TURNING

DRILLING

THREADING

MILLING

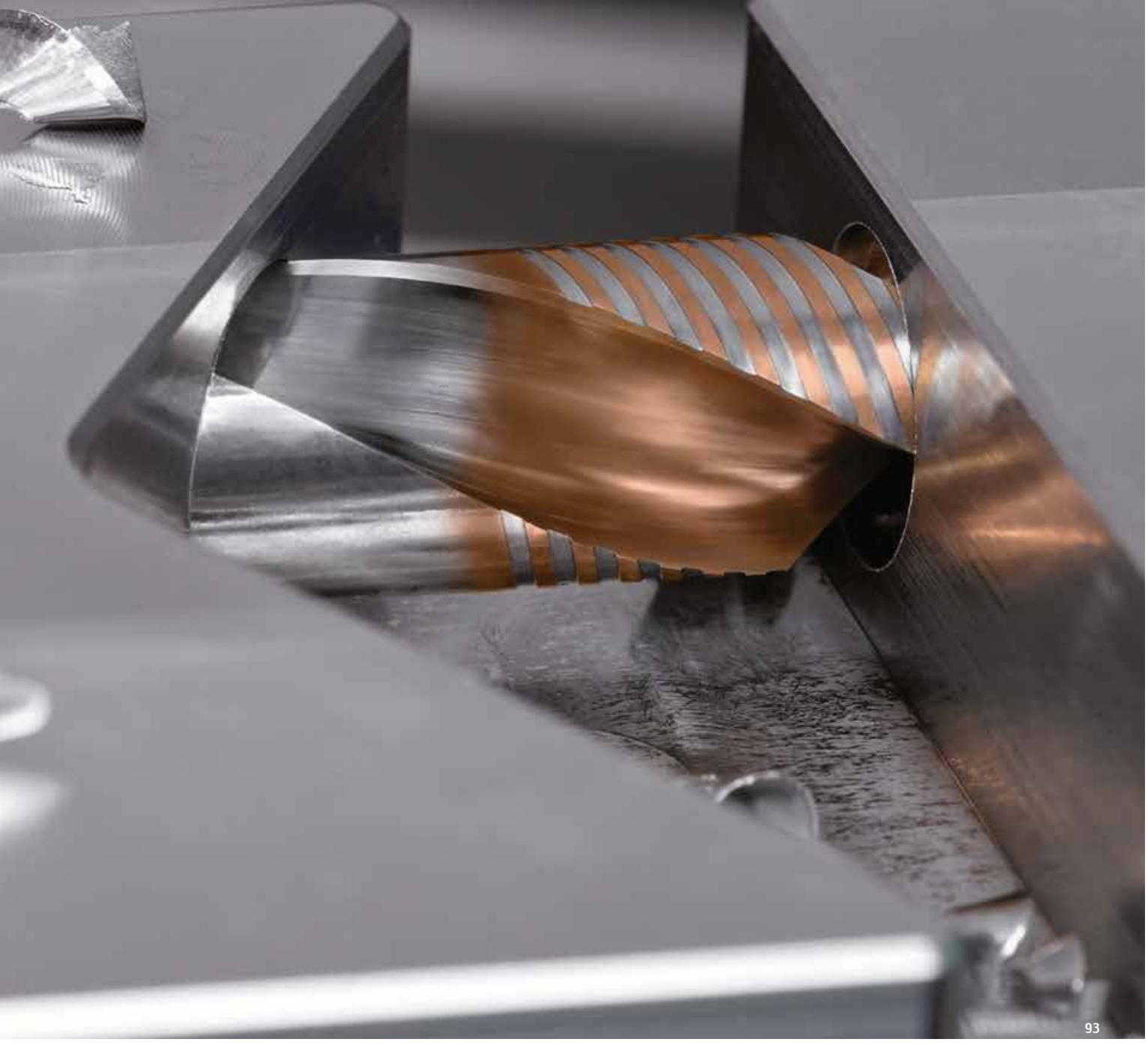
ADAPTORS

Watch the innovations video:
Scan this QR code or go directly to
http://goo.gl/1QxzVC

WALTER TITEX

_ TOOL INNOVATIONS IN DRILLING

Visibly different, clearly leading the way.



Walter Titex DC170: Drilling in a new dimension – visibly different and measurably stronger.

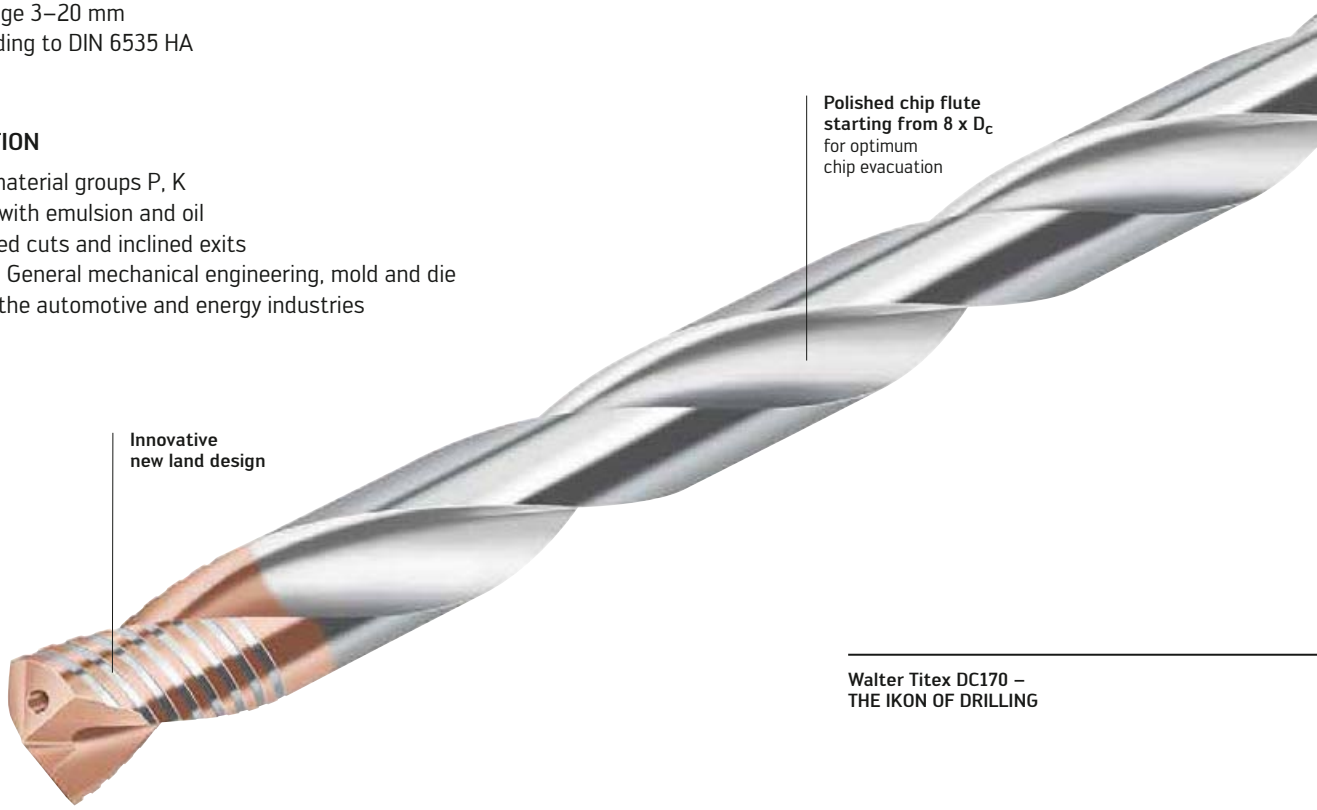
NEW TO THE RANGE FOR 2015

THE TOOL

- Solid carbide high-performance drill with through coolant
- Grade: WJ30EJ, K30F, Tinal/AlCrN multilayer
- Dimensions:
  - **NEW:** 3 × D_C (in accordance with DIN 6537 short)
  - **NEW:** 5 × D_C (in accordance with DIN 6537 long)
  - **NEW:** 8 × D_C
  - **NEW:** 12 × D_C
  - 16 × D_C
  - 20 × D_C
- Diameter range 3–20 mm
- Shank according to DIN 6535 HA

THE APPLICATION

- For the ISO material groups P, K
- Can be used with emulsion and oil
- For interrupted cuts and inclined exits
- Areas of use: General mechanical engineering, mold and die making, and the automotive and energy industries



Walter Titex DC170 – THE IKON OF DRILLING

Watch the product video:
Scan this QR code or go directly to http://goo.gl/oFdMcl

BENEFITS FOR YOU

- Increase in productivity due to 50% longer tool life, with 35% higher workpiece values – in comparison to conventional solid carbide drills
- Improvement in component quality due to the drill being continuously guided at the circumference
- Reduction of production costs through optimum use of the tool: The number of grooves indicates the condition of the drill
- Polished chip flutes guarantee reliable chip removal

Ordering information can be found from page 104 onwards.

Shank
DIN 6535 HA

NEW: 3 × D_c

NEW: 5 × D_c

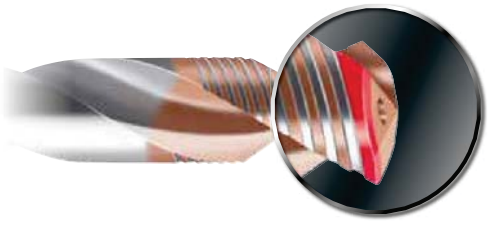
NEW: 8 × D_c

NEW: 12 × D_c

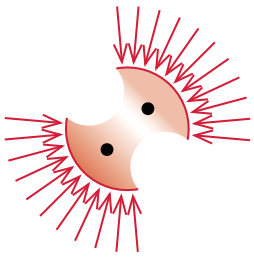
16 × D_c

20 × D_c

Product range: DC170



Maximum carbide mass for maximum process reliability



Continuous guidance for excellent component quality

360° coolant coverage for maximum cooling

Here's what cost efficiency can look like: The regrinding scale

Walter Titex DC150: Flexible in use and very wear-resistant.

NEW TO THE RANGE FOR 2015

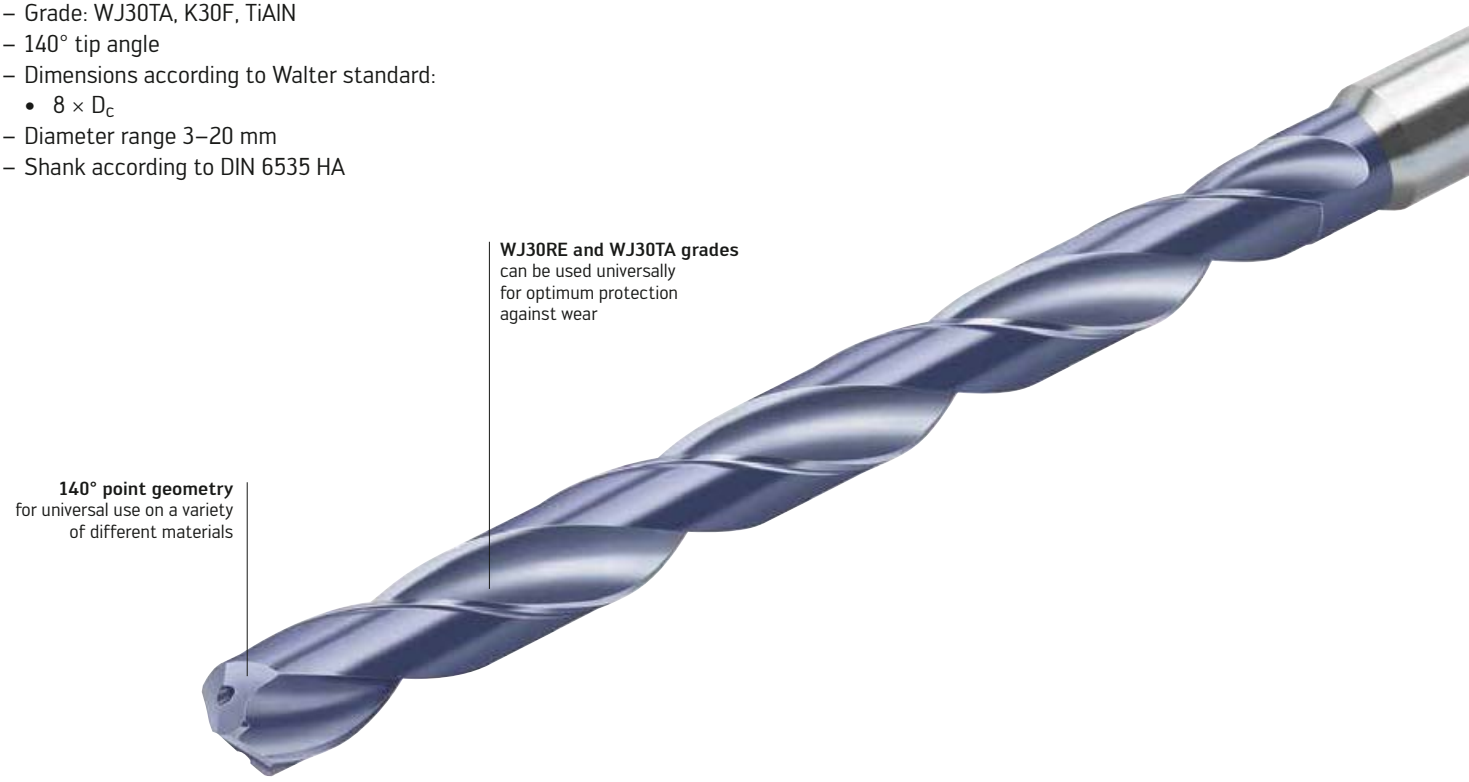
THE TOOL

– Solid carbide twist drill
– Grade: WJ30RE, K30F, TiNAl
– 140° tip angle
– Dimensions in accordance with
  • DIN 6537 short 3 × D_C without internal coolant
  • DIN 6537 long 5 × D_C with internal coolant
– Diameter range 3–20 mm
– Shank in accordance with DIN 6535 HA and HE

– **NEW:** 8 × D_C with internal coolant
– Grade: WJ30TA, K30F, TiAlN
– 140° tip angle
– Dimensions according to Walter standard:
  • 8 × D_C
– Diameter range 3–20 mm
– Shank according to DIN 6535 HA

THE APPLICATION

– For the ISO material groups P, M, K, N, S, H, O
– Can be used with oil and emulsion
– Areas of use: General mechanical engineering, mold and die making, and the energy and automotive industries



BENEFITS FOR YOU

– Universal in its use on all materials
– Shank variants for all adaptors typically used in drilling such as: Whistle Notch toolholders, hydraulic expansion chucks, collet chucks, shrink-fit chucks and power clamping chucks
– Cost-efficient machining of small and medium batch sizes

Walter Titex Perform

Ordering information can be found from page 113 onwards.

The new Walter Perform product line

All Walter tools are characterised by maximum precision and process reliability. You can create real added value by finding a product range which precisely meets all of your requirements. The tools in the Perform line help you to ensure excellent profitability and cover an impressively wide range of applications. They are ideal for use with a wide variety materials, for processing small and medium batch sizes.

DIN 6537 short, 3 × D_c without internal coolant

DIN 6535 HA

DIN 6535 HE

DIN 6537 long, 5 × D_c with internal coolant

DIN 6535 HA

DIN 6535 HE

Walter standard 8 × D_c with internal coolant

NEW: DIN 6535 HA

Product range: DC150

Walter Titex DB133 – precise down to the smallest detail.

