	SDMW09T308-A57	0,8		●●	●●	●●							●●	●●	●●			

For SD..120425 indexable inserts, the circumference of the body must be reworked.

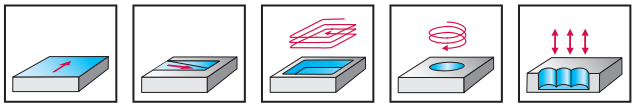
$R_{(body)} = r_{(indexable\ insert)}$

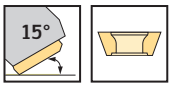
HC = Coated carbide



High-feed face milling cutters
M4002 mm

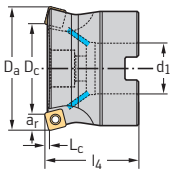
– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
M4002	●●	●●	●●		●●	●	

Tool	Designation	D_c mm	D_a * mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	a_r mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	M4002-040-B16-05-01	28	40	16	40		1	5,7	5	0,2	5	SDM . 06T2 ..
	M4002-042-B16-04-01,5	25	42	16	40		1,5	8,4	4	0,2	4	SDM . 09T3 ..
	M4002-042-B16-04-01	30	42	16	40		1	5,7	4	0,2	4	SDM . 06T2 ..
	M4002-042-B16-05-01	30	42	16	40		1	5,7	5	0,2	5	
	M4002-050-B22-04-02	27	50	22	40		2	11,4	4	0,5	4	SDM . 1204 ..
	M4002-050-B22-05-02	27	50	22	40		2	11,4	5	0,3	5	
	M4002-050-B22-05-01,5	33	50	22	40		1,5	8,4	5	0,3	5	SDM . 09T3 ..
	M4002-050-B22-07-01	38	50	22	40		1	5,7	7	0,4	7	SDM . 06T2 ..
	M4002-052-B22-03-02	29	52	22	40		2	11,4	3	0,4	3	SDM . 1204 ..
	M4002-052-B22-04-02	29	52	22	40		2	11,4	4	0,3	4	
	M4002-052-B22-05-02	29	52	22	40		2	11,4	5	0,4	5	
	M4002-052-B22-04-01,5	35	52	22	40		1,5	8,4	4	0,4	4	SDM . 09T3 ..
	M4002-052-B22-05-01,5	35	52	22	40		1,5	8,4	5	0,4	5	
	M4002-052-B22-06-01	40	52	22	40		1	5,7	6	0,4	6	SDM . 06T2 ..
	M4002-052-B22-07-01	40	52	22	40		1	5,7	7	0,4	7	
	M4002-063-B22-05-02	40	63	22	40		2	11,4	5	0,6	5	SDM . 1204 ..
	M4002-063-B22-06-02	40	63	22	40		2	11,4	6	0,5	6	
	M4002-063-B22-06-01,5	46	63	22	50		1,5	8,4	6	0,8	6	SDM . 09T3 ..
	M4002-063-B22-08-01	51	63	22	40		1	5,7	8	0,6	8	SDM . 06T2 ..
	M4002-066-B27-04-02	43	66	27	50		2	11,4	4	0,8	4	SDM . 1204 ..
	M4002-066-B27-05-02	43	66	27	50		2	11,4	5	0,8	5	
	M4002-066-B27-06-02	43	66	27	50		2	11,4	6	0,8	6	
	M4002-066-B27-05-01,5	49	66	27	50		1,5	8,4	5	0,8	5	SDM . 09T3 ..
	M4002-066-B27-06-01,5	49	66	27	50		1,5	8,4	6	0,8	6	
	M4002-066-B27-07-01	54	66	27	50		1	5,7	7	0,9	7	SDM . 06T2 ..
	M4002-066-B27-08-01	54	66	27	40		1	5,7	8	0,8	8	
	M4002-080-B27-06-02	57	80	27	50		2	11,4	6	1,3	6	SDM . 1204 ..
	M4002-080-B27-08-02	57	80	27	50		2	11,4	8	1,3	8	
	M4002-085-B27-05-02	62	85	27	50		2	11,4	5	1,5	5	
	M4002-085-B27-06-02	62	85	27	50		2	11,4	6	1,4	6	
	M4002-085-B27-08-02	62	85	27	50		2	11,4	8	1,5	8	
	M4002-100-B32-07-02	77	100	32	60		2	11,4	7	2,6	7	
	M4002-100-B32-09-02	77	100	32	60		2	11,4	9	2,6	9	
	M4002-125-B40-08-02	102	125	40	60		2	11,4	8	3,0	8	



* Measured using SDM.06T204, SDM.09T308, SDM.120408
Bodies and assembly parts are included in the scope of delivery.

C2

Assembly parts

	Type	SDM . 06T2 ..	SDM . 09T3 ..	SDM . 1204 ..
	Clamping screw for insert Tightening torque	FS2084 (Torx 7IP) 0,9 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS1453 (Torx 15IP) 3,5 Nm

Accessories

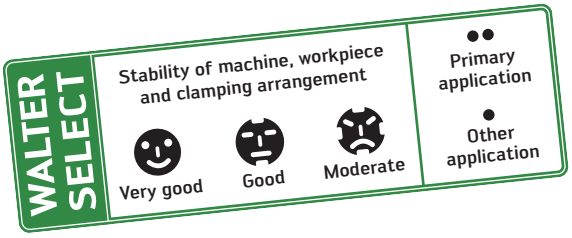
	Type	SDM . 06T2 ..	SDM . 09T3 ..	SDM . 1204 ..
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC				M HC			K HC					S HC		
				WKP25S	WKP35G	WKP35S	WSP45S	WSM35S	WSM45X	WSP45S	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WSM35S	WSM45X	WSP45S
	SDMT06T2ZDR-D57	0,4	1,2		●	●	●			●				●	●			●
	SDMT09T3ZDR-D57	0,8	1,2		●	●	●			●				●	●			●
	SDMT1204ZDR-D57	0,8	1,8		●	●	●			●				●	●			●
	SDMT06T204-D57	0,4		◉	●	●	●	●		●		●	●	●	●	●		●
	SDMT06T204-F57	0,4		◉	●	●	●	●	●	●	◉		●	●	●	●	●	●
	SDMT06T212-F57	1,2			●	●	●	●	●	●				●	●	●	●	●
	SDMW06T204-A57	0,4		●	●	●							●	●	●			
	SDMT09T308-D57	0,8		◉	●	●	●	●		●		●	●	●	●	●		●
	SDMT09T308-F57	0,8		◉	●	●	●	●	●	●	◉		●	●	●	●	●	●
	SDMT09T320-F57	2			●	●	●	●	●	●				●	●	●	●	●
	SDMW09T308-A57	0,8		●	●	●							●	●	●			
	SDMT120408-D57	0,8		◉	●	●	●	●		●		●	●	●	●	●		●
	SDMT120408-F57	0,8		◉	●	●	●	●	●	●	◉		●	●	●	●	●	●
	SDMT120425-F57	2,5			●	●	●	●	●	●				●	●	●	●	●
	SDMW120408-A57	0,8		●	●	●							●	●	●			

For SD..120425 indexable inserts, the circumference of the body must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

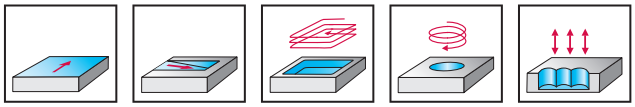
HC = Coated carbide

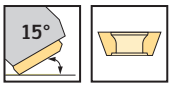


C 2

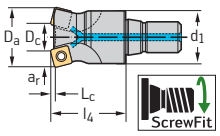
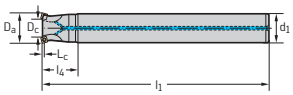
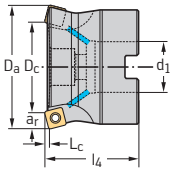
High-feed face milling cutters
M4002 inch

– Four cutting edges per indexable insert





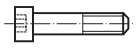
	P	M	K	N	S	H	O
M4002	●●	●●	●●		●●	●	

Tool	Designation	D_c Inch	D_a * Inch	d_1 Inch	l_4 Inch	l_1 Inch	L_c Inch	a_r Inch	Z	lbs	No. of index-able inserts	Type
ScrewFit 	M4002.019-T18-02-01	0,291	0,750	0,728	1,181		0,039	0,224	2	0,1	2	SDM . 06T2 ..
	M4002.026-T22-02-01,5	0,339	1,000	0,866	1,575		0,059	0,331	2	0,0	2	SDM . 09T3 ..
	M4002.026-T22-03-01	0,543	1,000	0,866	1,378		0,039	0,224	3	0,2	3	SDM . 06T2 ..
	M4002.031-T28-03-01,5	0,593	1,250	1,102	1,575		0,059	0,331	3	0,4	3	SDM . 09T3 ..
	M4002.031-T28-04-01	0,795	1,250	1,102	1,575		0,039	0,224	4	0,5	4	SDM . 06T2 ..
	M4002.038-T36-04-01,5	0,843	1,500	1,417	1,575		0,059	0,331	4	0,6	4	SDM . 09T3 ..
	M4002.038-T36-05-01	1,043	1,500	1,417	1,575		0,039	0,224	5	0,8	5	SDM . 06T2 ..
Parallel shank 	M4002.019-A19-02-01	0,291	0,750	0,750	1,181	7,874	0,039	0,224	2	0,9	2	
	M4002.026-A26-03-01	0,543	1,000	1,000	1,378	7,874	0,039	0,224	3	1,7	3	SDM . 06T2 ..
	M4002.031-A31-04-01	0,795	1,250	1,250	1,575	9,843	0,039	0,224	4	3,2	4	
Parallel bore DIN 138 transverse keyway 	M4002.038-B13-05-01	1,043	1,500	0,500	1,378		0,039	0,224	5	0,4	5	SDM . 06T2 ..
	M4002.051-B19-04-02	1,094	2,000	0,750	1,575		0,079	0,449	4	0,8	4	SDM . 1204 ..
	M4002.051-B19-05-01,5	1,337	2,000	0,750	1,575		0,059	0,331	5	0,8	5	SDM . 09T3 ..
	M4002.051-B19-07-01	1,543	2,000	0,750	1,575		0,039	0,224	7	0,8	7	SDM . 06T2 ..
	M4002.064-B19-05-02	1,594	2,500	0,750	1,969		0,079	0,449	5	1,3	5	SDM . 1204 ..
	M4002.064-B19-06-01,5	1,843	2,500	0,750	1,969		0,059	0,331	6	1,8	6	SDM . 09T3 ..
	M4002.064-B26-08-01	2,043	2,500	1,000	1,969		0,039	0,224	8	1,7	8	SDM . 06T2 ..
	M4002.076-B26-06-02	2,094	3,000	1,000	1,969		0,079	0,449	6	2,6	6	SDM . 1204 ..
	M4002.102-B38-07-02	3,094	4,000	1,500	2,480		0,079	0,449	7	5,8	7	

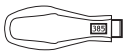
* Measured using SDM.06T204, SDM.09T308, SDM.120408
Bodies and assembly parts are included in the scope of delivery.

C2

Assembly parts

	Type	SDM . 06T2 ..				SDM . 09T3 ..		SDM . 1204 ..		
	D_c [Inch]	0,291–0,795	1,043	1,543	2,043	0,339–0,843	1,337–1,843	1,094–1,594	2,094	3,094
	Clamping screw for insert Tightening torque	FS2084 (Torx 7IP) 0,9 Nm	FS2084 (Torx 7IP) 0,9 Nm	FS2084 (Torx 7IP) 0,9 Nm	FS2084 (Torx 7IP) 0,9 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm
	Clamping screw for arbour-mounted tools		FS1527	FS1523	FS1519		FS1523	FS1523	FS1519	FS1583

Accessories

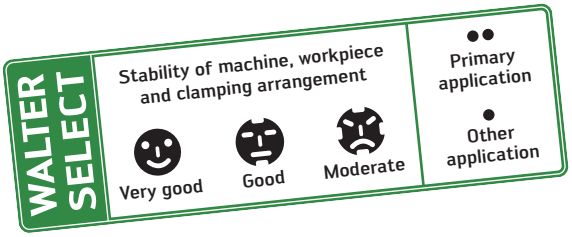
	Type	SDM . 06T2 ..	SDM . 09T3 ..	SDM . 1204 ..
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDMT06T2ZDR-D57	0,4	1,2		●	●	○			○				○	○			○
	SDMT09T3ZDR-D57	0,8	1,2		●	●	○			○				○	○			○
	SDMT1204ZDR-D57	0,8	1,8		●	●	○			○				○	○			○
	SDMT06T204-D57	0,4		◉	●	●	○	●		○		●	●	○	○	●		○
	SDMT06T204-F57	0,4		◉	●	●	○	●	○	○	◉		●	○	○	●	○	○
	SDMT06T212-F57	1,2			●	●	○	●	○	○				○	○	●	○	○
	SDMW06T204-A57	0,4		●	○	○							●	○	○			
	SDMT09T308-D57	0,8		◉	●	●	○	●		○		●	●	○	○	●		○
	SDMT09T308-F57	0,8		◉	●	●	○	●	○	○	◉		●	○	○	●	○	○
	SDMT09T320-F57	2			●	●	○	●	○	○				○	○	●	○	○
	SDMW09T308-A57	0,8		●	○	○							●	○	○			
	SDMT120408-D57	0,8		◉	●	●	○	●		○		●	●	○	○	●		○
	SDMT120408-F57	0,8		◉	●	●	○	●	○	○	◉		●	○	○	●	○	○
	SDMT120425-F57	2,5			●	●	○	●	○	○				○	○	●	○	○
	SDMW120408-A57	0,8		●	○	○							●	○	○			

For SD..120425 indexable inserts, the circumference of the body must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

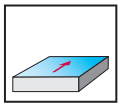
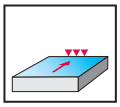
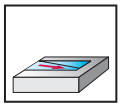
HC = Coated carbide



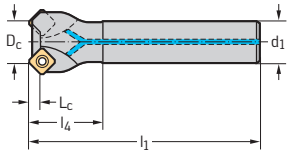
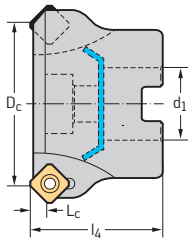
C 2

Face milling cutters
M4003 mm
SD .. 09T3AZN


– Four cutting edges per indexable insert


	P	M	K	N	S	H	O
M4003	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel shank 	M4003-020-A20-02-4.5	20	20	35	110	4,5	2	0,3	2	SD .. 09T3AZN SDHX09T3AZR
	M4003-025-A25-03-4.5	25	25	35	110	4,5	3	0,5	3	
	M4003-032-A32-04-4.5	32	32	35	110	4,5	4	0,7	4	
Parallel bore DIN 138 transverse keyway 	M4003-032-B16-04-4.5	32	16	40		4,5	4	0,3	4	SD .. 09T3AZN SDHX09T3AZR
	M4003-032-B16-05-4.5	32	16	40		4,5	5	0,3	5	
	M4003-040-B16-04-4.5	40	16	40		4,5	4	0,4	4	
	M4003-040-B16-06-4.5	40	16	40		4,5	6	0,3	6	
	M4003-050-B22-06-4.5	50	22	40		4,5	6	0,5	6	
	M4003-050-B22-08-4.5	50	22	40		4,5	8	0,5	8	
	M4003-063-B22-07-4.5	63	22	40		4,5	7	0,7	7	
	M4003-063-B22-10-4.5	63	22	40		4,5	10	0,7	10	
	M4003-080-B27-08-4.5	80	27	50		4,5	8	1,3	8	
	M4003-080-B27-12-4.5	80	27	50		4,5	12	1,1	12	
	M4003-100-B32-09-4.5	100	32	50		4,5	9	2,0	9	
	M4003-100-B32-14-4.5	100	32	50		4,5	14	2,0	14	

Bodies and assembly parts are included in the scope of delivery.

C 2

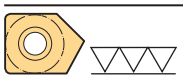
Assembly parts

	D_c [mm]	20–100
	Clamping screw for insert Tightening torque	FS2266 (Torx 10IP) 2,0 Nm

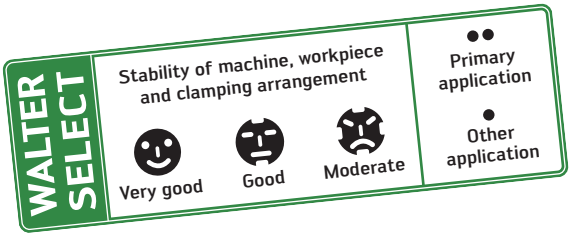
Accessories

	D_c [mm]	20–100
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2268 (Torx 10IP)
	Screwdriver	FS2267 (Torx 10IP)

Indexable inserts

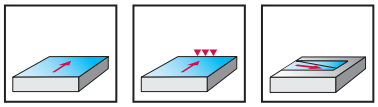
	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HC WNN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	SDHX09T3AZR-A88		5,6								☺											☺	☺
	SDGT09T3AZN-F57	0,3	1,4	☺	😐	😐	☹	😐		☹	☺		😐	☹	☹				😐		☹		
	SDGT09T3AZN-G77	0,3	1,2				☹			☹											☹		
	SDHT09T3AZN-G88	0,3	1,2													☺	☺	☺					
	SDMT09T3AZN-D57	0,3	1,2	☺	😐	☹	☹	😐		☹		😐	😐	☹	☹				😐		☹		
	SDMT09T3AZN-F57	0,3	1,4	☺	😐	☹	☹		☹	☹			😐	☹	☹					☹	☹		
	SDMW09T3AZN-A57	0,3	1,2	😐	☹	☹					☺		😐	☹	☹								

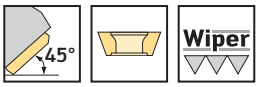
HC = Coated carbide
HW = Uncoated carbide



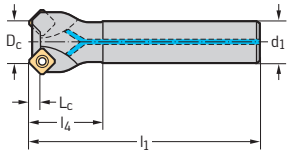
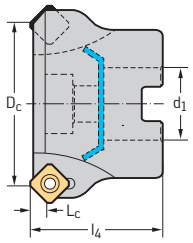
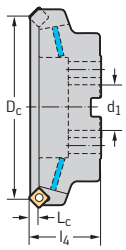
Face milling cutters
M4003 mm
SD .. 1204AZN

– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
M4003	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel shank	M4003-025-A25-02-6.5	25	25	35	110	6,5	2	0,5	2	SD .. 1204AZN SDHX1204AZR
	M4003-032-A32-03-6.5	32	32	35	110	6,5	3	0,7	3	
	M4003-040-A32-04-6.5	40	32	35	110	6,5	4	0,9	4	
Parallel bore DIN 138 transverse keyway	M4003-040-B16-03-6.5	40	16	40		6,5	3	0,4	3	SD .. 1204AZN SDHX1204AZR
	M4003-040-B16-04-6.5	40	16	40		6,5	4	0,4	4	
	M4003-050-B22-04-6.5	50	22	40		6,5	4	0,5	4	
	M4003-050-B22-05-6.5	50	22	40		6,5	5	0,5	5	
	M4003-063-B22-05-6.5	63	22	40		6,5	5	0,7	5	
	M4003-063-B22-07-6.5	63	22	40		6,5	7	0,6	7	
	M4003-080-B27-06-6.5	80	27	50		6,5	6	1,2	6	
	M4003-080-B27-09-6.5	80	27	50		6,5	9	1,3	9	
	M4003-100-B32-07-6.5	100	32	50		6,5	7	2,1	7	
	M4003-100-B32-11-6.5	100	32	50		6,5	11	2,0	11	
	M4003-125-B40-08-6.5	125	40	63		6,5	8	3,4	8	
	M4003-125-B40-13-6.5	125	40	63		6,5	13	3,4	13	
Parallel bore DIN 138 transverse keyway	M4003-160-B40-09-6.5	160	40/40 B	63		6,5	9	4,3	9	SD .. 1204AZN SDHX1204AZR
	M4003-160-B40-15-6.5	160	40/40 B	63		6,5	15	4,3	15	

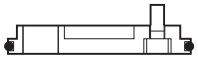
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_c [mm]	25–160
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm

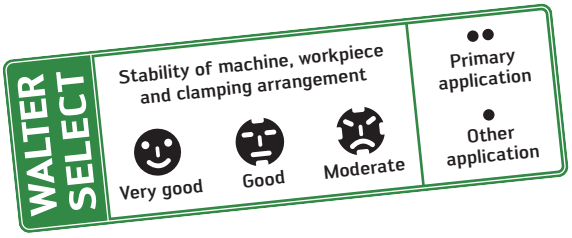
Accessories

	D_c [mm]	25–125	160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
	Sealing disc set (incl. gasket and screws)		FS936 COMPLETE SET
	Gasket		O-R 96X4

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HC WNN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	SDHX1204AZR-A88		7,5								●●											●●	●●
	SDGT1204AZN-F57	0,3	1,8	●	●	●●	○	●		○	●		●	○	○				●		○		
	SDGT1204AZN-G77	0,3	1,4				○			○											○		
	SDHT1204AZN-G88	0,3	1,4													●	●	●					
	SDMT1204AZN-D57	0,3	1,4	●	●	●●	○	●		○	●	●	●	○	○				●		○		
	SDMT1204AZN-F57	0,3	1,8	●	●	●●	○		○	○			●	○	○					○	○		
	SDMW1204AZN-A57	0,3	1,4	●	○	○					●		●	○	○								

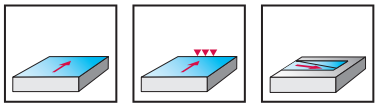
HC = Coated carbide
HW = Uncoated carbide

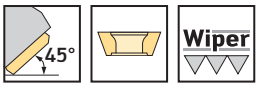


C 2

Face milling cutters
M4003 inch
SD .. 09T3AZN

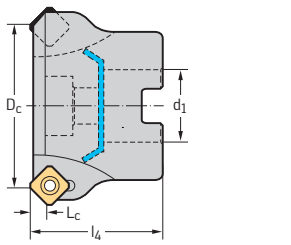
– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
M4003	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	l_1 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Parallel shank	M4003.019-A19-02-4.5	0,750	0,750	1,378	4,331	0,177	2	0,6	2	SD .. 09T3AZN SDHX09T3AZR
	M4003.026-A26-03-4.5	1,000	1,000	1,378	4,331	0,177	3	1,1	3	
	M4003.031-A31-04-4.5	1,250	1,250	1,378	4,331	0,177	4	1,6	4	
Parallel bore DIN 138 transverse keyway	M4003.031-B13-04-4.5	1,250	0,500	1,575		0,177	4	0,5	4	SD .. 09T3AZN SDHX09T3AZR
	M4003.038-B19-04-4.5	1,500	0,500	1,575		0,177	4	0,7	4	
	M4003.051-B19-06-4.5	2,000	0,750	1,575		0,177	6	1,1	6	
	M4003.064-B26-07-4.5	2,500	1,000	1,969		0,177	7	1,9	7	
	M4003.076-B26-08-4.5	3,000	1,000	1,969		0,177	8	2,6	8	
	M4003.102-B38-09-4.5	4,000	1,500	2,480		0,177	9	6,4	9	



Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_c [Inch]	0,750–1,000	1,250	1,500–2,000	2,500–3,000	4,000
	Clamping screw for insert Tightening torque	FS2266 (Torx 10IP) 2,0 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS2266 (Torx 10IP) 2,0 Nm
	Clamping screw for arbour-mounted tools		FS1597	FS1523	FS1519	FS1583

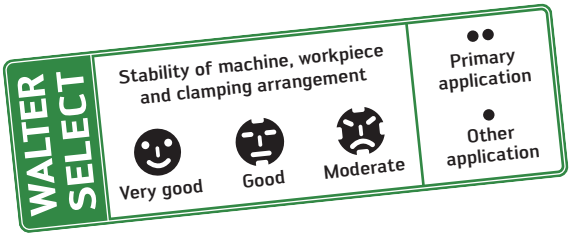
Accessories

	D_c [Inch]	0,750–4,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2268 (Torx 10IP)
	Screwdriver	FS2267 (Torx 10IP)

Indexable inserts

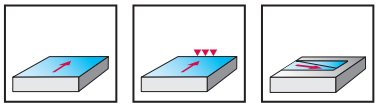
	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HC WNN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	SDHX09T3AZR-A88		5,6								☺											☺	☺
	SDGT09T3AZN-F57	0,3	1,4	☺	☺	☹	☒	☺		☒	☺		☺	☒	☹				☺		☒		
	SDGT09T3AZN-G77	0,3	1,2				☒			☒											☒		
	SDHT09T3AZN-G88	0,3	1,2													☺	☺	☺					
	SDMT09T3AZN-D57	0,3	1,2	☺	☺	☹	☒	☺		☒		☺	☺	☒	☹				☺		☒		
	SDMT09T3AZN-F57	0,3	1,4	☺	☺	☹	☒		☒	☒			☺	☒	☹					☒	☒		
	SDMW09T3AZN-A57	0,3	1,2	☺	☒	☹					☺		☺	☒	☹								

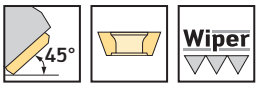
HC = Coated carbide
HW = Uncoated carbide



Face milling cutters
M4003 inch
SD .. 1204AZN

– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
M4003	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	l_1 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Parallel shank	M4003.026-A26-02-6.5	1,000	1,000	1,378	4,331	0,256	2	1,1	2	SD .. 1204AZN SDHX1204AZR
	M4003.031-A31-03-6.5	1,250	1,250	1,378	4,331	0,256	3	1,6	3	
	M4003.038-A31-04-6.5	1,500	1,250	1,378	4,331	0,256	4	1,8	4	
Parallel bore DIN 138 transverse keyway	M4003.038-B19-03-6.5	1,500	0,500	1,575		0,256	3	0,7	3	SD .. 1204AZN SDHX1204AZR
	M4003.051-B19-04-6.5	2,000	0,750	1,575		0,256	4	1,1	4	
	M4003.064-B26-05-6.5	2,500	1,000	1,969		0,256	5	1,9	5	
	M4003.076-B26-06-6.5	3,000	1,000	1,969		0,256	6	2,7	6	
	M4003.102-B38-07-6.5	4,000	1,500	2,480		0,256	7	6,9	7	
	M4003.127-B38-08-6.5	5,000	1,500	2,480		0,256	8	8,3	8	
	M4003.152-B38-09-6.5	6,000	1,500	2,480		0,256	9	11,4	9	

Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_c [Inch]	1,000–1,250	1,500–2,000	2,500–3,000	4,000–6,000
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm
	Clamping screw for arbour-mounted tools		FS1523	FS1519	FS1583

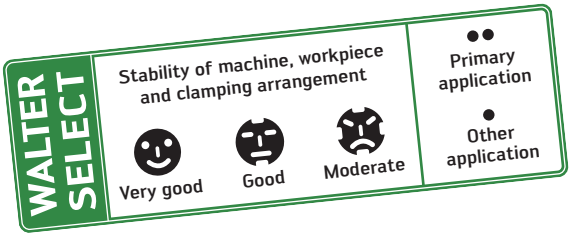
Accessories

	D_c [Inch]	1,000–6,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

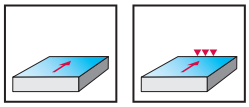
	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HC WNN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	H HC WHH15	O HC WXM15
	SDHX1204AZR-A88		7,5								☺											☺ ☺
	SDGT1204AZN-F57	0,3	1,8	☺	😐	😠	☹	😐		☹	☺		😐	☹	😠				😐		☹		
	SDGT1204AZN-G77	0,3	1,4				☹			☹											☹		
	SDHT1204AZN-G88	0,3	1,4													☺	☺	☺					
	SDMT1204AZN-D57	0,3	1,4	☺	😐	😠	☹	😐		☹	☺	😐	😐	☹	😠				😐		☹		
	SDMT1204AZN-F57	0,3	1,8	☺	😐	😠	☹		☹	☹			😐	☹	😠					☹	☹		
	SDMW1204AZN-A57	0,3	1,4	😐	☹	😠					☺		😐	☹	😠								

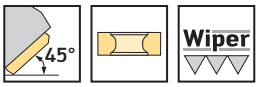
HC = Coated carbide
HW = Uncoated carbide



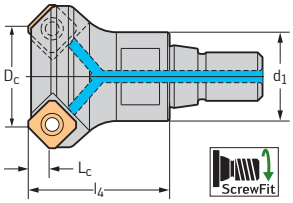
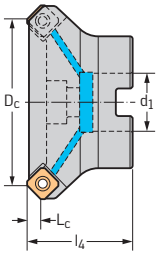
Face milling cutters
M5009 mm
SN . X0904 ..
Xtra·tec® XT

– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5009	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
ScrewFit 	★ M5009-025-T22-03-05	25	T22	35	5	3	0,1	3	
	★ M5009-032-T28-04-05	32	T28	40	5	4	0	4	
	★ M5009-032-T28-05-05	32	T28	40	5	5	0	5	SN . X0904 .. XNGX0904ANN
	★ M5009-040-T36-04-05	40	T36	40	5	4	0	4	
	★ M5009-040-T36-06-05	40	T36	40	5	6	0	6	
Parallel bore DIN 138 transverse keyway 	★ M5009-040-B16-04-05	40	16	40	5	4	0,3	4	
	★ M5009-040-B16-06-05	40	16	40	5	6	0,3	6	
	★ M5009-050-B22-06-05	50	22	40	5	6	0,4	6	
	★ M5009-050-B22-08-05	50	22	40	5	8	0,4	8	
	★ M5009-063-B22-07-05	63	22	40	5	7	0,6	7	SN . X0904 .. XNGX0904ANN
	★ M5009-063-B22-10-05	63	22	40	5	10	0,6	10	
	★ M5009-080-B27-08-05	80	27	50	5	8	1,2	8	
	★ M5009-080-B27-11-05	80	27	50	5	11	1,1	11	
	★ M5009-100-B32-09-05	100	32	50	5	9	1,9	9	
	★ M5009-100-B32-13-05	100	32	50	5	13	1,8	13	

Bodies and assembly parts are included in the scope of delivery.

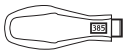
C2

/ ★ New addition to the product range

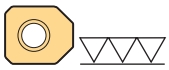
Assembly parts

	D_c [mm]	25–100
	Clamping screw for insert Tightening torque	FS2579 (Torx 8IP) 1,2 Nm

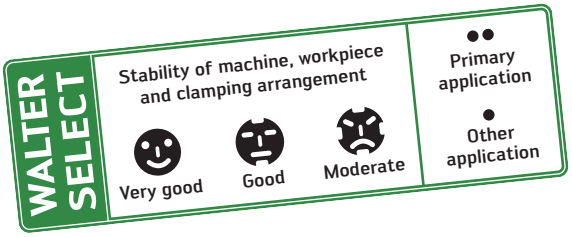
Accessories

	D_c [mm]	25–100
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2012 (Torx 8IP)
	Screwdriver	FS1483 (Torx 8IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15
	SNGX0904ANN-F57		1,2	●●	●●	●●	●	●●	●		●●	●●	●	●			●●	●	
	SNGX0904ANN-F67		1,2	●●	●●	●●	●	●●	●	●●		●●	●	●			●●	●	
	SNHX0904ANN-K88		1,5												●●	●●			
	SNMX0904ANN-F27		1,2	●●	●●	●●						●●	●	●					
	SNMX0904ANN-F57		1,2	●●	●●	●●					●●	●●	●	●					
	SNMX0904ANN-F67		1,2	●●	●●	●●				●●		●●	●	●					
	SNMX090408-F27	0,8		●●	●●	●●						●●	●	●					
	SNMX090408-F57	0,8		●●	●●	●●	●	●●	●		●●	●●	●	●			●●	●	
	SNMX090408-F67	0,8		●●	●●	●●	●	●●	●			●●	●	●			●●	●	
	XNGX0904ANN-F67		5							●									●

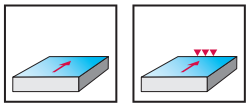
HC = Coated carbide
HW = Uncoated carbide

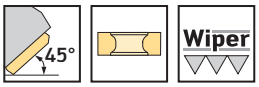


C 2

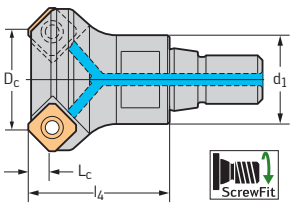
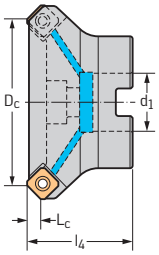
Face milling cutters
M5009 inch
SN . X0904 ..
Xtra·tec® XT

– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5009	●●	●●	●●	●●	●●	●	●

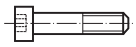
Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
ScrewFit 	★ M5009.026-T22-03-05	1,000	0,866	1,378	0,197	3	0,3	3	SN . X0904 .. XNGX0904ANN
	★ M5009.031-T28-04-05	1,250	1,102	1,575	0,197	4	0,5	4	
	★ M5009.031-T28-05-05	1,250	1,102	1,575	0,197	5	0,5	5	
	★ M5009.038-T36-04-05	1,500	1,417	1,575	0,197	4	0,9	4	
	★ M5009.038-T36-06-05	1,500	1,417	1,575	0,197	6	0,8	6	
Parallel bore DIN 138 transverse keyway 	★ M5009.038-B19-04-05	1,500	0,750	1,500	0,197	4	0,6	4	SN . X0904 .. XNGX0904ANN
	★ M5009.038-B19-06-05	1,500	0,750	1,500	0,197	6	0,6	6	
	★ M5009.051-B19-06-05	2,000	0,750	1,500	0,197	6	0,9	6	
	★ M5009.051-B19-08-05	2,000	0,750	1,500	0,197	8	0,9	8	
	★ M5009.064-B26-07-05	2,500	1,000	2,000	0,197	7	1,9	7	
	★ M5009.064-B26-10-05	2,500	1,000	2,000	0,197	10	1,8	10	
	★ M5009.076-B26-08-05	3,000	1,000	2,000	0,197	8	2,4	8	
	★ M5009.076-B26-11-05	3,000	1,000	2,000	0,197	11	22,2	11	
	★ M5009.102-B38-09-05	4,000	1,500	2,500	0,197	9	6,5	9	
	★ M5009.102-B38-13-05	4,000	1,500	2,500	0,197	13	6,5	13	

Bodies and assembly parts are included in the scope of delivery.

C2

★ New addition to the product range

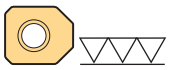
Assembly parts

	D_c [Inch]	1,000–1,250	1,500–2,000	2,500–3,000	4,000
	Clamping screw for insert Tightening torque	FS2579 (Torx 8IP) 1,2 Nm	FS2579 (Torx 8IP) 1,2 Nm	FS2579 (Torx 8IP) 1,2 Nm	FS2579 (Torx 8IP) 1,2 Nm
	Clamping screw for arbour-mounted tools		FS1518	FS1519	FS1583

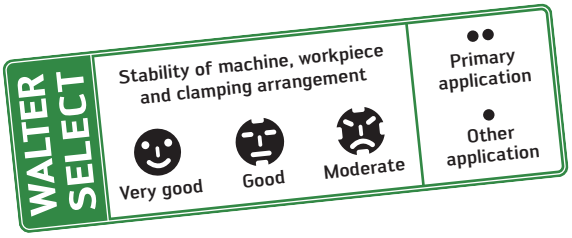
Accessories

	D_c [Inch]	1,000–4,000
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2012 (Torx 8IP)
	Screwdriver	FS1483 (Torx 8IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15
	SNGX0904ANN-F57		1,2	●●	●●	●●	●●	●●	●●		●●	●●	●●	●●			●●	●●	
	SNGX0904ANN-F67		1,2	●●	●●	●●	●●	●●	●●	●		●●	●●	●●			●●	●●	
	SNHX0904ANN-K88		1,5												●	●			
	SNMX0904ANN-F27		1,2	●●	●●	●●						●●	●●	●●					
	SNMX0904ANN-F57		1,2	●●	●●	●●					●●	●●	●●	●●					
	SNMX0904ANN-F67		1,2	●●	●●	●●				●		●●	●●	●●					
	SNMX090408-F27	0,8		●●	●●	●●						●●	●●	●●					
	SNMX090408-F57	0,8		●●	●●	●●	●●	●●	●●		●●	●●	●●	●●			●●	●●	
	SNMX090408-F67	0,8		●●	●●	●●	●●	●●	●●			●●	●●	●●			●●	●●	
	XNGX0904ANN-F67		5							●									●

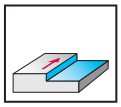
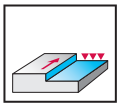
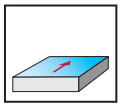
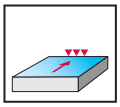
HC = Coated carbide
HW = Uncoated carbide



C 2

Shoulder milling cutters
F2010 mm
SD .. 09T3 ..

– Adjustable runout
– Four cutting edges per indexable insert

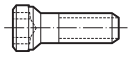
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	F2010.B.080.Z06.08.R756M	80	27	50	8,4	6	1,3	6	SD .. 09T3 ..
	F2010.B.100.Z07.08.R756M	100	32	50	8,4	7	1,9	7	SD .. 09T3 ..
	F2010.B.125.Z08.08.R756M	125	40	63	8,4	8	3,6	8	
	F2010.B.160.Z10.08.R756M	160	40/40 B	63	8,4	10	5,6	10	SD .. 09T3 ..
	F2010.B.200.Z12.08.R756M	200	60/50 B	63	8,4	12	8,3	12	
	F2010.B.250.Z12.08.R756M	250	60/50 B	63	8,4	12	14,8	12	
	F2010.B.250.Z16.08.R756M	250	60/50 B	63	8,4	16	14,6	16	
	F2010.B.315.Z14.08.R756M	315	60/50-60 BB	80	8,4	14	26,3	14	SD .. 09T3 ..
	F2010.B.315.Z18.08.R756M	315	60/50-60 BB	80	8,4	18	26,2	18	

Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_c [mm]	80–315
	Cartridge for tool body	FR756M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
	Clamping screw for insert Tightening torque	FS2266 (Torx 10IP) 2,0 Nm
	Adjusting pin	FS303 (Torx 20)

Accessories

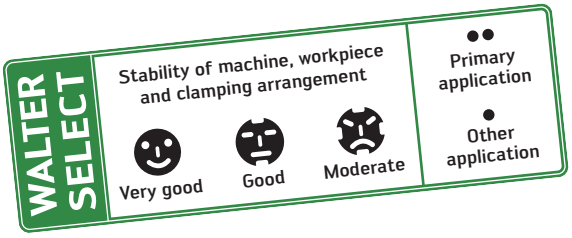
	D_c [mm]	80–315
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade for screwdriver	FS2268 (Torx 10IP)
	Torque T-handle Tightening torque	FS2041 4,5–14 Nm
	Interchangeable blade for cartridge	FS2051 (SW 4)
	Screwdriver for indexable insert	FS2267 (Torx 10IP)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDGT09T3PDR-D57	0,8	1,2	☺	😐	😐	☹	😐		☹			😐	☹	☹			😐		☹
	SDHT09T304-G88	0,4														☺	☺			
	SDHT09T308-G88	0,8														☺	☺			
	SDMT09T308-D51	0,8		☺	😐	😐	☹			☹			😐	☹	☹					☹
	SDMT09T308-D57	0,8		☺	😐	😐	☹	😐		☹		😐	😐	☹	☹			😐		☹
	SDMT09T308-F57	0,8		☺	😐	😐	☹	😐	☹	☹	☺		😐	☹	☹			😐	☹	☹
	SDMT09T320-F57	2			😐	😐	☹	😐	☹	☹				☹	☹			😐	☹	☹
	SDMW09T308-A57	0,8		😐	☹	☹							😐	☹	☹					

SD..09T3.. : If the corner radius is r > 0.8 mm, the corner area of the cartridge must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

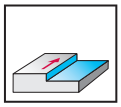
HC = Coated carbide
HW = Uncoated carbide

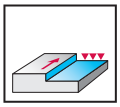


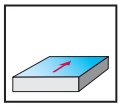
C2

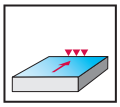
Shoulder milling cutters
F2010 inch
SD .. 09T3 ..

– Adjustable runout
– Four cutting edges per indexable insert

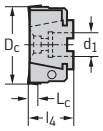
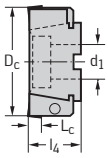
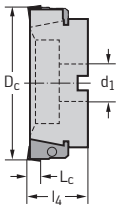
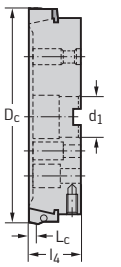








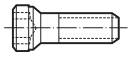
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway 	F2010.UB.076.Z06.08R756M	3,000	1,000	2,000	0,331	6	3,3	6	
	F2010.UB.102.Z07.08R756M	4,000	1.250	2,000	0,331	7	5,7	7	SD .. 09T3 ..
	F2010.UB.127.Z08.08R756M	5,000	1.500	2,500	0,331	8	7,5	8	
Parallel bore DIN 138 transverse keyway 	F2010.UB.152.Z10.08R756M	6,000	1.500	2,500	0,331	10	14,6	10	SD .. 09T3 ..
Parallel bore DIN 138 transverse keyway 	F2010.UB.203.Z12.08R756M	8,000	2.50/4.0	2,500	0,331	12	21,4	12	
	F2010.UB.254.Z12.08R756M	10,000	2.50/4.0	2,500	0,331	12	36,4	12	SD .. 09T3 ..
	F2010.UB.254.Z16.08R756M	10,000	2.50/4.0	2,500	0,331	16	36,4	16	
Parallel bore DIN 138 transverse keyway 	F2010.UB.305.Z18.08R756M	12,000	2.50/4.0/7.0	2,500	0,331	18	45,6	18	SD .. 09T3 ..

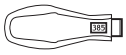
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_c [Inch]	3,000	4,000	5,000–6,000	8,000–12,000
	Cartridge for tool body	FR756M	FR756M	FR756M	FR756M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm
	Clamping screw for insert Tightening torque	FS2266 (Torx 10IP) 2,0 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS2266 (Torx 10IP) 2,0 Nm
	Adjusting pin	FS303 (Torx 20)	FS303 (Torx 20)	FS303 (Torx 20)	FS303 (Torx 20)
	Clamping screw for arbour-mounted tools	FS1519	FS1565	FS1566	

Accessories

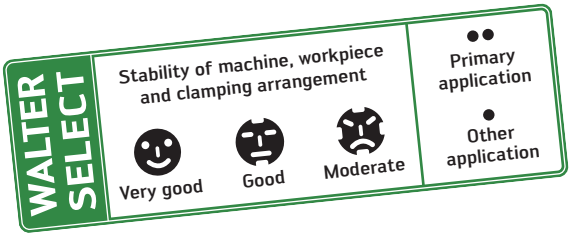
	D_c [Inch]	3,000–12,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade for screwdriver	FS2268 (Torx 10IP)
	Torque T-handle Tightening torque	FS2042 4,5–14 Nm
	Interchangeable blade for cartridge	FS2051 (SW 4)
	Screwdriver for indexable insert	FS2267 (Torx 10IP)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDGT09T3PDR-D57	0,8	1,2	☺	😐	😐	☹	😐		☹			😐	☹	☹			😐		☹
	SDHT09T304-G88	0,4														☺	☺			
	SDHT09T308-G88	0,8														☺	☺			
	SDMT09T308-D51	0,8		☺	😐	😐	☹			☹			😐	☹	☹					☹
	SDMT09T308-D57	0,8		☺	😐	😐	☹	😐		☹		😐	😐	☹	☹			😐		☹
	SDMT09T308-F57	0,8		☺	😐	😐	☹	😐	☹	☹	☺		😐	☹	☹			😐	☹	☹
	SDMT09T320-F57	2			😐	😐	☹	😐	☹	☹				☹	☹			😐	☹	☹
	SDMW09T308-A57	0,8		😐	☹	☹							😐	☹	☹					

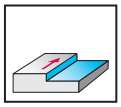
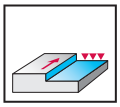
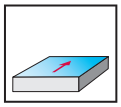
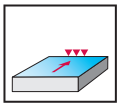
SD..09T3.. : If the corner radius is r > 0.8 mm, the corner area of the cartridge must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

HC = Coated carbide
HW = Uncoated carbide



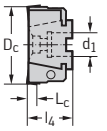
Shoulder milling cutters
F2010 mm
SD .. 1204 ..

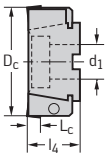
– Adjustable runout
– Four cutting edges per indexable insert

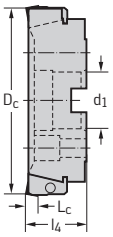





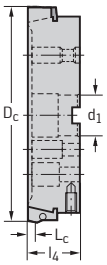
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	F2010.B.080.Z06.08.R757M	80	27	50	11,6	6	1,3	6	SD .. 1204 ..
	F2010.B.100.Z07.08.R757M	100	32	50	11,6	7	1,9	7	SD .. 1204 ..
	F2010.B.125.Z08.08.R757M	125	40	63	11,6	8	3,6	8	
	F2010.B.160.Z10.08.R757M	160	40/40 B	63	11,6	10	5,6	10	SD .. 1204 ..
	F2010.B.200.Z12.08.R757M	200	60/50 B	63	11,6	12	8,3	12	
	F2010.B.250.Z12.08.R757M	250	60/50 B	63	11,6	12	14,8	12	
	F2010.B.250.Z16.08.R757M	250	60/50 B	63	11,6	16	14,6	16	
	F2010.B.315.Z14.08.R757M	315	60/50-60 BB	80	11,6	14	26,3	14	SD .. 1204 ..
	F2010.B.315.Z18.08.R757M	315	60/50-60 BB	80	11,6	18	26,2	18	





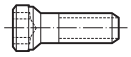




Bodies and assembly parts are included in the scope of delivery.

C2

Assembly parts

	D_c [mm]	80–315
	Cartridge for tool body	FR757M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm
	Adjusting pin	FS303 (Torx 20)

Accessories

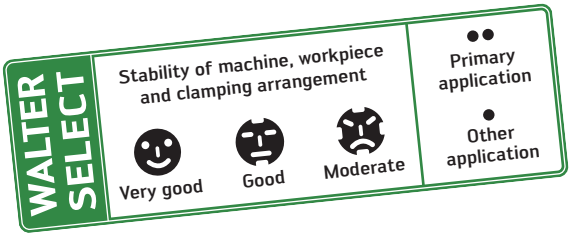
	D_c [mm]	80–315
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade for screwdriver	FS2014 (Torx 15IP)
	Torque T-handle Tightening torque	FS2041 4,5–14 Nm
	Interchangeable blade for cartridge	FS2051 (SW 4)
	Screwdriver for indexable insert	FS1485 (Torx 15IP)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDGT1204PDR-D57	0,8	1,6	☺	😐	😐	☹	😐		☹			😐	☹	☹			😐		☹
	SDHT120408-G88	0,8														☺	☺			
	SDMT120408-D51	0,8		☺	😐	😐	☹			☹			😐	☹	☹					☹
	SDMT120408-D57	0,8		☺	😐	😐	☹	😐		☹		😐	😐	☹	☹			😐		☹
	SDMT120408-F57	0,8		☺	😐	😐	☹	😐	☹	☹	☺		😐	☹	☹			😐	☹	☹
	SDMT120425-F57	2,5			😐	😐	☹	😐	☹	☹				☹	☹			😐	☹	☹
	SDMW120408-A57	0,8		😐	☹	☹							😐	☹	☹					

SD..1204.. : If the corner radius is r > 0.8 mm, the corner area of the cartridge must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

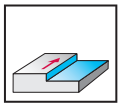
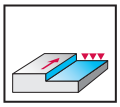
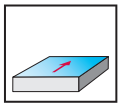
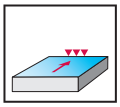
HC = Coated carbide
HW = Uncoated carbide



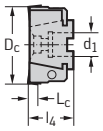
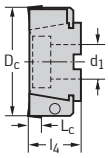
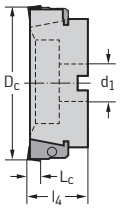
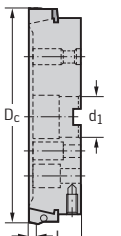
C 2

Shoulder milling cutters
F2010 inch
SD .. 1204 ..

– Adjustable runout
– Four cutting edges per indexable insert

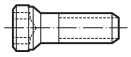
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway 	F2010.UB.076.Z06.08R757M	3,000	1,000	2,000	0,457	6	3,3	6	
	F2010.UB.102.Z07.08R757M	4,000	1.250	2,000	0,457	7	5,7	7	SD .. 1204 ..
	F2010.UB.127.Z08.08R757M	5,000	1.500	2,500	0,457	8	7,5	8	
Parallel bore DIN 138 transverse keyway 	F2010.UB.152.Z10.08R757M	6,000	1.500	2,500	0,457	10	14,6	10	SD .. 1204 ..
Parallel bore DIN 138 transverse keyway 	F2010.UB.203.Z12.08R757M	8,000	2.50/4.0	2,500	0,457	12	21,4	12	
	F2010.UB.254.Z12.08R757M	10,000	2.50/4.0	2,500	0,457	12	36,4	12	SD .. 1204 ..
	F2010.UB.254.Z16.08R757M	10,000	2.50/4.0	2,500	0,457	16	36,4	16	
Parallel bore DIN 138 transverse keyway 	F2010.UB.305.Z18.08R757M	12,000	2.50/4.0/7.0	2,500	0,457	18	45,6	18	SD .. 1204 ..

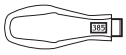
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_c [Inch]	3,000	4,000	5,000–6,000	8,000–12,000
	Cartridge for tool body	FR757M	FR757M	FR757M	FR757M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm	FS247 (SW 4) 8,0 Nm
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm
	Adjusting pin	FS303 (Torx 20)	FS303 (Torx 20)	FS303 (Torx 20)	FS303 (Torx 20)
	Clamping screw for arbour-mounted tools	FS1519	FS1565	FS1566	

Accessories

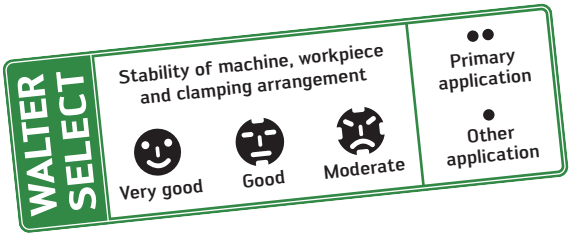
	D_c [Inch]	3,000–12,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade for screwdriver	FS2014 (Torx 15IP)
	Torque T-handle Tightening torque	FS2042 4,5–14 Nm
	Interchangeable blade for cartridge	FS2051 (SW 4)
	Screwdriver for indexable insert	FS1485 (Torx 15IP)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDGT1204PDR-D57	0,8	1,6	☺	😐	😐	☹	😐		☹			😐	☹	☹			😐		☹
	SDHT120408-G88	0,8														☺	☺			
	SDMT120408-D51	0,8		☺	😐	😐	☹			☹			😐	☹	☹					☹
	SDMT120408-D57	0,8		☺	😐	😐	☹	😐		☹		😐	😐	☹	☹			😐		☹
	SDMT120408-F57	0,8		☺	😐	😐	☹	😐	☹	☹	☺		😐	☹	☹			😐	☹	☹
	SDMT120425-F57	2,5			😐	😐	☹	😐	☹	☹				☹	☹			😐	☹	☹
	SDMW120408-A57	0,8		😐	☹	☹							😐	☹	☹					

SD..1204.. : If the corner radius is r > 0.8 mm, the corner area of the cartridge must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

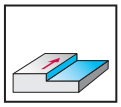
HC = Coated carbide
HW = Uncoated carbide

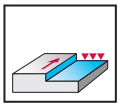


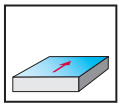
C 2

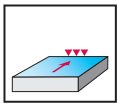
Close pitch cutter
M2136 mm
SNEF120408R

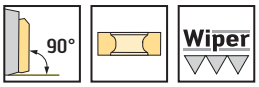
– Eight cutting edges per indexable insert





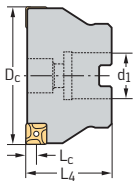


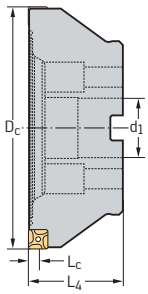




	P	M	K	N	S	H	O
M2136			●●				

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	M2136-050-B22-06-06	50	22	50	6,5	6	0,56	6	SNEF120408R SNEX1204PN ..
	M2136-063-B22-08-06	63	22	50	6,5	8	0,8	8	
	M2136-080-B27-12-06	80	27	50	6,5	12	1,23	12	
	M2136-100-B32-16-06	100	32	50	6,5	16	1,79	16	
	M2136-125-B40-20-06	125	40	63	6,5	20	3,42	20	
Parallel bore DIN 138 transverse keyway	M2136-160-B40-24-06	160	40/40 B	63	6,5	24	6,05	24	SNEF120408R SNEX1204PN ..

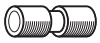




Bodies and assembly parts are included in the scope of delivery.

C 2

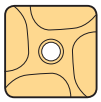
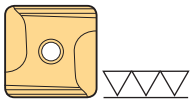
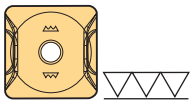
Assembly parts

	D_c [mm]	50–160
	Clamping wedge	FK377
	Clamping screw for clamping wedge Tightening torque	FS2185 (Torx 10IP) 4 Nm

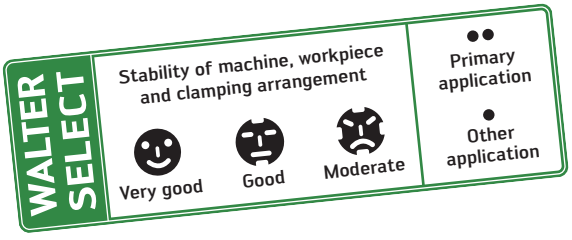
Accessories

	D_c [mm]	50–160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2268 (Torx 10IP)
	Screwdriver	FS2267 (Torx 10IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15
	SNEF120408R-B67	0,8	2,1								☻	☻	☻	☻					
	SNEF120408R-D67	0,8	2,1							☻		☻	☻	☻					
	SNEX1204PNR-B67	0,8	10,8							☻									☻
	SNEX1204PNN-A27	1,2	10,3							☻									☻

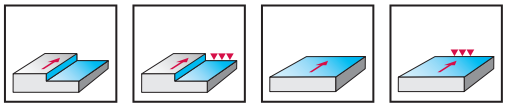
HC = Coated carbide
HW = Uncoated carbide

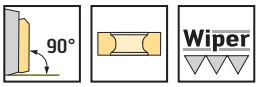


C 2

Close pitch cutter
M2136 inch
SNEF120408R

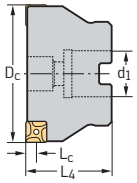
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M2136			●●				

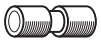
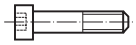
Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	M2136.051-B19-06-06	2,000	0.750	1,969	0,256	6	1,21	6	SNEF120408R SNEX1204PN ..
	M2136.064-B19-08-06	2,500	0.750	1,969	0,256	8	2,04	8	
	M2136.076-B26-12-06	3,000	1,000	1,969	0,256	12	2,59	12	
	M2136.102-B31-16-06	4,000	1.250	1,969	0,256	16	4,23	16	
	M2136.127-B38-20-06	5,000	1.500	2,480	0,256	20	9,24	20	
	M2136.152-B38-24-06	6,000	1.500	2,480	0,256	24	13,64	24	



Bodies and assembly parts are included in the scope of delivery.

C 2

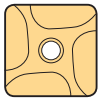
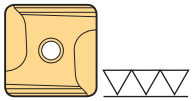
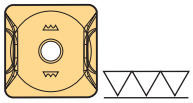
Assembly parts

	D_c [Inch]	2,000–2,500	3,000	4,000	5,000–6,000
	Clamping wedge	FK377	FK377	FK377	FK377
	Clamping screw for clamping wedge Tightening torque	FS2185 (Torx 10IP) 4 Nm	FS2185 (Torx 10IP) 4 Nm	FS2185 (Torx 10IP) 4 Nm	FS2185 (Torx 10IP) 4 Nm
	Clamping screw for arbour-mounted tools	FS1523	FS1519	FS1339	FS1583

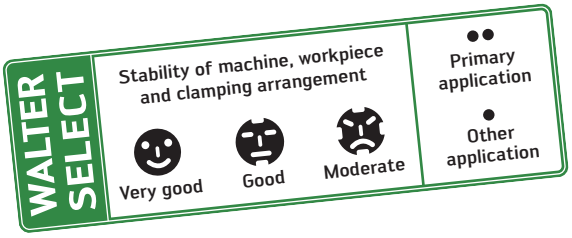
Accessories

	D_c [Inch]	2,000–6,000
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2268 (Torx 10IP)
	Screwdriver	FS2267 (Torx 10IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15
	SNEF120408R-B67	0,8	2,1								☺	☺	☹	☹					
	SNEF120408R-D67	0,8	2,1							☺		☺	☹	☹					
	SNEX1204PNR-B67	0,8	10,8							☺									☺
	SNEX1204PNN-A27	1,2	10,3							☺									☺

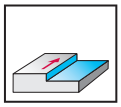
HC = Coated carbide
HW = Uncoated carbide

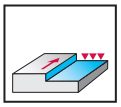


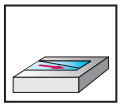
C 2

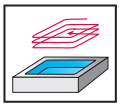
Ramping milling cutter
M2331 mm

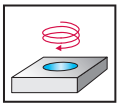
– For pocket machining
– Two cutting edges per indexable insert



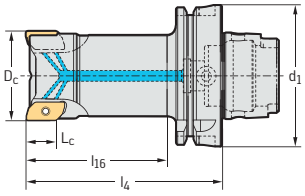
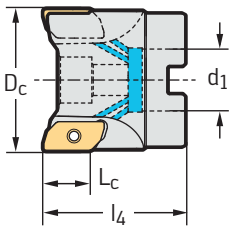








	P	M	K	N	S	H	O
M2331				●●			●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	L_c mm	Z	kg	No. of indexable inserts	Type
HSK DIN 69893-1 A	M2331-032-H80F-02-15-MA	32	HSK-A80/A63	110	65	15	2	1,5	2	ZDGT15A4 .. R
	M2331-040-H80F-02-20-MA	40	HSK-A80/A63	110	75	20	2	1,6	2	ZDGT20A5 .. R
	M2331-040-H80F-03-15-MA	40	HSK-A80/A63	110	75	15	3	1,6	3	ZDGT15A4 .. R
	M2331-050-H80F-03-20-MA	50	HSK-A80/A63	110	86	20	3	1,9	3	ZDGT20A5 .. R
	M2331-050-H80F-04-15-MA	50	HSK-A80/A63	110	86	15	4	1,9	4	ZDGT15A4 .. R
Parallel bore DIN 138 transverse keyway	M2331-040-B16-03-15	40	16	50		15	3	0,2	3	ZDGT15A4 .. R
	M2331-050-B22-03-20	50	22	60		20	3	0,4	3	ZDGT20A5 .. R
	M2331-050-B22-04-15	50	22	50		15	4	0,3	4	ZDGT15A4 .. R
	M2331-050-B22-02-20	50	22	60		20	2	0,5	2	ZDGT20A5 .. R
	M2331-050-B22-02-15	50	22	50		15	2	0,4	2	ZDGT15A4 .. R
	M2331-050-B22-03-15	50	22	50		15	3	0,4	3	

Pre-balanced tools
For information on high-speed applications, see "Technical information/Information on high-speed applications"
Tools with HSK have a residual imbalance of 3 gmm – with chip hole, without chip
M2331-...-MA special interface for Makino (similar to HSK-A DIN 69893)
For tools with locating bores, use longer tightening screws in accordance with ISO 4762, see "Assembly parts and accessories/Other"
Bodies and assembly parts are included in the scope of delivery.

C 2

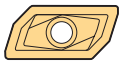
Assembly parts

Type D_c [mm]	ZDGT15A4 .. R 32	ZDGT15A4 .. R 40–50	ZDGT20A5 .. R 40–50
 Clamping screw for insert Tightening torque	FS1222 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS2281 (Torx 20IP) 5,0 Nm

Accessories

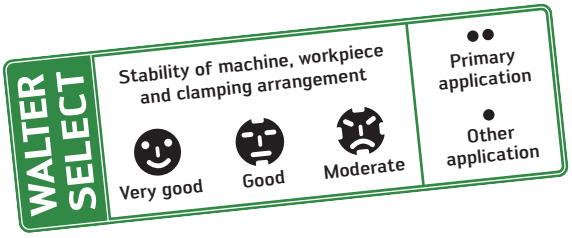
Type	ZDGT15A4 .. R	ZDGT20A5 .. R
 Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
 Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
 Interchangeable blade	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
 Screwdriver	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35S	N HF WMG40	S HC WSM35S	S HC WSP45S	O HF WMG40
	ZDGT15A404R-K85	0,4	1,2								●●			●●
	ZDGT15A408R-K85	0,8	1,2								●●			●●
	ZDGT15A412R-K85	1,2	1,2								●●			●●
	ZDGT15A416R-K85	1,6	1,2								●●			●●
	ZDGT15A420R-K85	2	1,2								●●			●●
	ZDGT15A425R-K85	2,5	1,2								●●			●●
	ZDGT15A430R-K85	3	1,2								●●			●●
	ZDGT15A440R-K85	4	1,2								●●			●●
	ZDGT20A508R-K85	0,8	1,2								●●			●●
	ZDGT20A512R-K85	1,2	1,2								●●			●●
	ZDGT20A516R-K85	1,6	1,2								●●			●●
	ZDGT20A520R-K85	2	1,2								●●			●●
	ZDGT20A530R-K85	3	1,2								●●			●●
	ZDGT20A540R-K85	4	1,2								●●			●●
	ZDGT20A550R-K85	5	1,2								●●			●●
	ZDGT20A560R-K85	6	1,2								●●			●●
	ZDGT20A564R-K85	6,4	1,2								●●			●●

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
R (body) = r (indexable insert) – 1 mm

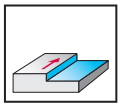
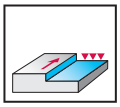
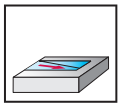
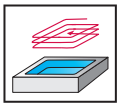
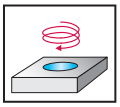
HC = Coated carbide
HF = Uncoated fine-grained carbide

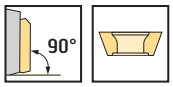


C 2

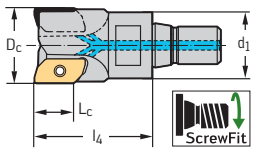
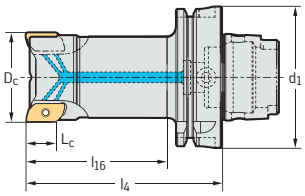
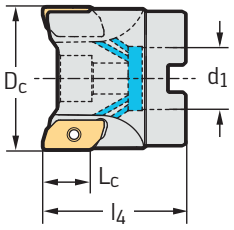
Ramping milling cutter
M2331 inch


– For pocket machining
– Two cutting edges per indexable insert



	P	M	K	N	S	H	O
M2331				●●			●

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	l_{16} Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
ScrewFit	M2331.051-T45-03-15	2,000	T45	2,000		0,591	3	1,3	3	ZDGT15A4 .. R
	M2331.051-T45-03-20	2,000	T45	2,000		0,787	3	1,1	3	ZDGT20A5 .. R
HSK DIN 69893-1 A	M2331.038-H80F-03-15-MA	1,500	80,000	4,331	2,524	0,591	3	3,5	3	ZDGT15A4 .. R
	M2331.051-H80F-03-20-MA	2,000	80,000	4,331	3,150	0,787	3	4,2	3	ZDGT20A5 .. R
	M2331.051-H80F-04-15-MA	2,000	80,000	4,331	3,150	0,591	4	4,2	4	ZDGT15A4 .. R
Parallel bore DIN 138 transverse keyway	M2331.051-B19-03-15	2,000	0.750	2,000		0,591	3	1,0	3	ZDGT15A4 .. R
	M2331.051-B19-02-20	2,000	0.750	2,000		0,787	2	1,0	2	ZDGT20A5 .. R
	M2331.051-B19-02-15	2,000	0.750	2,000		0,591	2	1,1	2	ZDGT15A4 .. R

Pre-balanced tools
For information on high-speed applications, see "Technical information/Information on high-speed applications"
Tools with HSK have a residual imbalance of 3 gmm – with chip hole, without chip
M2331-...-MA special interface for Makino (similar to HSK-A DIN 69893)
For tools with locating bores, use longer tightening screws in accordance with ISO 4762, see "Assembly parts and accessories/Other"
Bodies and assembly parts are included in the scope of delivery.