NEW 2015

THE TOOL

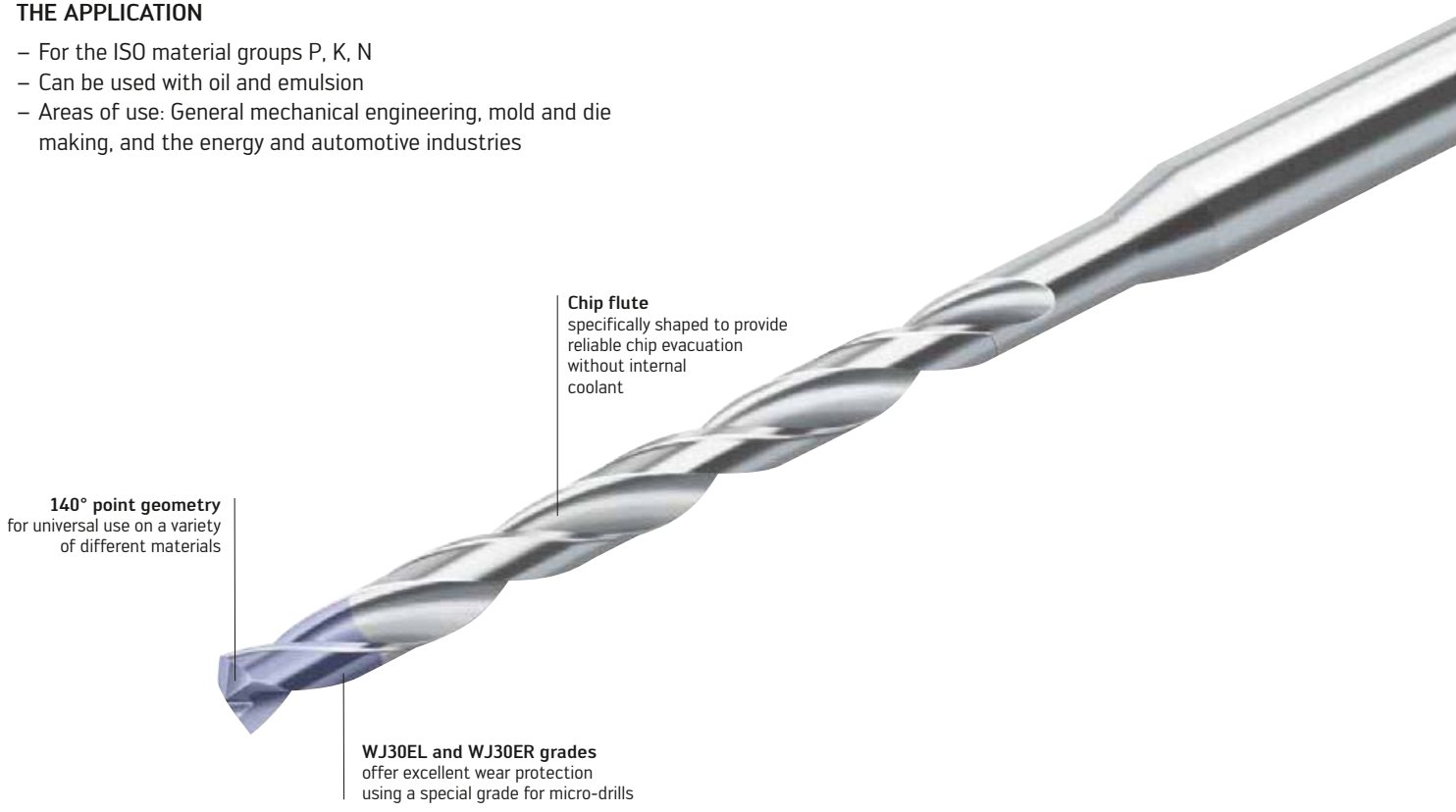
- Solid carbide micro twist drill
- Grades:
  - WJ30EL, K30F, AlCrN
  - WJ30ER, K30F, AlCrN
- 140° tip angle
- Dimensions according to Walter standard:
  - 5 × D_c
  - 8 × D_c
- Diameter range 0.5–2.95 mm
- Shank according to DIN 6535 HA

BENEFITS FOR YOU

- Maximum process reliability combined with minimal dimensions
- Optimised geometry for maximum stability
- Excellent surface finish quality on the component thanks to the adapted preparation of the cutting edges on the drill
- Can be used with oil and emulsion
- Regrindable to a diameter of 2 mm

THE APPLICATION

- For the ISO material groups P, K, N
- Can be used with oil and emulsion
- Areas of use: General mechanical engineering, mold and die making, and the energy and automotive industries



Walter Titex **Product range:** DB133

Ordering information can be found from page 125 onwards.

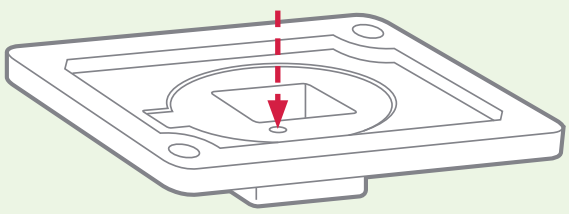
Shank
DIN 6535 HA

Watch the product video:
Scan this QR code or go directly to
http://goo.gl/gcUs88

WJ30EL grade 5 × D_c

WJ30ER grade 8 × D_c

Drill camera housing feed-through hole

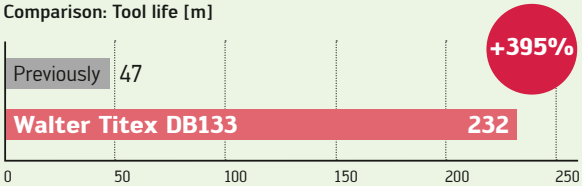


Material: AlSi12; 3.2583
Tool: DB133-08-00.600A0-WJ30ER
Diameter of 0.6 mm

Cutting data:

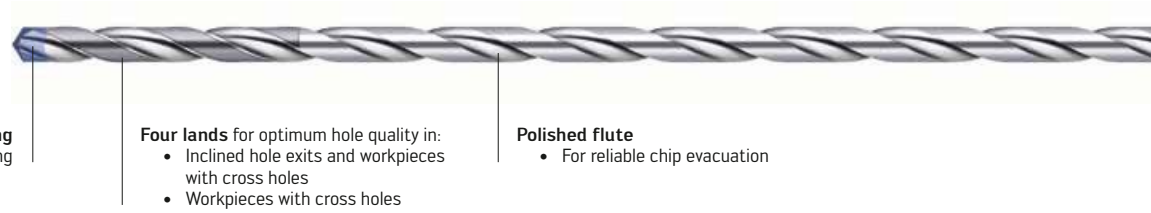
	Previously	DB133
v_c	55 m/min	55 m/min
n	29 000 mm^{-1}	29 000 mm^{-1}
f	0.02 mm/rev	0.02 mm/rev
v_f	580 mm/min	580 mm/min

Comparison: Tool life [m]



Walter Titex XD drilling technology: High-precision in one operation up to 70 x D_C.

NEW TO THE RANGE FOR 2015



THE TOOL

- Solid carbide high-performance drill with internal cooling
- TTP tip coating
- Dimensions
  - 40 × D_C **NEW:** from Ø 3 mm
  - 50 × D_C **NEW:** from Ø 3 mm
  - 60–70 × D_C as a special tool
- Diameter range 3–12 mm
- Shank according to DIN 6535 HA

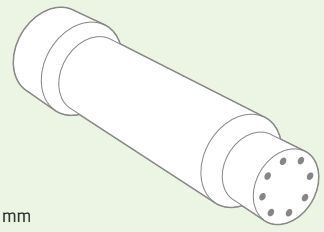
THE APPLICATION

- For the ISO material groups P, K, N (M, S)
- Can be used with emulsion and oil
- Areas of use: General mechanical engineering, mold and die making, as well as the automotive and energy industries

BENEFITS FOR YOU

- Productivity up to ten times higher in comparison to gun drills
- Drilling without pecking
- Extremely high process reliability in deep drilling operations
- Suitable for use with low coolant pressures from 20 bar
- Compatible with various material groups, including ISO P, K, N (M, S)
- Can be used for cross holes and inclined exits

Piston rod

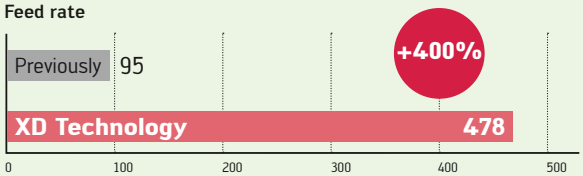


Material: St 52–3
Tool: Diameter 7 mm
Hole depth: 450 mm – 65 × D_c

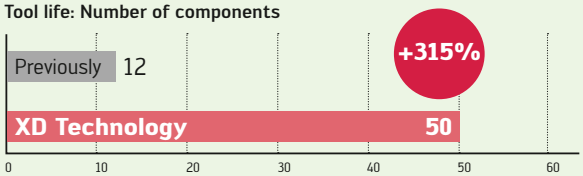
Cutting data:

	Previous Gun drill	XD70 Technology
v_c	70 m/min	70 m/min
n	3185 rpm	3185 rpm
f	0.03 mm/rev	0.15 mm/rev
v_f	95 mm/min	478 mm/min
Tool life	12 components	50 components

Feed rate



Tool life: Number of components



Ordering information can be found from page 123 onwards.

70 × D_c as special tool

Standard range:

NEW: **X·treme D50** – 50 × D_c

NEW: **X·treme D40** – 40 × D_c

Alpha®4 XD30 – 30 × D_c

Alpha®4 XD25 – 25 × D_c

Alpha®4 XD20 – 20 × D_c

Alpha®4 XD16 – 16 × D_c

Watch the product video:
Scan this QR code or go directly to
http://goo.gl/yQB64

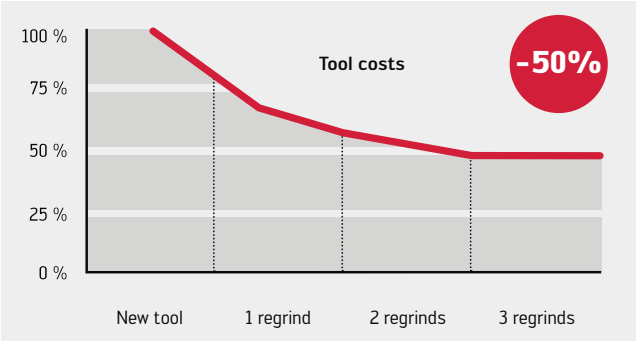
Watch the product animation:
Scan this QR code or go directly to
http://goo.gl/ZBIMm

Regrinding and coating service: Simple, on-time and to the highest quality

With Walter Multiply, your tools will be "as good as new"

Demanding customers always expect 100%, performance at all times. For us, that also includes reconditioning. Walter Multiply returns your tools to a "like new" condition. This is a step-by-step process, ranging from grinding all the way up to final coating. Tough practical deployments have shown that these reconditioned tools offer full performance. Walter Multiply is worthwhile because the service life of a tool is extended each time it is reconditioned.

Regrinding and re-coating are well worth paying for



Walter Multiply reconditioning is available for:

– Solid carbide drills
– XD drills
– Solid carbide milling cutters*
– Solid carbide and HSS step drills and special tools
– High-performance HSS Cobalt drills and milling cutters

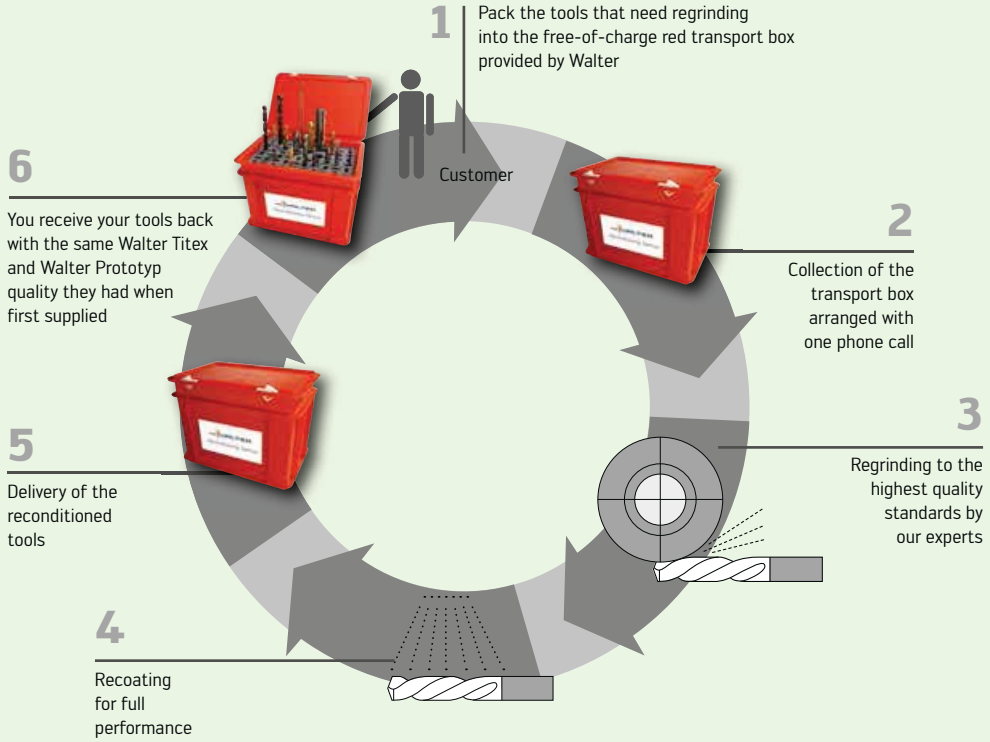
Memorable and extremely practical: The red Walter transport box for collecting tools is supplied and collected free of charge.

Benefits for you with Walter Multiply:

– Original geometry and coating
– Certified reconditioning centres
– Stable production processes thanks to consistent tool life

ORIGINAL

The Walter Reconditioning Service: Original quality restored in six easy steps



*Reconditioning of Walter Prototyp products is not available in all regions. For further details, please contact your local Walter representative.

Designation key for Walter Titex drilling and reaming tools

Example:

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	Parallel shank drill bit

4	
Tool type	
33	Micro-drill
50	Universal
70	ISO P; ISO K

5	
1. Delimiters	
–	Metric
.	Inch

6	
Drilling depth	
03	~3 x D_c in accordance with DIN 6537 short
05	~5 × D_c in compliance with DIN 6537 long or according to Walter standard
08	~8 × D_c according to Walter standard
12	~12 × D_c according to Walter standard
16	~16 × D_c according to Walter standard
20	~20 × D_c according to Walter standard

7	
Cutting diameter	

8	
Shank type	
A	DIN 6535 HA parallel shank
F	DIN 6535 HE parallel shank

9	
Cooling	
0	External coolant
1	Internal coolant, supplied axially

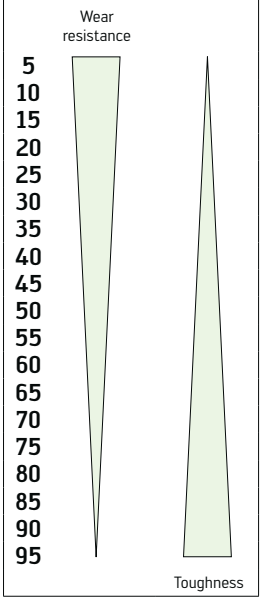
Grade designation key for solid carbide and HSS cutting materials

Example:

W	J	30	EJ
Walter	1	2	3

1	
Substrate	
VHM	J
HSS	

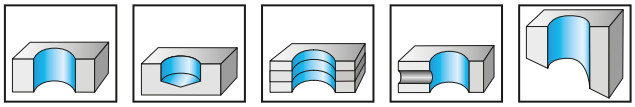
2	
Application range	



3	
Coating	
EJ	TiAlN/AlCrN
RE	TiAlN
TA	TiAlN
EL	AlCrN
ER	AlCrN tip coating

Watch the video:
Scan this QR code or go directly to http://goo.gl/jqW6b2

Solid carbide drill with coolant-through Supreme DC170

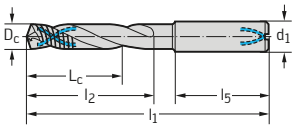


3×D_c | DIN 6537 K | 140°

	P	M	K	N	S	H	O
WJ30EJ	●●		●●				

Tool

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	WJ30EJ
DC170-03-03.000A1-	3		14	62	20	36	6	☺
DC170-03-03.100A1-	3,1		14	62	20	36	6	☺
DC170-03-03.175A1-	3,175	1/8"	14	62	20	36	6	☺
DC170-03-03.200A1-	3,2		14	62	20	36	6	☺
DC170-03-03.300A1-	3,3		14	62	20	36	6	☺
DC170-03-03.400A1-	3,4		14	62	20	36	6	☺
DC170-03-03.500A1-	3,5		14	62	20	36	6	☺
DC170-03-03.572A1-	3,572	9/64"	14	62	20	36	6	☺
DC170-03-03.600A1-	3,6		14	62	20	36	6	☺
DC170-03-03.700A1-	3,7		14	62	20	36	6	☺
DC170-03-03.800A1-	3,8		17	66	24	36	6	☺
DC170-03-03.900A1-	3,9		17	66	24	36	6	☺
DC170-03-03.969A1-	3,969	5/32"	17	66	24	36	6	☺
DC170-03-04.000A1-	4		17	66	24	36	6	☺
DC170-03-04.100A1-	4,1		17	66	24	36	6	☺
DC170-03-04.200A1-	4,2		17	66	24	36	6	☺
DC170-03-04.300A1-	4,3		17	66	24	36	6	☺
DC170-03-04.366A1-	4,366	11/64"	17	66	24	36	6	☺
DC170-03-04.400A1-	4,4		17	66	24	36	6	☺
DC170-03-04.500A1-	4,5		17	66	24	36	6	☺
DC170-03-04.600A1-	4,6		17	66	24	36	6	☺
DC170-03-04.650A1-	4,65		17	66	24	36	6	☺
DC170-03-04.700A1-	4,7		17	66	24	36	6	☺
DC170-03-04.763A1-	4,763	3/16"	20	66	28	36	6	☺
DC170-03-04.800A1-	4,8		20	66	28	36	6	☺
DC170-03-04.900A1-	4,9		20	66	28	36	6	☺
DC170-03-05.000A1-	5		20	66	28	36	6	☺
DC170-03-05.100A1-	5,1		20	66	28	36	6	☺
DC170-03-05.159A1-	5,159	13/64"	20	66	28	36	6	☺
DC170-03-05.200A1-	5,2		20	66	28	36	6	☺
DC170-03-05.300A1-	5,3		20	66	28	36	6	☺
DC170-03-05.400A1-	5,4		20	66	28	36	6	☺
DC170-03-05.500A1-	5,5		20	66	28	36	6	☺
DC170-03-05.550A1-	5,55		20	66	28	36	6	☺
DC170-03-05.556A1-	5,556	7/32"	20	66	28	36	6	☺
DC170-03-05.600A1-	5,6		20	66	28	36	6	☺
DC170-03-05.700A1-	5,7		20	66	28	36	6	☺
DC170-03-05.800A1-	5,8		20	66	28	36	6	☺
DC170-03-05.900A1-	5,9		20	66	28	36	6	☺
DC170-03-05.953A1-	5,953	15/64"	20	66	28	36	6	☺
DC170-03-06.000A1-	6		20	66	28	36	6	☺
DC170-03-06.100A1-	6,1		24	79	34	36	8	☺
DC170-03-06.200A1-	6,2		24	79	34	36	8	☺
DC170-03-06.300A1-	6,3		24	79	34	36	8	☺
DC170-03-06.350A1-	6,35	1/4"	24	79	34	36	8	☺

Ordering example for the WJ30EJ grade: DC170-03-03.000A1-WJ30EJ

☺☺☺ New addition to the product range

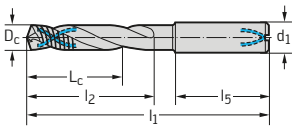
Continued

102 130

Continued

Tool

Shank DIN 6535 HA

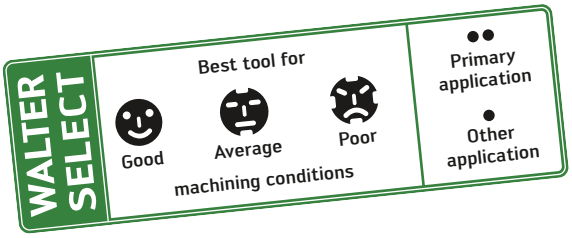


Designation	D_c m7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EJ
DC170-03-06.400A1-	6,4		24	79	34	36	8	☺
DC170-03-06.500A1-	6,5		24	79	34	36	8	☺
DC170-03-06.600A1-	6,6		24	79	34	36	8	☺
DC170-03-06.700A1-	6,7		24	79	34	36	8	☺
DC170-03-06.747A1-	6,747	17/64"	24	79	34	36	8	☺
DC170-03-06.800A1-	6,8		24	79	34	36	8	☺
DC170-03-06.900A1-	6,9		24	79	34	36	8	☺
DC170-03-07.000A1-	7		24	79	34	36	8	☺
DC170-03-07.100A1-	7,1		29	79	41	36	8	☺
DC170-03-07.144A1-	7,144	9/32"	29	79	41	36	8	☺
DC170-03-07.200A1-	7,2		29	79	41	36	8	☺
DC170-03-07.300A1-	7,3		29	79	41	36	8	☺
DC170-03-07.400A1-	7,4		29	79	41	36	8	☺
DC170-03-07.500A1-	7,5		29	79	41	36	8	☺
DC170-03-07.541A1-	7,541	19/64"	29	79	41	36	8	☺
DC170-03-07.800A1-	7,8		29	79	41	36	8	☺
DC170-03-07.900A1-	7,9		29	79	41	36	8	☺
DC170-03-07.938A1-	7,938	5/16"	29	79	41	36	8	☺
DC170-03-08.000A1-	8		29	79	41	36	8	☺
DC170-03-08.100A1-	8,1		35	89	47	40	10	☺
DC170-03-08.200A1-	8,2		35	89	47	40	10	☺
DC170-03-08.300A1-	8,3		35	89	47	40	10	☺
DC170-03-08.334A1-	8,334	21/64"	35	89	47	40	10	☺
DC170-03-08.400A1-	8,4		35	89	47	40	10	☺
DC170-03-08.500A1-	8,5		35	89	47	40	10	☺
DC170-03-08.600A1-	8,6		35	89	47	40	10	☺
DC170-03-08.700A1-	8,7		35	89	47	40	10	☺
DC170-03-08.731A1-	8,731	11/32"	35	89	47	40	10	☺
DC170-03-08.800A1-	8,8		35	89	47	40	10	☺
DC170-03-09.000A1-	9		35	89	47	40	10	☺
DC170-03-09.128A1-	9,128	23/64"	35	89	47	40	10	☺
DC170-03-09.200A1-	9,2		35	89	47	40	10	☺
DC170-03-09.300A1-	9,3		35	89	47	40	10	☺
DC170-03-09.500A1-	9,5		35	89	47	40	10	☺
DC170-03-09.525A1-	9,525	3/8"	35	89	47	40	10	☺
DC170-03-09.600A1-	9,6		35	89	47	40	10	☺
DC170-03-09.700A1-	9,7		35	89	47	40	10	☺
DC170-03-09.800A1-	9,8		35	89	47	40	10	☺
DC170-03-09.922A1-	9,922	25/64"	35	89	47	40	10	☺
DC170-03-10.000A1-	10		35	89	47	40	10	☺
DC170-03-10.100A1-	10,1		40	102	55	45	12	☺
DC170-03-10.200A1-	10,2		40	102	55	45	12	☺
DC170-03-10.300A1-	10,3		40	102	55	45	12	☺
DC170-03-10.319A1-	10,319	13/32"	40	102	55	45	12	☺
DC170-03-10.400A1-	10,4		40	102	55	45	12	☺
DC170-03-10.500A1-	10,5		40	102	55	45	12	☺
DC170-03-10.716A1-	10,716	27/64"	40	102	55	45	12	☺
DC170-03-10.800A1-	10,8		40	102	55	45	12	☺
DC170-03-11.000A1-	11		40	102	55	45	12	☺
DC170-03-11.100A1-	11,1		40	102	55	45	12	☺
DC170-03-11.113A1-	11,113	7/16"	40	102	55	45	12	☺
DC170-03-11.200A1-	11,2		40	102	55	45	12	☺
DC170-03-11.500A1-	11,5		40	102	55	45	12	☺
DC170-03-11.509A1-	11,509	29/64"	40	102	55	45	12	☺
DC170-03-11.700A1-	11,7		40	102	55	45	12	☺

Ordering example for the WJ30EJ grade: DC170-03-03.000A1-WJ30EJ

☺☺☺ New addition to the product range

Continued



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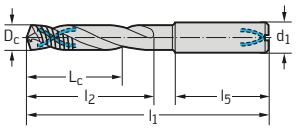
Continued

Tool	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	WJ30EJ
Shank DIN 6535 HA 	DC170-03-11.800A1-	11,8		40	102	55	45	12	☺
	DC170-03-11.906A1-	11,906	15/32"	40	102	55	45	12	☺
	DC170-03-12.000A1-	12		40	102	55	45	12	☺
	DC170-03-12.100A1-	12,1		43	107	60	45	14	☺
	DC170-03-12.200A1-	12,2		43	107	60	45	14	☺
	DC170-03-12.300A1-	12,3		43	107	60	45	14	☺
	DC170-03-12.303A1-	12,303	31/64"	43	107	60	45	14	☺
	DC170-03-12.500A1-	12,5		43	107	60	45	14	☺
	DC170-03-12.600A1-	12,6		43	107	60	45	14	☺
	DC170-03-12.700A1-	12,7	1/2"	43	107	60	45	14	☺
	DC170-03-13.000A1-	13		43	107	60	45	14	☺
	DC170-03-13.300A1-	13,3		43	107	60	45	14	☺
	DC170-03-13.494A1-	13,494	17/32"	43	107	60	45	14	☺
	DC170-03-13.500A1-	13,5		43	107	60	45	14	☺
	DC170-03-14.000A1-	14		43	107	60	45	14	☺
	DC170-03-14.288A1-	14,288	9/16"	45	115	65	48	16	☺
	DC170-03-14.500A1-	14,5		45	115	65	48	16	☺
	DC170-03-15.000A1-	15		45	115	65	48	16	☺
	DC170-03-15.500A1-	15,5		45	115	65	48	16	☺
	DC170-03-15.875A1-	15,875	5/8"	45	115	65	48	16	☺
	DC170-03-16.000A1-	16		45	115	65	48	16	☺
	DC170-03-16.500A1-	16,5		51	123	73	48	18	☺
	DC170-03-17.000A1-	17		51	123	73	48	18	☺
	DC170-03-17.500A1-	17,5		51	123	73	48	18	☺
	DC170-03-18.000A1-	18		51	123	73	48	18	☺
	DC170-03-19.050A1-	19,05	3/4"	55	131	79	50	20	☺
	DC170-03-20.000A1-	20		55	131	79	50	20	☺

Ordering example for the WJ30EJ grade: DC170-03-03.000A1-WJ30EJ

☺ ☺ ☺ New addition to the product range

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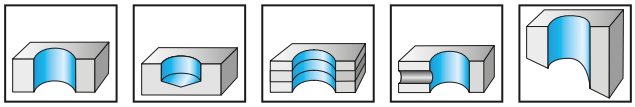
Solid carbide drill with coolant-through Supreme DC170

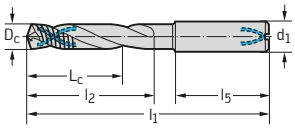


5×D_c | DIN 6537 L | 140°

	P	M	K	N	S	H	O
WJ30EJ	●●		●●				

Tool

Shank DIN 6535 HA

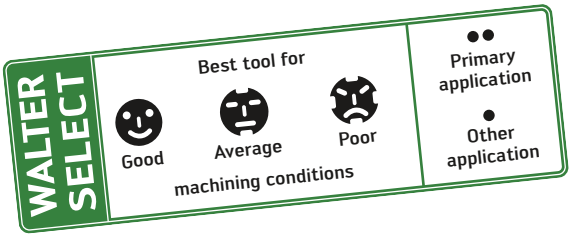


Designation	D_c m7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EJ
DC170-05-03.000A1-	3		22	66	28	36	6	☺
DC170-05-03.100A1-	3,1		22	66	28	36	6	☺
DC170-05-03.175A1-	3,175	1/8"	22	66	28	36	6	☺
DC170-05-03.200A1-	3,2		22	66	28	36	6	☺
DC170-05-03.300A1-	3,3		22	66	28	36	6	☺
DC170-05-03.400A1-	3,4		22	66	28	36	6	☺
DC170-05-03.500A1-	3,5		22	66	28	36	6	☺
DC170-05-03.572A1-	3,572	9/64"	22	66	28	36	6	☺
DC170-05-03.600A1-	3,6		22	66	28	36	6	☺
DC170-05-03.700A1-	3,7		22	66	28	36	6	☺
DC170-05-03.800A1-	3,8		28	74	36	36	6	☺
DC170-05-03.900A1-	3,9		28	74	36	36	6	☺
DC170-05-03.969A1-	3,969	5/32"	28	74	36	36	6	☺
DC170-05-04.000A1-	4		28	74	36	36	6	☺
DC170-05-04.100A1-	4,1		28	74	36	36	6	☺
DC170-05-04.200A1-	4,2		28	74	36	36	6	☺
DC170-05-04.300A1-	4,3		28	74	36	36	6	☺
DC170-05-04.366A1-	4,366	11/64"	28	74	36	36	6	☺
DC170-05-04.400A1-	4,4		28	74	36	36	6	☺
DC170-05-04.500A1-	4,5		28	74	36	36	6	☺
DC170-05-04.600A1-	4,6		28	74	36	36	6	☺
DC170-05-04.650A1-	4,65		28	74	36	36	6	☺
DC170-05-04.700A1-	4,7		28	74	36	36	6	☺
DC170-05-04.763A1-	4,763	3/16"	35	82	44	36	6	☺
DC170-05-04.800A1-	4,8		35	82	44	36	6	☺
DC170-05-04.900A1-	4,9		35	82	44	36	6	☺
DC170-05-05.000A1-	5		35	82	44	36	6	☺
DC170-05-05.100A1-	5,1		35	82	44	36	6	☺
DC170-05-05.159A1-	5,159	13/64"	35	82	44	36	6	☺
DC170-05-05.200A1-	5,2		35	82	44	36	6	☺
DC170-05-05.300A1-	5,3		35	82	44	36	6	☺
DC170-05-05.400A1-	5,4		35	82	44	36	6	☺
DC170-05-05.500A1-	5,5		35	82	44	36	6	☺
DC170-05-05.550A1-	5,55		35	82	44	36	6	☺
DC170-05-05.556A1-	5,556	7/32"	35	82	44	36	6	☺
DC170-05-05.600A1-	5,6		35	82	44	36	6	☺
DC170-05-05.700A1-	5,7		35	82	44	36	6	☺
DC170-05-05.800A1-	5,8		35	82	44	36	6	☺
DC170-05-05.900A1-	5,9		35	82	44	36	6	☺
DC170-05-05.953A1-	5,953	15/64"	35	82	44	36	6	☺
DC170-05-06.000A1-	6		35	82	44	36	6	☺

Ordering example for the WJ30EJ grade: DC170-05-03.000A1-WJ30EJ

☺☺☺ New addition to the product range

Continued



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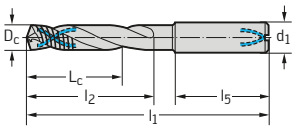
Continued