C 2

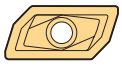
Assembly parts

	Type D_c [Inch]	ZDGT15A4 .. R 1,500	ZDGT15A4 .. R 2,000	ZDGT20A5 .. R 2,000
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS2281 (Torx 20IP) 5,0 Nm
	Clamping screw for arbour-mounted tools		FS1338	FS1338

Accessories

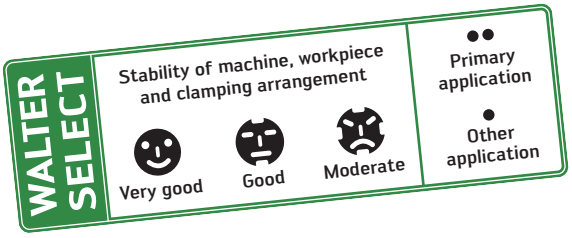
	Type	ZDGT15A4 .. R	ZDGT20A5 .. R
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35S	N HF WMG40	S HC WSM35S	S HC WSP45S	O HF WMG40
	ZDGT15A404R-K85	0,4	1,2								●●			●●
	ZDGT15A408R-K85	0,8	1,2								●●			●●
	ZDGT15A412R-K85	1,2	1,2								●●			●●
	ZDGT15A416R-K85	1,6	1,2								●●			●●
	ZDGT15A420R-K85	2	1,2								●●			●●
	ZDGT15A425R-K85	2,5	1,2								●●			●●
	ZDGT15A430R-K85	3	1,2								●●			●●
	ZDGT15A440R-K85	4	1,2								●●			●●
	ZDGT20A508R-K85	0,8	1,2								●●			●●
	ZDGT20A512R-K85	1,2	1,2								●●			●●
	ZDGT20A516R-K85	1,6	1,2								●●			●●
	ZDGT20A520R-K85	2	1,2								●●			●●
	ZDGT20A530R-K85	3	1,2								●●			●●
	ZDGT20A540R-K85	4	1,2								●●			●●
	ZDGT20A550R-K85	5	1,2								●●			●●
	ZDGT20A560R-K85	6	1,2								●●			●●
	ZDGT20A564R-K85	6,4	1,2								●●			●●

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
R (body) = r (indexable insert) – 1 mm

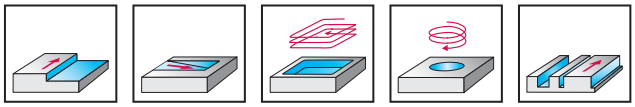
HC = Coated carbide
HF = Uncoated fine-grained carbide

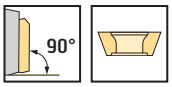


C 2

Shoulder milling cutters
M4130 mm

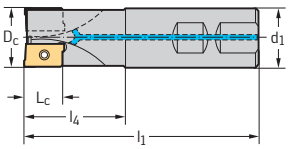
– Two cutting edges per indexable insert

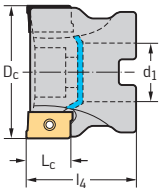




	P	M	K	N	S	H	O
M4130	●●	●●	●●		●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Shank DIN 1835 B	M4130-016-W16-02-08	16	16	40	90	8	2	0,1	2	
	M4130-020-W20-03-08	20	20	38	90	8	3	0,2	3	LDM . 08T204R
	M4130-025-W25-04-08	25	25	42	100	8	4	0,3	4	
	M4130-032-W32-04-13	32	32	49	110	13	4	0,6	4	LDM . 14T308R
Parallel bore DIN 138 transverse keyway	M4130-040-B16-05-13	40	16	40		13	5	0,2	5	LDM . 14T308R
	M4130-050-B22-06-13	50	22	40		13	6	0,3	6	
	M4130-050-B22-05-16	50	22	40		16	5	0,3	5	LDM . 1704 .. R
	M4130-063-B27-06-16	63	27	50		16	6	0,6	6	
	M4130-080-B27-07-16	80	27	50		16	7	0,9	7	
	M4130-100-B32-08-16	100	32	50		16	8	1,7	8	





Bodies and assembly parts are included in the scope of delivery.

C2

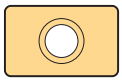
Assembly parts

	Type	LDM . 08T204R	LDM . 14T308R	LDM . 1704 .. R
	Clamping screw for insert Tightening torque	FS2084 (Torx 7IP) 0,9 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS1453 (Torx 15IP) 3,5 Nm

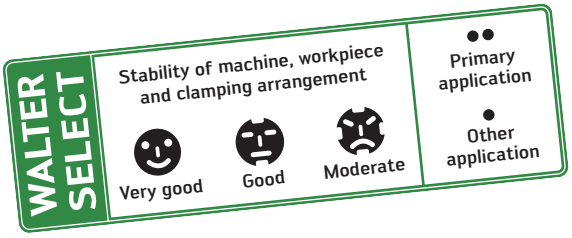
Accessories

	Type	LDM . 08T204R	LDM . 14T308R	LDM . 1704 .. R
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)	FS1485 (Torx 15IP)

Indexable inserts

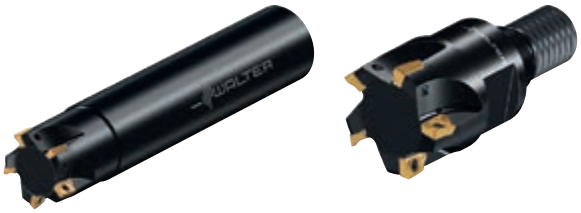
	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S
	LDMT08T204R-D51	0,4	0,8	☺	😐	😐	☹		☹			😐	☹	☹		☹
	LDMT08T204R-D57	0,4	0,8	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹	😐	☹
	LDMT08T204R-F57	0,4	0,8	☺	😐	😐	☹	😐	☹	☺		😐	☹	☹	😐	☹
	LDMW08T204R-A57	0,4	0,8	😐	☹	☹						😐	☹	☹		
	LDMT14T308R-D51	0,8	1,2	☺	😐	😐	☹		☹			😐	☹	☹		☹
	LDMT14T308R-D57	0,8	1,2	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹	😐	☹
	LDMT14T308R-F57	0,8	1,2	☺	😐	😐	☹	😐	☹	☺		😐	☹	☹	😐	☹
	LDMW14T308R-A57	0,8	1,2	😐	☹	☹						😐	☹	☹		
	LDMT170408R-D51	0,8	1,6	☺	😐	😐	☹		☹			😐	☹	☹		☹
	LDMT170408R-D57	0,8	1,6	☺	😐	😐	☹	😐	☹		😐	😐	☹	☹	😐	☹
	LDMT170408R-F57	0,8	1,6	☺	😐	😐	☹	😐	☹	☺		😐	☹	☹	😐	☹
	LDMT170412R-D51	1,2	1,6		😐	😐	☹		☹				☹	☹		☹
	LDMW170408R-A57	0,8	1,6	😐	☹	☹						😐	☹	☹		

HC = Coated carbide

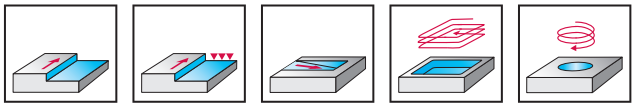


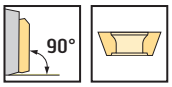
C 2

Shoulder milling cutters
M5130 mm
AC . T0602 .. R
Xtra·tec® XT

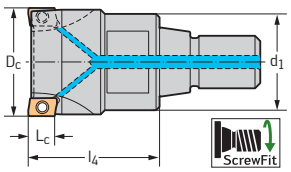
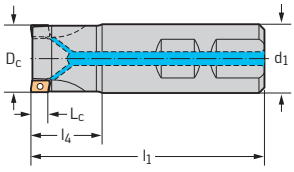
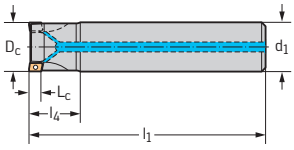


– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M5130	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	l_1 mm	Z	kg	No. of indexable inserts	Type
ScrewFit 	★ M5130-010-T09-02-05	10	T09	20	5		2	0,01	2	AC . T0602 .. R
	★ M5130-012-T09-03-05	12	T09	20	5		3	0,01	3	
	★ M5130-016-T14-03-05	16	T14	25	5		3	0,03	3	
	★ M5130-016-T14-04-05	16	T14	25	5		4	0,03	4	
	★ M5130-020-T18-04-05	20	T18	25	5		4	0,05	4	
	★ M5130-020-T18-05-05	20	T18	25	5		5	0,05	5	
	★ M5130-025-T22-05-05	25	T22	30	5		5	0,10	5	
	★ M5130-025-T22-07-05	25	T22	30	5		7	0,1	7	
	★ M5130-032-T28-06-05	32	T28	35	5		6	0,19	6	
	★ M5130-032-T28-08-05	32	T28	35	5		8	0,20	8	
	★ M5130-040-T36-07-05	40	T36	35	5		7	0,34	7	
	★ M5130-040-T36-10-05	40	T36	35	5		10	0,35	10	
Shank DIN 1835 B 	★ M5130-010-W10-02-05	10	10	16	5	60	2	0,03	2	AC . T0602 .. R
	★ M5130-010-W16-02-05	10	16	30	5	80	2	0,09	2	
	★ M5130-012-W12-03-05	12	12	19	5	65	3	0,05	3	
	★ M5130-012-W16-03-05	12	16	30	5	80	3	0,09	3	
	★ M5130-016-W16-03-05	16	16	21	5	70	3	0,09	3	
	★ M5130-016-W16-04-05	16	16	21	5	70	4	0,94	4	
	★ M5130-020-W20-04-05	20	20	24	5	75	4	0,16	4	
	★ M5130-020-W20-05-05	20	20	24	5	75	5	0,16	5	
	★ M5130-025-W25-05-05	25	25	26	5	85	5	0,29	5	
	★ M5130-025-W25-07-05	25	25	26	5	85	7	0,29	7	
Parallel shank 	★ M5130-010-A10-02-05	10	10	16	5	60	2	0,03	2	AC . T0602 .. R
	★ M5130-010-A16-02-05	10	16	30	5	80	2	0,24	2	
	★ M5130-012-A12-03-05	12	12	19	5	70	3	0,05	3	
	★ M5130-012-A16-03-05	12	12	30	5	80	3	0,09	3	
	★ M5130-014-A16-03-05	14	16	30	5	80	3	0,06	3	
	★ M5130-016-A16-03-05	16	16	21	5	90	3	0,12	3	
	★ M5130-016-A16-04-05	16	16	21	5	90	4	0,13	4	
	★ M5130-018-A16-03-05	18	16	21	5	90	3	0,13	3	
	★ M5130-020-A20-04-05	20	20	24	5	110	4	0,24	4	
	★ M5130-020-A20-05-05	20	20	24	5	110	5	0,24	5	
	★ M5130-022-A20-04-05	22	20	24	5	110	4	0,25	4	
	★ M5130-025-A25-05-05	25	25	26	5	120	5	0,42	5	
	★ M5130-025-A25-07-05	25	25	26	5	120	7	0,42	7	

Bodies and assembly parts are included in the scope of delivery.

C2

● ● ● / ★ New addition to the product range

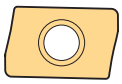
Assembly parts

	D_c [mm]	10–40
	Clamping screw for insert Tightening torque	FS2560 (Torx 6IP) 0,6 Nm

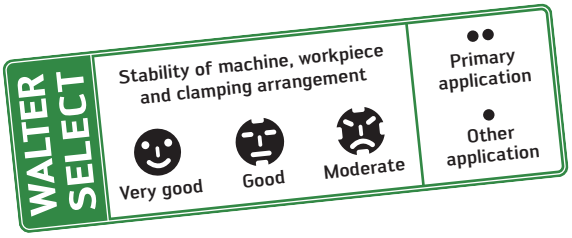
Accessories

	D_c [mm]	10–40
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm
	Interchangeable blade	SD2001-6IP
	Screwdriver	SD1001-6IP

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	ACGT060204R-G65	0,4	0,9	●●	●	●	○	●	○			●	○	○				○
	ACGT060204R-M85	0,4	0,9												●●	●		
	ACMT060202R-G55	0,2	1		●	●	○		○				○	○				○
	ACMT060204R-G55	0,4	0,9	●●	●	●	○		○	●●	●	●	○	○			●	○
	ACMT060204R-K55	0,4	0,9		●●	●●	●	●●	●				●●	●			●●	●
	ACMT060208R-G55	0,8	0,8		●	●	○		○				○	○				○
	ACMT060212R-G55	1,2	0,6		●	●	○		○				○	○				○
	ACMT060216R-G55	1,6	0,1		●	●	○		○				○	○				○

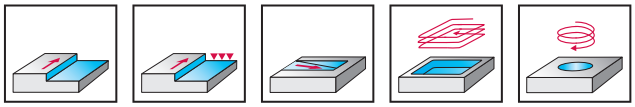
HC = Coated carbide
HW = Uncoated carbide

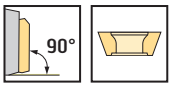


C 2

Shoulder milling cutters
M5130 mm
AC . T0602 .. R
Xtra·tec® XT

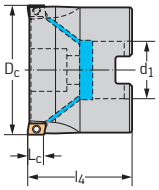
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M5130	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	l_1 mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5130-032-B16-06-05	32	16	40	5		6	0,14	6	AC . T0602 .. R
	★ M5130-032-B16-08-05	32	16	40	5		8	0,14	8	
	★ M5130-040-B16-07-05	40	16	40	5		7	0,27	7	
	★ M5130-040-B16-10-05	40	16	40	5		10	0,27	10	
	★ M5130-050-B22-09-05	50	22	40	5		9	0,42	9	
	★ M5130-050-B22-12-05	50	22	40	5		12	0,42	12	
	★ M5130-063-B22-11-05	63	22	40	5		11	0,54	11	
	★ M5130-063-B22-14-05	63	22	40	5		14	0,54	14	



Bodies and assembly parts are included in the scope of delivery.

C2

/ ★ New addition to the product range

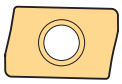
Assembly parts

	D_c [mm]	32–63
	Clamping screw for insert Tightening torque	FS2560 (Torx 6IP) 0,6 Nm

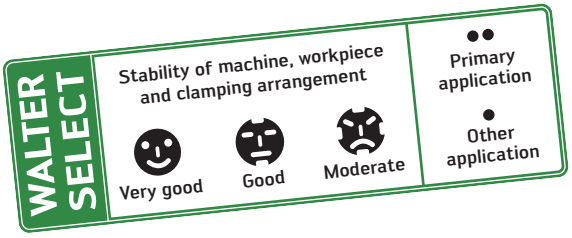
Accessories

	D_c [mm]	32–63
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm
	Interchangeable blade	SD2001-6IP
	Screwdriver	SD1001-6IP

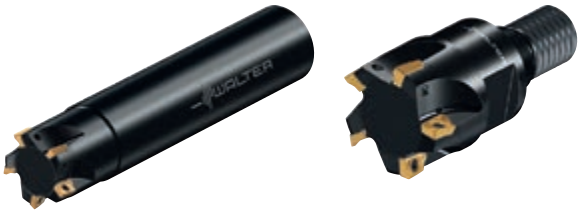
Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	ACGT060204R-G65	0,4	0,9	●●	●	●	○	●	○			●	○	○				○
	ACGT060204R-M85	0,4	0,9												●●	●●		
	ACMT060202R-G55	0,2	1		●	●	○		○				○	○				○
	ACMT060204R-G55	0,4	0,9	●●	●	●	○		○	●●	●	●	○	○			●	○
	ACMT060204R-K55	0,4	0,9		●●	●●	●	●●	●				●●	●			●●	●
	ACMT060208R-G55	0,8	0,8		●	●	○		○				○	○				○
	ACMT060212R-G55	1,2	0,6		●	●	○		○				○	○				○
	ACMT060216R-G55	1,6	0,1		●	●	○		○				○	○				○

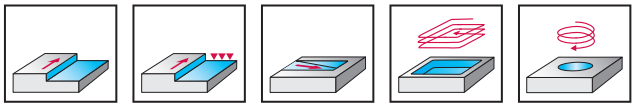
HC = Coated carbide
HW = Uncoated carbide

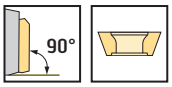


Shoulder milling cutters
M5130 inch
AC . T0602 .. R
Xtra·tec® XT



– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M5130	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	l_1 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
ScrewFit	★ M5130.013-T09-03-05	0,500	T09	0,787		0,197	3	0,0	3	
	★ M5130.015-T14-03-05	0,625	T14	0,984		0,197	3	0,1	3	
	★ M5130.015-T14-04-05	0,625	T14	0,984		0,197	4	0,1	4	
	★ M5130.019-T18-04-05	0,750	T18	0,984		0,197	4	0,1	4	
	★ M5130.019-T18-05-05	0,750	T18	0,984		0,197	5	0,1	5	
	★ M5130.026-T22-05-05	1,000	T22	1,181		0,197	5	0,2	5	AC . T0602 .. R
	★ M5130.026-T22-07-05	1,000	T22	1,181		0,197	7	0,2	7	
	★ M5130.031-T28-06-05	1,250	T28	1,378		0,197	6	0,4	6	
	★ M5130.031-T28-08-05	1,250	T28	1,378		0,197	8	0,4	8	
	★ M5130.038-T36-07-05	1,500	T36	1,378		0,197	7	0,7	7	
	★ M5130.038-T36-10-05	1,500	T36	1,378		0,197	10	0,8	10	
Shank DIN 1835 B	★ M5130.013-W13-03-05	0,500	1/2	0,700	2,281	0,197	3	0,1	3	
	★ M5130.015-W15-03-05	0,625	0.625	0,750	2,656	0,197	3	0,2	3	
	★ M5130.015-W15-04-05	0,625	0.625	0,750	2,656	0,197	4	0,2	4	
	★ M5130.019-W19-04-05	0,750	0.750	0,945	2,781	0,197	4	0,3	4	AC . T0602 .. R
	★ M5130.019-W19-05-05	0,750	0.750	0,945	2,781	0,197	5	0,3	5	
	★ M5130.026-W26-05-05	1,000	1,000	1,000	3,281	0,197	5	0,6	5	
	★ M5130.026-W26-07-05	1,000	1,000	1,000	3,281	0,197	7	0,6	7	
Parallel shank	★ M5130.013-A13-03-05	0,500	1/2	0,750	2,531	0,197	3	0,1	3	
	★ M5130.015-A15-03-05	0,625	0.625	0,750	3,566	0,197	3	0,3	3	
	★ M5130.015-A15-04-05	0,625	0.625	0,750	3,566	0,197	4	0,3	4	
	★ M5130.019-A19-04-05	0,750	0.750	1,000	4,250	0,197	4	0,5	4	AC . T0602 .. R
	★ M5130.019-A19-05-05	0,750	0.750	1,000	4,250	0,197	5	0,5	5	
	★ M5130.026-A26-05-05	1,000	1,000	1,000	4,750	0,197	5	1,0	5	
	★ M5130.026-A26-07-05	1,000	1,000	1,000	4,750	0,197	7	1,0	7	

Bodies and assembly parts are included in the scope of delivery.

C2

/ ★ New addition to the product range

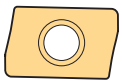
Assembly parts

	D_c [Inch]	0,500–1,500
	Clamping screw for insert Tightening torque	FS2560 (Torx 6IP) 0,6 Nm

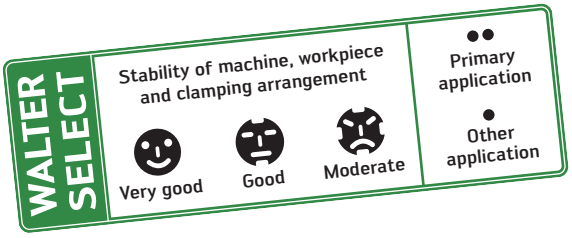
Accessories

	D_c [Inch]	0,500–1,500
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm
	Interchangeable blade	SD2001-6IP
	Screwdriver	SD1001-6IP

Indexable inserts

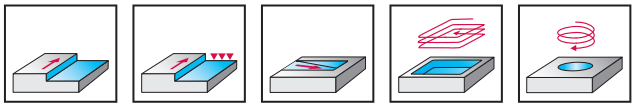
	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	ACGT060204R-G65	0,4	0,9	●●	●	●	○	●	○			●	○	○				○
	ACGT060204R-M85	0,4	0,9												●●	●●		
	ACMT060202R-G55	0,2	1		●	●	○		○				○	○				○
	ACMT060204R-G55	0,4	0,9	●●	●	●	○		○	●●	●	●	○	○			●	○
	ACMT060204R-K55	0,4	0,9		●●	●●	●	●●	●				●●	●			●●	●
	ACMT060208R-G55	0,8	0,8		●	●	○		○				○	○				○
	ACMT060212R-G55	1,2	0,6		●	●	○		○				○	○				○
	ACMT060216R-G55	1,6	0,1		●	●	○		○				○	○				○

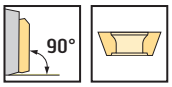
HC = Coated carbide
HW = Uncoated carbide



Shoulder milling cutters
M5130 inch
AC . T0602 .. R
Xtra·tec® XT

– Two cutting edges per indexable insert

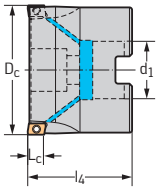




	P	M	K	N	S	H	O
M5130	●●	●●	●●	●●	●●	●	●

Tool

Parallel bore
DIN 138 transverse keyway



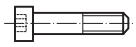
Designation	D_c Inch	d_1 Inch	l_4 Inch	l_1 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
★ M5130.051-B19-09-05	0,750	0.750	1,575		0,197	9	0,9	9	AC . T0602 .. R
★ M5130.051-B19-12-05	0,750	0.750	1,575		0,197	12	0,9	12	
★ M5130.064-B26-11-05	1,000	1,000	1,575		0,197	11	1,4	11	
★ M5130.064-B26-14-05	1,000	1,000	1,575		0,197	14	1,5	14	

Bodies and assembly parts are included in the scope of delivery.

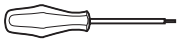
C2

/ ★ New addition to the product range

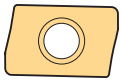
Assembly parts

	D_c [Inch]	0,750	1,000
	Clamping screw for insert Tightening torque	FS2560 (Torx 6IP) 0,6 Nm	FS2560 (Torx 6IP) 0,6 Nm
	Clamping screw for arbour-mounted tools	FS1518	FS1519

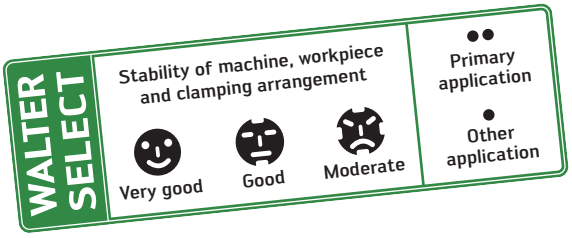
Accessories

	D_c [Inch]	0,750–1,000
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm
	Interchangeable blade	SD2001-6IP
	Screwdriver	SD1001-6IP

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	ACGT060204R-G65	0,4	0,9	●●	●	●	○	●	○			●	○	○				○
	ACGT060204R-M85	0,4	0,9												●●	●		
	ACMT060202R-G55	0,2	1		●	●	○		○				○	○				○
	ACMT060204R-G55	0,4	0,9	●●	●	●	○		○	●●	●	●	○	○			●	○
	ACMT060204R-K55	0,4	0,9		●●	●●	●	●●	●				●●	●			●●	●
	ACMT060208R-G55	0,8	0,8		●	●	○		○				○	○				○
	ACMT060212R-G55	1,2	0,6		●	●	○		○				○	○				○
	ACMT060216R-G55	1,6	0,1		●	●	○		○				○	○				○

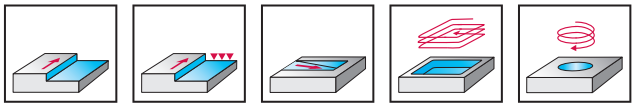
HC = Coated carbide
HW = Uncoated carbide

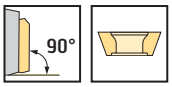


C 2

Shoulder milling cutters
M5130 mm
BC . T160508R
Xtra·tec® XT

– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M5130	●●	●●	●●		●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	l_1 mm	Z	kg	No. of indexable inserts	Type
ScrewFit	★ M5130-032-T28-03-15	32	T28	40	15		3	0,16	3	
	★ M5130-040-T36-03-15	40	T36	40	15		3	0,31	3	
	★ M5130-040-T36-04-15	40	T36	40	15		4	0,31	4	BC . T160508R
	★ M5130-050-T45-03-15	50	T45	40	15		3	0,45	3	
	★ M5130-050-T45-06-15	50	T45	40	15		6	0,45	6	
Shank DIN 1835 B	★ M5130-025-W25-02-15	25	25	43	15	100	2	0,30	2	BC . T160508R
	★ M5130-032-W32-03-15	32	32	49	15	110	3	0,56	3	
Parallel shank	★ M5130-025-A25-02-15	25	25	38	15	200	2	0,68	2	
	★ M5130-028-A25-02-15	28	25	38	15	200	2	0,70	2	
	★ M5130-032-A32-03-15	32	32	39	15	250	3	1,43	3	BC . T160508R
	★ M5130-035-A32-03-15	35	32	39	15	250	3	1,46	3	

Bodies and assembly parts are included in the scope of delivery.

C2

/ ★ New addition to the product range

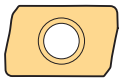
Assembly parts

	D_c [mm]	25–50
	Clamping screw for insert Tightening torque	FS2300 (Torx 15IP) 3,5 Nm

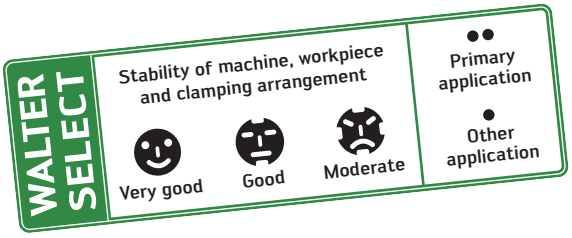
Accessories

	D_c [mm]	25–50
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

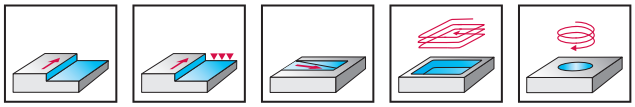
	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	BCGT160508R-G55	0,8	2	●●	●●	●●	●●	●●		●●	●●		●●	●●	●●			●●
	BCMT160508R-F55	0,8	2	●●	●●	●●	●●			●●	●●	●●	●●	●●	●●			●●
	BCMT160508R-G55	0,8	2	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●
	BCMT160508R-K55	0,8	2		●	●	●●	●		●				●●	●●	●		●●

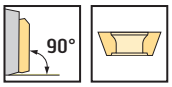
HC = Coated carbide



Shoulder milling cutters
M5130 mm
BC . T160508R
Xtra·tec® XT

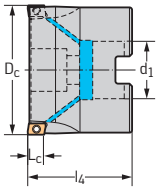
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M5130	●●	●●	●●		●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	l_1 mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5130-040-B16-03-15	40	16	40	15		3	0,15	3	BC . T160508R
	★ M5130-040-B16-04-15	40	16	40	15		4	0,14	4	
	★ M5130-042-B16-03-15	42	16	40	15		3	0,17	3	
	★ M5130-050-B22-03-15	50	22	40	15		3	0,31	3	
	★ M5130-050-B22-06-15	50	22	40	15		6	0,31	6	
	★ M5130-052-B22-03-15	52	22	40	15		3	0,34	3	
	★ M5130-063-B22-04-15	63	22	40	15		4	0,43	4	
	★ M5130-063-B27-04-15	63	27	50	15		4	0,66	4	
	★ M5130-063-B22-07-15	63	22	40	15		7	0,45	7	
	★ M5130-063-B27-07-15	63	27	50	15		7	0,68	7	
	★ M5130-066-B27-04-15	66	22	50	15		4	0,72	4	
	★ M5130-080-B27-05-15	80	27	50	15		5	0,92	5	
	★ M5130-080-B27-08-15	80	27	50	15		8	0,97	8	
	★ M5130-085-B27-05-15	85	27	50	15		5	1,03	5	
	★ M5130-100-B32-05-15	100	32	50	15		5	1,55	5	
	★ M5130-100-B32-08-15	100	32	50	15		8	1,62	8	
	★ M5130-125-B40-07-15	125	40	63	15		7	2,47	7	
	★ M5130-125-B40-10-15	125	40	63	15		10	2,67	10	



Bodies and assembly parts are included in the scope of delivery.

C2

/ ★ New addition to the product range

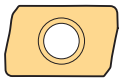
Assembly parts

	D_c [mm]	40–125
	Clamping screw for insert Tightening torque	FS2300 (Torx 15IP) 3,5 Nm

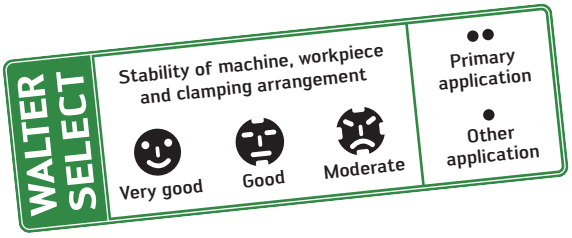
Accessories

	D_c [mm]	40–125
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	BCGT160508R-G55	0,8	2	●●	●●	●●	●●	●●		●●	●●		●●	●●	●●			●●
	BCMT160508R-F55	0,8	2	●●	●●	●●	●●			●●	●●	●●	●●	●●	●●			●●
	BCMT160508R-G55	0,8	2	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●
	BCMT160508R-K55	0,8	2		●●	●●	●●	●●		●●				●●	●●	●●		●●

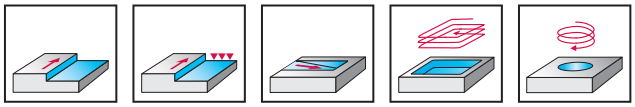
HC = Coated carbide

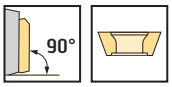


C 2

Shoulder milling cutters
M5130 mm
BC . T160508R
Xtra·tec® XT

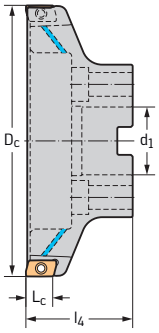
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M5130	●●	●●	●●		●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	l_1 mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5130-160-B40-08-15	160	40/40 B	63	15		8	2,88	8	BC . T160508R
	★ M5130-160-B40-12-15	160	40/40 B	63	15		12	3,02	12	



Bodies and assembly parts are included in the scope of delivery.