Tool

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	WJ30EJ
DC170-05-06.100A1-	6,1		42	91	53	36	8	☺
DC170-05-06.200A1-	6,2		42	91	53	36	8	☺
DC170-05-06.300A1-	6,3		42	91	53	36	8	☺
DC170-05-06.350A1-	6,35	1/4"	42	91	53	36	8	☺
DC170-05-06.400A1-	6,4		42	91	53	36	8	☺
DC170-05-06.500A1-	6,5		42	91	53	36	8	☺
DC170-05-06.600A1-	6,6		42	91	53	36	8	☺
DC170-05-06.700A1-	6,7		42	91	53	36	8	☺
DC170-05-06.747A1-	6,747	17/64"	42	91	53	36	8	☺
DC170-05-06.800A1-	6,8		42	91	53	36	8	☺
DC170-05-06.900A1-	6,9		42	91	53	36	8	☺
DC170-05-07.000A1-	7		42	91	53	36	8	☺
DC170-05-07.100A1-	7,1		41	91	53	36	8	☺
DC170-05-07.144A1-	7,144	9/32"	41	91	53	36	8	☺
DC170-05-07.200A1-	7,2		41	91	53	36	8	☺
DC170-05-07.300A1-	7,3		41	91	53	36	8	☺
DC170-05-07.400A1-	7,4		41	91	53	36	8	☺
DC170-05-07.500A1-	7,5		41	91	53	36	8	☺
DC170-05-07.541A1-	7,541	19/64"	41	91	53	36	8	☺
DC170-05-07.800A1-	7,8		41	91	53	36	8	☺
DC170-05-07.900A1-	7,9		41	91	53	36	8	☺
DC170-05-07.938A1-	7,938	5/16"	41	91	53	36	8	☺
DC170-05-08.000A1-	8		41	91	53	36	8	☺
DC170-05-08.100A1-	8,1		46	103	61	40	10	☺
DC170-05-08.200A1-	8,2		46	103	61	40	10	☺
DC170-05-08.300A1-	8,3		46	103	61	40	10	☺
DC170-05-08.334A1-	8,334	21/64"	46	103	61	40	10	☺
DC170-05-08.400A1-	8,4		46	103	61	40	10	☺
DC170-05-08.500A1-	8,5		46	103	61	40	10	☺
DC170-05-08.600A1-	8,6		46	103	61	40	10	☺
DC170-05-08.700A1-	8,7		46	103	61	40	10	☺
DC170-05-08.731A1-	8,731	11/32"	46	103	61	40	10	☺
DC170-05-08.800A1-	8,8		46	103	61	40	10	☺
DC170-05-09.000A1-	9		46	103	61	40	10	☺
DC170-05-09.128A1-	9,128	23/64"	46	103	61	40	10	☺
DC170-05-09.200A1-	9,2		46	103	61	40	10	☺
DC170-05-09.300A1-	9,3		46	103	61	40	10	☺
DC170-05-09.500A1-	9,5		46	103	61	40	10	☺
DC170-05-09.525A1-	9,525	3/8"	46	103	61	40	10	☺
DC170-05-09.600A1-	9,6		46	103	61	40	10	☺
DC170-05-09.700A1-	9,7		46	103	61	40	10	☺
DC170-05-09.800A1-	9,8		46	103	61	40	10	☺
DC170-05-09.900A1-	9,9		46	103	61	40	10	☺
DC170-05-09.922A1-	9,922	25/64"	46	103	61	40	10	☺
DC170-05-10.000A1-	10		46	103	61	40	10	☺
DC170-05-10.100A1-	10,1		53	118	71	45	12	☺
DC170-05-10.200A1-	10,2		53	118	71	45	12	☺
DC170-05-10.300A1-	10,3		53	118	71	45	12	☺
DC170-05-10.319A1-	10,319	13/32"	53	118	71	45	12	☺
DC170-05-10.400A1-	10,4		53	118	71	45	12	☺
DC170-05-10.500A1-	10,5		53	118	71	45	12	☺
DC170-05-10.716A1-	10,716	27/64"	53	118	71	45	12	☺
DC170-05-10.800A1-	10,8		53	118	71	45	12	☺
DC170-05-11.000A1-	11		53	118	71	45	12	☺
DC170-05-11.100A1-	11,1		53	118	71	45	12	☺
DC170-05-11.113A1-	11,113	7/16"	53	118	71	45	12	☺
DC170-05-11.200A1-	11,2		53	118	71	45	12	☺
DC170-05-11.500A1-	11,5		53	118	71	45	12	☺
DC170-05-11.509A1-	11,509	29/64"	53	118	71	45	12	☺

Ordering example for the WJ30EJ grade: DC170-05-03.000A1-WJ30EJ

☺☺☺ New addition to the product range

Continued

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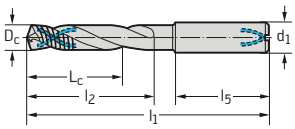
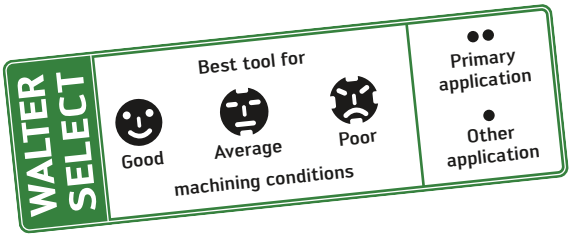
Continued

Tool	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	WJ30EJ
Shank DIN 6535 HA 	DC170-05-11.700A1-	11,7		53	118	71	45	12	☺
	DC170-05-11.800A1-	11,8		53	118	71	45	12	☺
	DC170-05-11.906A1-	11,906	15/32"	53	118	71	45	12	☺
	DC170-05-12.000A1-	12		53	118	71	45	12	☺
	DC170-05-12.100A1-	12,1		63	124	77	45	14	☺
	DC170-05-12.200A1-	12,2		63	124	77	45	14	☺
	DC170-05-12.300A1-	12,3		63	124	77	45	14	☺
	DC170-05-12.303A1-	12,303	31/64"	63	124	77	45	14	☺
	DC170-05-12.500A1-	12,5		63	124	77	45	14	☺
	DC170-05-12.600A1-	12,6		63	124	77	45	14	☺
	DC170-05-12.700A1-	12,7	1/2"	63	124	77	45	14	☺
	DC170-05-13.000A1-	13		63	124	77	45	14	☺
	DC170-05-13.300A1-	13,3		63	124	77	45	14	☺
	DC170-05-13.494A1-	13,494	17/32"	63	124	77	45	14	☺
	DC170-05-13.500A1-	13,5		63	124	77	45	14	☺
	DC170-05-14.000A1-	14		63	124	77	45	14	☺
	DC170-05-14.288A1-	14,288	9/16"	67	133	83	48	16	☺
	DC170-05-14.500A1-	14,5		67	133	83	48	16	☺
	DC170-05-15.000A1-	15		67	133	83	48	16	☺
	DC170-05-15.500A1-	15,5		67	133	83	48	16	☺
	DC170-05-15.875A1-	15,875	5/8"	67	133	83	48	16	☺
	DC170-05-16.000A1-	16		67	133	83	48	16	☺
	DC170-05-16.500A1-	16,5		75	143	93	48	18	☺
	DC170-05-17.000A1-	17		75	143	93	48	18	☺
	DC170-05-17.500A1-	17,5		75	143	93	48	18	☺
	DC170-05-18.000A1-	18		75	143	93	48	18	☺
	DC170-05-18.500A1-	18,5		81	153	101	50	20	☺
	DC170-05-19.000A1-	19		81	153	101	50	20	☺
	DC170-05-19.050A1-	19,05	3/4"	81	153	101	50	20	☺
	DC170-05-20.000A1-	20		81	153	101	50	20	☺

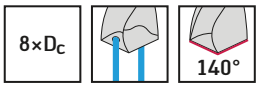
Ordering example for the WJ30EJ grade: DC170-05-03.000A1-WJ30EJ

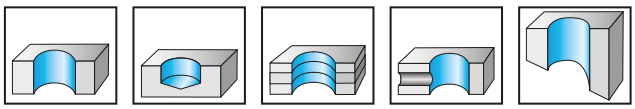
☺ ☹ ☠ New addition to the product range



R 102
130

Solid carbide drill with coolant-through Supreme DC170

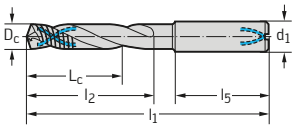




	P	M	K	N	S	H	O
WJ30EJ	●●		●●				

Tool

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	WJ30EJ
DC170-08-03.000A1-	3		28	74	34	36	6	☺
DC170-08-03.100A1-	3,1		28	74	34	36	6	☺
DC170-08-03.175A1-	3,175	1/8"	28	74	34	36	6	☺
DC170-08-03.200A1-	3,2		28	74	34	36	6	☺
DC170-08-03.300A1-	3,3		28	74	34	36	6	☺
DC170-08-03.400A1-	3,4		28	74	34	36	6	☺
DC170-08-03.500A1-	3,5		28	74	34	36	6	☺
DC170-08-03.572A1-	3,572	9/64"	28	74	34	36	6	☺
DC170-08-03.600A1-	3,6		28	74	34	36	6	☺
DC170-08-03.700A1-	3,7		28	74	34	36	6	☺
DC170-08-03.800A1-	3,8		37	85	45	36	6	☺
DC170-08-03.900A1-	3,9		37	85	45	36	6	☺
DC170-08-03.969A1-	3,969	5/32"	37	85	45	36	6	☺
DC170-08-04.000A1-	4		37	85	45	36	6	☺
DC170-08-04.100A1-	4,1		37	85	45	36	6	☺
DC170-08-04.200A1-	4,2		37	85	45	36	6	☺
DC170-08-04.300A1-	4,3		37	85	45	36	6	☺
DC170-08-04.366A1-	4,366	11/64"	37	85	45	36	6	☺
DC170-08-04.400A1-	4,4		37	85	45	36	6	☺
DC170-08-04.500A1-	4,5		37	85	45	36	6	☺
DC170-08-04.600A1-	4,6		37	85	45	36	6	☺
DC170-08-04.700A1-	4,7		37	85	45	36	6	☺
DC170-08-04.763A1-	4,763	3/16"	48	97	57	36	6	☺
DC170-08-04.800A1-	4,8		48	97	57	36	6	☺
DC170-08-04.900A1-	4,9		48	97	57	36	6	☺
DC170-08-05.000A1-	5		48	97	57	36	6	☺
DC170-08-05.100A1-	5,1		48	97	57	36	6	☺
DC170-08-05.159A1-	5,159	13/64"	48	97	57	36	6	☺
DC170-08-05.200A1-	5,2		48	97	57	36	6	☺
DC170-08-05.300A1-	5,3		48	97	57	36	6	☺
DC170-08-05.400A1-	5,4		48	97	57	36	6	☺
DC170-08-05.500A1-	5,5		48	97	57	36	6	☺
DC170-08-05.556A1-	5,556	7/32"	48	97	57	36	6	☺
DC170-08-05.600A1-	5,6		48	97	57	36	6	☺
DC170-08-05.700A1-	5,7		48	97	57	36	6	☺
DC170-08-05.800A1-	5,8		48	97	57	36	6	☺
DC170-08-05.900A1-	5,9		48	97	57	36	6	☺
DC170-08-05.953A1-	5,953	15/64"	48	97	57	36	6	☺
DC170-08-06.000A1-	6		48	97	57	36	6	☺
DC170-08-06.100A1-	6,1		55	106	66	36	8	☺
DC170-08-06.200A1-	6,2		55	106	66	36	8	☺
DC170-08-06.300A1-	6,3		55	106	66	36	8	☺
DC170-08-06.350A1-	6,35	1/4"	55	106	66	36	8	☺
DC170-08-06.400A1-	6,4		55	106	66	36	8	☺
DC170-08-06.500A1-	6,5		55	106	66	36	8	☺

Ordering example for the WJ30EJ grade: DC170-08-03.000A1-WJ30EJ

☺☺☺ New addition to the product range

Continued

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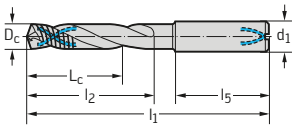
Continued

Tool

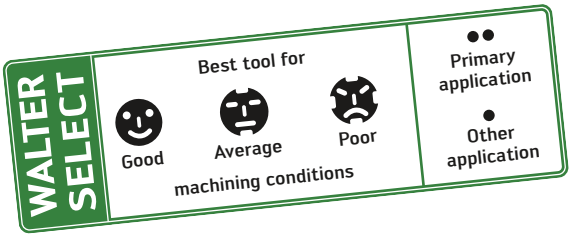
Shank DIN 6535 HA



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	WJ30EJ
DC170-08-06.600A1-	6,6		55	106	66	36	8	☺
DC170-08-06.700A1-	6,7		55	106	66	36	8	☺
DC170-08-06.747A1-	6,747	17/64"	55	106	66	36	8	☺
DC170-08-06.800A1-	6,8		55	106	66	36	8	☺
DC170-08-06.900A1-	6,9		55	106	66	36	8	☺
DC170-08-07.000A1-	7		55	106	66	36	8	☺
DC170-08-07.100A1-	7,1		64	116	76	36	8	☺
DC170-08-07.144A1-	7,144	9/32"	64	116	76	36	8	☺
DC170-08-07.200A1-	7,2		64	116	76	36	8	☺
DC170-08-07.300A1-	7,3		64	116	76	36	8	☺
DC170-08-07.400A1-	7,4		64	116	76	36	8	☺
DC170-08-07.500A1-	7,5		64	116	76	36	8	☺
DC170-08-07.541A1-	7,541	19/64"	64	116	76	36	8	☺
DC170-08-07.600A1-	7,6		64	116	76	36	8	☺
DC170-08-07.700A1-	7,7		64	116	76	36	8	☺
DC170-08-07.800A1-	7,8		64	116	76	36	8	☺
DC170-08-07.900A1-	7,9		64	116	76	36	8	☺
DC170-08-07.938A1-	7,938	5/16"	64	116	76	36	8	☺
DC170-08-08.000A1-	8		64	116	76	36	8	☺
DC170-08-08.100A1-	8,1		80	139	95	40	10	☺
DC170-08-08.200A1-	8,2		80	139	95	40	10	☺
DC170-08-08.300A1-	8,3		80	139	95	40	10	☺
DC170-08-08.334A1-	8,334	21/64"	80	139	95	40	10	☺
DC170-08-08.400A1-	8,4		80	139	95	40	10	☺
DC170-08-08.500A1-	8,5		80	139	95	40	10	☺
DC170-08-08.600A1-	8,6		80	139	95	40	10	☺
DC170-08-08.700A1-	8,7		80	139	95	40	10	☺
DC170-08-08.731A1-	8,731	11/32"	80	139	95	40	10	☺
DC170-08-08.800A1-	8,8		80	139	95	40	10	☺
DC170-08-08.900A1-	8,9		80	139	95	40	10	☺
DC170-08-09.000A1-	9		80	139	95	40	10	☺
DC170-08-09.100A1-	9,1		80	139	95	40	10	☺
DC170-08-09.128A1-	9,128	23/64"	80	139	95	40	10	☺
DC170-08-09.200A1-	9,2		80	139	95	40	10	☺
DC170-08-09.300A1-	9,3		80	139	95	40	10	☺
DC170-08-09.400A1-	9,4		80	139	95	40	10	☺
DC170-08-09.500A1-	9,5		80	139	95	40	10	☺
DC170-08-09.525A1-	9,525	3/8"	80	139	95	40	10	☺
DC170-08-09.600A1-	9,6		80	139	95	40	10	☺
DC170-08-09.700A1-	9,7		80	139	95	40	10	☺
DC170-08-09.800A1-	9,8		80	139	95	40	10	☺
DC170-08-09.900A1-	9,9		80	139	95	40	10	☺
DC170-08-09.922A1-	9,922	25/64"	80	139	95	40	10	☺
DC170-08-10.000A1-	10		80	139	95	40	10	☺
DC170-08-10.100A1-	10,1		96	163	114	45	12	☺
DC170-08-10.200A1-	10,2		96	163	114	45	12	☺
DC170-08-10.300A1-	10,3		96	163	114	45	12	☺
DC170-08-10.319A1-	10,319	13/32"	96	163	114	45	12	☺
DC170-08-10.400A1-	10,4		96	163	114	45	12	☺
DC170-08-10.500A1-	10,5		96	163	114	45	12	☺
DC170-08-10.600A1-	10,6		96	163	114	45	12	☺
DC170-08-10.700A1-	10,7		96	163	114	45	12	☺
DC170-08-10.716A1-	10,716	27/64"	96	163	114	45	12	☺
DC170-08-10.800A1-	10,8		96	163	114	45	12	☺
DC170-08-10.900A1-	10,9		96	163	114	45	12	☺

Ordering example for the WJ30EJ grade: DC170-08-03.000A1-WJ30EJ

☺☺☺ New addition to the product range



Continued

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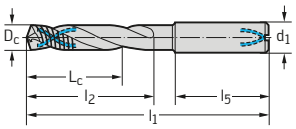
Continued

Tool

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	WJ30EJ
DC170-08-11.000A1-	11		96	163	114	45	12	☺
DC170-08-11.100A1-	11,1		96	163	114	45	12	☺
DC170-08-11.113A1-	11,113	7/16"	96	163	114	45	12	☺
DC170-08-11.200A1-	11,2		96	163	114	45	12	☺
DC170-08-11.300A1-	11,3		96	163	114	45	12	☺
DC170-08-11.400A1-	11,4		96	163	114	45	12	☺
DC170-08-11.500A1-	11,5		96	163	114	45	12	☺
DC170-08-11.509A1-	11,509	29/64"	96	163	114	45	12	☺
DC170-08-11.600A1-	11,6		96	163	114	45	12	☺
DC170-08-11.700A1-	11,7		96	163	114	45	12	☺
DC170-08-11.800A1-	11,8		96	163	114	45	12	☺
DC170-08-11.900A1-	11,9		96	163	114	45	12	☺
DC170-08-11.906A1-	11,906	15/32"	96	163	114	45	12	☺
DC170-08-12.000A1-	12		96	163	114	45	12	☺
DC170-08-12.303A1-	12,303	31/64"	119	182	133	45	14	☺
DC170-08-12.500A1-	12,5		119	182	133	45	14	☺
DC170-08-12.700A1-	12,7	1/2"	119	182	133	45	14	☺
DC170-08-13.000A1-	13		119	182	133	45	14	☺
DC170-08-13.494A1-	13,494	17/32"	119	182	133	45	14	☺
DC170-08-13.500A1-	13,5		119	182	133	45	14	☺
DC170-08-14.000A1-	14		119	182	133	45	14	☺
DC170-08-14.288A1-	14,288	9/16"	136	204	152	48	16	☺
DC170-08-14.500A1-	14,5		136	204	152	48	16	☺
DC170-08-15.000A1-	15		136	204	152	48	16	☺
DC170-08-15.500A1-	15,5		136	204	152	48	16	☺
DC170-08-15.875A1-	15,875	5/8"	136	204	152	48	16	☺
DC170-08-16.000A1-	16		136	204	152	48	16	☺
DC170-08-16.500A1-	16,5		153	223	171	48	18	☺
DC170-08-17.000A1-	17		153	223	171	48	18	☺
DC170-08-17.500A1-	17,5		153	223	171	48	18	☺
DC170-08-18.000A1-	18		153	223	171	48	18	☺
DC170-08-18.500A1-	18,5		170	244	190	50	20	☺
DC170-08-19.000A1-	19		170	244	190	50	20	☺
DC170-08-19.050A1-	19,05	3/4"	170	244	190	50	20	☺
DC170-08-19.500A1-	19,5		170	244	190	50	20	☺
DC170-08-20.000A1-	20		170	244	190	50	20	☺

Ordering example for the WJ30EJ grade: DC170-08-03.000A1-WJ30EJ

☺☺☺ New addition to the product range

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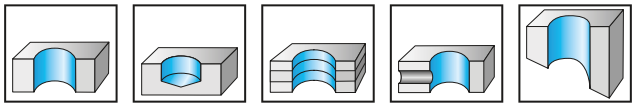
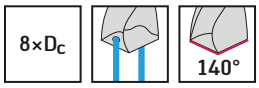
Solid carbide drill with coolant-through Perform DC150

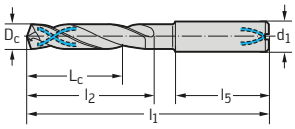




	P	M	K	N	S	H	O
WJ30TA	●●	●●	●●	●●	●●	●	

Tool

Shank DIN 6535 HA

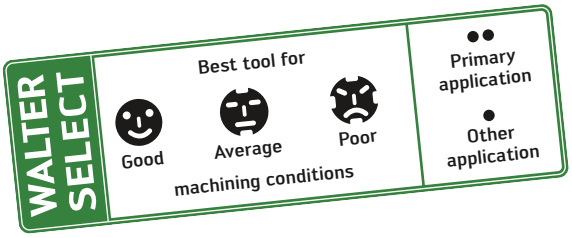


Designation	D_c m7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30TA
DC150-08-03.000A1-	3		28	74	34	36	6	
DC150-08-03.100A1-	3,1		28	74	34	36	6	
DC150-08-03.175A1-	3,175	1/8"	28	74	34	36	6	
DC150-08-03.200A1-	3,2		28	74	34	36	6	
DC150-08-03.300A1-	3,3		28	74	34	36	6	
DC150-08-03.400A1-	3,4		28	74	34	36	6	
DC150-08-03.500A1-	3,5		28	74	34	36	6	
DC150-08-03.572A1-	3,572	9/64"	28	74	34	36	6	
DC150-08-03.600A1-	3,6		28	74	34	36	6	
DC150-08-03.700A1-	3,7		28	74	34	36	6	
DC150-08-03.800A1-	3,8		37	85	45	36	6	
DC150-08-03.900A1-	3,9		37	85	45	36	6	
DC150-08-03.969A1-	3,969	5/32"	37	85	45	36	6	
DC150-08-04.000A1-	4		37	85	45	36	6	
DC150-08-04.100A1-	4,1		37	85	45	36	6	
DC150-08-04.200A1-	4,2		37	85	45	36	6	
DC150-08-04.300A1-	4,3		37	85	45	36	6	
DC150-08-04.366A1-	4,366	11/64"	37	85	45	36	6	
DC150-08-04.400A1-	4,4		37	85	45	36	6	
DC150-08-04.500A1-	4,5		37	85	45	36	6	
DC150-08-04.600A1-	4,6		37	85	45	36	6	
DC150-08-04.700A1-	4,7		37	85	45	36	6	
DC150-08-04.763A1-	4,7		37	85	45	36	6	
DC150-08-04.800A1-	4,8		48	97	57	36	6	
DC150-08-04.900A1-	4,9		48	97	57	36	6	
DC150-08-05.000A1-	5		48	97	57	36	6	
DC150-08-05.100A1-	5,1		48	97	57	36	6	
DC150-08-05.159A1-	5,159	13/64"	48	97	57	36	6	
DC150-08-05.200A1-	5,2		48	97	57	36	6	
DC150-08-05.300A1-	5,3		48	97	57	36	6	
DC150-08-05.400A1-	5,4		48	97	57	36	6	
DC150-08-05.500A1-	5,5		48	97	57	36	6	
DC150-08-05.556A1-	5,556	7/32"	48	97	57	36	6	
DC150-08-05.600A1-	5,6		48	97	57	36	6	
DC150-08-05.700A1-	5,7		48	97	57	36	6	
DC150-08-05.800A1-	5,8		48	97	57	36	6	
DC150-08-05.900A1-	5,9		48	97	57	36	6	
DC150-08-05.953A1-	5,953	15/64"	48	97	57	36	6	
DC150-08-06.000A1-	6		48	97	57	36	6	
DC150-08-06.100A1-	6,1		55	106	66	36	8	
DC150-08-06.200A1-	6,2		55	106	66	36	8	

Ordering example for the WJ30TA grade: DC150-08-03.000A1-WJ30TA

New addition to the product range

Continued



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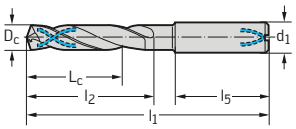
Continued

Tool

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
DC150-08-06.300A1-	6,3		55	106	66	36	8	
DC150-08-06.350A1-	6,35	1/4"	55	106	66	36	8	
DC150-08-06.400A1-	6,4		55	106	66	36	8	
DC150-08-06.500A1-	6,5		55	106	66	36	8	
DC150-08-06.600A1-	6,6		55	106	66	36	8	
DC150-08-06.700A1-	6,7		55	106	66	36	8	
DC150-08-06.747A1-	6,747	17/64"	55	106	66	36	8	
DC150-08-06.800A1-	6,8		55	106	66	36	8	
DC150-08-06.900A1-	6,9		55	106	66	36	8	
DC150-08-07.000A1-	7		55	106	66	36	8	
DC150-08-07.100A1-	7,1		64	116	76	36	8	
DC150-08-07.144A1-	7,144	9/32"	64	116	76	36	8	
DC150-08-07.200A1-	7,2		64	116	76	36	8	
DC150-08-07.300A1-	7,3		64	116	76	36	8	
DC150-08-07.400A1-	7,4		64	116	76	36	8	
DC150-08-07.500A1-	7,5		64	116	76	36	8	
DC150-08-07.541A1-	7,541	19/64"	64	116	76	36	8	
DC150-08-07.600A1-	7,6		64	116	76	36	8	
DC150-08-07.700A1-	7,7		64	116	76	36	8	
DC150-08-07.800A1-	7,8		64	116	76	36	8	
DC150-08-07.900A1-	7,9		64	116	76	36	8	
DC150-08-07.938A1-	7,938	5/16"	64	116	76	36	8	
DC150-08-08.000A1-	8		64	116	76	36	8	
DC150-08-08.100A1-	8,1		80	139	95	40	10	
DC150-08-08.200A1-	8,2		80	139	95	40	10	
DC150-08-08.300A1-	8,3		80	139	95	40	10	
DC150-08-08.334A1-	8,334	21/64"	80	139	95	40	10	
DC150-08-08.400A1-	8,4		80	139	95	40	10	
DC150-08-08.500A1-	8,5		80	139	95	40	10	
DC150-08-08.600A1-	8,6		80	139	95	40	10	
DC150-08-08.700A1-	8,7		80	139	95	40	10	
DC150-08-08.731A1-	8,731	11/32"	80	139	95	40	10	
DC150-08-08.800A1-	8,8		80	139	95	40	10	
DC150-08-08.900A1-	8,9		80	139	95	40	10	
DC150-08-09.000A1-	9		80	139	95	40	10	
DC150-08-09.100A1-	9,1		80	139	95	40	10	
DC150-08-09.128A1-	9,128	23/64"	80	139	95	40	10	
DC150-08-09.200A1-	9,2		80	139	95	40	10	
DC150-08-09.300A1-	9,3		80	139	95	40	10	
DC150-08-09.400A1-	9,4		80	139	95	40	10	
DC150-08-09.500A1-	9,5		80	139	95	40	10	
DC150-08-09.525A1-	9,525	3/8"	80	139	95	40	10	
DC150-08-09.600A1-	9,6		80	139	95	40	10	
DC150-08-09.700A1-	9,7		80	139	95	40	10	
DC150-08-09.800A1-	9,8		80	139	95	40	10	
DC150-08-09.900A1-	9,9		80	139	95	40	10	
DC150-08-09.922A1-	9,922	25/64"	80	139	95	40	10	
DC150-08-10.000A1-	10		80	139	95	40	10	
DC150-08-10.100A1-	10,1		96	163	114	45	12	
DC150-08-10.200A1-	10,2		96	163	114	45	12	
DC150-08-10.300A1-	10,3		96	163	114	45	12	
DC150-08-10.319A1-	10,319	13/32"	96	163	114	45	12	
DC150-08-10.400A1-	10,4		96	163	114	45	12	
DC150-08-10.500A1-	10,5		96	163	114	45	12	
DC150-08-10.700A1-	10,7		96	163	114	45	12	
DC150-08-10.716A1-	10,716	27/64"	96	163	114	45	12	
DC150-08-10.800A1-	10,8		96	163	114	45	12	
DC150-08-10.900A1-	10,9		96	163	114	45	12	
DC150-08-11.000A1-	11		96	163	114	45	12	

Ordering example for the WJ30TA grade: DC150-08-03.000A1-WJ30TA

New addition to the product range

Continued

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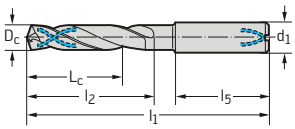
Continued

Tool

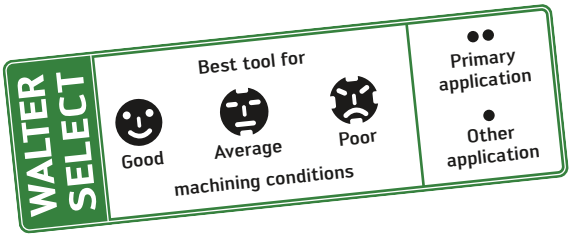
Shank DIN 6535 HA



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
DC150-08-11.100A1-	11,1		96	163	114	45	12	
DC150-08-11.113A1-	11,113	7/16"	96	163	114	45	12	
DC150-08-11.200A1-	11,2		96	163	114	45	12	
DC150-08-11.300A1-	11,3		96	163	114	45	12	
DC150-08-11.500A1-	11,5		96	163	114	45	12	
DC150-08-11.600A1-	11,6		96	163	114	45	12	
DC150-08-11.700A1-	11,7		96	163	114	45	12	
DC150-08-11.800A1-	11,8		96	163	114	45	12	
DC150-08-11.900A1-	11,9		96	163	114	45	12	
DC150-08-11.906A1-	11,906	15/32"	96	163	114	45	12	
DC150-08-12.000A1-	12		96	163	114	45	12	
DC150-08-12.303A1-	12,303	31/64"	119	182	133	45	14	
DC150-08-12.500A1-	12,5		119	182	133	45	14	
DC150-08-12.700A1-	12,7	1/2"	119	182	133	45	14	
DC150-08-13.000A1-	13		119	182	133	45	14	
DC150-08-13.494A1-	13,494	17/32"	119	182	133	45	14	
DC150-08-13.500A1-	13,5		119	182	133	45	14	
DC150-08-14.000A1-	14		119	182	133	45	14	
DC150-08-14.288A1-	14,288	9/16"	136	204	152	48	16	
DC150-08-14.500A1-	14,5		136	204	152	48	16	
DC150-08-15.000A1-	15		136	204	152	48	16	
DC150-08-15.500A1-	15,5		136	204	152	48	16	
DC150-08-15.875A1-	15,875	5/8"	136	204	152	48	16	
DC150-08-16.000A1-	16		136	204	152	48	16	
DC150-08-16.500A1-	16,5		153	223	171	48	18	
DC150-08-17.000A1-	17		153	223	171	48	18	
DC150-08-17.500A1-	17,5		153	223	171	48	18	
DC150-08-18.000A1-	18		153	223	171	48	18	
DC150-08-18.500A1-	18,5		170	244	190	50	20	
DC150-08-19.000A1-	19		170	244	190	50	20	
DC150-08-19.050A1-	19,05	3/4"	170	244	190	50	20	
DC150-08-19.500A1-	19,5		170	244	190	50	20	
DC150-08-20.000A1-	20		170	244	190	50	20	

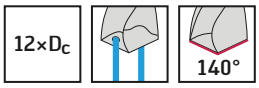
Ordering example for the WJ30TA grade: DC150-08-03.000A1-WJ30TA

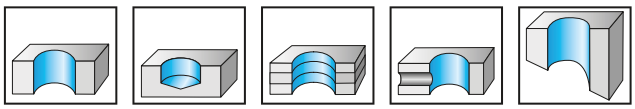
New addition to the product range



102 130

Solid carbide drill with coolant-through Supreme DC170





	P	M	K	N	S	H	O
WJ30EJ	●●		●●				

Tool	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	WJ30EJ
Shank DIN 6535 HA	DC170-12-03.000A1-	3		48	92	54	36	6	☺
	DC170-12-03.100A1-	3,1		48	92	54	36	6	☺
	DC170-12-03.175A1-	3,175	1/8"	48	92	54	36	6	☺
	DC170-12-03.200A1-	3,2		48	92	54	36	6	☺
	DC170-12-03.300A1-	3,3		48	92	54	36	6	☺
	DC170-12-03.400A1-	3,4		48	92	54	36	6	☺
	DC170-12-03.500A1-	3,5		48	92	54	36	6	☺
	DC170-12-03.572A1-	3,572	9/64"	48	92	54	36	6	☺
	DC170-12-03.600A1-	3,6		48	92	54	36	6	☺
	DC170-12-03.700A1-	3,7		48	92	54	36	6	☺
	DC170-12-03.800A1-	3,8		56	102	64	36	6	☺
	DC170-12-03.900A1-	3,9		56	102	64	36	6	☺
	DC170-12-03.969A1-	3,969	5/32"	56	102	64	36	6	☺
	DC170-12-04.000A1-	4		56	102	64	36	6	☺
	DC170-12-04.100A1-	4,1		56	102	64	36	6	☺
	DC170-12-04.200A1-	4,2		56	102	64	36	6	☺
	DC170-12-04.300A1-	4,3		56	102	64	36	6	☺
	DC170-12-04.366A1-	4,366	11/64"	56	102	64	36	6	☺
	DC170-12-04.400A1-	4,4		56	102	64	36	6	☺
	DC170-12-04.500A1-	4,5		56	102	64	36	6	☺
	DC170-12-04.600A1-	4,6		56	102	64	36	6	☺
	DC170-12-04.700A1-	4,7		56	102	64	36	6	☺
	DC170-12-04.763A1-	4,763	3/16"	74	121	83	36	6	☺
	DC170-12-04.800A1-	4,8		74	121	83	36	6	☺
	DC170-12-04.900A1-	4,9		74	121	83	36	6	☺
	DC170-12-05.000A1-	5		74	121	83	36	6	☺
	DC170-12-05.100A1-	5,1		74	121	83	36	6	☺
	DC170-12-05.159A1-	5,159	13/64"	74	121	83	36	6	☺
	DC170-12-05.200A1-	5,2		74	121	83	36	6	☺
	DC170-12-05.300A1-	5,3		74	121	83	36	6	☺
	DC170-12-05.400A1-	5,4		74	121	83	36	6	☺
	DC170-12-05.500A1-	5,5		74	121	83	36	6	☺
	DC170-12-05.550A1-	5,55		74	121	83	36	6	☺
	DC170-12-05.556A1-	5,556	7/32"	74	121	83	36	6	☺
	DC170-12-05.600A1-	5,6		74	121	83	36	6	☺
	DC170-12-05.700A1-	5,7		74	121	83	36	6	☺
	DC170-12-05.800A1-	5,8		74	121	83	36	6	☺
	DC170-12-05.900A1-	5,9		74	121	83	36	6	☺
	DC170-12-06.000A1-	6		74	121	83	36	6	☺
	DC170-12-06.100A1-	6,1		98	148	110	36	8	☺
	DC170-12-06.200A1-	6,2		98	148	110	36	8	☺
	DC170-12-06.300A1-	6,3		98	148	110	36	8	☺
	DC170-12-06.350A1-	6,35	1/4"	98	148	110	36	8	☺
	DC170-12-06.400A1-	6,4		98	148	110	36	8	☺
	DC170-12-06.500A1-	6,5		98	148	110	36	8	☺