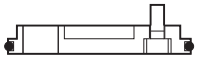
C2

/ ★ New addition to the product range

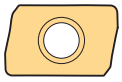
Assembly parts

	D_c [mm]	160
	Clamping screw for insert Tightening torque	FS2300 (Torx 15IP) 3,5 Nm

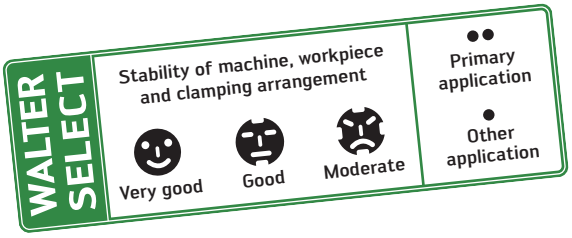
Accessories

	D_c [mm]	160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)
	Sealing disc set (incl. gasket and screws)	FS936 COMPLETE SET
	Gasket	O-R 96X4

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	BCGT160508R-G55	0,8	2	●●	●	●	○	●		○	●●		●	○	○			○
	BCMT160508R-F55	0,8	2	●●	●	●	○			○	●●	●	●	○	○			○
	BCMT160508R-G55	0,8	2	●●	●	●	○	●	○	○	●●	●	●	○	○	●	○	○
	BCMT160508R-K55	0,8	2		●●	●●	●	●●		●				●	●	●●		●

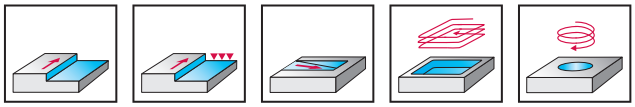
HC = Coated carbide

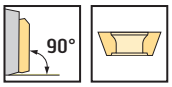


C 2

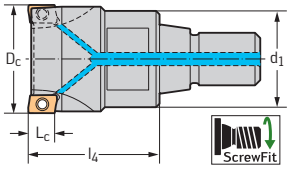
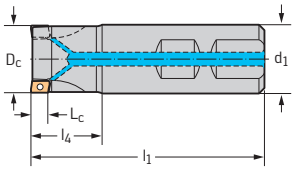
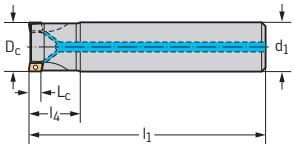
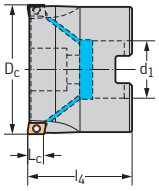
Shoulder milling cutters
M5130 inch
BC . T160508R
Xtra·tec® XT


– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M5130	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	l_1 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
ScrewFit 	★ M5130.038-T36-03-15	1,500	T36	1,500		0,591	3	0,7	3	BC . T160508R
	★ M5130.038-T36-04-15	1,500	T36	1,500		0,591	4	0,7	4	
	★ M5130.051-T45-06-15	2,000	T45	1,575		0,591	6	1,0	6	
Shank DIN 1835 B 	★ M5130.026-W26-02-15	1,000	1,000	1,850	4,131	0,591	2	0,7	3	BC . T160508R
	★ M5130.031-W31-03-15	1,250	1.250	1,500	3,781	0,591	3	1,0	3	
	★ M5130.038-W31-04-15	1,500	1.250	1,730	4,008	0,591	4	1,3	3	
Parallel shank 	★ M5130.026-A26-02-15	1,000	1,000	1,850	8,350	0,591	2	1,6	2	BC . T160508R
	★ M5130.031-A31-03-15	1,250	1.250	1,500	92,547	0,591	3	3,1	3	
Parallel bore DIN 138 transverse keyway 	★ M5130.051-B19-03-15	2,000	0.750	1,575		0,591	3	0,7	3	BC . T160508R
	★ M5130.051-B19-06-15	2,000	0.750	1,575		0,591	6	0,7	6	
	★ M5130.064-B26-04-15	2,500	1,000	1,575		0,591	4	1,1	4	
	★ M5130.064-B26-07-15	2,500	1,000	1,575		0,591	7	1,1	7	
	★ M5130.076-B26-05-15	3,000	1,000	1,969		0,591	5	2,5	5	
	★ M5130.076-B26-08-15	3,000	1,000	1,969		0,591	8	2,3	8	
	★ M5130.102-B38-05-15	4,000	1.500	2,480		0,591	5	5,3	5	
	★ M5130.102-B38-08-15	4,000	1.500	2,480		0,591	8	6,0	8	
	★ M5130.127-B38-07-15	5,000	1.500	2,480		0,591	7	7,5	7	
	★ M5130.127-B38-10-15	5,000	1.500	2,480		0,591	10	8,2	10	
	★ M5130.152-B38-08-15	6,000	1.500	2,480		0,591	8	10,4	8	
	★ M5130.152-B38-12-15	6,000	1.500	2,480		0,591	12	10,2	12	

Bodies and assembly parts are included in the scope of delivery.

C 2

/ ★ New addition to the product range

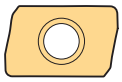
Assembly parts

	D_c [Inch]	1,000–1,500	2,000	2,500–3,000	4,000–6,000
	Clamping screw for insert Tightening torque	FS2300 (Torx 15IP) 3,5 Nm	FS2300 (Torx 15IP) 3,5 Nm	FS2300 (Torx 15IP) 3,5 Nm	FS2300 (Torx 15IP) 3,5 Nm
	Clamping screw for arbour-mounted tools		FS1523	FS1519	FS1583

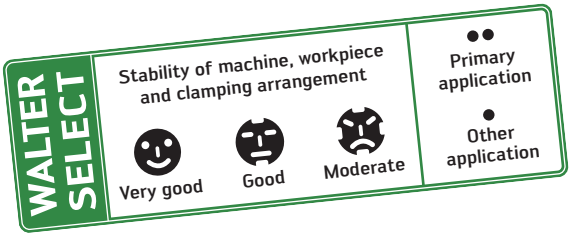
Accessories

	D_c [Inch]	1,000–6,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

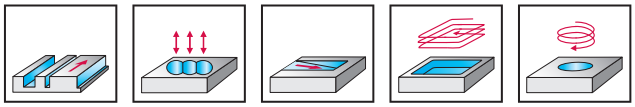
	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	BCGT160508R-G55	0,8	2	●●	●	●	○	●		○	●●		●	○	○			○
	BCMT160508R-F55	0,8	2	●●	●	●	○			○	●●	●	●	○	○			○
	BCMT160508R-G55	0,8	2	●●	●	●	○	●	○	○	●●	●	●	○	○	●	○	○
	BCMT160508R-K55	0,8	2		●●	●●	●	●●		●				●	●	●●		●

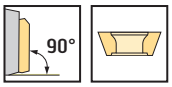
HC = Coated carbide



Routing cutters
M4791 inch

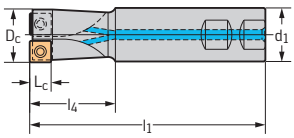
– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
M4791	●●	●●	●●	●●	●●	●	

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	l_1 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Shank DIN 1835 B	M4791.019-W19-01-06	0,750	0.750	1,529	3,560	0,220	1	0,3	2	SD .. 06T204
	M4791.026-W26-01-09	1,000	1,000	2,844	5,125	0,331	1	0,9	2	SD .. 09T30 ..
	M4791.031-W31-01-12	1,250	1.250	3,219	5,500	0,457	1	1,4	2	SD .. 120408
	M4791.038-W31-01-12	1,500	1.250	3,219	5,500	0,457	1	1,5	2	



Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	Type	SD .. 06T204	SD .. 09T30 ..	SD .. 120408
	Clamping screw for insert Tightening torque	FS2084 (Torx 7IP) 0,9 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS1453 (Torx 15IP) 3,5 Nm

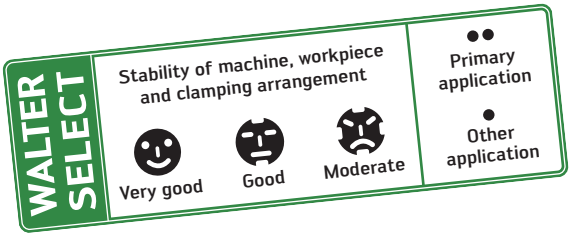
Accessories

	Type	SD .. 06T204	SD .. 09T30 ..	SD .. 120408
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDHT06T204-G88	0,4													☺	☺			
	SDMT06T204-D51	0,4	☺	😐	😐	☹			☹			😐	☹	☹					☹
	SDMT06T204-D57	0,4	☺	😐	😐	☹	😐		☹		😐	😐	☹	☹			😐		☹
	SDMT06T204-F57	0,4	☺	😐	😐	☹	😐	☹	☹	☺		😐	☹	☹			😐	☹	☹
	SDMW06T204-A57	0,4	😐	☹	☹							😐	☹	☹					
	SDHT09T304-G88	0,4													☺	☺			
	SDHT09T308-G88	0,8													☺	☺			
	SDMT09T308-D51	0,8	☺	😐	😐	☹			☹			😐	☹	☹					☹
	SDMT09T308-D57	0,8	☺	😐	😐	☹	😐		☹		😐	😐	☹	☹			😐		☹
	SDMT09T308-F57	0,8	☺	😐	😐	☹	😐	☹	☹	☺		😐	☹	☹			😐	☹	☹
	SDMW09T308-A57	0,8	😐	☹	☹							😐	☹	☹					
	SDHT120408-G88	0,8													☺	☺			
	SDMT120408-D51	0,8	☺	😐	😐	☹			☹			😐	☹	☹					☹
	SDMT120408-D57	0,8	☺	😐	😐	☹	😐		☹		😐	😐	☹	☹			😐		☹
	SDMT120408-F57	0,8	☺	😐	😐	☹	😐	☹	☹	☺		😐	☹	☹			😐	☹	☹
	SDMW120408-A57	0,8	😐	☹	☹							😐	☹	☹					

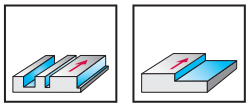
HC = Coated carbide
HW = Uncoated carbide

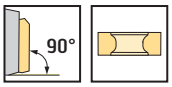


C 2

Porcupine milling cutters
M3255 mm
XNHX1306 / LNHX1206 .. R
Walter BLAXX

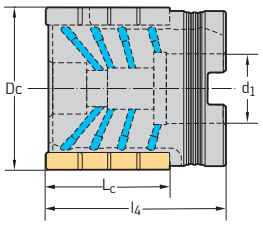
– Full effective design
– Two or four cutting edges per indexable insert, tangential arrangement





	P	M	K	N	S	H	O
M3255					●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	M3255-050-B22-04-46	50	22	65	46	4	0,5	4 12	XNHX1306 .. R LNHX120604R
	M3255-050-B22-05-46	50	22	65	46	5	0,5	5 15	
	M3255-063-B27-05-46	63	27	70	46	5	1,0	5 15	
	M3255-063-B27-06-46	63	27	70	46	6	1,0	6 18	
	M3255-080-B32-05-58	80	32	85	58	5	2,0	5 25	
	M3255-080-B32-06-58	80	32	85	58	6	2,0	6 24	



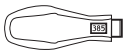
For tools with locating bores, use longer tightening screws in accordance with ISO 4762, see "Assembly parts and accessories/Other"
The FS2250 coolant nozzle must be secured to prevent it from coming loose.
Bodies and assembly parts are included in the scope of delivery.

C 2

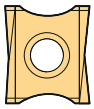
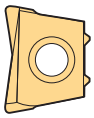
Assembly parts

	D_c [mm]	50–80
	Clamping screw for insert Tightening torque	FS2299 (Torx 15IP) 4 Nm
	Coolant nozzle	FS2250 (SW 1,5)

Accessories

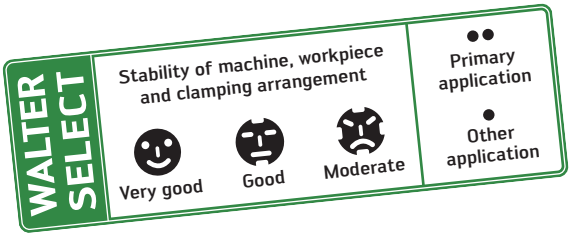
	D_c [mm]	50–80
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	LNHX120604R-L65T	0,4															●●	●●
	XNHX130608R-L65T	0,8	2														●●	●●
	XNHX130612R-L65T	1,2	2														●●	●●
	XNHX130616R-L65T	1,6	2														●●	●●
	XNHX130620R-L65T	2	2														●●	●●
	XNHX130624R-L65T	2,4	2														●●	●●
	XNHX130630R-L65T	3	1,4														●●	●●
	XNHX130632R-L65T	3,2	1,3														●●	●●
	XNHX130640R-L65T	4	0,5														●●	●●

XNHX1306 . . indexable inserts can only be used as front inserts.

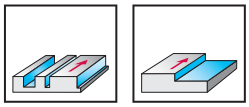
HC = Coated carbide
HW = Uncoated carbide

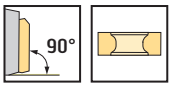


C 2

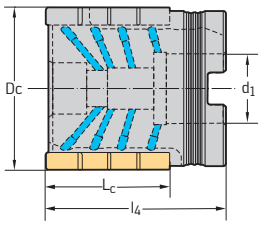
Porcupine milling cutters
M3255 inch
XNHX1306 / LNHX1206 .. R
Walter BLAXX

– Full effective design
– Two or four cutting edges per indexable insert, tangential arrangement





	P	M	K	N	S	H	O
M3255					●●		

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway 	M3255.051-B19-04-46	2,000	0.750	2,559	1,811	4	1,28	4 12	XNHX1306 .. R LNHX120604R
	M3255.051-B19-05-46	2,000	0.750	2,559	1,811	5	1,11	5 15	
	M3255.051-B26-04-57	2,000	1,000	3,375	2,244	4	1,83	4 16	
	M3255.051-B26-05-57	2,000	1,000	3,375	2,244	5	1,47	5 20	
	M3255.064-B26-05-46	2,500	1,000	2,756	1,811	5	2,30	5 15	
	M3255.064-B26-06-46	2,500	1,000	2,756	1,811	6	2,29	6 18	
	M3255.064-B26-05-68	2,500	1,000	3,550	2,677	5	2,72	5 25	
	M3255.076-B31-05-58	3,000	1.250	3,346	2,283	5	4,37	5 20	
	M3255.076-B31-06-58	3,000	1.250	3,346	2,283	6	4,20	6 24	
	M3255.076-B31-05-80	3,000	1.250	4,250	3,150	5	5,07	5 30	
	M3255.076-B31-06-80	3,000	1.250	4,250	3,150	6	5,17	6 36	

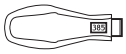
The FS2250 coolant nozzle must be secured to prevent it from coming loose.
Bodies and assembly parts are included in the scope of delivery.

C 2

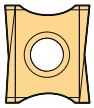
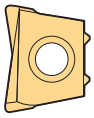
Assembly parts

	D_c [Inch] L_c [Inch]	2,000 1,811	2,000 2,244	2,500 1,811	2,500 2,677	3,000 2,283	3,000 3,150
	Clamping screw for insert Tightening torque	FS2299 (Torx 15IP) 4 Nm	FS2299 (Torx 15IP) 4 Nm	FS2299 (Torx 15IP) 4 Nm	FS2299 (Torx 15IP) 4 Nm	FS2299 (Torx 15IP) 4 Nm	FS2299 (Torx 15IP) 4 Nm
	Coolant nozzle	FS2250 (SW 1,5)	FS2250 (SW 1,5)	FS2250 (SW 1,5)	FS2250 (SW 1,5)	FS2250 (SW 1,5)	FS2250 (SW 1,5)
	Clamping screw for arbour-mounted tools	FS1528	FS1614	FS1614	FS2567	FS1520	FS2568

Accessories

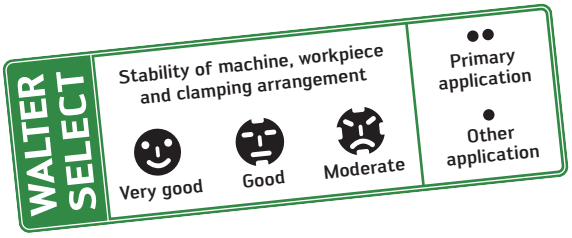
	D_c [Inch]	2,000-3,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC			M HC			K HC				N HC	N HW	S HC		
				WKP25S	WKP35S	WSP45S	WSM35S	WSM45X	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM45X	WSP45S
	LNHX120604R-L65T	0,4															●●	●●
	XNHX130608R-L65T	0,8	2														●●	●●
	XNHX130612R-L65T	1,2	2														●●	●●
	XNHX130616R-L65T	1,6	2														●●	●●
	XNHX130620R-L65T	2	2														●●	●●
	XNHX130624R-L65T	2,4	2														●●	●●
	XNHX130630R-L65T	3	1,4														●●	●●
	XNHX130632R-L65T	3,2	1,3														●●	●●
	XNHX130640R-L65T	4	0,5														●●	●●

XNHX1306 . . indexable inserts can only be used as front inserts.

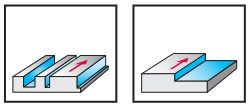
HC = Coated carbide
HW = Uncoated carbide

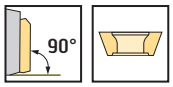


C 2

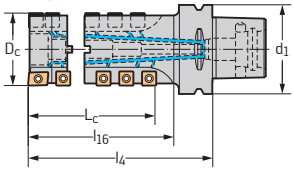
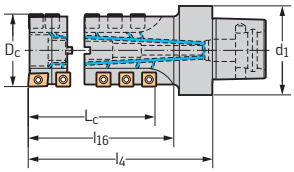
Porcupine milling cutters
M4258 modular mm
SDM . 120408 / LDM.1704 .. R

– Two or four cutting edges per indexable insert
– Half effective design with corner front piece





	P	M	K	N	S	H	O
M4258 modular	●●	●●	●●		●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	L_c mm	Z	kg	No. of indexable inserts	Type
Walter Capto™ in accordance with ISO 26623 	M4258-050-C6-02-75-M	50	C6	110	88	77	2	1,3	14 2	SDM . 120408 LDM . 1704 .. R
	M4258-063-C8-02-96-M	63	C8	150	115	98	2	3,1	18 2	
Walter Capto™ similar to ISO 26623 (without gripper groove) 	M4258-080-C8-03-116-M	80	C8	150	150	118	3	3,9	33 3	SDM . 120408 LDM . 1704 .. R

Body with 80 mm diameter: Adaptor without gripper groove
Bodies and assembly parts are included in the scope of delivery.

C2

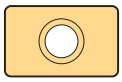
Assembly parts

	D_c [mm]	50	63–80
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm
	Clamping screw for front piece Tightening torque	FS370 (SW 10) 40 Nm	FS373 (SW 12) 120,0 Nm

Accessories

	D_c [mm]	50–80
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	LDMT170408R-D51	0,8	1,6	●●	●	●	○			○			●	○	○			○
	LDMT170408R-D57	0,8	1,6	●●	●	●	○	●		○		●	●	○	○	●		○
	LDMT170408R-F57	0,8	1,6	●●	●	●	○	●		○	●●		●	○	○	●		○
	LDMT170412R-D51	1,2	1,6		●	●	○			○				○	○			○
	LDMW170408R-A57	0,8	1,6	●	○	○							●	○	○			
	SDMT120408-D51	0,8		●●	●	●	○			○			●	○	○			○
	SDMT120408-D57	0,8		●●	●	●	○	●		○		●	●	○	○	●		○
	SDMT120408-F57	0,8		●●	●	●	○	●	○	○	●●		●	○	○	●	○	○
	SDMW120408-A57	0,8		●	○	○							●	○	○			

HC = Coated carbide

WALTER SELECT

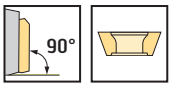
Stability of machine, workpiece and clamping arrangement

Very good · Good · Moderate

●● Primary application

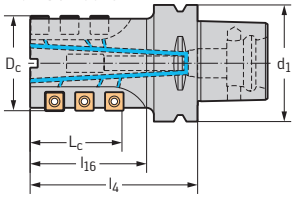
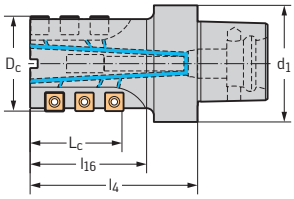
● Other application

Porcupine milling cutter basic bodies
M4258 modular mm
SDM . 120408



– Two or four cutting edges per indexable insert
– Basic body for porcupine milling cutters

	P	M	K	N	S	H	O
M4258 modular	●●	●●	●●		●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	L_c mm	Z	kg	No. of indexable inserts	Type
Walter Capto™ in accordance with ISO 26623 	M4258-050-C6-02-50-B	50	C6	85	62	52	2	1,2	10	SDM . 120408
	M4258-063-C8-02-60-B	63	C8	115	80	63	2	2,8	12	
Walter Capto™ similar to ISO 26623 (without gripper groove) 	M4258-080-C8-03-80-B	80	C8	115	115	83	3	3,3	25	SDM . 120408

Body with 80 mm diameter: Adaptor without gripper groove
Bodies and assembly parts are included in the scope of delivery.

C2

Assembly parts

	D_c [mm]	50–80
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm

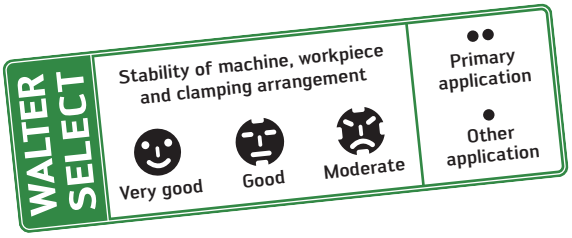
Accessories

	D_c [mm]	50–80
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

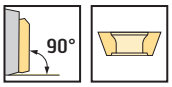
	Designation	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDMT120408-D51	0,8	☺	😐	😐	☹			☹			😐	☹	☹			☹
	SDMT120408-D57	0,8	☺	😐	😐	☹	😐		☹		😐	😐	☹	☹	😐		☹
	SDMT120408-F57	0,8	☺	😐	😐	☹	😐	☹	☹	☺		😐	☹	☹	😐	☹	☹
	SDMW120408-A57	0,8	😐	☹	☹							😐	☹	☹			

HC = Coated carbide



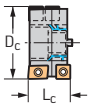
C2

Porcupine milling cutter front piece
M4258 modular mm
SDM . 120408 / LDM.1704 .. R



– Two or four cutting edges per indexable insert
– Half effective design with corner front piece

	P	M	K	N	S	H	O
M4258 modular	●●	●●	●●		●●		

Tool	Designation	D_c mm	L_c mm	Z	kg	No. of indexable inserts	Type
	M4258-050-P20-02-25-F	50	25	2	0,1	4 2	SDM . 120408 LDM . 1704 .. R
	M4258-063-P30-02-36-F	63	35	2	0,3	6 2	
	M4258-080-P40-03-36-F	80	35	3	0,6	9 3	

Bodies and assembly parts are included in the scope of delivery.

C2

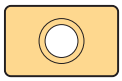
Assembly parts

	D_c [mm]	50–80
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm

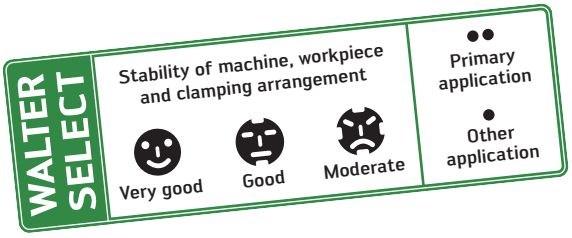
Accessories

	D_c [mm]	50–80
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

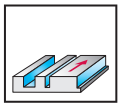
	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	LDMT170408R-D51	0,8	1,6	●●	●	●	○			○			●	○	○			○
	LDMT170408R-D57	0,8	1,6	●●	●	●	○	●		○		●	●	○	○	●		○
	LDMT170408R-F57	0,8	1,6	●●	●	●	○	●		○	●●		●	○	○	●		○
	LDMT170412R-D51	1,2	1,6		●	●	○			○				○	○			○
	LDMW170408R-A57	0,8	1,6	●	○	○							●	○	○			
	SDMT120408-D51	0,8		●●	●	●	○			○			●	○	○			○
	SDMT120408-D57	0,8		●●	●	●	○	●		○		●	●	○	○	●		○
	SDMT120408-F57	0,8		●●	●	●	○	●	○	○	●●		●	○	○	●	○	○
	SDMW120408-A57	0,8		●	○	○							●	○	○			

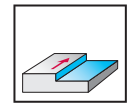
HC = Coated carbide

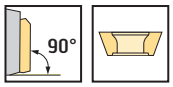


Porcupine milling cutters
M4258 modular inch
SDM . 120408 / LDM.1704 .. R

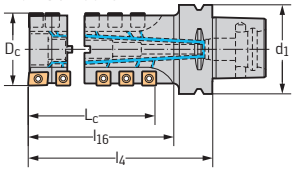
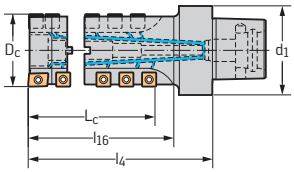
– Two or four cutting edges per indexable insert
– Half effective design with corner front piece







	P	M	K	N	S	H	O
M4258 modular	●●	●●	●●		●●		

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	l_{16} Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Walter Capto™ in accordance with ISO 26623 	M4258.051-C6-02-75-M	2,000	C6	4,331	3,445	3,031	2	2,9	14 2	SDM . 120408 LDM . 1704 .. R
	M4258.064-C8-02-96-M	2,500	C8	5,906	4,528	3,858	2	7,0	18 2	
Walter Capto™ similar to ISO 26623 (without gripper groove) 	M4258.076-C8-03-116-M	3,000	C8	5,906	5,906	4,646	3	8,0	33 3	SDM . 120408 LDM . 1704 .. R

Body with 80 mm diameter: Adaptor without gripper groove
Bodies and assembly parts are included in the scope of delivery.

C2

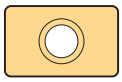
Assembly parts

	D_c [Inch]	2,000	2,500-3,000
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm
	Clamping screw for front piece Tightening torque	FS370 (SW 10) 40 Nm	FS373 (SW 12) 120,0 Nm

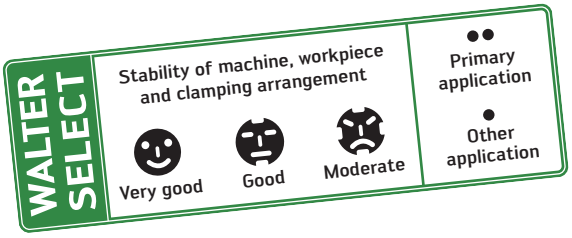
Accessories

	D_c [Inch]	2,000-3,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

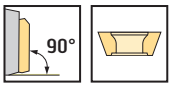
Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	LDMT170408R-D51	0,8	1,6	●●	●	●	○			○			●	○	○			○
	LDMT170408R-D57	0,8	1,6	●●	●	●	○	●		○		●	●	○	○	●		○
	LDMT170408R-F57	0,8	1,6	●●	●	●	○	●		○	●●		●	○	○	●		○
	LDMT170412R-D51	1,2	1,6		●	●	○			○				○	○			○
	LDMW170408R-A57	0,8	1,6	●	○	○							●	○	○			
	SDMT120408-D51	0,8		●●	●	●	○			○			●	○	○			○
	SDMT120408-D57	0,8		●●	●	●	○	●		○		●	●	○	○	●		○
	SDMT120408-F57	0,8		●●	●	●	○	●	○	○	●●		●	○	○	●	○	○
	SDMW120408-A57	0,8		●	○	○							●	○	○			

HC = Coated carbide



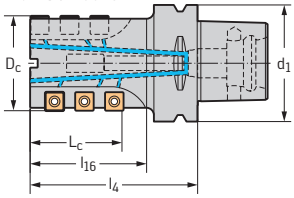
Porcupine milling cutter basic bodies
M4258 modular inch
SDM . 120408

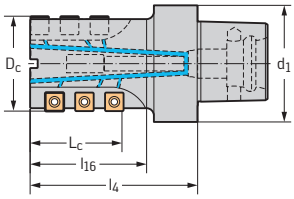


– Two or four cutting edges per indexable insert
– Basic body for porcupine milling cutters

	P	M	K	N	S	H	O
M4258 modular	●●	●●	●●		●●		

Tool	Designation	D_c Inch	d_1 Inch	l_4 Inch	l_{16} Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Walter Capto™ in accordance with ISO 26623	M4258.051-C6-02-50-B	2,000	C6	3,346	2,441	2,047	2	2,6	10	SDM . 120408
	M4258.064-C8-02-60-B	2,500	C8	4,528	3,150	2,480	2	6,2	12	
Walter Capto™ similar to ISO 26623 (without gripper groove)	M4258.076-C8-03-80-B	3,000	C8	4,528	4,528	3,268	3	6,8	25	SDM . 120408





Body with 80 mm diameter: Adaptor without gripper groove
Bodies and assembly parts are included in the scope of delivery.

C2

Assembly parts

	D_c [Inch]	2,000-3,000
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm

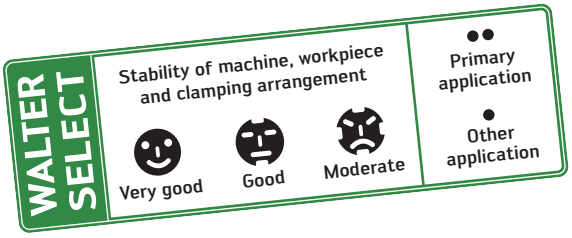
Accessories

	D_c [Inch]	2,000-3,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

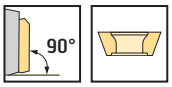
Indexable inserts

	Designation	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDMT120408-D51	0,8	●●	●	●	○			○			●	○	○			○
	SDMT120408-D57	0,8	●●	●	●	○	●		○		●	●	○	○	●		○
	SDMT120408-F57	0,8	●●	●	●	○	●	○	○	●●		●	○	○	●	○	○
	SDMW120408-A57	0,8	●	○	○							●	○	○			

HC = Coated carbide

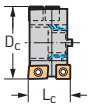


Porcupine milling cutter front piece
M4258 modular inch
SDM . 120408 / LDM.1704 .. R



– Two or four cutting edges per indexable insert
– Half effective design with corner front piece

	P	M	K	N	S	H	O
M4258 modular	●●	●●	●●		●●		

Tool	Designation	D_c Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
	M4258.051-P20-02-25-F	2,000	0,984	2	0,3	4 2	SDM . 120408 LDM . 1704 .. R
	M4258.064-P30-02-36-F	2,500	1,378	2	0,7	6 2	
	M4258.076-P40-03-36-F	3,000	1,378	3	1,3	9 3	

Bodies and assembly parts are included in the scope of delivery.