Ordering example for the WJ30EJ grade: DC170-12-03.000A1-WJ30EJ

☺☺☺ New addition to the product range

Continued

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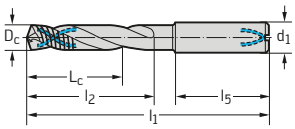
Continued

Tool

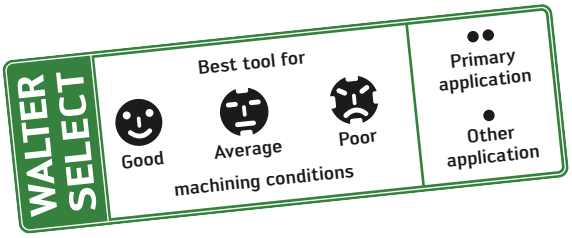
Shank DIN 6535 HA



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	WJ30EJ
DC170-12-06.600A1-	6,6		98	148	110	36	8	☺
DC170-12-06.700A1-	6,7		98	148	110	36	8	☺
DC170-12-06.747A1-	6,747	17/64"	98	148	110	36	8	☺
DC170-12-06.800A1-	6,8		98	148	110	36	8	☺
DC170-12-06.900A1-	6,9		98	148	110	36	8	☺
DC170-12-07.000A1-	7		98	148	110	36	8	☺
DC170-12-07.100A1-	7,1		98	148	110	36	8	☺
DC170-12-07.144A1-	7,144	9/32"	98	148	110	36	8	☺
DC170-12-07.200A1-	7,2		98	148	110	36	8	☺
DC170-12-07.300A1-	7,3		98	148	110	36	8	☺
DC170-12-07.400A1-	7,4		98	148	110	36	8	☺
DC170-12-07.500A1-	7,5		98	148	110	36	8	☺
DC170-12-07.541A1-	7,541	19/64"	98	148	110	36	8	☺
DC170-12-07.800A1-	7,8		98	148	110	36	8	☺
DC170-12-07.900A1-	7,9		98	148	110	36	8	☺
DC170-12-07.938A1-	7,938	5/16"	98	148	110	36	8	☺
DC170-12-08.000A1-	8		98	148	110	36	8	☺
DC170-12-08.100A1-	8,1		123	180	138	40	10	☺
DC170-12-08.200A1-	8,2		123	180	138	40	10	☺
DC170-12-08.300A1-	8,3		123	180	138	40	10	☺
DC170-12-08.400A1-	8,4		123	180	138	40	10	☺
DC170-12-08.500A1-	8,5		123	180	138	40	10	☺
DC170-12-08.600A1-	8,6		123	180	138	40	10	☺
DC170-12-08.700A1-	8,7		123	180	138	40	10	☺
DC170-12-08.731A1-	8,731	11/32"	123	180	138	40	10	☺
DC170-12-08.800A1-	8,8		123	180	138	40	10	☺
DC170-12-09.000A1-	9		123	180	138	40	10	☺
DC170-12-09.128A1-	9,128	23/64"	123	180	138	40	10	☺
DC170-12-09.200A1-	9,2		123	180	138	40	10	☺
DC170-12-09.300A1-	9,3		123	180	138	40	10	☺
DC170-12-09.500A1-	9,5		123	180	138	40	10	☺
DC170-12-09.525A1-	9,525	3/8"	123	180	138	40	10	☺
DC170-12-09.600A1-	9,6		123	180	138	40	10	☺
DC170-12-09.700A1-	9,7		123	180	138	40	10	☺
DC170-12-09.800A1-	9,8		123	180	138	40	10	☺
DC170-12-09.922A1-	9,922	25/64"	123	180	138	40	10	☺
DC170-12-10.000A1-	10		123	180	138	40	10	☺
DC170-12-10.100A1-	10,1		140	206	158	45	12	☺
DC170-12-10.200A1-	10,2		140	206	158	45	12	☺
DC170-12-10.300A1-	10,3		140	206	158	45	12	☺
DC170-12-10.319A1-	10,319	13/32"	140	206	158	45	12	☺
DC170-12-10.400A1-	10,4		140	206	158	45	12	☺
DC170-12-10.500A1-	10,5		140	206	158	45	12	☺
DC170-12-10.716A1-	10,716	27/64"	140	206	158	45	12	☺
DC170-12-10.800A1-	10,8		140	206	158	45	12	☺
DC170-12-11.000A1-	11		140	206	158	45	12	☺
DC170-12-11.100A1-	11,1		140	206	158	45	12	☺
DC170-12-11.113A1-	11,113	7/16"	140	206	158	45	12	☺
DC170-12-11.200A1-	11,2		140	206	158	45	12	☺
DC170-12-11.500A1-	11,5		140	206	158	45	12	☺
DC170-12-11.509A1-	11,509	29/64"	140	206	158	45	12	☺
DC170-12-11.700A1-	11,7		140	206	158	45	12	☺
DC170-12-11.800A1-	11,8		140	206	158	45	12	☺
DC170-12-11.906A1-	11,906	15/32"	140	206	158	45	12	☺
DC170-12-12.000A1-	12		140	206	158	45	12	☺

Ordering example for the WJ30EJ grade: DC170-12-03.000A1-WJ30EJ

☺☺☺ New addition to the product range



Continued

R 102
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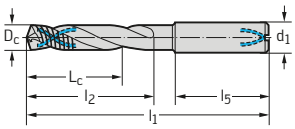
Continued

Tool	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	WJ30EJ
Shank DIN 6535 HA 	DC170-12-12.100A1-	12,1		168	230	182	45	14	☺
	DC170-12-12.200A1-	12,2		168	230	182	45	14	☺
	DC170-12-12.300A1-	12,3		168	230	182	45	14	☺
	DC170-12-12.303A1-	12,303	31/64"	168	230	182	45	14	☺
	DC170-12-12.500A1-	12,5		168	230	182	45	14	☺
	DC170-12-12.600A1-	12,6		168	230	182	45	14	☺
	DC170-12-12.700A1-	12,7	1/2"	168	230	182	45	14	☺
	DC170-12-13.000A1-	13		168	230	182	45	14	☺
	DC170-12-13.494A1-	13,494	17/32"	168	230	182	45	14	☺
	DC170-12-13.500A1-	13,5		168	230	182	45	14	☺
	DC170-12-14.000A1-	14		168	230	182	45	14	☺
	DC170-12-14.288A1-	14,288	9/16"	192	260	208	48	16	☺
	DC170-12-14.500A1-	14,5		192	260	208	48	16	☺
	DC170-12-15.000A1-	15		192	260	208	48	16	☺
	DC170-12-15.500A1-	15,5		192	260	208	48	16	☺
	DC170-12-15.875A1-	15,875	5/8"	192	260	208	48	16	☺
	DC170-12-16.000A1-	16		192	260	208	48	16	☺
	DC170-12-16.500A1-	16,5		216	285	234	48	18	☺
	DC170-12-17.000A1-	17		216	285	234	48	18	☺
	DC170-12-17.500A1-	17,5		216	285	234	48	18	☺
	DC170-12-18.000A1-	18		216	285	234	48	18	☺
	DC170-12-18.500A1-	18,5		238	310	258	50	20	☺
	DC170-12-19.000A1-	19		238	310	258	50	20	☺
	DC170-12-19.500A1-	19,5		238	310	258	50	20	☺
	DC170-12-20.000A1-	20		238	310	258	50	20	☺

Ordering example for the WJ30EJ grade: DC170-12-03.000A1-WJ30EJ

☺ ☺ ☺ New addition to the product range

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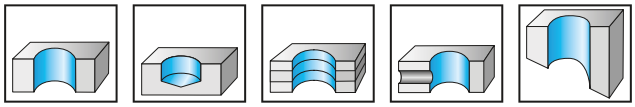
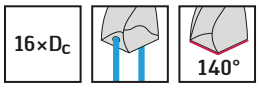
Solid carbide drill with coolant-through Supreme DC170

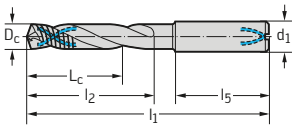




	P	M	K	N	S	H	O
WJ30EJ	●●		●●				

Tool

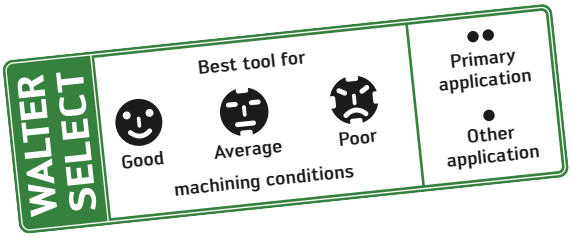
Shank DIN 6535 HA



Designation	D_c h7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EJ
DC170-16-03.000A1-	3		52	89	57	28	4	
DC170-16-03.175A1-	3,175	1/8"	60	98	66	28	4	
DC170-16-03.500A1-	3,5		72	110	78	28	4	
DC170-16-03.572A1-	3,572	9/64"	72	110	78	28	4	
DC170-16-03.969A1-	3,969	5/32"	72	110	78	28	4	
DC170-16-04.000A1-	4		72	110	78	28	4	
DC170-16-04.500A1-	4,5		93	132	100	28	5	
DC170-16-04.763A1-	4,763	3/16"	92	132	100	28	5	
DC170-16-04.800A1-	4,8		92	132	100	28	5	
DC170-16-05.000A1-	5		92	132	100	28	5	
DC170-16-05.500A1-	5,5		101	150	110	36	6	
DC170-16-05.556A1-	5,556	7/32"	111	160	120	36	6	
DC170-16-05.800A1-	5,8		111	160	120	36	6	
DC170-16-06.000A1-	6		111	160	120	36	6	
DC170-16-06.100A1-	6,1		124	175	135	36	8	
DC170-16-06.350A1-	6,35	1/4"	124	175	135	36	8	
DC170-16-06.500A1-	6,5		124	175	135	36	8	
DC170-16-06.800A1-	6,8		124	175	135	36	8	
DC170-16-07.000A1-	7		124	175	135	36	8	
DC170-16-07.144A1-	7,144	9/32"	140	192	152	36	8	
DC170-16-07.400A1-	7,4		140	192	152	36	8	
DC170-16-07.500A1-	7,5		140	192	152	36	8	
DC170-16-07.938A1-	7,938	5/16"	140	192	152	36	8	
DC170-16-08.000A1-	8		140	192	152	36	8	
DC170-16-08.300A1-	8,3		148	206	162	40	10	
DC170-16-08.500A1-	8,5		148	206	162	40	10	
DC170-16-08.731A1-	8,731	11/32"	148	206	162	40	10	
DC170-16-09.000A1-	9		148	206	162	40	10	
DC170-16-09.525A1-	9,525	3/8"	165	224	180	40	10	
DC170-16-09.800A1-	9,8		165	224	180	40	10	
DC170-16-10.000A1-	10		165	224	180	40	10	
DC170-16-10.200A1-	10,2		181	247	198	45	12	
DC170-16-10.319A1-	10,319	13/32"	181	247	198	45	12	
DC170-16-11.000A1-	11		181	247	198	45	12	
DC170-16-11.113A1-	11,113	7/16"	198	265	216	45	12	
DC170-16-11.500A1-	11,5		198	265	216	45	12	
DC170-16-11.800A1-	11,8		198	265	216	45	12	
DC170-16-11.906A1-	11,906	15/32"	198	265	216	45	12	
DC170-16-12.000A1-	12		198	265	216	45	12	
DC170-16-12.700A1-	12,7	1/2"	238	301	252	45	14	
DC170-16-13.000A1-	13		238	301	252	45	14	
DC170-16-14.000A1-	14		238	301	252	45	14	
DC170-16-14.288A1-	14,288	9/16"	272	340	288	48	16	

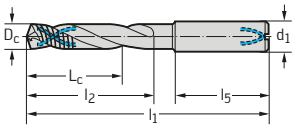
Ordering example for the WJ30EJ grade: DC170-16-03.000A1-WJ30EJ

Continued



102 130

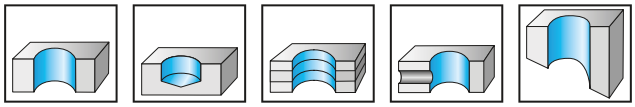
Continued

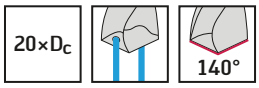
Tool	Designation	D_c h7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EJ
Shank DIN 6535 HA	DC170-16-15.000A1-	15		272	340	288	48	16	●
	DC170-16-16.000A1-	16		272	340	288	48	16	●

Ordering example for the WJ30EJ grade: DC170-16-03.000A1-WJ30EJ

102 130

Solid carbide drill with coolant-through Supreme DC170

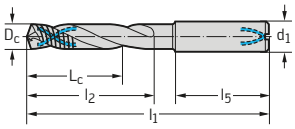




	P	M	K	N	S	H	O
WJ30EJ	●●		●●				

Tool

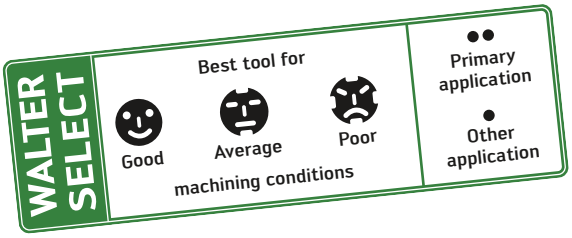
Shank DIN 6535 HA



Designation	D_c h7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EJ
DC170-20-03.000A1-	3		60	97	65	28	4	●●
DC170-20-03.175A1-	3,175	1/8"	74	112	80	28	4	●●
DC170-20-03.500A1-	3,5		86	124	92	28	4	●●
DC170-20-03.572A1-	3,572	9/64"	86	124	92	28	4	●●
DC170-20-03.969A1-	3,969	5/32"	86	124	92	28	4	●●
DC170-20-04.000A1-	4		86	124	92	28	4	●●
DC170-20-04.500A1-	4,5		111	150	118	28	5	●●
DC170-20-04.763A1-	4,763	3/16"	110	150	118	28	5	●●
DC170-20-04.800A1-	4,8		110	150	118	28	5	●●
DC170-20-05.000A1-	5		110	150	118	28	5	●●
DC170-20-05.500A1-	5,5		123	170	132	36	6	●●
DC170-20-05.556A1-	5,556	7/32"	135	182	144	36	6	●●
DC170-20-05.800A1-	5,8		135	182	144	36	6	●●
DC170-20-06.000A1-	6		135	182	144	36	6	●●
DC170-20-06.100A1-	6,1		151	200	162	36	8	●●
DC170-20-06.350A1-	6,35	1/4"	151	200	162	36	8	●●
DC170-20-06.500A1-	6,5		151	200	162	36	8	●●
DC170-20-06.800A1-	6,8		151	200	162	36	8	●●
DC170-20-07.000A1-	7		151	200	162	36	8	●●
DC170-20-07.144A1-	7,144	9/32"	172	222	184	36	8	●●
DC170-20-07.400A1-	7,4		172	222	184	36	8	●●
DC170-20-07.500A1-	7,5		172	222	184	36	8	●●
DC170-20-07.938A1-	7,938	5/16"	172	222	184	36	8	●●
DC170-20-08.000A1-	8		172	222	184	36	8	●●
DC170-20-08.300A1-	8,3		184	240	198	40	10	●●
DC170-20-08.500A1-	8,5		184	240	198	40	10	●●
DC170-20-08.731A1-	8,731	11/32"	184	240	198	40	10	●●
DC170-20-09.000A1-	9		184	240	198	40	10	●●
DC170-20-09.525A1-	9,525	3/8"	205	262	220	40	10	●●
DC170-20-09.800A1-	9,8		205	262	220	40	10	●●
DC170-20-10.000A1-	10		205	262	220	40	10	●●
DC170-20-10.200A1-	10,2		225	289	242	45	12	●●
DC170-20-10.319A1-	10,319	13/32"	225	289	242	45	12	●●
DC170-20-11.000A1-	11		225	289	242	45	12	●●
DC170-20-11.113A1-	11,113	7/16"	246	311	264	45	12	●●
DC170-20-11.500A1-	11,5		246	311	264	45	12	●●
DC170-20-11.800A1-	11,8		246	311	264	45	12	●●
DC170-20-11.906A1-	11,906	15/32"	246	311	264	45	12	●●
DC170-20-12.000A1-	12		246	311	264	45	12	●●
DC170-20-12.700A1-	12,7	1/2"	294	357	308	45	14	●●
DC170-20-13.000A1-	13		294	357	308	45	14	●●
DC170-20-14.000A1-	14		294	357	308	45	14	●●
DC170-20-14.288A1-	14,288	9/16"	336	404	352	48	16	●●