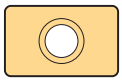
Assembly parts

	D_c [Inch]	2,000–3,000
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm

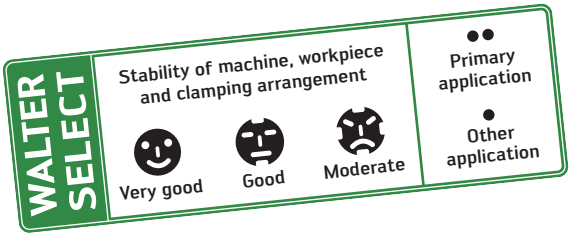
Accessories

	D_c [Inch]	2,000–3,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

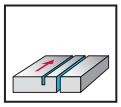
	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	LDMT170408R-D51	0,8	1,6	●●	●●	●●	●			●			●●	●	●			●
	LDMT170408R-D57	0,8	1,6	●●	●●	●●	●	●●		●		●●	●●	●	●	●●		●
	LDMT170408R-F57	0,8	1,6	●●	●●	●●	●	●●		●	●●		●●	●	●	●●		●
	LDMT170412R-D51	1,2	1,6		●●	●●	●			●				●	●			●
	LDMW170408R-A57	0,8	1,6	●●	●	●							●●	●	●			
	SDMT120408-D51	0,8		●●	●●	●●	●			●			●●	●	●			●
	SDMT120408-D57	0,8		●●	●●	●●	●	●●		●		●●	●●	●	●	●●		●
	SDMT120408-F57	0,8		●●	●●	●●	●	●●	●	●	●●		●●	●	●	●●	●	●
	SDMW120408-A57	0,8		●●	●	●							●●	●	●			

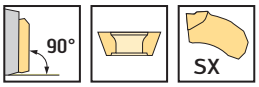
HC = Coated carbide



Slitting and slot milling cutters
F5055 mm
Walter BLAXX

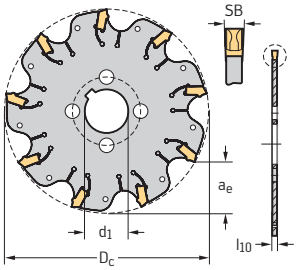
– One cutting edge per indexable insert

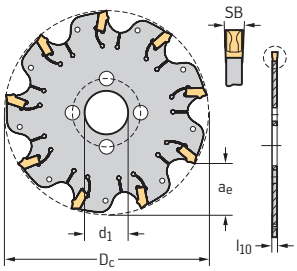




	P	M	K	N	S	H	O
F5055	●●	●	●●	●●	●		

Tool	Designation	D_c mm	d_1 mm	SB mm	a_e mm	l_{10} mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 longitudinal keyway	F5055.B16.063.Z05.1,5	63	16	1,5	15	1,2	5	0,05	5	SX-1
	F5055.B16.063.Z05.2,0	63	16	2	15	1,6	5	0,04	5	SX-2
	F5055.B16.063.Z04.3,0	63	16	3	15	2,4	4	0,06	4	SX-3
	F5055.B16.063.Z04.4,0	63	16	4	15	3,4	4	0,07	4	SX-4
	F5055.B16.080.Z07.1,5	80	16	1,5	19	1,2	7	0,06	7	SX-1
	F5055.B16.080.Z07.2,0	80	16	2	19	1,6	7	0,07	7	SX-2
	F5055.B16.080.Z06.3,0	80	16	3	19	2,4	6	0,09	6	SX-3
	F5055.B16.080.Z06.4,0	80	16	4	19	3,4	6	0,12	6	SX-4
	F5055.B22.100.Z09.1,5	100	22	1,5	25	1,2	9	0,10	9	SX-1
	F5055.B22.100.Z09.2,0	100	22	2	25	1,6	9	0,11	9	SX-2
	F5055.B22.100.Z09.3,0	100	22	3	25	2,4	9	0,14	9	SX-3
	F5055.B22.100.Z09.4,0	100	22	4	25	3,4	9	0,18	9	SX-4
	F5055.B32.125.Z11.1,5	125	32	1,5	33	1,2	11	0,15	11	SX-1
	F5055.B32.125.Z11.2,0	125	32	2	33	1,6	11	0,17	11	SX-2
	F5055.B32.125.Z11.3,0	125	32	3	33	2,4	11	0,23	11	SX-3
	F5055.B32.125.Z11.4,0	125	32	4	33	3,4	11	0,29	11	SX-4
	F5055.B40.160.Z14.2,0	160	40	2	38	1,6	14	0,29	14	SX-2
	F5055.B40.160.Z14.3,0	160	40	3	38	2,4	14	0,38	14	SX-3
	F5055.B40.160.Z14.4,0	160	40	4	38	3,4	14	0,5	14	SX-4
	F5055.B40.200.Z19.3,0	200	40	3	58	2,4	19	0,65	19	SX-3
	F5055.B40.200.Z19.4,0	200	40	4	58	3,4	19	0,85	19	SX-4
	F5055.B40.250.Z24.3,0	250	40	3	83	2,4	24	1,07	24	SX-3
	F5055.B40.250.Z24.4,0	250	40	4	83	3,4	24	1,39	24	SX-4
Parallel bore without longitudinal keyway	F5055.B50.500.Z40.5,0	500	50	5	120	4	40	5,7	40	SX-5

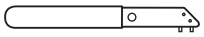




Values for a_e in combination with drive collar
For fitting the indexable insert, use the FS1494 or FS2249 mounting wrench

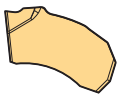
C2

Accessories

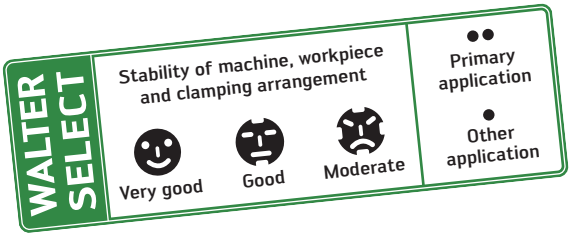
	D_c [mm] / SB [mm]	63 1,5–2	63 3–4	80 1,5	80 2	80 3–4	100 1,5	100 2	100 3–4	125 1,5	125 2	125 3–4	160 2	160 3–4	200 3–4	250 3–4	500 5
	Drive collar	FS1346	FS2291	FS1347		FS2292	FS1348			FS1349			FS1350				
	Mounting wrench	FS2249			FS1494		FS2249	FS1494		FS2249	FS1494						
	Ergonomic mounting wrench					FS2290			FS2290			FS2290		FS2290			
	Clamping screw for retaining washer Tightening torque														FS966 (SW 5) 8,0 Nm		
	Retaining washer instead of drive collar														FS1351		
	Key for clamping screw														ISO2936-5 (SW 5)		

Drive collars and retaining washers should always be ordered in pairs.
Clamping screws for retaining washers are included in the scope of delivery.

Cutting inserts

	Designation	s mm	r mm	P HC WKP23S	P HC WKP25S	P HC WSM33S	P HC WKP35S	P HC WSM43S	P HC WSP45S	M HC WSM23S	M HC WSM33S	M HC WSM35S	M HC WSM43S	M HC WSP45S	K HC WAK15	K HC WKP23S	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	N HC WK1	S HC WSM23S	S HC WSM33S	S HC WSM35S	S HC WSM43S	S HC WSP45S
	SX-2E200N02-CE4	2	0,2	☺		☹		☹		☺	☹		☹			☹						☺	☹		☹	
	SX-3E300N02-CE4	3	0,2	☺		☹		☹		☺	☹		☹			☹						☺	☹		☹	
	SX-1E150N01-CE4	1,5	0,15			☹		☹			☹		☹										☹		☹	
	SX-4E400N02-CE4	4	0,2	☺		☹		☹		☺	☹		☹			☹						☺	☹		☹	
	SX-5E500N04-CE4	5	0,4	☺		☹		☹		☺	☹		☹			☹						☺	☹		☹	
	SX-2E200N02-CF6	2	0,2			☹		☹			☹		☹										☹		☹	
	SX-3E300N02-CF6	3	0,2			☹		☹			☹		☹										☹		☹	
	SX-1E150N01-CF6	1,5	0,15			☹		☹			☹		☹										☹		☹	
	SX-5E500N04-CF5	5	0,4			☹		☹			☹		☹										☹		☹	
	SX-2E200N02-SF5	2	0,2			☹		☹			☹		☹										☹		☹	
	SX-3E300N02-SF5	3	0,2			☹		☹			☹		☹										☹		☹	
	SX-1E150N01-SF5	1,5	0,15			☹		☹			☹		☹										☹		☹	
	SX-4E400N02-SF5	4	0,2			☹		☹			☹		☹										☹		☹	
	SX-5E500N04-SF5	5	0,4			☹		☹			☹		☹										☹		☹	
	SX-2E200N02-SK8	2	0,2																		☺					
	SX-3E300N02-SK8	3	0,2																		☺					
	SX-1E150N01-SK8	1,5	0,1																		☺					
	SX-4E400N02-SK8	4	0,2																		☺					
	SX-5E500N04-SK8	5	0,4																		☺					

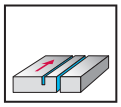
HC = Coated carbide
HW = Uncoated carbide

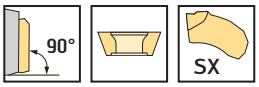


C 2

Slitting and slot milling cutters
F5055 mm
Walter BLAXX

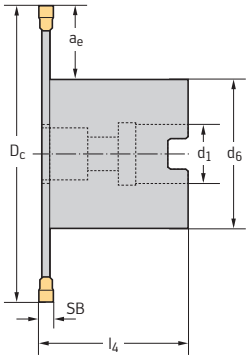
– One cutting edge per indexable insert





	P	M	K	N	S	H	O
F5055	●●	●	●●	●●	●		

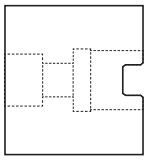
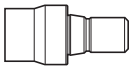
Tool	Designation	D_c mm	d_1 mm	d_6 mm	l_4 mm	SB mm	a_e mm	Z	kg	No. of indexable inserts	Type
ScrewFit	F5055.T36.063.Z04.3,0R	63	36		75	3	15	4	0,6	4	SX-3
	F5055.T45.080.Z06.3,0R	80	45		85	3	19	6	0,8	6	
	F5055.T36.063.Z04.4,0R	63	36		76	4	15	4	0,6	4	SX-4
	F5055.T45.080.Z06.4,0R	80	45		86	4	19	6	0,8	6	
Parallel bore DIN 138 transverse keyway	F5055.BN16.063.Z04.3,0R	63	16	35	40	3	15	4	0,03	4	SX-3
	F5055.BN16.080.Z06.3,0R	80	16	40	40	3	19	6	0,06	6	
	F5055.BN22.100.Z09.3,0R	100	22	48	40	3	25	9	0,10	9	
	F5055.BN32.125.Z11.3,0R	125	32	58	50	3	33	11	1	11	
	F5055.BN40.160.Z14.3,0R	160	40	80	63	3	38	14	0,25	14	
	F5055.BN16.063.Z04.4,0R	63	16	35	41	4	15	4	0,05	4	SX-4
	F5055.BN16.080.Z06.4,0R	80	16	40	41	4	19	6	0,46	6	
	F5055.BN22.100.Z09.4,0R	100	22	48	41	4	25	9	0,14	9	
	F5055.BN32.125.Z11.4,0R	125	32	58	51	4	33	11	0,24	11	
	F5055.BN40.160.Z14.4,0R	160	40	80	64	4	38	14	0,40	14	



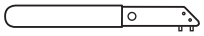
For fitting the indexable insert, use the FS1494 or FS2249 mounting wrench
Bodies and assembly parts are included in the scope of delivery.

C2

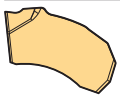
Assembly parts

	Type D_c [mm]	SX-3/SX-4 63	SX-3/SX-4 80	SX-3/SX-4 100	SX-3/SX-4 125	SX-3/SX-4 160
	Bore adaptor part	AA704-B16-G16-040-A	AA704-B16-G16-040-B	AA704-B22-G22-040-B	AA704-B32-G32-050-B	AA704-B40-G40-063-B
	NCT ScrewFit adaptor	AA766-T36-G16-040	AA766-T45-G16-050			

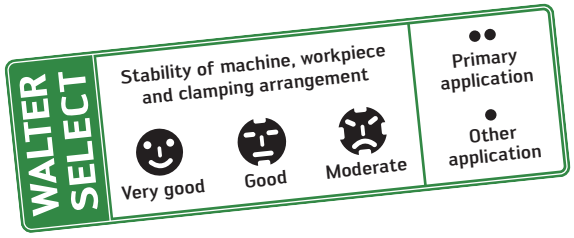
Accessories

	Type D_c [mm]	SX-3/SX-4 63	SX-3/SX-4 80–100	SX-3/SX-4 125	SX-3/SX-4 160
	Clamping screw for adaptor	FS938 (SW 6)	FS938 (SW 6)	FS938 (SW 6)	FS938 (SW 6)
	Clamping screw for milling cutter Tightening torque	FS2270 (Torx 15IP) 6,5 Nm	FS2270 (Torx 15IP) 6,5 Nm	FS2271 (Torx 20IP) 7 Nm	FS2272 (Torx 30IP) 8 Nm
	Mounting wrench for cutting insert	FS2249	FS1494	FS1494	FS1494
	Ergonomic mounting wrench		FS2290	FS2290	FS2290
	Torque T-handle Tightening torque	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm
	Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1175 (Torx 30)
	Adaptor clamping screw Allen key	ISO2936-6 (SW 6)	ISO2936-6 (SW 6)	ISO2936-6 (SW 6)	ISO2936-6 (SW 6)
	Interchangeable blade	FS2047 (Torx 15IP)	FS2047 (Torx 15IP)	FS2048 (Torx 20IP)	FS2046 (Torx 30)

Cutting inserts

	Designation	s mm	r mm	P HC WKP23S	P HC WKP25S	P HC WSM33S	P HC WKP35S	P HC WSM43S	P HC WSP45S	M HC WSM23S	M HC WSM33S	M HC WSM35S	M HC WSM43S	M HC WSP45S	K HC WAK15	K HC WKP23S	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	N HC WK1	S HC WSM23S	S HC WSM33S	S HC WSM35S	S HC WSM43S	S HC WSP45S
	SX-3E300N02-CE4	3	0,2	☺		☹		☒		☺	☺		☹			☹							☺	☺		☹	
	SX-4E400N02-CE4	4	0,2	☺		☹		☒		☺	☺		☹			☹							☺	☺		☹	
	SX-3E300N02-CF6	3	0,2			☹		☒			☺		☒											☹		☒	
	SX-3E300N02-SF5	3	0,2			☹		☒			☺		☒											☹		☒	
	SX-4E400N02-SF5	4	0,2			☹		☒			☺		☒											☹		☒	
	SX-3E300N02-SK8	3	0,2																			☺					
	SX-4E400N02-SK8	4	0,2																			☺					

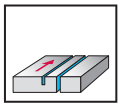
HC = Coated carbide
HW = Uncoated carbide

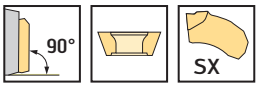


C 2

Slitting and slot milling cutters
F5055 inch
Walter BLAXX

– One cutting edge per indexable insert

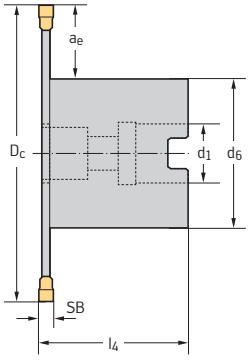




	P	M	K	N	S	H	O
F5055	●●	●	●●	●●	●		

Tool

Parallel bore
DIN 138 transverse keyway

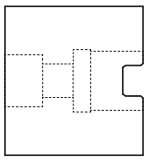


Designation	D_c Inch	d_1 Inch	d_6 Inch	l_4 Inch	SB Inch	a_e Inch	Z	lbs	No. of indexable inserts	Type
F5055.UBN16.063.Z04.3,0R	2,480	0,500	1,378	1,575	0,118	0,591	4	0,6	4	
F5055.UBN16.080.Z06.3,0R	3,150	0,500	1,575	1,575	0,118	0,748	6	0,9	6	
F5055.UBN22.100.Z09.3,0R	3,937	0,750	1,575	1,575	0,118	0,984	9	1,3	9	SX-3
F5055.UBN32.125.Z11.3,0R	4,921	1,000	3,150	1,969	0,118	1,299	11	2,3	11	
F5055.UBN40.160.Z14.3,0R	6,299	1,500	2,283	2,480	0,118	1,496	14	4,8	14	
F5055.UBN16.063.Z04.4,0R	2,480	0,500	1,378	1,614	0,157	0,591	4	0,6	4	
F5055.UBN16.080.Z06.4,0R	3,150	0,500	3,150	1,614	0,157	0,748	6	1,0	6	
F5055.UBN22.100.Z09.4,0R	3,937	0,750	1,890	1,614	0,157	0,984	9	1,4	9	SX-4
F5055.UBN32.125.Z11.4,0R	4,921	1,000	1,890	2,008	0,157	1,299	11	4,4	11	
F5055.UBN40.160.Z14.4,0R	6,299	1,500	2,283	2,520	0,157	1,496	14	5,1	14	

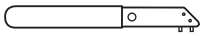
Bodies and assembly parts are included in the scope of delivery.

C2

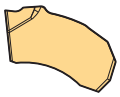
Assembly parts

Type D_c [Inch]	SX-3/SX-4 2,480	SX-3/SX-4 3,150	SX-3/SX-4 3,937	SX-3/SX-4 4,921	SX-3/SX-4 6,299
 Bore adaptor part	AA704.B13-G16-040-A	AA704.B13-G16-040-B	AA704.B19-G22-040-B	AA704.B26-G32-050-B	AA704.B38-G40-062-B

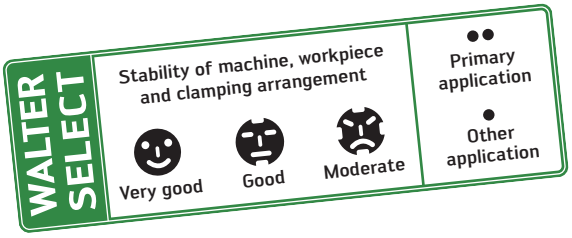
Accessories

Type D_c [Inch]	SX-3/SX-4 2,480	SX-3/SX-4 3,150	SX-3/SX-4 3,937	SX-3/SX-4 4,921	SX-3/SX-4 6,299
 Clamping screw for adaptor	FS938 (SW 6)	FS938 (SW 6)	FS939 (SW 8)	FS941 (SW 14)	FS942 (SW 17)
Clamping screw for milling cutter Tightening torque	FS2270 (Torx 15IP) 6,5 Nm	FS2270 (Torx 15IP) 6,5 Nm	FS2270 (Torx 15IP) 6,5 Nm	FS2271 (Torx 20IP) 7 Nm	FS2272 (Torx 30IP) 8 Nm
Mounting wrench for cutting insert	FS2249	FS1494	FS1494	FS1494	FS1494
 Ergonomic mounting wrench		FS2290	FS2290	FS2290	FS2290
 Adaptor clamping screw Allen key	ISO2936-6 (SW 6)	ISO2936-6 (SW 6)	ISO2936-6 (SW 6)	ISO2936-6 (SW 6)	ISO2936-6 (SW 6)
 Torque T-handle Tightening torque	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm
 Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1175 (Torx 30)
 Interchangeable blade	FS2047 (Torx 15IP)	FS2047 (Torx 15IP)	FS2047 (Torx 15IP)	FS2048 (Torx 20IP)	FS2046 (Torx 30)

Cutting inserts

Designation	s mm	r mm	P HC WKP23S	P HC WKP25S	P HC WSM33S	P HC WKP35S	P HC WSM43S	P HC WSP45S	M HC WSM23S	M HC WSM33S	M HC WSM35S	M HC WSM43S	M HC WSP45S	K HC WAK15	K HC WKP23S	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	N HC WK1	S HC WSM23S	S HC WSM33S	S HC WSM35S	S HC WSM43S	S HC WSP45S
 SX-3E300N02-CE4	3	0,2	☺		😐		☹		☺	😐		☹			😐							☺	😐		☹	
SX-4E400N02-CE4	4	0,2	☺		😐		☹		☺	😐		☹			😐							☺	😐		☹	
SX-3E300N02-CF6	3	0,2			😐		☹			😐		☹											😐		☹	
SX-3E300N02-SF5	3	0,2			😐		☹			😐		☹											😐		☹	
SX-4E400N02-SF5	4	0,2			😐		☹			😐		☹											😐		☹	
SX-3E300N02-SK8	3	0,2																			☺					
SX-4E400N02-SK8	4	0,2																			☺					

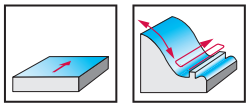
HC = Coated carbide
HW = Uncoated carbide



C2

Copy milling cutters with round inserts
M2471 mm
RNMX1206M0

– For roughing turbine blades
– Eight cutting edges per indexable insert



	P	M	K	N	S	H	O
M2471	●●	●●			●●		

Tool	Designation	R mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
ScrewFit	M2471-032-T28-03-06	6	32	T28	40	6	3	0,2	3	RNMX1206M0
	M2471-040-T36-04-06	6	40	T36	40	6	4	0,3	4	
Parallel bore DIN 138 transverse keyway	M2471-050-B22-05-06	6	50	22	40	6	5	0,5	5	RNMX1206M0
	M2471-052-B22-05-06	6	52	22	40	6	5	0,4	5	
	M2471-063-B22-07-06	6	63	22	40	6	7	0,4	7	

Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_a [mm]	32–63
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm

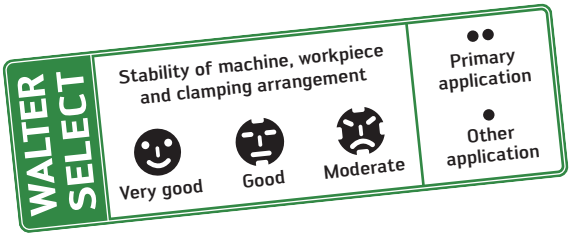
Accessories

	D_a [mm]	32–63
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	d mm	P HC			M HC		K HC				N HC	HW	S HC	
			WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S
	RNMX1206M0-D57	12			●●		●●								●●
	RNMX1206M0-F67	12			●●		●●								●●

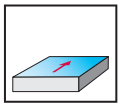
HC = Coated carbide
HW = Uncoated carbide

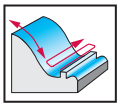


C 2

Copy milling cutters with round inserts
M2471 inch
RNMX1206M0

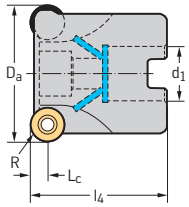
– For roughing turbine blades
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M2471	●●	●●			●●		

Tool	Designation	R Inch	D_a Inch	d_1 Inch	l_4 Inch	L_c Inch	Z	lbs	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	M2471.051-B19-05-06	0,236	2,000	0,750	1,500	0,236	5	0,6	5	RNMX1206M0
	M2471.064-B26-07-06	0,236	2,500	1,000	1,750	0,236	7	1,3	7	



Bodies and assembly parts are included in the scope of delivery.

C2

Assembly parts

	D_a [Inch]	2,000	2,500
	Clamping screw for insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm
	Clamping screw for arbour-mounted tools	FS1523	FS1586

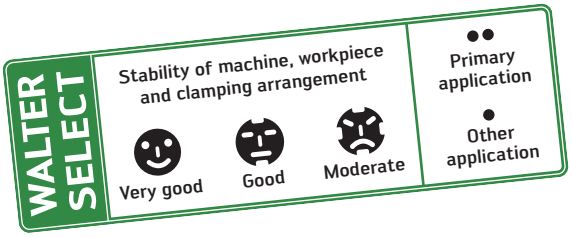
Accessories

	D_a [Inch]	2,000–2,500
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	d mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	RNMX1206M0-D57	12			●		●								●
	RNMX1206M0-F67	12			●		●								●

HC = Coated carbide
HW = Uncoated carbide



C2

Cutting data for roughing
WKP35G/WMP45G

= Cutting data for wet machining
= Dry machining is possible

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]			Cutting material grades: Starting values for cutting speed v_c [m/min] HC Face/shoulder milling WKP35G a_e / D_c* 1/1 1/2	1/5
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1	●	●●	250	300
		C > 0.25 ... ≤ 0.55%	Annealed	190	639	P2	●	●●	220	260
		C > 0.25 ... ≤ 0.55%	Heat-treated	210	708	P3	●	●●	215	250
		C > 0.55%	Annealed	190	639	P4	●	●●	220	260
		C > 0.55%	Heat-treated	300	1013	P5	●	●●	160	180
		Free-machining steel (short-chipping)	Annealed	220	745	P6	●	●●	210	240
	Low-alloy steel	Annealed		175	591	P7	●	●●	220	270
		Heat-treated		300	1013	P8	●	●●	170	190
		Heat-treated		380	1282	P9	●	●●	130	150
		Heat-treated		430	1477	P10	●	●●	110	130
	High-alloyed steel and high-alloyed tool steel	Annealed		200	675	P11	●	●●	130	160
		Hardened and tempered		300	1013	P12	●	●●	80	90
		Hardened and tempered		400	1361	P13	●	●●	70	80
	Stainless steel	Ferritic/martensitic, annealed		200	675	P14	●	●●	140	160
		Martensitic, heat-treated		330	1114	P15	●	●●	90	110
M	Stainless steel	Austenitic, quench hardened		200	675	M1	●●	●		
		Austenitic, precipitation hardened (PH)		300	1013	M2	●●	●		
		Austenitic/ferritic, duplex		230	778	M3	●●	●		
K	Malleable cast iron	Ferritic		200	675	K1	●	●●	160	190
		Pearlitic		260	867	K2	●	●●	140	170
	Grey cast iron	Low tensile strength		180	602	K3	●	●●	300	330
		High tensile strength/austenitic		245	825	K4	●	●●	190	220
	Cast iron with spheroidal graphite	Ferritic		155	518	K5	●	●●	200	220
		Pearlitic		265	885	K6	●	●●	130	150
	GGV (CGI)			200	675	K7	●	●●	130	160
N	Wrought aluminium alloys	Not hardenable		30	–	N1	●●			
		Hardenable, hardened		100	343	N2	●●			
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●			
		≤ 12% Si, hardenable, hardened		90	314	N4	●●			
		> 12% Si, not hardenable		130	447	N5	●●			
	Magnesium-based alloys[3]			70	250	N6	●●			
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	343	N7	●●			
		Brass, bronze, red brass		90	314	N8	●●			
		Cu alloys, short-chipping		110	382	N9	●●			
		High-tensile, Ampco		300	1013	N10	●●			
S	Heat-resistant alloys	Fe-based	Annealed	200	675	S1	●●			
			Hardened	280	943	S2	●●			
		Ni- or Co-based	Annealed	250	839	S3	●●			
			Hardened	350	1177	S4	●●			
			Cast	320	1076	S5	●●			
	Titanium alloys	Pure titanium		200	675	S6	●●			
		α and β alloys, hardened		375	1262	S7	●●			
		β alloys		410	1396	S8	●●			
	Tungsten alloys			300	1013	S9	●●			
	Molybdenum alloys			300	1013	S10	●●			
H	Hardened steel	Hardened and tempered		50 HRC	–	H1		●●		
		Hardened and tempered		55 HRC	–	H2		●●		
		Hardened and tempered		60 HRC	–	H3		●●		
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4		●●		
O	Thermoplastics	Without abrasive fillers				O1	●●	●	400	400
	Thermosets	Without abrasive fillers				O2	●●	●	300	300
	Plastic, glass-fibre-reinforced	GFRP				O3				
	Plastic, carbon-fibre-reinforced	CFRP				O4				
	Plastic, aramid-fibre-reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6		●●		

●● Recommended application (the specified cutting data is regarded as starting values for the recommended application)
● Possible application, reduce cutting data by 30–50% (increase by approx. 70–80% for ISO M)

[1] The classification of the machining groups can be found from page C 671 onwards in the Walter General Catalogue 2017.
[2] Cutting data can also be used without coolant.
* a_e / D_c = 1 / 10, v_c = 10% higher than 1 / 5
[3] Water-miscible coolants must not be used when machining magnesium alloys.

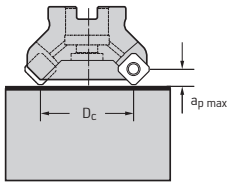
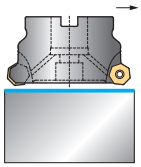
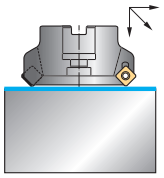
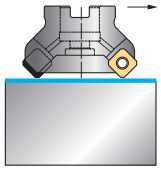
C2

The specified cutting data are average standard values.
For specific applications, adjustment is recommended.

	Cutting material grades													
	Starting values for cutting speed v_c [m/min]													
	HC													
	Shoulder milling with full effective porcupine milling cutters WKP35G a_e / D_c*		Slot milling with half effective porcupine milling cutters WKP35G a_e / D_c*		Circular interpolation milling WKP35G a_e / D_c*		Slot milling with slotting cutters WKP35G a_e / D_c		Copy milling WKP35G a_e / D_c			Copy milling WMP45G a_e / D_c		
	1/2	1/5	1/1 1/2	1/5	1/1 1/2	1/5	1/4*	1/10	1/1	1/5	1/10	1/1 1/2	1/5	1/20
	195	250	195	250	220	270	195	250	240	300	300			
	170	215	170	215	200	230	170	215	200	255	275			
	155	190	155	190	210	230	160	205	185	240	240			
	170	215	170	215	200	230	160	200	155	195	210			
	130	145	130	145	140	160	130	145	145	180	185			
	150	210	150	210	190	220	160	205	200	255	275			
	170	215	170	215	200	240	170	215	165	210	230			
	130	145	130	145	150	170	125	145	155	195	215			
	85	100	85	100	110	130	85	95	145	180	200			
	80	90	80	90	80	100	80	90	120	155	170			
	100	120	100	120	120	140	100	120	110	145	160			
	65	75	65	75	80	90	65	80	75	100	100			
	60	70	60	70	70	80	60	70	65	80	90			
	105	120	105	120	120	140	105	130	120	155	170	125	150	185
	60	70	60	70	60	70	60	85	110	145	155	100	120	150
												120	140	180
												100	120	155
												110	130	165
	150	170	150	170	110	120	140	155	250	290	310			
	120	140	120	140	130	160	135	145	200	240	260			
	160	180	160	180	270	300	160	180	240	280	300			
	120	140	120	140	150	180	120	140	190	230	250			
	140	150	140	150	180	200	140	150	240	280	300			
	105	115	105	115	120	140	110	120	190	230	250			
	150	170	150	170	120	150	120	135	180	220	250			
												70	80	100
												50	50	65
												55	60	80
												35	40	50
												45	50	60
												70	90	110
												45	50	60
												35	40	50
												45	50	60
												45	50	60
	400	400	400	400	300	300	400	400	400	450	500			
	300	300	300	300	400	400	300	300	300	350	400			

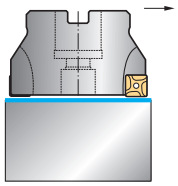
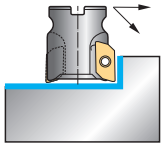
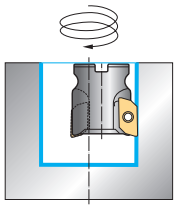
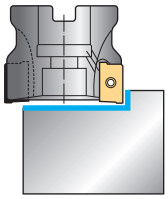
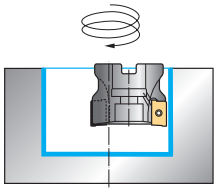
C 2

Feed determination (starting values)

Material group	Cutter type		M3024	M4003		M5009	
	Feed per tooth f_{z0} for $a_e = D_c$ $a_p = a_{p\,max} = L_c$						
	Lead angle κ		90°	45°		45°	
			f_{z0} [mm]	f_{z0} [mm]	f_{z0} [mm]	f_{z0} [mm]	
	Tool diameter or diameter range [mm]		63–160	20–100	25–160	25–100	
	Maximum depth of cut $a_{p\,max} = L_c$ [mm]		6,0	4,5	6,5	5,0	
P	Non-alloyed steel [1]		0,45	0,20	0,25	0,19	
P	Low-alloy steel		0,40	0,15	0,20	0,15	
P	High-alloyed steel and tool steel		0,32	0,15	0,20	0,15	
P	Stainless steel		0,22	0,12	0,15	0,11	
M	Stainless steel [2]		0,17	0,10	0,12	0,09	
K	Malleable cast iron		0,32	0,20	0,25	0,19	
K	Grey cast iron		0,55	0,25	0,30	0,23	
K	Cast iron with spheroidal graphite		0,45	0,20	0,25	0,19	
K	GGV (CGI)		0,27	0,17	0,20	0,15	
N	Wrought aluminium alloys			0,12	0,15	0,11	
N	Cast aluminium alloys			0,12	0,15	0,11	
N	Magnesium alloys			0,10	0,12	0,09	
N	Copper and copper alloys (bronze/brass)			0,10	0,12	0,09	
S	Heat-resistant alloys			0,10	0,12	0,09	
S	Titanium alloys			0,10	0,12	0,09	
S	Tungsten alloys			0,10	0,12	0,09	
S	Molybdenum alloys			0,10	0,12	0,09	
H	Hardened steel					0,09	
H	Hardened cast iron					0,11	
O	Thermoplastics			0,10	0,15	0,11	
O	Plastic, carbon-fibre-reinforced				0,15		
O	Graphite (technical)			0,10		0,11	
	Indexable insert types		XNMU0906..	SD..09T3AZN..	SD..1204AZN..	SN.X0904..	
	Correction factor Ka_e for the feed per tooth depending on the ratio of width of cut a_e to milling cutter diameter D_c	$a_e / D_c =$ 1/1–1/2	1,0	1,0	1,0	1.0	
		1/5	1,1	1,1	1,1	1.1	
		1/10	1,2	1,2	1,2	1.2	
		1/20	1,3	1,3	1,3	1.3	
		1/50					
	Correction factor Ka_p for the feed per tooth depending on the depth of cut a_p	$a_p =$ 1					
		2					
		3					
		4					
		6					
		8					
	$f_z = f_{z0} \cdot Ka_e \cdot Ka_p$	$a_{p\,max} = L_c$					

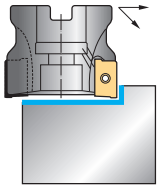
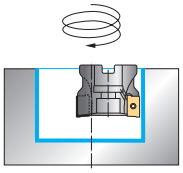
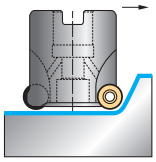
[1] and steel casting
[2] and austenitic/ferritic
* only possible if $a_p < 0.75 \times D_c$
** only with $a_e/D_c < 1/5$

The specified feed rates are average standard values.
For specific applications, adjustment is recommended.

	M2136	M2331				M4130					
											
		For face/shoulder milling		For circular interpolation milling		For shoulder milling operations			For circular interpolation milling operations		
	90°	90°		90°		90°			90°		
	f_{z0} [mm]	f_{z0} [mm]		f_{z0} [mm]		f_{z0} [mm]	f_{z0} [mm]	f_{z0} [mm]	f_{z0} [mm]	f_{z0} [mm]	f_{z0} [mm]
	50–160	32–50	40–50	32–50	40–50	16–25	32–50	50–100	16–20	25–50	50–100
	6,5	15	20	15	20	8	13	16	8	13	16
						0,15	0,20	0,25	0,13	0,17	0,22
						0,10	0,15	0,17	0,09	0,13	0,17
						0,10	0,15	0,17	0,09	0,13	0,17
						0,08	0,12	0,15	0,07	0,10	0,13
						0,08	0,10	0,12	0,07	0,09	0,10
	0,20					0,12	0,20	0,25	0,10	0,17	0,22
	0,25					0,15	0,25	0,30	0,13	0,22	0,27
	0,20					0,12	0,20	0,25	0,10	0,17	0,22
	0,15					0,10	0,15	0,17	0,10	0,17	0,22
		0,15	0,20	0,13	0,18						
		0,12	0,15	0,13	0,18						
		0,12	0,12	0,13	0,18						
		0,10	0,10	0,11	0,13						
						0,08	0,12	0,15	0,07	0,10	0,13
						0,08	0,12	0,15	0,07	0,10	0,13
						0,08	0,12	0,15	0,07	0,10	0,13
						0,08	0,12	0,15	0,07	0,10	0,13
		0,15	0,15			0,12	0,17	0,20	0,12	0,17	0,20
		0,12	0,12			0,10	0,15	0,15	0,10	0,15	0,15
	SNEF1204..	ZDGT15A4..	ZDGT20A..	ZDGT15A4..	ZDGT20A5..	LD..08T2..	LD..14T3..	LD..1704..	LD..08T2..	LD..14T3..	LD..1704..
	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1
	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2
	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3

C2

Feed determination (starting values)

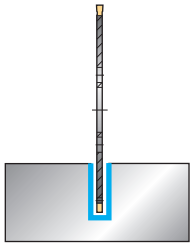
Material group	Cutter type		M5130		M5130		M2471	
	Feed per tooth f_{z0} for $a_e = D_c$ $a_p = a_{p\,max} = L_c$		 For shoulder milling operations		 For circular interpolation milling operations			
	Lead angle κ		90°		90°		90°	
							f_{z0} [mm]	
	Tool diameter or diameter range [mm]		f_{z0} [mm]	f_{z0} [mm]	f_{z0} [mm]	f_{z0} [mm]	32–40	40–63
	Maximum depth of cut $a_{p\,max} = L_c$ [mm]		10–63	25–160	10–63	25-160	6	6
P	Non-alloyed steel [1]		0,12	0,26	0,10	0,23	0,17	0,22
P	Low-alloy steel		0,08	0,19	0,07	0,17	0,17	0,15
P	High-alloyed steel and tool steel		0,08	0,19	0,07	0,17	0,13	0,15
P	Stainless steel		0,06	0,16	0,06	0,14	0,09	0,11
M	Stainless steel [2]		0,06	0,13	0,06	0,11	0,09	0,11
K	Malleable cast iron		0,10	0,26	0,08	0,23		
K	Grey cast iron		0,12	0,32	0,10	0,28		
K	Cast iron with spheroidal graphite		0,10	0,26	0,08	0,23		
K	GGV (CGI)		0,08	0,19	0,08	0,23		
N	Wrought aluminium alloys		0,08		0,08			
N	Cast aluminium alloys		0,10		0,08			
N	Magnesium alloys		0,08		0,07			
N	Copper and copper alloys (bronze/brass)		0,06		0,07			
S	Heat-resistant alloys		0,06	0,16	0,06	0,14	0,09	0,11
S	Titanium alloys		0,06	0,16	0,06	0,14	0,09	0,11
S	Tungsten alloys		0,06	0,16	0,06	0,14	0,09	0,11
S	Molybdenum alloys		0,06	0,16	0,06	0,14	0,09	0,11
H	Hardened steel		0,06	0,13				
H	Hardened cast iron		0,08	0,15				
O	Thermoplastics		0,10		0,10			
O	Plastic, carbon-fibre-reinforced							
O	Graphite (technical)		0,08	0,16	0,08	0,16		
	Indexable insert types		AC..0602..	BC..1605..	AC..0602..	BC..1605..	RNMX1206..	RNMX1206..
	Correction factor **Ka_e** for the feed per tooth depending on the ratio of width of cut a_e to milling cutter diameter D_c	$a_e / D_c =$ 1/1–1/2	1.0	1,0	1,0	1.0	1,0	1,0
		1/5	1.1	1.1	1.1	1.1	1,2	1,2
		1/10	1.2	1.2	1.2	1.2	1,5	1,5
		1/20	1.3	1.3	1.3	1.3	1,8	1,8
		1/50					2,0	2,0
	Correction factor **Ka_p** for the feed per tooth depending on the depth of cut **a_p**	$a_p =$ 1					1,5	1,6
		2					1,2	1,3
		3					1,0	1,1
		4					1,0	1,0
		6						
		8						
	$f_Z = f_{z0} \cdot Ka_e \cdot Ka_p$	$a_{p\,max} = L_c$						

[1] and steel casting
[2] and austenitic/ferritic
* only possible if $a_p < 0.75 \times D_c$
** only with $a_e/D_c < 1/5$

C2

The specified feed rates are average standard values.
For specific applications, adjustment is recommended.

Cutter type: F5055



Feed per tooth f_{Z0}
for plunging, central positioning

Material group							
	Lead angle κ		90°				
			f_{Z0} [mm]				
	Tool diameter or diameter range [mm]		63–125	63–160	63–250	63–250	500
	Maximum cutting width SB [mm]		1,5	2,0	3,0	4,0	5,0
P	Non-alloyed steel [1]		0,06	0,08	0,10	0,12	0,12
P	Low-alloy steel		0,06	0,07	0,09	0,11	0,10
P	High-alloyed steel and tool steel		0,06	0,07	0,09	0,11	0,10
P	Stainless steel		0,05	0,06	0,08	0,09	0,05
M	Stainless steel [2]		0,05	0,06	0,08	0,09	0,05
K	Malleable cast iron		0,06	0,07	0,09	0,11	0,12
K	Grey cast iron		0,06	0,08	0,10	0,12	0,14
K	Cast iron with spheroidal graphite		0,06	0,07	0,09	0,11	0,12
K	GGV (CGI)						0,10
N	Wrought aluminium alloys						0,12
N	Cast aluminium alloys						0,10
N	Magnesium-based alloys [3]						0,10
N	Copper and copper alloys (bronze/brass)						0,10
S	Heat-resistant alloys		0,05	0,06	0,08	0,09	0,05
S	Titanium alloys		0,05	0,06	0,08	0,09	0,05
S	Tungsten alloys		0,05	0,06	0,08	0,09	0,05
S	Molybdenum alloys		0,05	0,06	0,08	0,09	0,05
H	Hardened steel						
H	Hardened cast iron						
O	Thermoplastics						
O	Plastic, carbon-fibre-reinforced						
O	Graphite (technical)						
Indexable insert types			SX-1E15..	SX-2E20..	SX-3E30..	SX-4E40..	SX-5E50..
Correction factor Ka_e for the feed per tooth depending on the ratio of depth of cut a_e to milling cutter diameter D_c		central	1,5	1,5	1,5	1,5	
	$a_e / D_c =$	1/3	1,8	1,8	1,8	1,8	1,0
		1/5	2,5	2,5	2,5	2,5	1,2
		1/10	3,3	3,3	3,3	3,3	1,4
		1/20	5,8	5,8	5,8	5,8	1,5
$f_Z = f_{Z0} \cdot Ka_e$		1/50	5,8	5,8	5,8	5,8	5,8

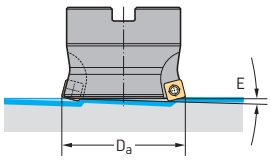
[1] and steel casting
[2] and austenitic/ferritic
[3] Water-miscible coolants must not be used when machining magnesium-based alloys

Please note: The feed per tooth f_Z should not exceed 0.6 mm

C 2

Application information for M4002/F2010 high-feed face milling cutters

Ramping



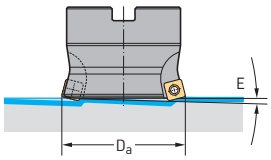
Maximum feed angle E [°]

D_a [mm]	SD..06T2..						
	r = 0,4	r = 0,8	r = 1,2	r = 1,6	r = 2,0	r = 2,5	ZDR
20	3,7	2,9	2,2				1,5
25	2,2	1,8	1,4				0,6
32	1,3	1	0,7				0,4
35	1,2	1	0,7				0,5
40	1,1	0,9	0,7				0,3
42	0,8	0,7	0,5				0,3
50	0,8	0,7	0,5				0,3
52	0,7	0,6	0,5				0,3
63	0,6	0,4	0,3				0,2
66	0,5	0,4	0,3				0,2

D_a [mm]	SD..09T3..						
	r = 0,4	r = 0,8	r = 1,2	r = 1,6	r = 2,0	r = 2,5	ZDR
25	4,3	3,5	2,8	2,3	1,2		1,2
32	3,6	3,1	2,7	2,3	1,9		1,8
35	2,9	2,5	2,2	1,9	1,5		1,6
40	2,2	1,9	1,6	1,4	1,2		1,2
42	2	1,7	1,5	1,3	1		1
50	1,5	1,3	1,1	1	0,8		0,8
52	1,3	1,2	1	0,8	0,7		0,7
63	1	0,8	0,7	0,6	0,5		0,5
66	0,9	0,8	0,7	0,6	0,4		0,4

D_a [mm]	SD..120408..						
	r = 0,4	r = 0,8	r = 1,2	r = 1,6	r = 2,0	r = 2,5	ZDR
50		1,9	1,7	1,5	1,3	1	1
52		1,8	1,6	1,4	1,2	0,9	0,9
63		1,2	1,1	0,9	0,8	0,6	0,6
66		1,1	1	0,9	0,7	0,6	0,6
80		0,8	0,7	0,6	0,5	0,4	0,4
85		0,7	0,7	0,6	0,5	0,4	0,3
100		0,5	0,4	0,4	0,3	0,2	0,2
125		0,4	0,4	0,3	0,3	0,2	0,2

Ramping



Maximum feed angle E [°]

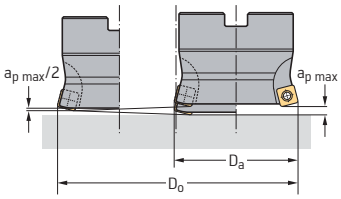
D_a [inch]	SD..06T2..						
	r = 0.016	r = 0.031	r = 0.047	r = 0.063	r = 0.079	r = 0.098	ZDR
0.750	4,2	3,3	2,5				1,5
1.000	2,2	1,6	1,2				0,7
1.250	1,4	1,1	0,8				0,5
1.500	1,2	0,9	0,7				0,3
2.000	0,7	0,6	0,4				0,3
2.500	0,4	0,3	0,2				0,1

D_a [inch]	SD..09T3..						
	r = 0.016	r = 0.031	r = 0.047	r = 0.063	r = 0.079	r = 0.098	ZDR
1.000	4	3,3	2,6	1,9	1,3		1,2
1.250	3,6	3,2	2,8	2,3	2		2
1.500	2,4	2,1	1,8	1,5	1,3		1,3
2.000	1,4	1,2	1	0,9	0,7		0,7
2.500	1	0,8	0,7	0,6	0,5		0,5

D_a [inch]	SD..1204..						
	r = 0.0157	r = 0.0315	r = 0.0472	r = 0.0623	r = 0.0787	r = 0.0984	ZDR
2.000		1,9	1,6	1,4	1,2	1,0	1,0
2.500		1,2	1,1	0,9	0,8	0,6	0,6
3.000		0,9	0,8	0,7	0,6	0,5	0,4
4.000		0,5	0,4	0,3	0,3	0,2	0,2

Application information for M4002/F2010 high-feed face milling cutters

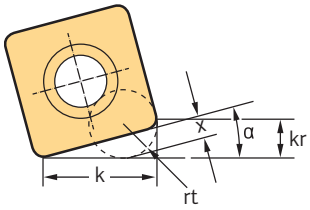
Circular interpolation of a hole into solid material



Diameter range for milling a hole in one pass [mm]/[inch]

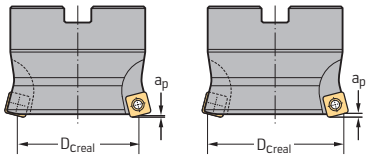
	Indexable insert					
	SD..06T204		SD..09T308		SD..120408	
D_A [mm]	$D_{0\ min}$[mm]	$D_{0\ max}$[mm]	$D_{0\ min}$[mm]	$D_{0\ max}$[mm]	$D_{0\ min}$[mm]	$D_{0\ max}$[mm]
20	28.6	40				
25	38.6	50	33.26	50		
32	52.6	64	47.26	64		
35	58.6	70	53.26	70		
40	68.6	80	63.26	80		
42	72.6	84	67.26	84		
50	88.6	100	83.26	100	77.12	100
52	92.6	104	87.26	104	81.12	104
63	114.6	126	109.26	126	103.12	126
66	120.6	132	115.26	132	109.12	132
80					137.12	160
85					147.12	170
100					177.12	200
125					227.12	250
D_a [inch]	$D_{0\ min}$[inch]	$D_{0\ max}$[inch]	$D_{0\ min}$[inch]	$D_{0\ max}$[inch]	$D_{0\ min}$[inch]	$D_{0\ max}$[inch]
0.75	1.051	1.500				
1.00	1.551	2.000	1.341	2.000		
1.25	2.051	2.500	1.841	2.500		
1.50	2.551	3.000	2.341	3.000		
2.00	3.551	4.000	3.341	4.000	3.099	4.000
2.50	4.551	5.000	4.341	5.000	4.099	5.000
3.00					5.099	6.000
4.00					7.099	8.000

Programming information



Indexable insert	α [°]	rt		x		kr		k	
		[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]
SD . . 06T212	15	2,1	0.083	0,68	0.027	2,2	0.087	4,86	0.191
SD . . 06T2ZDR	15	1,3	0.051	0,72	0.028	2,63	0.104	4,29	0.169
SD . . 06T204	15	1,7	0.067	1	0.039	1,83	0.072	5,7	0.224
SD . . 09T320	15	3,3	0.130	0,94	0.037	3,41	0.134	7,07	0.278
SD . . 09T3ZDR	15	2,4	0.094	1,09	0.043	3,65	0.144	6,9	0.272
SD . . 09T308	15	2,7	0.106	1,43	0.056	2,83	0.111	8,37	0.330
SD . . 120425	15	4,3	0.169	1,32	0.052	4,46	0.176	9,61	0.378
SD . . 1204ZDR	15	3,1	0.122	1,58	0.062	4,85	0.191	9,31	0.367
SD . . 120408	15	3,5	0.138	2,02	0.080	3,65	0.144	11,44	0.450

Increase in productivity



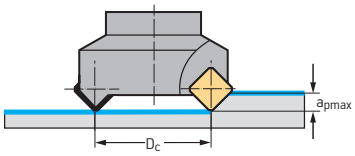
$D_{c\ real} \approx D_c + 8 \cdot a_p$

– In order to achieve an increase in productivity, it is recommended to use the $D_{c\ real}$ when calculating the cutting data.
– The $D_{c\ real}$ depends on the depth of cut a_p (see figure).

C 2

Application information for M4003/F2010 face milling cutters

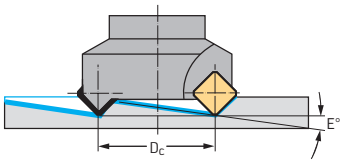
Face milling



Maximum milling depth a_p [mm]

	SD . . 09T3AZN	SD . . 1204AZN
a_p	4,5	6,5

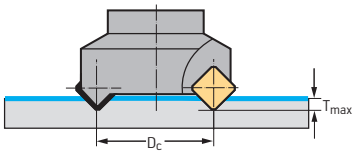
Ramping



Maximum feed angle E [°]

Metric			Inch			
D_c [mm]	SD..09T3AZN..	SD..1204AZN..	D_c [mm]	D_c [inch]	SD..09T3AZN..	SD..1204AZN..
20	23,2		19,05	0,75	25,0	
25	16,9	25,9	25,4	1	16,5	25,3
32	12,1	17,9	31,75	1,25	12,3	18,1
40	9,1	13,2	38,1	1,5	9,7	14,0
50	7,0	9,8	50,8	2	6,8	9,6
63	5,3	7,4	63,5	2,5	5,3	7,3
80	4,0	5,6	76,2	3	4,3	5,9
100	3,1	4,3	101,6	4	3,1	4,2
125		3,4	127	5		3,3
160	6,8	2,6	152,4	6		2,7

Vertical plunging



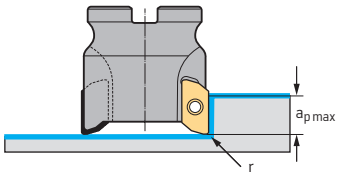
Maximum plunging depth T_{max} [mm]

	SD..09T3AZN..	SD..1204AZN..
T_{max}	4,5	6,0

C2

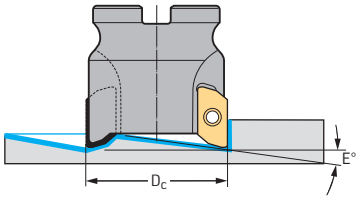
Application information for M2331 ramping milling cutters

Shoulder milling



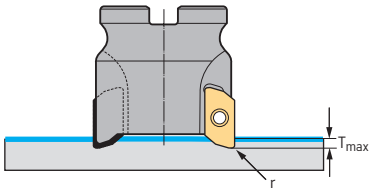
Corner radius r [mm]	Maximum milling depth $a_{p\ max}$ [mm] ZDGT15A4..	ZDGT20A5..
0,4	16,0	21,3
0,8	16,0	21,3
1,2	15,9	21,2
1,6	15,8	21,0
2,0	15,7	20,9
2,5	15,5	20,8
3,0	15,4	20,6
4,0	15,1	20,3
5,0		20,0
6,0		19,8
6,4		19,7

Ramping



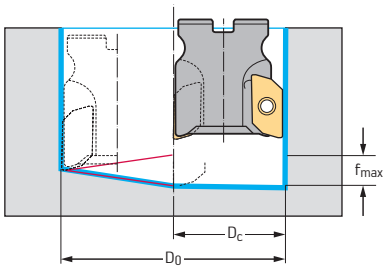
D_c [mm]	Maximum feed angle E [°] ZDGT15A4..	ZDGT20A5..
32	11	
40	7	12
50	5	8
D_c [inch]		
1.500	8	
2.000	5,4	8,6

Vertical plunging



Corner radius r [mm]	Maximum plunging depth T_{max} [mm] ZDGT15A4..	ZDGT20A5..
0,4	4,5	6,0
0,8	4,5	6,0
1,2	4,4	5,9
1,6	4,2	5,7
2,0	4,1	5,6
2,5	4,0	5,5
3,0	3,8	5,3
4,0	3,5	5,0
5,0		4,7
6,0		4,5
6,4		4,4

Circular interpolation of a hole into solid material



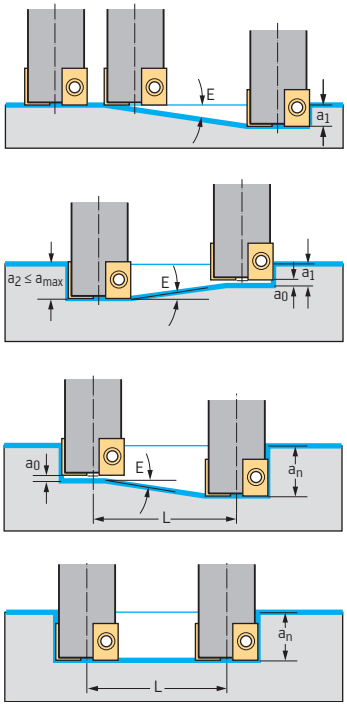
Milling cutter dia.	Possible hole diameters and axial feeds [mm]/[inch] ZDGT15A4..			ZDGT20A5..		
D_c [mm]	$D_{0\,min}$ [mm]	$D_{0\,max}$ [mm]	f_{max} [mm]	$D_{0\,min}$ [mm]	$D_{0\,max}$ [mm]	f_{max} [mm]
32	45	64	7,9			
40	61	80	8,1	54	80	9,3
50	81	100	8,5	74	100	10,6
D_c [inch]	$D_{0\,min}$ [inch]	$D_{0\,max}$ [inch]	f_{max} [inch]	$D_{0\,min}$ [inch]	$D_{0\,max}$ [inch]	f_{max} [inch]
1.500	2.244	3.000	0.325			
2.000	3.244	4.000	0.368	2.968	4.000	0.455

Designation	Tightening screw for adaptor
M2331-040-B16-03-15	M8 × 40 (SW6)
M2331-050-B22-02-15	M10 × 35 (SW8)
M2331-050-B22-03-15	M10 × 35 (SW8)

Designation	Tightening screw for adaptor
M2331-050-B22-04-15	M10 × 35 (SW8)
M2331-050-B22-02-20	M10 × 40 (SW8)
M2331-050-B22-03-20	M10 × 40 (SW8)

Application information for M4130 shoulder milling cutter

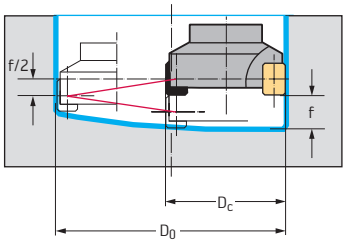
Ramping and circular plunging into solid material



Maximum feed angle E [°]

D_c [mm]	LD..08T204R..	LD..14T308R..	LD..170408R
16	4,6		
20	2,7		
25	1,9	5,5	
32		2,9	
40		1,9	
50		1,4	1,9
63		1,0	1,3
80			1
100			0,7

Circular interpolation of a hole into solid material



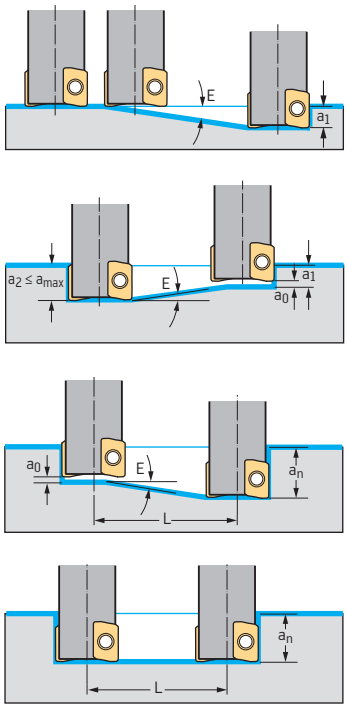
Max. axial feed per tool revolution ("thread pitch") f [mm]

Premachined hole diameter $D_{0\ min}$ [mm]	Premachined hole diameter $D_{0\ max}$ [mm]	LD..08T204R.. D_c [mm]			LD..14T308R.. D_c [mm]					LD..170408R.. D_c [mm]					
		16	20	25	25	32	40	50	63	40	50	63	80	100	125
20,6	32	5,7													
28,6	40	5,7	5,7												
38,6	50	5,7	5,7	5,7											
31,6	50	5,7	5,7	5,7	9,2										
45,6	64	5,7	5,7	5,7	9,2	9,2									
61,6	80	5,7	5,7	5,7	9,2	9,2	9,2								
81,6	100	5,7	5,7	5,7	9,2	9,2	9,2	9,2							
107,6	126	5,7	5,7	5,7	9,2	9,2	9,2	9,2	9,2						
57,6	80	5,7	5,7	5,7	9,2	9,2	9,2	9,2	9,2	11,2					
77,6	100	5,7	5,7	5,7	9,2	9,2	9,2	9,2	9,2	11,2	11,2				
103,6	126	5,7	5,7	5,7	9,2	9,2	9,2	9,2	9,2	11,2	11,2	11,2			
137,6	160	5,7	5,7	5,7	9,2	9,2	9,2	9,2	9,2	11,2	11,2	11,2	11,2		
177,6	200	5,7	5,7	5,7	9,2	9,2	9,2	9,2	9,2	11,2	11,2	11,2	11,2	11,2	
227,6	250	5,7	5,7	5,7	9,2	9,2	9,2	9,2	9,2	11,2	11,2	11,2	11,2	11,2	11,2

C2

Application information for M5130 shoulder milling cutter

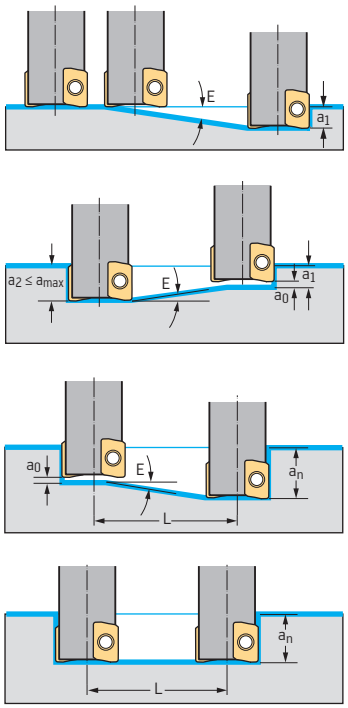
Ramping and circular plunging into solid material



Plunging with M5130 shoulder milling cutter/plunging angle E_{max} [°]

Milling cutter diameter D_c [mm]	AC..0602.. $a_{p\,max}$ = 5 mm				BC..1605.. $a_{p\,max}$ = 15 mm			
	E_{max} [°]	$D_{0\,min}$ [mm]	$D_{0\,max}$ [mm]	a_0 [mm]	E_{max} [°]	$D_{0\,min}$ [mm]	$D_{0\,max}$ [mm]	a_0 [mm]
10	6,7	15	20	0,58				
12	4,8	18	24	0,57				
14	3,7	21	28	0,57				
16	3,0	25	32	0,56				
18	2,5	29	36	0,56				
20	2,1	33	40	0,55				
22	1,9	37	44	0,55				
25	1,6	43	50	0,55	8,8	32	50	2
28					7,1	38	56	2
32	1,2	57	64	0,55	5,8	46	64	2
35					5,0	52	70	2
40	0,9	73	80	0,55	4,1	62	80	2
42					3,8	66	84	2
50	0,7	93	100	0,55	3,0	82	100	2
52					2,9	86	104	2
63	0,5	119	126	0,55	2,3	108	126	2
66					2,1	114	132	2
80					1,7	142	160	2
85					1,6	152	170	2
100					1,3	182	200	2
125					1,0	232	250	2
160					0,8	302	320	2

Ramping and circular plunging into solid material

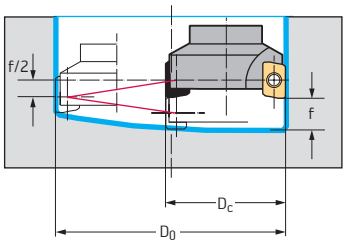


Plunging with M5130 shoulder milling cutter/plunging angle E_{max} [°]

Milling cutter diameter D_c [inch]	AC..0602.. $a_{p\,max}$ = 5 mm				BC..1605.. $a_{p\,max}$ = 15 mm			
	E_{max} [°]	$D_{0\,min}$ [inch]	$D_{0\,max}$ [inch]	a_0 [inch]	E_{max} [°]	$D_{0\,min}$ [inch]	$D_{0\,max}$ [inch]	a_0 [inch]
0.500	4,4	0,709	1,00	0,022				
0.625	3,0	0,974	1,25	0,022				
0.750	2,3	1,224	1,50	0,022				
1.000	1,6	1,724	2,00	0,022	8,5	1,291	2,00	0,079
1.250	1,2	2,224	2,50	0,022	5,8	1,791	2,50	0,079
1.500	1,0	2,724	3,00	0,022	4,4	2,291	3,00	0,079
2.000	0,7	3,724	4,00	0,022	3,0	3,291	4,00	0,079
2.500	0,5	4,724	5,00	0,022	2,2	4,291	5,00	0,079
3.000					1,8	5,291	6,00	0,079
4.000					1,3	7,291	8,00	0,079
5.000					1,0	9,291	10,00	0,079
6.000					0,8	11,291	12,00	0,079

Application information for M5130 shoulder milling cutter

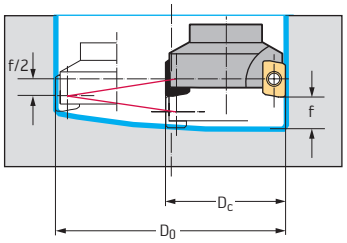
Circular interpolation of a hole into solid material



Max. axial feed per tool revolution ("thread pitch") f [mm]

Machined hole diameter D_0 [mm]	AC..0602.. D_c [mm]											
	10	12	14	16	18	20	22	25	32	40	50	63
15	1,8											
20	3,7	2,1										
30	5,0	4,7	3,3	2,3	1,6							
40	5,0	5,0	5,0	4,0	3,0	2,3	1,9					
50	5,0	5,0	5,0	5,0	4,4	3,5	2,9	2,2				
60	5,0	5,0	5,0	5,0	5,0	4,6	4,0	3,1	1,8			
70	5,0	5,0	5,0	5,0	5,0	5,0	5,0	3,9	2,5			
80	5,0	5,0	5,0	5,0	5,0	5,0	5,0	4,8	3,2	2,0		
90	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	3,8	2,5		
100	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	4,5	3,0	1,9	
120	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	3,9	2,7	1,6
150	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	3,8	2,4
180	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	3,2
200	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	3,8
250	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0

Circular interpolation of a hole into solid material



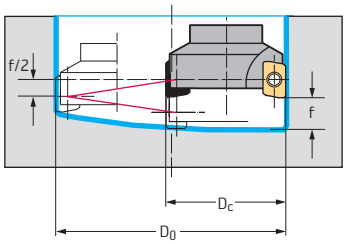
Max. axial feed per tool revolution ("thread pitch") f [inch]

Machined hole diameter D_0 [inch]	AC..0602.. D_c [inch]							
	0.500	0.625	0.750	1,000	1,500	2,000	2,500	3,000
0.591								
0.787	0,069							
1.181	0,165	0,092						
1.575	0,197	0,156	0,104					
1.969	0,197	0,197	0,154	0,085				
2.362	0,197	0,197	0,197	0,120	0,073			
2.756	0,197	0,197	0,197	0,154	0,099	0,069		
3.150	0,197	0,197	0,197	0,189	0,125	0,090		
3.543	0,197	0,197	0,197	0,197	0,151	0,112	0,059	
3.937	0,197	0,197	0,197	0,197	0,177	0,134	0,074	
4.724	0,197	0,197	0,197	0,197	0,197	0,177	0,105	0,061
5.906	0,197	0,197	0,197	0,197	0,197	0,197	0,150	0,093
7.087	0,197	0,197	0,197	0,197	0,197	0,197	0,195	0,126
7.874	0,197	0,197	0,197	0,197	0,197	0,197	0,197	0,147
9.843	0,197	0,197	0,197	0,197	0,197	0,197	0,197	0,197

Application information for M5130 shoulder milling cutter

Circular interpolation of a hole into solid material

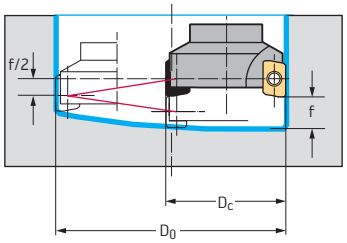
Max. axial feed per tool revolution ("thread pitch") f [mm]



Machined hole diameter D_0 [mm]	BC..1605.. D_c [mm]														
	25	28	32	35	40	42	50	52	63	66	80	85	100	125	160
15															
20															
30															
40	7,3	4,7													
50	12,2	8,6	5,7	4,1											
60	15,0	12,5	8,9	6,9											
70	15,0	15,0	12,1	9,6	6,8	5,8									
80	15,0	15,0	15,0	12,4	9,0	7,9									
90	15,0	15,0	15,0	15,0	11,3	10,0	6,6	6,0							
100	15,0	15,0	15,0	15,0	13,5	12,1	8,2	7,6							
120	15,0	15,0	15,0	15,0	15,0	15,0	11,5	10,8	7,2	6,2					
150	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	11,0	9,7	6,5	5,7			
180	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	14,8	13,1	9,3	8,3			
200	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	11,2	10,1	7,1		
250	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	14,5	10,7	6,9	
300	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	14,3	9,6	
350	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	12,3	8,3
400	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	10,5
450	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	12,7
500	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	14,9

Circular interpolation of a hole into solid material

Max. axial feed per tool revolution ("thread pitch") f [inch]



Machined hole diameter D_0 [inch]	BC..1605.. D_c [inch]								
	1,000	1,250	1,500	2,000	2,500	3,000	4,000	5,000	6,000
0.591									
0.787									
1.181	0,085								
1.575	0,270	0,104							
1.969	0,455	0,229	0,113						
2.362	0,591	0,355	0,208						
2.756	0,591	0,481	0,304	0,124					
3.150	0,591	0,591	0,399	0,189					
3.543	0,591	0,591	0,494	0,254	0,126				
3.937	0,591	0,591	0,589	0,319	0,173				
4.724	0,591	0,591	0,591	0,448	0,268	0,170			
5.906	0,591	0,591	0,591	0,591	0,411	0,287	0,136		
7.087	0,591	0,591	0,591	0,591	0,554	0,404	0,220		
7.874	0,591	0,591	0,591	0,591	0,591	0,481	0,276	0,158	
9.843	0,591	0,591	0,591	0,591	0,591	0,591	0,417	0,266	0,169
11.811	0,591	0,591	0,591	0,591	0,591	0,591	0,557	0,373	0,255
13.780	0,591	0,591	0,591	0,591	0,591	0,591	0,591	0,481	0,341
15.748	0,591	0,591	0,591	0,591	0,591	0,591	0,591	0,589	0,428
17.717	0,591	0,591	0,591	0,591	0,591	0,591	0,591	0,591	0,514
19.685	0,591	0,591	0,591	0,591	0,591	0,591	0,591	0,591	0,591

Information on high-speed applications

1. Maximum permissible speeds:
   The limit values specified in the tables should not be exceeded. Otherwise correct operation and/or reliability are no longer guaranteed.
2. Only use original Walter indexable inserts and assembly parts (screws, etc.). New screws should be used after having replaced the indexable inserts five times at the most.
3. Observe the torques specified in the catalogue.
4. Balancing:
   Balancing in two steps is required when milling at fast speeds (> 6000 rpm) or at circumferential speeds of > 1000 m/min:
   a. Basic balancing of the tool body including indexable inserts (can be carried out by Walter if required). In this case, tool adaptors that have been balanced separately beforehand must be used.
   b. Fine balancing of the tool when fully mounted on the adaptor. The fine balancing operation is strongly recommended, as even the smallest concentricity fault can seriously affect the balance status.
5. Short projection lengths reduce concentricity faults, and increase spindle service life. The specified speeds only apply to the use of tools without additional extensions and for tools with a neck length of ≤ 2.2 × D_c.
   For tools with longer neck lengths, the speeds must be reduced upon consultation with Walter.