Ordering example for the WJ30EJ grade: DC170-20-03.000A1-WJ30EJ

Continued



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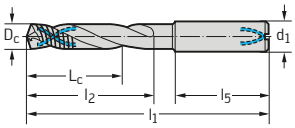
Continued

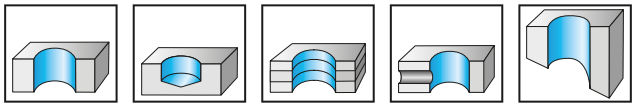
Tool	Designation	D_c h7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EJ
Shank DIN 6535 HA	DC170-20-15.000A1-	15		336	404	352	48	16	●
	DC170-20-16.000A1-	16		336	404	352	48	16	●

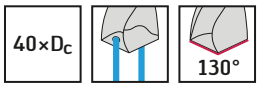
Ordering example for the WJ30EJ grade: DC170-20-03.000A1-WJ30EJ

102 130

Solid carbide drill with coolant-through A7495TTP

X-treme D40





	P	M	K	N	S	H	O
TTP	●●	●	●●	●●	●		

Tool	Designation TTP	D_c e7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm
Shank DIN 6535 HA	★ A7495TTP-3	3		134	172	139	28	4
	★ A7495TTP-1/8IN	3,175	1/8"	134	172	139	28	4
	★ A7495TTP-3.5	3,5		150	188	156	28	4
	★ A7495TTP-9/64IN	3,572	9/64"	150	188	156	28	4
	★ A7495TTP-5/32IN	3,969	5/32"	168	206	174	28	4
	★ A7495TTP-4	4		168	206	174	28	4
	A7495TTP-4.5	4,5		188	228	195	28	5
	A7495TTP-3/16IN	4,763	3/16"	209	249	217	28	5
	A7495TTP-4.8	4,8		209	249	217	28	5
	A7495TTP-5	5		209	249	217	28	5
	A7495TTP-5.5	5,5		230	279	239	36	6
	A7495TTP-7/32IN	5,556	7/32"	248	297	257	36	6
	A7495TTP-5.8	5,8		248	297	257	36	6
	A7495TTP-6	6		248	297	257	36	6
	A7495TTP-6.1	6,1		272	324	282	36	8
	A7495TTP-1/4IN	6,35	1/4"	272	324	282	36	8
	A7495TTP-6.5	6,5		272	324	282	36	8
	A7495TTP-6.8	6,8		287	339	298	36	8
	A7495TTP-7	7		287	339	298	36	8
	A7495TTP-9/32IN	7,144	9/32"	313	366	325	36	8
	A7495TTP-7.4	7,4		313	366	325	36	8
	A7495TTP-7.5	7,5		313	366	325	36	8
	A7495TTP-5/16IN	7,938	5/16"	330	382	342	36	8
	A7495TTP-8	8		330	382	342	36	8
	A7495TTP-8.3	8,3		356	415	369	40	10
	A7495TTP-8.5	8,5		356	415	369	40	10
	A7495TTP-11/32IN	8,731	11/32"	371	430	385	40	10
	A7495TTP-9	9		371	430	385	40	10
	A7495TTP-3/8IN	9,525	3/8"	418	477	412	40	10
	A7495TTP-9.8	9,8		418	477	433	40	10
	A7495TTP-10	10		418	477	433	40	10
	A7495TTP-10.2	10,2		460	528	477	45	12
	A7495TTP-13/32IN	10,319	13/32"	460	528	477	45	12
	A7495TTP-11	11		460	528	477	45	12

★ New addition to the product range

WALTER SELECT

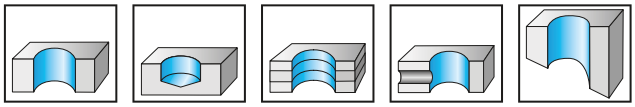
●● Primary application

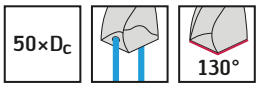
● Other application

102 130

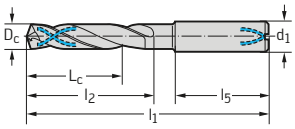
Solid carbide drill with coolant-through A7595TTP

X-treme D50





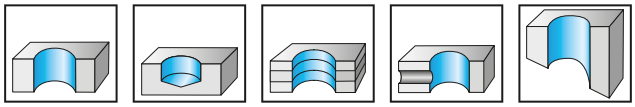
	P	M	K	N	S	H	O
TTP	●●	●	●●	●●	●		

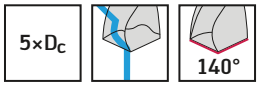
Tool	Designation TTP	D_c e7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm
Shank DIN 6535 HA	★ A7595TTP-3	3		166	204	171	28	4
	★ A7595TTP-1/8IN	3,175	1/8"	166	204	171	28	4
	★ A7595TTP-3.5	3,5		186	224	192	28	4
	★ A7595TTP-9/64IN	3,572	9/64"	186	224	192	28	4
	★ A7595TTP-5/32IN	3,969	5/32"	208	246	214	28	4
	★ A7595TTP-4	4		208	246	214	28	4
	A7595TTP-4.5	4,5		233	273	240	28	5
	A7595TTP-3/16IN	4,762	3/16"	259	299	267	28	5
	A7595TTP-4.8	4,8		259	299	267	28	5
	A7595TTP-5	5		259	299	267	28	5
	A7595TTP-5.5	5,5		285	334	294	36	6
	A7595TTP-7/32IN	5,556	7/32"	308	357	317	36	6
	A7595TTP-5.8	5,8		308	357	317	36	6
	A7595TTP-6	6		308	357	317	36	6
	A7595TTP-6.1	6,1		337	389	347	36	8
	A7595TTP-1/4IN	6,35	1/4"	337	389	347	36	8
	A7595TTP-6.5	6,5		337	389	347	36	8
	A7595TTP-6.8	6,8		357	409	368	36	8
	A7595TTP-7	7		357	409	368	36	8
	A7595TTP-9/32IN	7,144	9/32"	388	441	400	36	8
	A7595TTP-7.4	7,4		388	441	400	36	8
	A7595TTP-7.5	7,5		388	441	400	36	8
	A7595TTP-5/16IN	7,938	5/16"	410	462	422	36	8
	A7595TTP-8	8		410	462	422	36	8
	A7595TTP-8.3	8,3		441	500	454	40	10
	A7595TTP-8.5	8,5		441	500	454	40	10
	A7595TTP-11/32IN	8,731	11/32"	466	525	480	40	10
	A7595TTP-9	9		466	525	480	40	10

★ New addition to the product range

102 130

Solid carbide micro twist drill
Supreme DB133

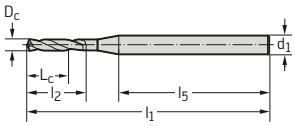




	P	M	K	N	S	H	O
WJ30EL	●●		●●	●●	●	●	●

Tool

Shank DIN 6535 HA

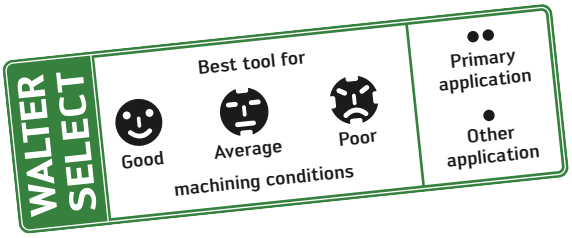


Designation	D_c m7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EL
DB133-05-00.500A0-	0,5		3,2	47	4	36	3	
DB133-05-00.550A0-	0,55		4,1	47	5	35	3	
DB133-05-00.600A0-	0,6		4,1	47	5	35	3	
DB133-05-00.650A0-	0,65		5	47	6	34	3	
DB133-05-00.700A0-	0,7		4,9	48	6	35	3	
DB133-05-00.750A0-	0,75		5,8	48	7	34	3	
DB133-05-00.794A0-	0,794	1/32"	5,8	48	7	34	3	
DB133-05-00.800A0-	0,8		5,8	48	7	34	3	
DB133-05-00.850A0-	0,85		6,6	50	8	35	3	
DB133-05-00.880A0-	0,88		6,6	50	8	35	3	
DB133-05-00.900A0-	0,9		6,6	50	8	35	3	
DB133-05-00.950A0-	0,95		7,5	50	9	34	3	
DB133-05-01.000A0-	1		7,5	50	9	34	3	
DB133-05-01.050A0-	1,05		7	51	9	36	3	
DB133-05-01.080A0-	1,08		7	51	9	36	3	
DB133-05-01.100A0-	1,1		7	51	9	36	3	
DB133-05-01.150A0-	1,15		8	51	10	35	3	
DB133-05-01.191A0-	1,191	3/64"	8	51	10	35	3	
DB133-05-01.200A0-	1,2		8	51	10	35	3	
DB133-05-01.250A0-	1,25		9	51	11	34	3	
DB133-05-01.300A0-	1,3		9	53	11	36	3	
DB133-05-01.350A0-	1,35		9	53	12	35	3	
DB133-05-01.400A0-	1,4		9	53	12	35	3	
DB133-05-01.450A0-	1,45		10	53	13	34	3	
DB133-05-01.500A0-	1,5		10	53	13	34	3	
DB133-05-01.550A0-	1,55		11	54	14	35	3	
DB133-05-01.588A0-	1,588	1/16"	11	54	14	35	3	
DB133-05-01.600A0-	1,6		11	54	14	35	3	
DB133-05-01.650A0-	1,65		11	54	14	35	3	
DB133-05-01.700A0-	1,7		11	54	14	35	3	
DB133-05-01.750A0-	1,75		12	54	15	34	3	
DB133-05-01.800A0-	1,8		12	54	15	34	3	
DB133-05-01.820A0-	1,82		13	57	16	36	3	
DB133-05-01.850A0-	1,85		13	57	16	36	3	
DB133-05-01.900A0-	1,9		13	57	16	36	3	
DB133-05-01.950A0-	1,95		14	57	17	35	3	
DB133-05-01.984A0-	1,984	5/64"	14	57	17	35	3	
DB133-05-02.000A0-	2		14	57	17	35	3	
DB133-05-02.050A0-	2,05		14	57	18	35	3	
DB133-05-02.100A0-	2,1		14	57	18	35	3	
DB133-05-02.150A0-	2,15		15	57	19	34	3	

Ordering example for the WJ30EL grade: DB133-05-00.500A0-WJ30EL

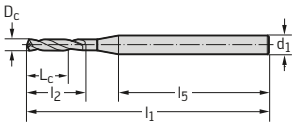
New addition to the product range

Continued



102 130

Continued

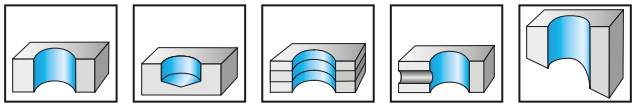
Tool	Designation	D_c m7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30EL
Shank DIN 6535 HA 	DB133-05-02.200A0-	2,2		15	57	19	34	3	
	DB133-05-02.250A0-	2,25		16	59	20	35	3	
	DB133-05-02.300A0-	2,3		16	59	20	35	3	
	DB133-05-02.350A0-	2,35		16	59	20	35	3	
	DB133-05-02.381A0-	2,381	3/32"	16	59	20	35	3	
	DB133-05-02.400A0-	2,4		16	59	20	35	3	
	DB133-05-02.450A0-	2,45		17	59	21	34	3	
	DB133-05-02.500A0-	2,5		17	59	21	34	3	
	DB133-05-02.550A0-	2,55		18	62	22	36	3	
	DB133-05-02.600A0-	2,6		18	62	22	36	3	
	DB133-05-02.650A0-	2,65		18	62	23	36	3	
	DB133-05-02.700A0-	2,7		18	62	23	36	3	
	DB133-05-02.750A0-	2,75		19	62	24	35	3	
	DB133-05-02.778A0-	2,778	7/64"	19	62	24	35	3	
	DB133-05-02.800A0-	2,8		19	62	24	35	3	
	DB133-05-02.850A0-	2,85		20	62	25	34	3	
	DB133-05-02.900A0-	2,9		20	62	25	34	3	
	DB133-05-02.950A0-	2,95		20	62	25	34	3	

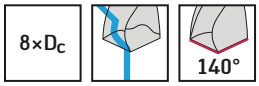
Ordering example for the WJ30EL grade: DB133-05-00.500A0-WJ30EL

New addition to the product range

102 130

Solid carbide micro twist drill
Supreme DB133

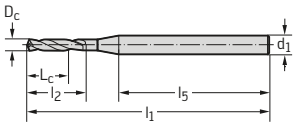




	P	M	K	N	S	H	O
WJ30ER	●●		●●	●●	●	●	●

Tool

Shank DIN 6535 HA

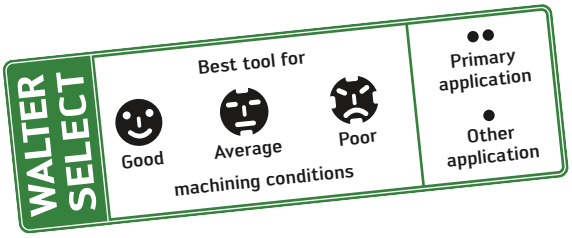


Designation	D_c m7 mm	D_c inch/no.	L_c mm	l_1 mm	l_2 mm	l_5 mm	d_1 h6 mm	WJ30ER
DB133-08-00.500A0-	0,5		5,2	48	6	35	3	●
DB133-08-00.600A0-	0,6		6,1	48	7	34	3	●
DB133-08-00.700A0-	0,7		6,9	50	8	35	3	●
DB133-08-00.750A0-	0,75		7,8	50	9	34	3	●
DB133-08-00.794A0-	0,794	1/32"	7,8	50	9	34	3	●
DB133-08-00.800A0-	0,8		7,8	50	9	34	3	●
DB133-08-00.880A0-	0,88		8,6	53	10	36	3	●
DB133-08-00.900A0-	0,9		8,6	53	10	36	3	●
DB133-08-00.950A0-	0,95		10,5	53	12	34	3	●
DB133-08-01.000A0-	1		10,5	53	12	34	3	●
DB133-08-01.050A0-	1,05		11	54	13	35	3	●
DB133-08-01.100A0-	1,1		11	54	13	35	3	●
DB133-08-01.191A0-	1,191	3/64"	12	54	14	34	3	●
DB133-08-01.200A0-	1,2		12	54	14	34	3	●
DB133-08-01.250A0-	1,25		12	54	14	34	3	●
DB133-08-01.300A0-	1,3		13	57	15	36	3	●
DB133-08-01.350A0-	1,35		13	57	16	35	3	●
DB133-08-01.400A0-	1,4		13	57	16	35	3	●
DB133-08-01.450A0-	1,45		14	57	17	34	3	●
DB133-08-01.500A0-	1,5		14	57	17	34	3	●
DB133-08-01.550A0-	1,55		15	60	18	37	3	●
DB133-08-01.588A0-	1,588	1/16"	15	60	18	37	3	●
DB133-08-01.600A0-	1,6		15	60	18	37	3	●
DB133-08-01.650A0-	1,65		17	60	20	35	3	●
DB133-08-01.700A0-	1,7		17	60	20	35	3	●
DB133-08-01.750A0-	1,75		18	60	21	34	3	●
DB133-08-01.800A0-	1,8		18	60	21	34	3	●
DB133-08-01.820A0-	1,82		19	63	22	36	3	●
DB133-08-01.850A0-	1,85		19	63	22	36	3	●
DB133-08-01.900A0-	1,9		19	63	22	36	3	●
DB133-08-01.950A0-	1,95		20	63	23	35	3	●
DB133-08-01.984A0-	1,984	5/64"	20	63	23	35	3	●
DB133-08-02.000A0-	2		20	63	23	35	3	●
DB133-08-02.050A0-	2,05		20	63	24	35	3	●
DB133-08-02.100A0-	2,1		20	63	24	35	3	●
DB133-08-02.150A0-	2,15		21	63	25	34	3	●
DB133-08-02.200A0-	2,2		21	63	25	34	3	●
DB133-08-02.250A0-	2,25		22	67	26	37	3	●
DB133-08-02.300A0-	2,3		22	67	26	37	3	●
DB133-08-02.350A0-	2,35		24	67	28	35	3	●
DB133-08-02.381A0-	2,381	3/32"	24	67	28	35	3	●