Metric

n_{max} [1/min] with D

Tool	Safety-related parts	In relation to	Ø 10	Ø 12	Ø 14	Ø 16	Ø 18	Ø 20	Ø 22	Ø 25	Ø 28	Ø 32	Ø 35
M3024	XN.U0705...	D_c											
	XN.U0906...	D_c											
M4002	SD..06T2...	D_a						28.300		25.300		22.400	
	SD..09T3...	D_a								34.900		30.800	29.500
	SD..1204...	D_a											
M4003	SD..09T3...	D_c						40.000		38.000		33.600	
	SD..1204...	D_c								33.300		29.400	
M2331	ZD..15A4..	D_c										40.000	
	ZD..20A5..	D_c											
M4130	LD..08T204...	D_c				40000		34.300		29.400			
	LD..14T308...	D_c								40.000		33.600	
	LD..170408...	D_c											
M5130	AC.T0602..	D_c	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000		36.600	
	BC.T1605..	D_c								22.300	20.900	19.300	18.300
M2136	SNEF...	D_c											
M4258	SD..1204..	D_c											
	LD..1704..	D_c											
M2471	RNMX12...	D_c										26.600	

Inch

n_{max} [1/min] with D

Tool	Safety-related parts	In relation to	Ø 0,375	Ø 0,5	Ø 0,625	Ø 0,750	Ø 1,000	Ø 1,250	Ø 1,500
M3024	XN.U0705...	D_c							12,800
	XN.U0906...	D_c							
M4002	SD..06T2...	D_a	28,300				25,300	22,400	20,000
	SD..09T3...	D_a					34,900	30,800	27,600
	SD..1204...	D_a							
M4003	SD..09T3...	D_c	40,000				37,700	33,800	30,800
	SD..1204...	D_c					33,000	29,500	27,000
M2331	ZD..15A4..	D_c							40,000
	ZD..20A5..	D_c							
M2136	SNEF...	D_c							
M5130	AC.T0602..	D_c		40.000	40.000	40.000	40.000	36.800	33.400
	BC.T1605..	D_c					22.100	19.300	17.400
M4258	SD..1204..	D_c							
	LD..1704..	D_c							
M2471	RNMX12...	D_c							

6. Safety guard:
   Appropriate safety guards or machine encapsulations must be used to safely collect particles which spin off, such as chips or cutting edge parts that are broken as a result of collisions.
7. Damaged tools:
   The operating speed must be specified for the repair of an HSC tool. The table values only apply to tools with a condition equivalent to new condition following repair.
8. Application of standards:
   Walter recommends using the balancing standard DIN 69888, which describes the balancing of tools and the requirements in the cutting area. DIN 69888 is tailored to the needs of the cutting area, and describes the tool balancing requirements in a practical way. DIN ISO 1940, which was previously often used, describes balancing for all areas of mechanical engineering.
   The requirements when working at circumferential speeds of >1000 m/min are described in DIN ISO 15641.

	n_{max} [1/min] with D												
	Ø 40	Ø 42	Ø 50	Ø 52	Ø 63	Ø 66	Ø 80	Ø 85	Ø 100	Ø 125	Ø 160	Ø 200	Ø 250	Ø 315
	12.500		11.200		10.000		8.800		7.900	7.000	6.200	4.200	3.800	3.350
					8.500		7.400		6.500	5.200	4.100			
	20.000		17.900	17.600	16.000	15.600								
	27.600		24.600	24.200	22.000	21.400								
			17.900	17.600	16.000	15.600	14.100		12.600	11.300		4.200	3.800	3.350
	30.100		26.900		24.000		21.200		19.000			4.200	3.800	3.350
	26.300		23.500		21.000		18.600		16.600	14.900	13.100	4.200	3.800	3.350
	39.800		34.400											
	40.000		34.000											
	28.800		25.000											
			17.300		15.000		12.900		11.400	10.000				
	32.500		28.900		25.700									
	16.900	16.500	14.900	14.600	13.200	12.800	11.600	11.200	10.300	9.100	8.000			
			11.200		10.000		8.800		7.900	7.000	6.200			
			17.300		15.000		12.900							
			17.300		15.000		12.900							
	23.300		20.400	20.000	18.000									

	n_{max} [1/min] with D								
	Ø 2,000	Ø 2,500	Ø 3,000	Ø 4,000	Ø 5,000	Ø 6,000	Ø 8,000	Ø 10,000	Ø 12,000
	11,100	9,900	9,000	7,800	7,000	6,400	4,200	3,800	3,350
		8,400	7,600	6,500	5,100	4,300			
	17,900	16,000							
	24,600	22,000							
	17,900	16,000	14,100	12,600			4,200	3,800	3,350
	26,700	23,900	21,800	18,800			4,200	3,800	3,350
	23,300	20,900	19,000	16,500	14,700	13,500	4,200	3,800	3,350
	34,100								
	33,600								
	11,100	9,900	9,000	7,800	7,000	6,400			
	28.700	25.500							
	14.800	13.100	11.900	10.200	9.100	8.200			
	17,100	14,900	13,300						
	17,100	14,900	13,300						
	20,300	17,900							

Torque screwdriver with interchangeable blades

Torque screwdriver

Designation	Size		Scale range
FS2001	1	4	0,4–1,2 Nm
FS2003	3	4	1,5–5,0 Nm
FS2002	1	4	3.5–10.6 in lbs
FS2004	3	4	13.3–44 in lbs

Designation	Size		Scale range
FS2248	3	4	1,0–6,0 Nm

Interchangeable blades	Designation	Torx	
Torx interchangeable blades Blade length 175 mm	FS2005	6	4
	FS2006	7	
	FS2007	8	
	FS2008	10	
	FS2009	15	
	FS2010	20	
Torx Plus interchangeable blades Blade length 175 mm	FS2085	6IP	4
	FS2011	7IP	
	FS2012	8IP	
	FS2013	9IP	
	FS2268	10IP	
	FS2014	15IP	
	FS2015	20IP	
	FS2016	25IP	
Torx Plus interchangeable blades with retaining function Blade length 175 mm	★ SD2001-6IP	6IP	4
Complete blade set (FS2005–FS2016) Blade length 175 mm	FS2017		4

IP = Torx Plus

Torque T-handle

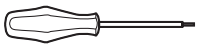
Designation		Scale range
FS2041	6	4,5–14 Nm
FS2042	6	40–123 in lbs

Interchangeable blades	Designation	Torx/WAF	
Torx interchangeable blades Blade length 130 mm	FS2043	15	6
	FS2044	20	
	FS2045	25	
	FS2046	30	
Torx Plus interchangeable blades Blade length 130 mm	FS2047	15IP	6
	FS2048	20IP	
	FS2049	25IP	
	FS2109	30IP	
Hexagonal interchangeable blades Blade length 130 mm	FS2050	SW3	6
	FS2566	★ SW3,5	
	FS2051	SW4	
	FS2052	SW5	
Complete blade set (FS2043–FS2052) Blade length 130 mm	FS2053		6

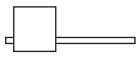
IP = Torx Plus

★ New addition to the product range

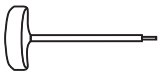
Screwdriver

Screwdriver types	Designation	Torx
 Screwdriver	FS1063	6
	FS2086	6IP
	★ SD1001-6IP *	6IP
	FS309	7
	FS2088	7IP
	FS230	8
	FS1483	8IP
	FS1128	9
	FS1484	9IP
	FS2267	10IP
	FS229	15
	FS1485	15IP
	FS228	20
	FS1486	20IP
	FS2167	25
	FS1487	25IP
	FS396	30
	FS2109	30IP

* with retaining function/IP = Torx Plus

Screwdriver types	Designation	Torx	WAF
 Torx key	FS2146	6IP	–
	FS2087	6IP	–
	FS325	7	–
	FS1490	7IP	–
	FS257	8	–
	FS1466	9IP	–
	FS1050	10	–
	FS255	15	–
	FS1465	15IP	3,5
	FS1496	15IP	4,0
	FS256	20	–
	FS1154	–	2,0
	FS1155	–	2,5

IP = Torx Plus

Screwdriver types	Designation	Torx
 Handle key, small	FS1047	15
	FS1048	20
	FS1049	25
 Handle key, large	FS1172	15
	FS1173	20
	FS1174	25
	FS1175	30

Allen key	Designation	Torx	WAF
	ISO 2936–1,3	–	1,3
	ISO 2936–1,5	–	1,5
	ISO 2936–2	–	2
	ISO 2936–2,5	–	2,5
	ISO 2936–3	–	3
	ISO 2936–3,5	–	3,5
	ISO 2936–4	–	4
	ISO 2936–5	–	5
	ISO 2936–6	–	6
	FS1464	20IP	–
	FS1592	25IP	–

IP = Torx Plus

D – Adaptors

Stationary adaptors – D1

Rotating adaptors – D2

Technical information – D3

Product range overview of Walter Capto™ adaptors

Designation	A2120-C...-P	A2121-C...-P
Alignment	Straight	Angled
Shanks/blades	Shanks	Shanks
Page	665	665
		

Product range overview for VDI adaptors

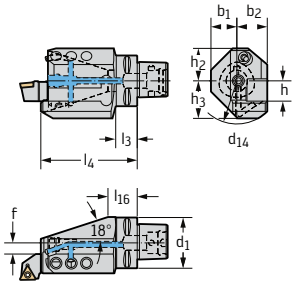
Designation	A2120-V...-P	A2110-V...-P
Alignment	Straight	Straight
Shanks/blades	Shanks	Blades
Page	666	668
		

Designation	A2120-DO...-P	A2120-BT...-P	A2121-DO...-P	A2110-NA...-P
Alignment	Straight	Straight	Angled	Straight
Shanks/blades	Shanks	Shanks	Shanks	Blades
Page	666	667	667	670
				

Walter Capto™ – Axial adaptor
A2120-C...-P mm

– Precision cooling
– For star turrets

Tool	Machining	Size	h mm	b_1 mm	b_2 mm	d_{14} mm	f mm	h_2 mm	h_3 mm	l_3 mm	l_4 mm	kg
Walter Capto™ in accordance with ISO 26623	A2120-C5-20R/L-095-P	C5	20	26	30	85	10	32	37	20	95	1,6
	A2120-C6-20R/L-105-P	C6	20	32	30	85	10	32	37	22	105	2,3
	A2120-C6-25R/L-122-P	C6	25	38	32	100	13	32	46	22	122	3

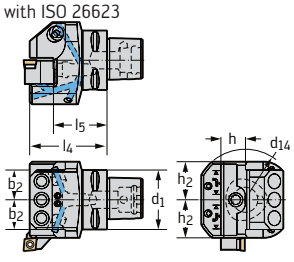


Important: Adaptors are designed for machines with an automatic tool changing system.
The maximum recommended coolant pressure is 80 bar (1160 psi)
Coolant outlet to the nozzle can be set by turning a valve to the left/right
Ordering example, right-hand tool: A2120-C5-20R-095-P/ordering example, left-hand tool: A2120-C5-20L-095-P

Walter Capto™ – Radial adaptor
A2121-C...-P mm

– Precision cooling
– For disc turrets

Tool	Designation	Size	h mm	b_2 mm	h_2 mm	d_{14} mm	l_4 mm	l_5 mm	kg
Walter Capto™ in accordance with ISO 26623	A2121-C5-20N-064-P	C5	20	25	32	85	65	45	1,4
	A2121-C6-25N-076-P	C6	25	32	38	100	80	55	2,5



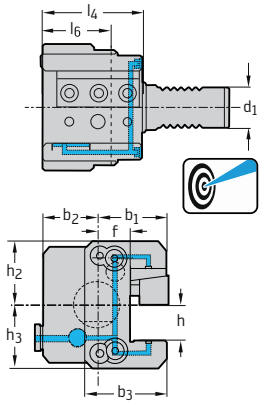
Important: Adaptors are designed for machines with an automatic tool changing system.
The maximum recommended coolant pressure is 80 bar (1160 psi)
Coolant outlet to the nozzle can be set by turning a valve to the left/right

D1

VDI adaptor – DIN 69880 shank tools
A2120-V...-P mm

– Precision cooling
– For star turrets

Tool	Designation	d_1	h mm	b_1 mm	b_2 mm	b_3 mm	f mm	l_4 mm	l_6 mm	h_2 mm	h_3 mm	kg
Shank DIN 1835 E	A2120-V25-20N-055-P	VDI25	20	39	30	20	19	70	35	35	35	1,3
	A2120-V30-20N-070-P	VDI30	20	55,5	30	39,5	35,5	70	48	35	35	1,7
	A2120-V40-25N-085-P	VDI40	25	50,5	42	45	25,5	85	45	44	44	3,2
	★ A2120-V50-25N-100-P	VDI50	25	55,5	50	50	30,5	100	70	44	44	3,2

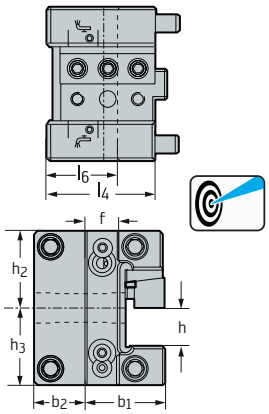


The maximum recommended coolant pressure is 80 bar (1160 psi)

Doosan adaptor – DIN 69880 shank tools
A2120-DO...-P mm

– Precision cooling
– For Doosan star turrets

Tool	Designation	d_1	h mm	b_1 mm	b_2 mm	b_3 mm	f mm	l_4 mm	l_6 mm	h_2 mm	h_3 mm	kg
	A2120-DO-25N-072-P	DO	25	51	35	31	26	72	47	51	51	3



The maximum recommended coolant pressure is 80 bar (1160 psi)

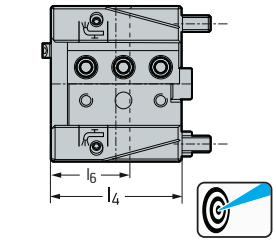
D1

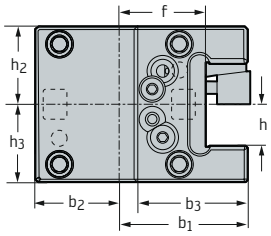
/ ★ New addition to the product range

BMT adaptor – DIN 69880 shank tools
A2120-BT...-P mm

– Precision cooling
– For BMT star turrets

Tool





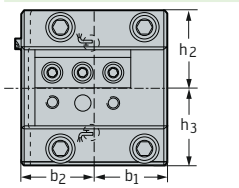
Designation	d_1	h mm	b_1 mm	b_2 mm	b_3 mm	f mm	l_4 mm	l_6 mm	h_2 mm	h_3 mm	kg
A2120-BT45-20N-063-P	BT45	20	62	40	42	34	63	38	38	38	2,2
★ A2120-BT55-25N-060-P	BT55	25	81	44	56	56	60	35	49	49	3,9

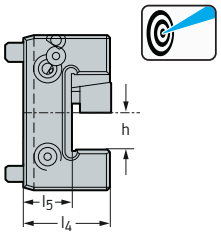
The maximum recommended coolant pressure is 80 bar (1160 psi)

Doosan adaptor – DIN 69880 shank tools
A2121-DO...-P mm

– Precision cooling
– For Doosan disc turrets

Tool





Designation	d_1	h mm	b_1 mm	b_2 mm	l_4 mm	l_5 mm	h_2 mm	h_3 mm	kg
A2121-DO-25N-050-P	DO	25	50	7	57	32	51	51	3,1

The maximum recommended coolant pressure is 80 bar (1160 psi)

D1

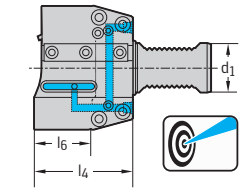
★ New addition to the product range

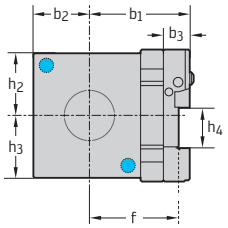
VDI adaptor – DIN 69880 parting blades
A2110-V...-P mm

– Precision cooling
– For star turrets

Tool

Designation	d_1	h_4 mm	b_1 mm	b_2 mm	b_3 mm	f mm	l_4 mm	l_6 mm	h_2 mm	h_3 mm	kg
Shank DIN 1835 E											
A2110-V25-26R/L-083-P	VDI25	26	43	30	17	38	83	52	37	37	1,2





The maximum recommended coolant pressure is 80 bar (1160 psi)
Ordering example, right-hand tool: A2110-V25-26R-083-P/ordering example, left-hand tool: A2110-V25-26L-083-P
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

d_1	VDI25
Screw 1	M05X010 ISO14579 8.8
Screw 2	M08X016 ISO4762 12.9
Wedge	FK383
Coolant nozzle	FS1477
Parallel pin	06,0M6X012 DIN7
Eccentric pin	FS2275
O-ring 1	O-RING 23.52X1.78 70/75
O-ring 2	O-RING 24X2 70/80

Accessories

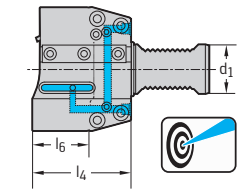
d_1	VDI25
Key	FS1592 (Torx 25IP)
ISO 2936-4 key	ISO2936-4 (SW 4)
ISO 2936-5 key	ISO2936-5 (SW 5)

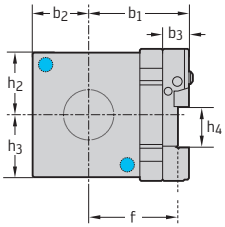
D1

VDI adaptor – DIN 69880 parting blades
A2110-V...-P mm

– Precision cooling
– For Traub star turrets

Tool	Designation	d_1	h_4 mm	b_1 mm	b_2 mm	b_3 mm	f mm	l_4 mm	l_6 mm	h_2 mm	h_3 mm	kg
Shank DIN 1835 E	★ A2110-V25T-26R/L-083-P	VDI25	26	50,5	30	17	38,5	83	50	37	37	1,2
	★ A2110-V30-32R/L-080-P	VDI30	32	66,5	35	20	58	80	52	50	50	2,3





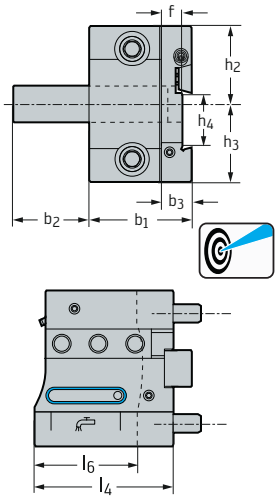
The maximum recommended coolant pressure is 80 bar (1160 psi)
Ordering example, right-hand tool: A2110-V25T-26R-083-P/ordering example, left-hand tool: A2110-V25T-26L-083-P

D1

Nakamura adaptor – Parting blades
A2110-NA...-P mm

– Precision cooling
– For Nakamura star turrets

Tool



Designation	d_1	h_4 mm	b_1 mm	b_2 mm	b_3 mm	f mm	l_4 mm	l_6 mm	h_2 mm	h_3 mm	kg
A2110-NA55-32R/L-076-P	NA55A	32	56	41,5	17,5	51	76	56	43	43	1,4
A2110-NA65-32R/L-065-P	NA65A	32	55	48,5	13,5	50	65	56	43	43	1,2

The maximum recommended coolant pressure is 80 bar (1160 psi)
Ordering example, right-hand tool: A2110-NA55-32R-076-P/ordering example, left-hand tool: A2110-NA55-32L-076-P

D1

Product range overview of:

Walter Capto™ adaptors

Designation	AB035
Tool type	Synchronous thread cutting adaptor
Machine-side	Walter Capto™
Tool-side	ER11 + ER20 + ER25 + ER40
Page	672
	

Walter NCT adaptors

Designation	AB035
Tool type	Synchronous thread cutting adaptor
Machine-side	Walter NCT
Tool-side	ER20 + ER32
Page	673
	

Walter ScrewFit adaptors

Designation	AK530	AK580
Tool type	ScrewFit adaptor	ScrewFit adaptor
Machine-side	Walter HSK	Walter Capto™
Tool-side	T09 – T45	T09 –T45
Page	674	675
		

Walter HSK and SK adaptors

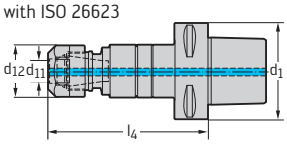
Designation	AB035	AB035	AB035	AB035
Tool type	Synchronous thread cutting adaptor	Synchronous thread cutting adaptor	Synchronous thread cutting adaptor	Synchronous thread cutting adaptor
Machine-side	Walter HSK	Weldon	Walter SK	Walter MAS-BT
Tool-side	ER20 + ER25 + ER40	ER11 + ER20 + ER25	ER20 + ER25 + ER40	ER11 + ER20 + ER25 + ER40
Page	676	677	678	679
				

Synchronous tapping adaptor
AB035-C mm

– Integrated minimum compensation in axial and radial directions
– ISO 26623

Tool

Walter Capto™ in accordance with ISO 26623



Designation	d_1	d_{11} mm	d_{12} mm	l_4 mm	Collets	kg
AB035-C4-ER11-080	C4	M4-M5	24	80	ER11	0,4
AB035-C4-ER20-102	C4	M4-M12	34	102	ER20	0,7
AB035-C4-ER25-122	C4	M8-M20	42	122	ER25	1,0
AB035-C5-ER20-103	C5	M4-M12	34	103	ER20	0,9
AB035-C5-ER25-122	C5	M8-M20	42	122	ER25	1,2
AB035-C5-ER40-154	C5	M16-M30	63	154	ER40	2,7
AB035-C6-ER20-105	C6	M4-M12	34	105	ER20	1,2
AB035-C6-ER25-124	C6	M8-M20	42	124	ER25	1,6
AB035-C6-ER40-154	C6	M16-M30	63	154	ER40	2,9

If collet chucks are used for the internal coolant supply, the sealing discs under "Assembly parts and accessories" must be used
The clamping nut can be damaged if the chuck is used without a sealing disc.
For collets, see "Assembly parts and accessories"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Collets	ER11	ER11	ER20	ER25	ER40
	Clamping nut for internal coolant supply	FS2556	FS2557	FS1359	FS1449	FS1450
	Tensioning key	FS2554		FS2553	FS1544	FS1546

FS2556 corresponds to ER11-4.5
FS2557 corresponds to ER11-6

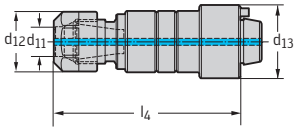
D2

Synchronous tapping adaptor
AB035-N mm

– Integrated minimum compensation in axial and radial directions

Tool

Modular NCT adaptor



Designation	d_1	d_{11} mm	d_{12} mm	l_4 mm	Collets	kg
AB035-N40-ER20-105	NCT 40	4-10	35	105	ER20	0,7
AB035-N50-ER25-125	NCT 50	8-16	42	125	ER32	1,2

If collet chucks are used for the internal coolant supply, the sealing discs under "Assembly parts and accessories" must be used
The clamping nut can be damaged if the chuck is used without a sealing disc.
For collets, see "Assembly parts and accessories"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Collets	ER20	ER32
	Clamping nut for internal coolant supply	FS1359	FS1449
	Tensioning key	FS2553	FS1544

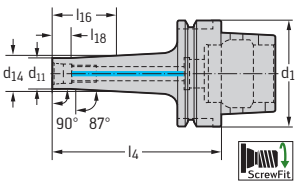
D2

DIN 69893-1 A adaptor
AK530 mm

– For ScrewFit front pieces

Tool

HSK DIN 69893-1 A



Designation	d_1	d_{11}	d_{14} mm	l_4 mm	l_{16} mm	l_{18} mm	kg
★ AK530.H100A.T09.055	HSK-A100	T09	9,7	55	15	10	2,06
★ AK530.H100A.T14.055	HSK-A100	T14	14,5	55	15	10	2,09
★ AK530.H100A.T18.055	HSK-A100	T18	18,5	55	15	10	2,12
AK530.H100A.T22.100	HSK-A100	T22	22	100	61	10	2,31
AK530.H100A.T22.150	HSK-A100	T22	22	150	113	10	2,63
AK530.H100A.T22.200	HSK-A100	T22	22	200	163	10	3,02
AK530.H100A.T22.055CO	HSK-A100	T22	22	55	16	10	2,16
AK530.H100A.T28.110	HSK-A100	T28	28	110	73	10	2,49
AK530.H100A.T28.160	HSK-A100	T28	28	160	123	10	2,96
AK530.H100A.T28.210	HSK-A100	T28	28	210	173	10	3,49
AK530.H100A.T28.260	HSK-A100	T28	28	260	223	10	4,17
AK530.H100A.T28.060CO	HSK-A100	T28	28	60	23	10	2,17
AK530.H100A.T36.120	HSK-A100	T36	36	120	83	10	2,84
AK530.H100A.T36.170	HSK-A100	T36	36	170	133	10	3,53
AK530.H100A.T36.220	HSK-A100	T36	36	220	183	10	4,32
AK530.H100A.T36.270	HSK-A100	T36	36	270	233	10	5,31
AK530.H100A.T36.070CO	HSK-A100	T36	36	70	33	10	2,33
AK530.H100A.T45.120	HSK-A100	T45	45	120	83	10	3,30
AK530.H100A.T45.170	HSK-A100	T45	45	170	133	10	4,28
AK530.H100A.T45.220	HSK-A100	T45	45	220	183	10	5,40
AK530.H100A.T45.270	HSK-A100	T45	45	270	233	10	6,72
AK530.H100A.T45.070CO	HSK-A100	T45	45	70	33	10	2,53

Balance class: G6.3 where n = 16,000 rpm
...CO = Interface is manufactured to be cutting edge-oriented. For the use of B4030.T and B3230.T.
For accessories for HSK, see "Assembly parts and accessories"
For the tightening torques of screw-fit front pieces, see "Rotating adaptors/Assembly parts and accessories"

D2

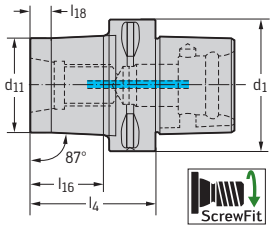
/ ★ New addition to the product range

Walter Capto™ adaptor
AK580.C mm

– For ScrewFit front pieces
– ISO 26623

Tool

Walter Capto™ in accordance with ISO 26623



Designation	d_1	d_{11}	l_4 mm	l_{16} mm	l_{18} mm	kg
AK580.C3.T09.30	C3	T09	30	12,2	10	0,14
AK580.C3.T14.45CO	C3	T14	45	27	10	0,16
AK580.C3.T18.45CO	C3	T18	45	27	10	0,18
AK580.C3.T22.45CO	C3	T22	45	27	10	0,2
AK580.C3.T28.55CO	C3	T28	55	40	10	0,28
AK580.C4.T09.30	C4	T09	30	10	7	0,28
AK580.C4.T14.45CO	C4	T14	45	22	10	0,3
AK580.C4.T18.45CO	C4	T18	45	22	10	0,31
AK580.C4.T22.45CO	C4	T22	45	22	10	0,32
AK580.C4.T28.55CO	C4	T28	55	32	10	0,39
AK580.C4.T36.55CO	C4	T36	55	35	10	0,46
AK580.C4.T45.55CO	C4	T45	55		35	0,6
AK580.C5.T09.35	C5	T09	35	12	10	0,46
AK580.C5.T14.45	C5	T14	45	22	10	0,48
AK580.C5.T18.45	C5	T18	45	22	10	0,49
AK580.C5.T22.45	C5	T22	45	22	10	0,51
AK580.C5.T28.55	C5	T28	55	32	10	0,58
AK580.C5.T36.55	C5	T36	55	32	10	0,65
AK580.C5.T45.55	C5	T45	55	35	10	0,81
★ AK580.C6.T09.48	C6	T09	48	23	10	0,77
AK580.C6.T14.50	C6	T14	50	25	10	0,84
AK580.C6.T18.50	C6	T18	50	25	10	0,85
AK580.C6.T22.50	C6	T22	50	25	10	0,87
AK580.C6.T28.60	C6	T28	60	35	10	0,94
AK580.C6.T36.60	C6	T36	60	35	10	1,01
AK580.C6.T45.60CO	C6	T45	60	35	10	1,19
★ AK580.C8.T09.56	C8	T09	56	23	10	1,75
★ AK580.C8.T14.56	C8	T14	56	23	10	1,76
★ AK580.C8.T18.56	C8	T18	56	23	10	1,77
★ AK580.C8.T22.56	C8	T22	56	23	10	1,78
★ AK580.C8.T28.60	C8	T28	60	27	10	1,82
★ AK580.C8.T36.60	C8	T36	60	27	10	1,87
★ AK580.C8.T45.60CO	C8	T45	60	27	10	2

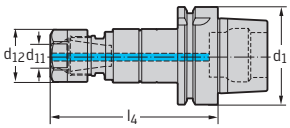
For the tightening torques of screw-fit front pieces, see "Rotating adaptors/Assembly parts and accessories"
...CO = Interface is manufactured to be cutting edge-oriented. For the use of B4030.T and B3230.T.

Synchronous tapping adaptor
AB035-H mm

– Integrated minimum compensation in axial and radial directions

Tool

HSK DIN 69893-1 A



Designation	d_1	d_{11} mm	d_{12} mm	l_4 mm	Collets	kg
AB035-H63-ER20-108	HSK-A63	M4-M12	35	108	ER20	1,1
AB035-H63-ER25-128	HSK-A63	M8-M20	44	128	ER25	1,5
AB035-H63-ER40-160	HSK-A63	M16-M30	62	160	ER40	3,8
AB035-H100-ER20-115	HSK-A100	M4-M12	35	145	ER20	2,5
AB035-H100-ER25-134	HSK-A100	M8-M20	44	134	ER25	2,9
AB035-H100-ER40-164	HSK-A100	M16-M30	62	163	ER40	4,4

If collet chucks are used for the internal coolant supply, the sealing discs under "Assembly parts and accessories" must be used
The clamping nut can be damaged if the chuck is used without a sealing disc.
For collets, see "Assembly parts and accessories"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Collets	ER20	ER25	ER40
	Clamping nut for internal coolant supply	FS1359	FS1449	FS1450
	Tensioning key	FS2553	FS1544	FS1546

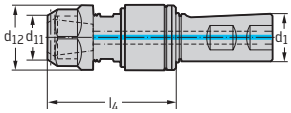
D2

Synchronous tapping adaptor
AB035-W mm

– Integrated minimum compensation in axial and radial directions

Tool

DIN 6535 HE,
turned 180°
DIN 6535 HB



Designation	d_1	d_{11} mm	d_{12} mm	l_4 mm	Collets	kg
AB035-W25-ER11-052	25	M2-M5	19	52	ER11	0,5
AB035-W25-ER20-069	25	M4-M12	34	69	ER20	0,8
AB035-W25-ER25-088	25	M8-M20	42	88	ER25	1,3

If collet chucks are used for the internal coolant supply, the sealing discs under "Assembly parts and accessories" must be used
The clamping nut can be damaged if the chuck is used without a sealing disc.
For collets, see "Assembly parts and accessories"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Collets	ER11	ER11	ER20	ER25
	Clamping nut for internal coolant supply	FS2556	FS2557	FS1359	FS1449
	Tensioning key	FS2554		FS2553	FS1544

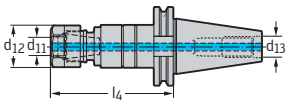
FS2556 corresponds to ER11-4.5
FS2557 corresponds to ER11-6

Synchronous tapping adaptor
AB035-S mm

– Integrated minimum compensation in axial and radial directions
– ISO 7388-1

Tool

SK DIN 69871



Designation	d_1	d_{11} mm	d_{12} mm	d_{13} mm	l_4 mm	Collets	kg
AB035-S40-ER20-102	SK40	M4-M12	35	M16	102	ER20	1,3
AB035-S40-ER25-122	SK40	M8-M20	44	M16	122	ER25	1,6
AB035-S50-ER20-106	SK50	M4-M12	35	M24	106	ER20	3,1
AB035-S50-ER25-126	SK50	M8-M20	44	M24	126	ER25	3,5
AB035-S50-ER40-155	SK50	M16-M30	62	M24	155	ER40	4,9

If collet chucks are used for the internal coolant supply, the sealing discs under "Assembly parts and accessories" must be used
The clamping nut can be damaged if the chuck is used without a sealing disc.
For collets, see "Assembly parts and accessories"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Collets	ER20	ER25	ER40
	Clamping nut for internal coolant supply	FS1359	FS1449	FS1450
	Tensioning key	FS2553	FS1544	FS1546

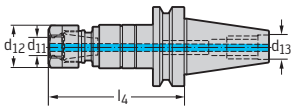
D2

Synchronous tapping adaptor
AB035-J mm

– Integrated minimum compensation in axial and radial directions
– ISO 7388-2

Tool

JIS B 6339



Designation	d_1	d_{11} mm	d_{12} mm	d_{13} mm	l_4 mm	Collets	kg
AB035-J30-ER11-082	BT30	M2-M5	24	M12	82	ER11	0,6
AB035-J30-ER20-105	BT30	M4-M12	35	M12	105	ER20	0,9
AB035-J30-ER25-125	BT30	M8-M20	44	M12	125	ER25	1,2
AB035-J40-ER20-110	BT40	M4-M12	35	M16	110	ER20	1,4
AB035-J40-ER25-130	BT40	M8-M20	44	M16	130	ER25	1,8
AB035-J50-ER20-125	BT50	M4-M12	35	M24	125	ER20	4,1
AB035-J50-ER25-145	BT50	M8-M20	44	M24	145	ER25	4,5
AB035-J50-ER40-174	BT50	M16-M30	62	M24	174	ER40	5,9

If collet chucks are used for the internal coolant supply, the sealing discs under "Assembly parts and accessories" must be used
The clamping nut can be damaged if the chuck is used without a sealing disc.
For collets, see "Assembly parts and accessories"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Collets	ER11	ER11	ER20	ER25	ER40
	Clamping nut for internal coolant supply	FS2556	FS2557	FS1359	FS1449	FS1450
	Tensioning key	FS2554		FS2553	FS1544	FS1546

FS2556 corresponds to ER11-4.5
FS2557 corresponds to ER11-6

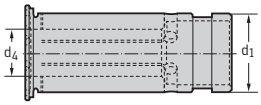
Product range overview of adaptor accessories

Designation	C340	SL00..	GL00..
Tool type	Tapping collet	Adaptor sleeve	Cooling nozzle
Adaptor-side	ER11 – ER40	Hydro-expansion	ER collets
Tool-side	2,8–22 mm	3,0–25 mm	3,0–16 mm
Page	682	681	683
			

Adaptor sleeves for peripheral cooling

inch

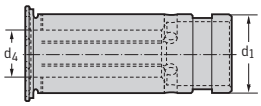
Tool	Designation	d_1 Inch	d_4 Inch	kg
For tools with shank in accordance with DIN 1835 Form A	SL0017	0,472	0,125	0,02
	SL0018	0,472	0,188	0,02
	SL0019	0,472	0,250	0,1
	SL0020	0,472	0,375	0,02
	SL0021	0,787	0,125	0,08
	SL0022	0,787	0,188	0,1
	SL0023	0,787	0,250	0,08
	SL0024	0,787	0,375	0,1
	SL0025	0,787	0,500	0,08
	SL0026	0,787	0,625	0,05
	SL0027	1,260	0,500	0,26
	SL0028	1,260	0,625	0,25
	SL0029	1,260	0,750	0,22
	SL0030	1,260	1,000	0,14



Adaptor sleeves for internal cooling

inch

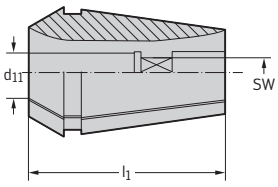
Tool	Designation	d_1 Inch	d_4 Inch	kg
For tools with shank in accordance with DIN 1835 Form A	SL0001	0,472	0,125	0,03
	SL0002	0,472	0,188	0,03
	SL0003	0,472	0,250	0,1
	SL0004	0,472	0,375	0,1
	SL0005	0,787	0,125	0,1
	SL0006	0,787	0,188	0,1
	SL0007	0,787	0,250	0,1
	SL0008	0,787	0,375	0,08
	SL0009	0,787	0,500	0,06
	SL0010	0,787	0,625	0,04
	SL0011	1,260	0,250	0,28
	SL0012	1,260	0,375	0,3
	SL0013	1,260	0,500	0,3
	SL0014	1,260	0,625	0,25
	SL0015	1,260	0,750	0,3
	SL0016	1,260	1,000	0,3



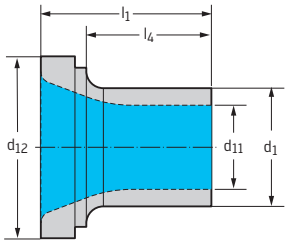
ER tapping collets DIN 6499
C340 mm

– ER – GB in accordance with DIN 6499

Tool	Designation	Collets	d_{11} mm	l_1 mm	SW mm	kg
DIN 6499	C340.11.028	ER11	2,8	18	2,1	0,01
	C340.11.035	ER11	3,5	18	2,7	0,01
	C340.11.045	ER11	4,5	18	3,4	0,01
	C340.11.060	ER11	6	18	4,9	0,01
	C340.20.045	ER20	4,5	31,5	3,4	0,05
	C340.20.060	ER20	6	31,5	4,9	0,04
	C340.20.070	ER20	7	31,5	5,5	0,04
	C340.20.080	ER20	8	31,5	6,2	0,04
	C340.20.090	ER20	9	31,5	7	0,04
	C340.20.100	ER20	10	31,5	8	0,04
	C340.25.045	ER25	4,5	34	3,4	0,01
	C340.25.060	ER25	6	34	4,9	0,01
	C340.25.070	ER25	7	34	5,5	0,01
	C340.25.080	ER25	8	34	6,2	0,08
	C340.25.090	ER25	9	34	7	0,08
	C340.25.100	ER25	10	34	8	0,07
	C340.25.110	ER25	11	34	9	0,07
	C340.25.120	ER25	12	34	9	0,07
	C340.25.140	ER25	14	34	11	0,06
	C340.25.160	ER25	16	34	12	0,05
	C340.32.045	ER32	4,5	40	3,4	0,16
	C340.32.060	ER32	6	40	4,9	0,15
	C340.32.070	ER32	7	40	5,5	0,15
	C340.32.080	ER32	8	40	6,2	0,16
	C340.32.090	ER32	9	40	7	0,15
	C340.32.100	ER32	10	40	8	0,15
	C340.32.110	ER32	11	40	9	0,15
	C340.32.120	ER32	12	40	9	0,15
	C340.32.140	ER32	14	40	11	0,14
	C340.32.160	ER32	16	40	12	0,13
	C340.40.120	ER40	12	46	9	0,28
	C340.40.140	ER40	14	46	11	0,28
	C340.40.160	ER40	16	46	12	0,26
	C340.40.180	ER40	18	46	14,5	0,25
	C340.40.200	ER40	20	46	16	0,23
	C340.40.220	ER40	22	46	18	0,21

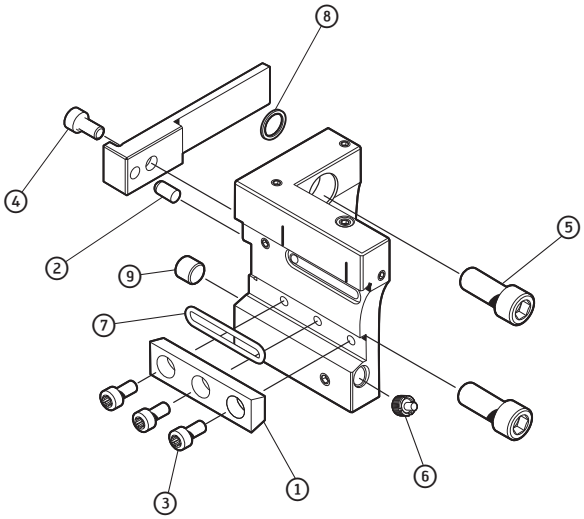


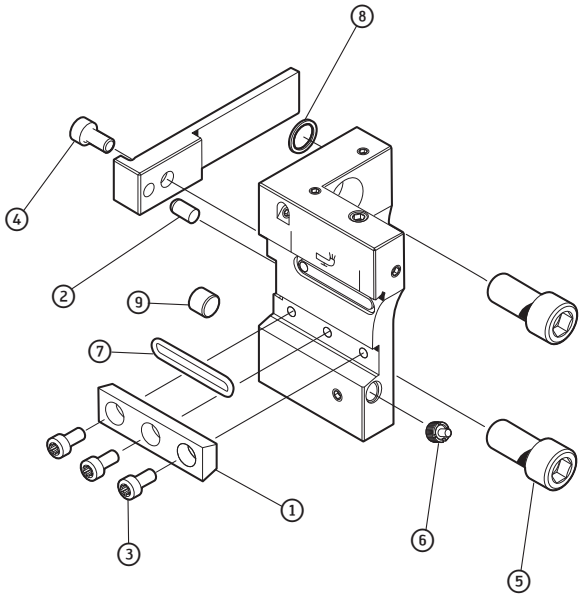
Cooling nozzles for ER collets
GL00.. mm

Tool	Designation	Collets	d_{11} mm	l_1 mm	kg
	★ GL0001	ER16	3	15	0,01
	★ GL0002	ER16	4	15	0,01
	★ GL0003	ER16	5	15	0,01
	★ GL0004	ER16	6	15	0,01
	★ GL0005	ER16	7	15	0,01
	★ GL0006	ER16	8	15	0,01
	★ GL0007	ER16	9	6	0,01
	★ GL0008	ER16	10	6	0,01
	★ GL0009	ER20	6	15	0,01
	★ GL0010	ER20	7	15	0,01
	★ GL0011	ER20	8	15	0,01
	★ GL0012	ER20	9	15	0,01
	★ GL0013	ER20	10	15	0,01
	★ GL0014	ER20	12	6	0,01
	★ GL0015	ER25	6	15	0,01
	★ GL0016	ER25	7	15	0,01
	★ GL0017	ER25	8	15	0,01
	★ GL0018	ER25	9	15	0,01
	★ GL0019	ER25	10	15	0,01
	★ GL0020	ER25	12	15	0,01
	★ GL0021	ER25	14	15	0,01
	★ GL0022	ER25	16	15	0,01
	★ GL0023	ER32	6	15	0,01
	★ GL0024	ER32	7	15	0,01
	★ GL0025	ER32	8	15	0,01
	★ GL0026	ER32	9	15	0,01
	★ GL0027	ER32	10	15	0,01
	★ GL0028	ER32	12	15	0,01
	★ GL0029	ER32	14	15	0,01
	★ GL0030	ER32	16	15	0,01

★ New addition to the product range

Assembly parts and accessories for Nakamura
Type A2110-NA55-32R-076-P

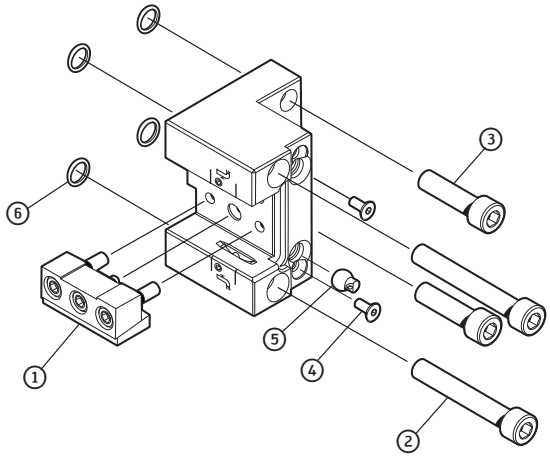




Assembly parts

	55/32	65/32
1 Wedge	FK383	FK383
2 Parallel pin	06,0M6x012 DIN7	06,0M6x012 DIN7
3 Screw	M05x010 ISO14579 14.9	M05x010 ISO14579 14.9
4 Screw	M06x012 ISO4762 12.9	M06x012 ISO4762 12.9
5 Screw	M10x025 ISO4762 12.9	M10x025 ISO4762 12.9
6 Nozzle	FS1477	FS1477
7 O-ring	O-ring 27x2 70 / 80	O-ring 27x2 70 / 80
8 Gasket	FS2563	FS2563
9 Plug	R1/8 DIN906	R1/8 DIN906

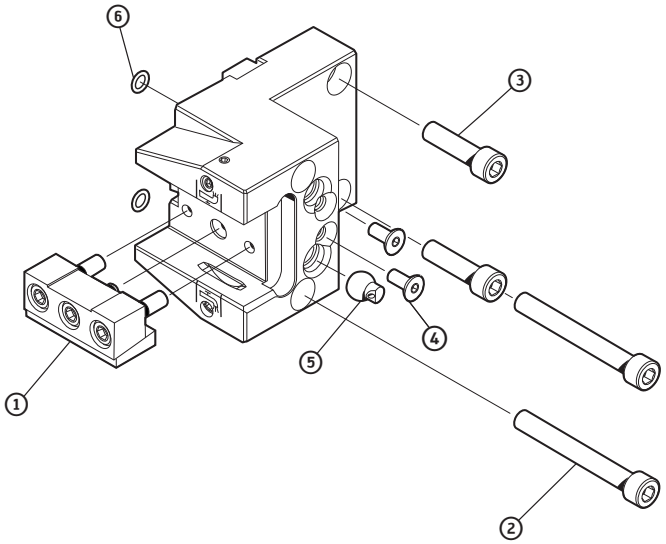
Assembly parts and accessories for Doosan A2120-DO-25N-072-P



Assembly parts

	Do
1 Wedge	FK393
2 Screw	M12x075 ISO4762 12.9
3 Screw	M12x040 ISO4762 12.9
4 Screw	M06x012 DIN7991 10.9
5 Nozzle	FS2561
6 O-ring	10x1,5-NBR 70

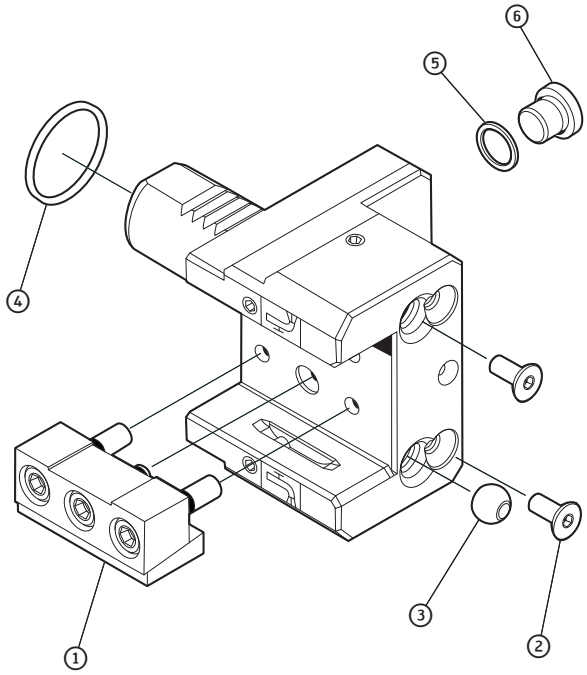
Assembly parts and accessories for BMT
A2120-BT45-20N-063-P



Assembly parts

	BT45
1 Wedge	FK392
2 Screw	M08x065 ISO4762 12.9
3 Screw	M08x030 ISO4762 12.9
4 Screw	M06x012 DIN7991 10.9
5 Nozzle	FS2561
6 O-ring	6x1,5-NBR 70

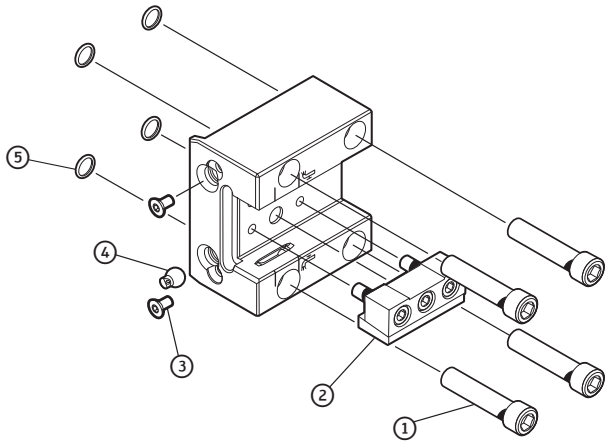
Assembly parts and accessories for VDI A2120-V25-20N-055-P



Assembly parts

	V25
1 Wedge	FK385
2 Screw	M05x012 DIN7991 10.9
3 Nozzle	FS2562
4 O-ring	23,52x1,78
5 Gasket	FS2564
6 Plug	G1/8 DIN908

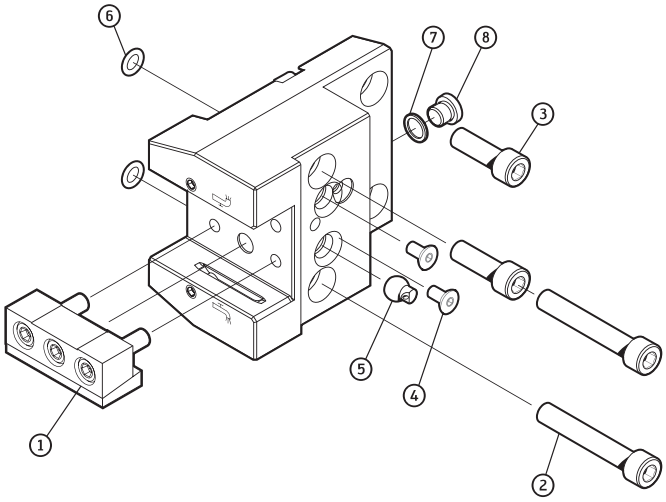
Assembly parts and accessories for Doosan
A2121-DO-25N-050-P



Assembly parts

		Do
1	Wedge	FK393
2	Screw	M12x055 ISO4762 12.9
3	Screw	M06x012 DIN7991 10.9
4	Nozzle	FS2561
5	O-ring	10x1,5-NBR 70

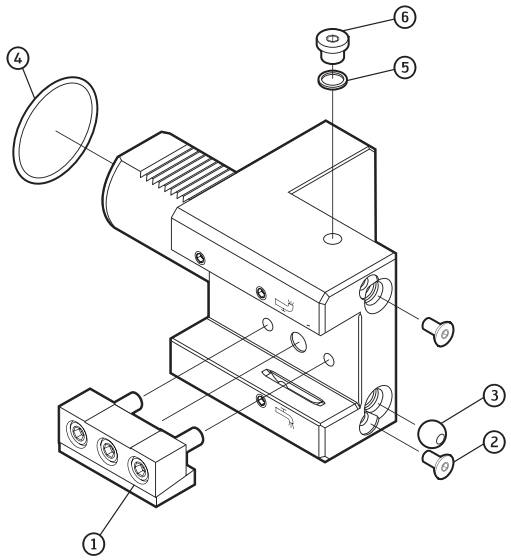
Assembly parts and accessories for BMT A2120-BT55-25N-060-P



Assembly parts

	BT55
1 Wedge	FK393
2 Screw	M10x60 ISO4762 12.9
3 Screw	M10x30 ISO4762 12.9
4 Screw	M06x012 DIN7991 10.9
5 Nozzle	FS2561
6 O-ring	8.00x2.00 NBR 70
7 Gasket	FS2564
8 Plug	M10x1 DIN908

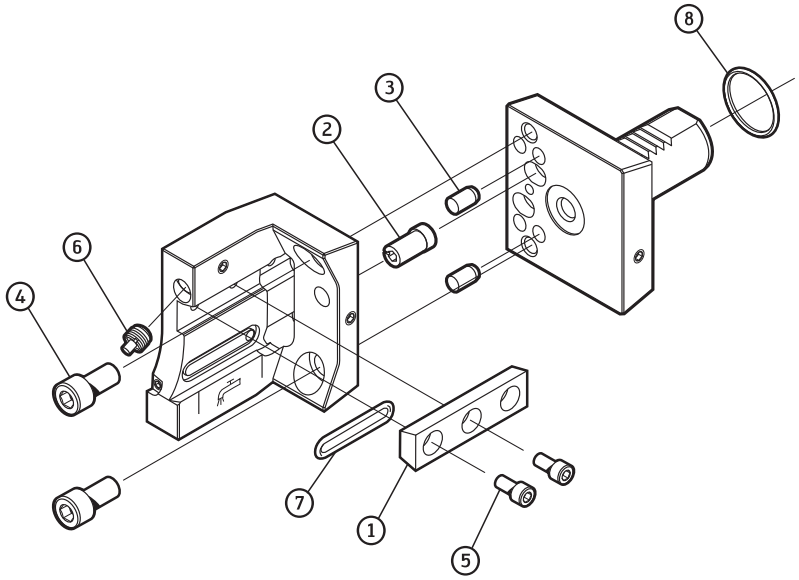
Assembly parts and accessories for VDI
A2120-V50-25N-100-P



Assembly parts

		V50
1	Wedge	FK393
2	Screw	M06x012 DIN7991 10.9
3	Nozzle	FS2562
4	O-ring	O-ring 47.29x2.62 70/75
5	Gasket	FS2564
6	Plug	G1/8 DIN908

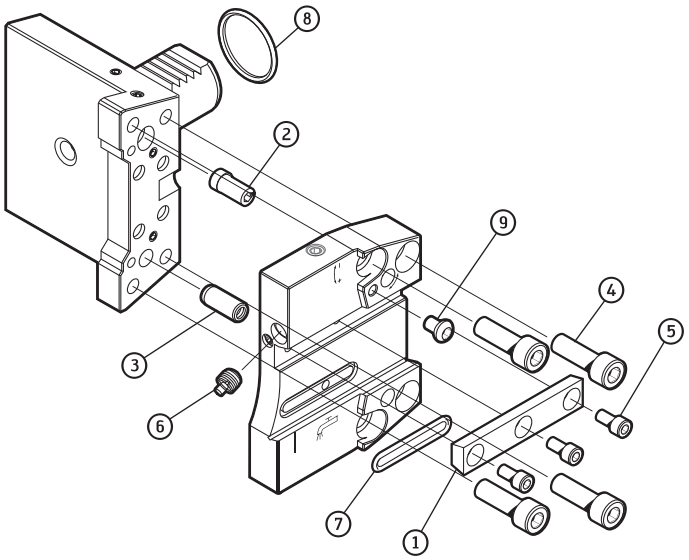
Assembly parts and accessories for Traub VDI A2110-V25T-26R/L-083-P



Assembly parts

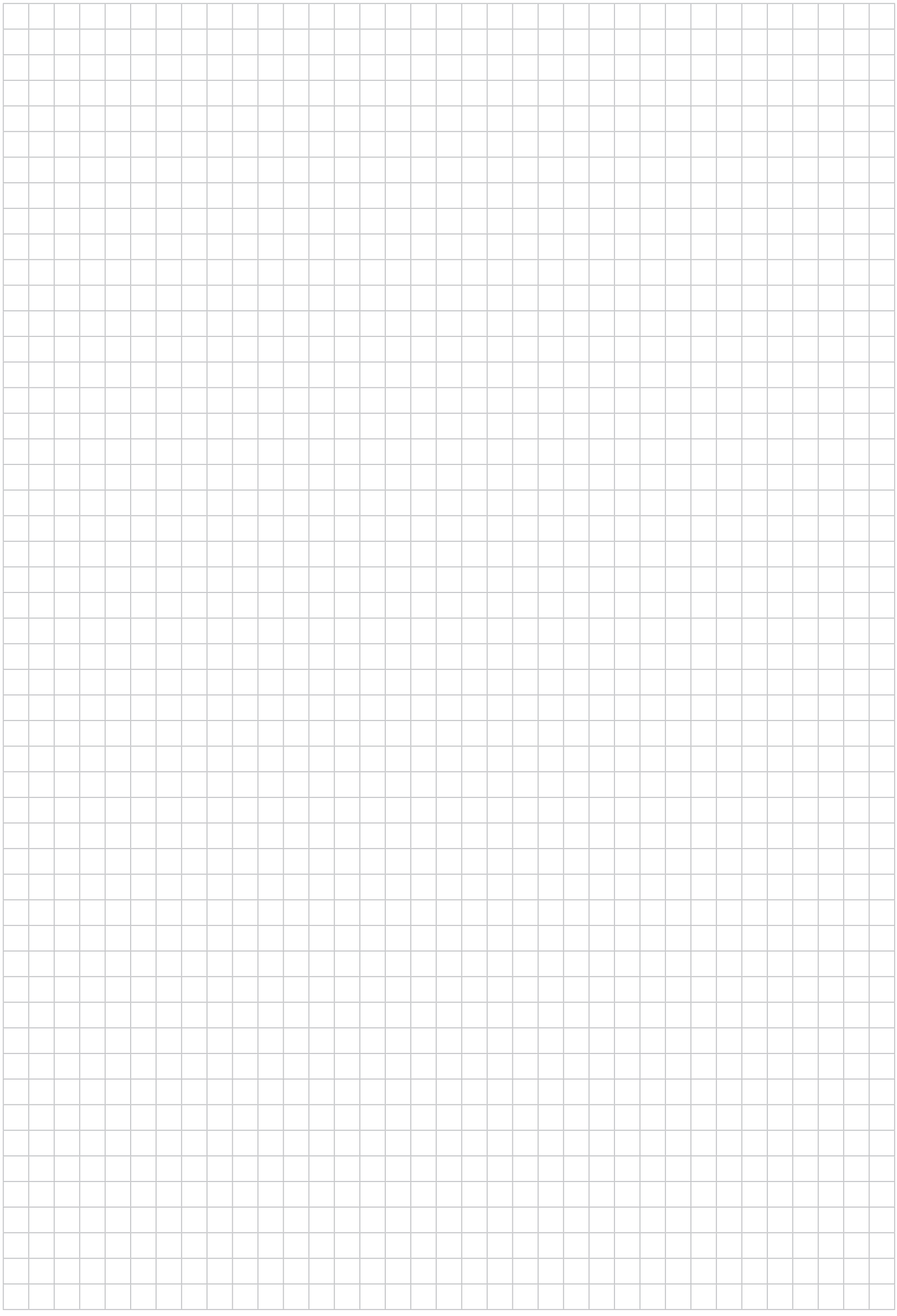
		V25T
1	Wedge	FK383
2	Eccentric pin	FS2275
3	Parallel pin	06,0M6X012 ISO8734
4	Screw	M08X016 ISO4762 12.9
5	Screw	M05X010 ISO14579 8.8
6	Nozzle	FS1477
7	O-ring	O-ring 24X2 70 / 80
8	O-ring	O-ring 23.52X1.78 70/75

Assembly parts and accessories for Traub VDI
A2110-V30-32R/L-080-P



Assembly parts

	V30
1 Wedge	FK384
2 Eccentric pin	FS2275
3 Parallel pin	08,0M6X20 ISO8735
4 Screw	M08X025 ISO4762 12.9
5 Screw	M05X010 ISO14579 8.8
6 Nozzle	FS1477
7 O-ring	O-ring 24X2 70 / 80
8 O-ring	O-ring 28.3X1.78 70/75
9 Plug	M05X08 ISO7380 10.9-Torx



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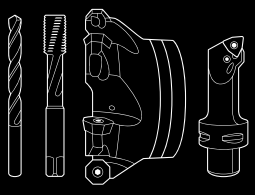

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Derendinger Straße 53, 72072 Tübingen
Postfach 2049, 72010 Tübingen
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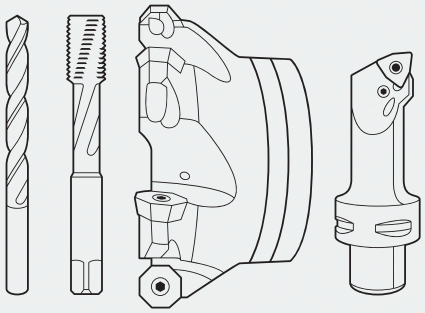

Walter GB Ltd.
Bromsgrove, England
+44 (1527) 839 450, service.uk@walter-tools.com

Walter Kesici Takımlar Sanayi ve Ticaret Ltd. Şti.
Istanbul, Türkiye
+90 (0) 216 528 1900 Pbx, service.tr@walter-tools.com

Walter Wuxi Co. Ltd.
Wuxi, Jiangsu, P.R. China
+86 (510) 853 72199, service.cn@walter-tools.com

Walter AG Singapore Pte. Ltd.
+65 6773 6180, service.sg@walter-tools.com

Walter Korea Ltd.
Anyang-si Gyeonggi-do, Korea
+82 (31) 337 6100, service.kr@walter-tools.com

Walter Tools India Pvt. Ltd.
Pune, India
+91 (20) 3045 7300, service.in@walter-tools.com

Walter (Thailand) Co., Ltd.
Bangkok, 10120, Thailand
+66 2 687 0388, service.th@walter-tools.com

Walter Malaysia Sdn. Bhd.
Selangor D.E., Malaysia
+60 (3) 8023 7748, service.my@walter-tools.com

Walter Japan K.K.
Nagoya, Japan
+81 (52) 533 6135, service.jp@walter-tools.com

Walter USA, LLC
Waukesha WI, USA
+1 800-945-5554, service.us@walter-tools.com

Walter Canada
Mississauga, Canada
service.ca@walter-tools.com