Ordering example for the WJ30ER grade: DB133-08-00.500A0-WJ30ER

● ● ● New addition to the product range

Continued



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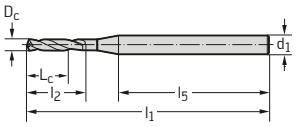
Continued

Tool	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	WJ30ER
Shank DIN 6535 HA	DB133-08-02.400A0-	2,4		24	67	28	35	3	
	DB133-08-02.450A0-	2,45		25	67	29	34	3	
	DB133-08-02.500A0-	2,5		25	67	29	34	3	
	DB133-08-02.550A0-	2,55		26	71	30	37	3	
	DB133-08-02.600A0-	2,6		26	71	30	37	3	
	DB133-08-02.650A0-	2,65		26	71	31	37	3	
	DB133-08-02.700A0-	2,7		26	71	31	37	3	
	DB133-08-02.750A0-	2,75		27	71	32	36	3	
	DB133-08-02.778A0-	2,778	7/64"	27	71	32	36	3	
	DB133-08-02.800A0-	2,8		27	71	32	36	3	
	DB133-08-02.850A0-	2,85		28	71	33	35	3	
	DB133-08-02.900A0-	2,9		28	71	33	35	3	
	DB133-08-02.950A0-	2,95		29	71	34	34	3	

Ordering example for the WJ30ER grade: DB133-08-00.500A0-WJ30ER

New addition to the product range

102 130


WALTER
TITEX
WALTER
TITEX

Cutting data for solid carbide drills

= Cutting data for wet machining
= Dry machining is possible, cutting data must be selected from Walter GPS

E = Emulsion
O = Oil
M = MQL
L = Dry

v_c = Cutting speed
VRR = Feed rate chart on page 132.
VCRR = v_c chart on page 133.

				Drilling depth			**3 × D_c**				
				Product family			DC170				
				Product line			**Supreme**				
				Dimensions			DIN 6537 short				
				Ø range (mm)			3,00 - 20,00				
				Cooling			Internal coolant				
				Cutting material			WJ30EJ				
				Page			104				
Material group	Structure of main material groups and code letters	Workpiece material		Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]					
							v_c	VRR			
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1	220	20	**E O**	**M L**	
		C > 0.25... ≤ 0.55%	Annealed	190	639	P2	196	16	**E O**	**M L**	
		C > 0.25... ≤ 0.55%	Heat-treated	210	708	P3	185	12	**E O**	**M L**	
		C > 0.55%	Annealed	190	639	P4	196	12	**E O**	**M L**	
		C > 0.55%	Heat-treated	300	1013	P5	153	12	**E O**	**M L**	
		Free cutting steel (short-chipping)	Annealed	220	745	P6	220	20	**E O**	**M L**	
	Low-alloyed steel	Annealed		175	591	P7	196	16	**E O**	**M L**	
		Heat-treated		300	1013	P8	153	12	**E O**	**M L**	
		Heat-treated		380	1282	P9	110	9	**O E**		
		Heat-treated		430	1477	P10	90	7	**O E**		
	High-alloyed steel and high-alloyed tool steel	Annealed		200	675	P11	130	10	**E O**		
		Hardened and tempered		300	1013	P12	95	10	**E O**		
		Hardened and tempered		400	1361	P13	85	7	**O E**		
	Stainless steel	Ferritic/martensitic, annealed		200	675	P14	95	10	**E O**		
		Martensitic, heat-treated		330	1114	P15	55	10	**E O**		
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	140	20	**E O**	**M L**	
		Pearlitic		260	867	K2	130	16	**E O**	**M L**	
	Grey cast iron	Low tensile strength		180	602	K3	175	20	**E O**	**M L**	
		High tensile strength/austenitic		245	825	K4	140	20	**E O**	**M L**	
	Cast iron with spheroidal graphite	Ferritic		155	518	K5	165	16	**E O**	**M L**	
		Pearlitic		265	885	K6	130	16	**E O**	**M L**	
	GGV (CGI)			200	675	K7	155	16	**E O**	**M L**	
N	Aluminium wrought alloys	Cannot be hardened		30	–	N1					
		Hardenable, hardened		100	343	N2					
	Cast aluminium alloys	≤ 12% Si, cannot be hardened		75	260	N3					
		≤ 12% Si, hardenable, hardened		90	314	N4					
		> 12% Si, cannot be hardened		130	447	N5					
	Magnesium alloys			70	250	N6					
	Copper and copper alloys (bronze/brass)	Non-alloyed, electrolytic copper		100	343	N7					
		Brass, bronze, red brass		90	314	N8					
		Cu-alloys, short-chipping		110	382	N9					
		High-strength, Ampco		300	1013	N10					
S	Heat-resistant alloys	Fe-based	Annealed	200	675	S1					
			Hardened	280	943	S2					
		Ni or Co base	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					
	Thermosetting plastics	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 H 8onwards in the Walter General Catalogue 2012.

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

	5 × D_c								8 × D_c										12 × D_c				16 × D_c				20 × D_c			
	DB133				DC170				DB133				DC170				DC150				DC170				DC170				DC170			
	Supreme				**Supreme**				**Supreme**				**Supreme**				**Perform**				**Supreme**				**Supreme**				**Supreme**			
	Walter standard				DIN 6537 long				Walter standard				Walter standard				Walter standard				Walter standard				Walter standard				Walter standard			
	0,50 - 2,95				3,00 - 20,00				0,50 - 2,95				3,00 - 20,00				3,00 - 20,00				3,00 - 20,00				3,00 - 16,00				3,00 - 16,00			
	External coolant				Internal coolant				External coolant				Internal coolant				Internal coolant				Internal coolant				Internal coolant				Internal coolant			
	WJ30EL				WJ30EJ				WJ30ER				WJ30EJ				WJ30TA				WJ30EJ				WJ30EJ				WJ30EJ			
	125				107				127				110				113				116				119				121			
																																
																																
	VCRR	VRR			v_c	VRR			VCRR	VRR			v_c	VRR			v_c	VRR			v_c	VRR			v_c	VRR			v_c	VRR		
	C100	16	**E O**		210	20	**E O**	**M L**	C100	16	**E O**		200	16	**E O**	**M L**	105	9	**E O**	**M L**	190	12	**E O**	**M L**	150	12	**EO**	**M L**	143	12	**EO**	**M L**
	C100	16	**E O**		188	16	**E O**	**M L**	C100	16	**E O**		180	12	**E O**	**M L**	87	9	**E O**	**M L**	172	12	**E O**	**M L**	135	12	**EO**	**M L**	130	12	**EO**	**M L**
	C80	16	**E O**		175	12	**E O**	**M L**	C80	16	**E O**		165	12	**E O**	**M L**	83	9	**E O**	**M L**	155	12	**E O**	**M L**	130	12	**EO**	**M L**	125	12	**EO**	**M L**
	C100	16	**E O**		188	12	**E O**	**M L**	C100	16	**E O**		180	12	**E O**	**M L**	87	9	**E O**	**M L**	172	12	**E O**	**M L**	135	12	**EO**	**M L**	130	12	**EO**	**M L**
	C63	12	**E O**		145	12	**E O**	**M L**	C63	12	**E O**		138	10	**E O**	**M L**	62	7	**E O**	**M L**	130	10	**E O**	**M L**	105	9	**EO**	**M L**	100	9	**EO**	**M L**
	C100	20	**E O**		210	20	**E O**	**M L**	C100	20	**E O**		200	16	**E O**	**M L**	105	10	**E O**	**M L**	190	12	**E O**	**M L**	150	12	**EO**	**M L**	138	10	**EO**	**M L**
	C100	16	**E O**		188	16	**E O**	**M L**	C100	16	**E O**		180	12	**E O**	**M L**	87	9	**E O**	**M L**	172	12	**E O**	**M L**	135	12	**EO**	**M L**	125	10	**EO**	**M L**
	C50	12	**E O**		145	12	**E O**	**M L**	C50	12	**E O**		138	10	**E O**	**M L**	62	7	**E O**	**M L**	130	10	**E O**	**M L**	105	9	**EO**	**M L**	100	9	**EO**	**M L**
	C40	7	**E O**		103	9	**O E**		C40	7	**E O**		95	8	**O E**		42	5	**O E**		88	8	**O E**		63	7	**OE**		60	7	**OE**	
	C40	6	**E O**		82	7	**O E**		C40	6	**E O**		74	6	**O E**		33	4	**O E**		66	6	**O E**		45	6	**OE**		40	6	**OE**	
	C63	10	**E O**		120	10	**E O**		C63	10	**E O**		115	9	**E O**		49	7	**E O**		110	9	**E O**		72	9	**EO**		68	9	**EO**	
	C50	8	**E O**		90	10	**E O**		C50	8	**E O**		85	9	**E O**		55	6	**E O**		75	9	**E O**		90	8	**EO**		85	8	**EO**	
	C40	6	**E O**		76	7	**O E**		C40	6	**E O**		72	6	**O E**		33	4	**O E**		65	6	**O E**		45	6	**OE**		40	6	**OE**	
	C80	10	**E O**		87	10	**E O**		C80	10	**E O**		80	9	**E O**		55	7	**E O**		73	9	**E O**		71	8	**EO**		67	8	**EO**	
	C50	10	**E O**		52	10	**E O**		C50	10	**E O**		48	9	**E O**		36	6	**E O**		45	9	**E O**		41	7	**EO**		38	7	**EO**	
																	38	4	**E O**													
																	48	5	**E O**													
																	31	4	**E O**													
	C80	20	**E O**		135	20	**E O**	**M L**	C80	20	**E O**		130	16	**E O**	**M L**	79	12	**E O**	**M L**	120	16	**E O**	**M L**	100	16	**EO**	**M L**	95	16	**EO**	**M L**
	C63	20	**E O**		125	16	**E O**	**M L**	C63	20	**E O**		120	12	**E O**	**M L**	59	10	**E O**	**M L**	110	12	**E O**	**M L**	75	12	**EO**	**M L**	70	12	**EO**	**M L**
	C100	20	**E O**		165	20	**E O**	**M L**	C100	20	**E O**		155	16	**E O**	**M L**	100	12	**E O**	**M L**	145	16	**E O**	**M L**	120	16	**EO**	**M L**	115	16	**EO**	**M L**
	C80	20	**E O**		135	20	**E O**	**M L**	C80	20	**E O**		130	12	**E O**	**M L**	79	12	**E O**	**M L**	120	12	**E O**	**M L**	100	16	**EO**	**M L**	95	16	**EO**	**M L**
	C100	20	**E O**		155	16	**E O**	**M L**	C100	20	**E O**		145	12	**E O**	**M L**	79	12	**E O**	**M L**	135	12	**E O**	**M L**	120	16	**EO**	**M L**	113	16	**EO**	**M L**
	C63	20	**E O**		125	16	**E O**	**M L**	C63	20	**E O**		120	12	**E O**	**M L**	59	10	**E O**	**M L**	115	12	**E O**	**M L**	95	12	**EO**	**M L**	90	12	**EO**	**M L**
	C63	20	**E O**		145	16	**E O**	**M L**	C63	20	**E O**		140	12	**E O**	**M L**	71	12	**E O**	**M L**	135	12	**E O**	**M L**	110	16	**EO**	**M L**	103	16	**EO**	**M L**
	C125	16	**E O**	**M**					C125	16	**E O**	**M**						12	**E O**	**M**												
	C125	16	**E O**	**M**					C125	16	**E O**	**M**						12	**E O**	**M**												
	C125	20	**E O**	**M**					C125	20	**E O**	**M**					218	12	**E O**	**M**												
	C125	20	**E O**	**M**					C125	20	**E O**	**M**					209	12	**E O**	**M**												
	C125	20	**E O**	**M**					C125	20	**E O**	**M**					166	12	**E O**	**M**												
																	209	12		**M L**												
	C125	10	**E O**						C125	10	**E O**						157	7	**E O**	**M**												
	C100	12	**E O**						C100	12	**E O**						131	9	**E O**													
	C100	20	**E O**						C100	20	**E O**						166	12	**E O**	**M**												
	C63	12	**E O**						C63	12	**E O**						49	6	**E O**													
	C32	4	**E O**						C32	4	**E O**						40	4	**E O**													
	C25	4	**E O**						C25	4	**E O**						23	3	**O E**													
																	28	3	**E O**													
																	15	3	**O E**													
																	17	3	**O E**													
	C40	9	**E O**						C40	9	**E O**						46	5	**O E**													
	C32	8	**E O**						C32	8	**E O**						38	4	**O E**													
																	11	3	**O E**													
																	53	6	**E O**													
																	53	6	**E O**													
	C32	3	**O E**						C32	3	**O E**						26	3	**O E**													
																	22	3	**O E**													
																	22	3	**O E**													
	C100	20	**E O**						C100	20	**E O**						95	16	**E O**													
	C100	20		**L**					C100	20		**L**																				
	C100	20		**L**					C100	20		**L**																				
	C100	20		**L**					C100	20		**L**																				
	C100	20		**L**					C100	20		**L**																				
	C100	20		**L**					C100	20		**L**																				

VRR: Feed rate charts for drills

VRR	Feed f (mm) for Ø (mm)															
	0,5	0,6	0,8	1	1,2	1,5	2	2,5	4	5	6	8	10	12	15	20
1	0,002	0,002	0,003	0,003	0,004	0,005	0,007	0,008	0,013	0,017	0,018	0,021	0,024	0,026	0,029	0,033
2	0,003	0,004	0,005	0,007	0,008	0,010	0,013	0,017	0,027	0,033	0,037	0,042	0,047	0,052	0,058	0,067
3	0,005	0,006	0,008	0,010	0,012	0,015	0,020	0,025	0,040	0,050	0,055	0,063	0,071	0,077	0,087	0,10
4	0,007	0,008	0,011	0,013	0,016	0,020	0,027	0,033	0,053	0,067	0,073	0,084	0,094	0,10	0,12	0,13
5	0,008	0,010	0,013	0,017	0,020	0,025	0,033	0,042	0,067	0,083	0,091	0,11	0,12	0,13	0,14	0,17
6	0,010	0,012	0,016	0,020	0,024	0,030	0,040	0,050	0,080	0,10	0,11	0,13	0,14	0,15	0,17	0,20
7	0,012	0,014	0,019	0,023	0,028	0,035	0,047	0,058	0,093	0,12	0,13	0,15	0,16	0,18	0,20	0,23
8	0,013	0,016	0,021	0,027	0,032	0,040	0,053	0,067	0,11	0,13	0,15	0,17	0,19	0,21	0,23	0,27
9	0,015	0,018	0,024	0,030	0,036	0,045	0,060	0,075	0,12	0,15	0,16	0,19	0,21	0,23	0,26	0,30
10	0,017	0,020	0,027	0,033	0,040	0,050	0,067	0,083	0,13	0,17	0,18	0,21	0,24	0,26	0,29	0,33
12	0,020	0,024	0,032	0,040	0,048	0,060	0,080	0,10	0,16	0,20	0,22	0,25	0,28	0,31	0,35	0,40
16	0,027	0,032	0,043	0,053	0,064	0,080	0,11	0,13	0,21	0,27	0,29	0,34	0,38	0,41	0,46	0,53
20	0,033	0,040	0,053	0,067	0,080	0,10	0,13	0,17	0,27	0,33	0,37	0,42	0,47	0,52	0,58	0,67

VCRR: Solid carbide micro-drill speed diagram