TURNING

DRILLING AND THREADING

MILLING

ADAPTORS

Watch the innovations video:
Scan this QR code or go directly to
http://goo.gl/5vHNmd

WALTER PROTOTYP

Product innovations
Edition 2014-2

Threading

_ TOOL INNOVATIONS IN THREADING

Precise threads, reliable processes.

Walter Prototyp Protodyn® S HSC – Solid carbide thread former with radial internal coolant for even higher performance.

NEW 2014

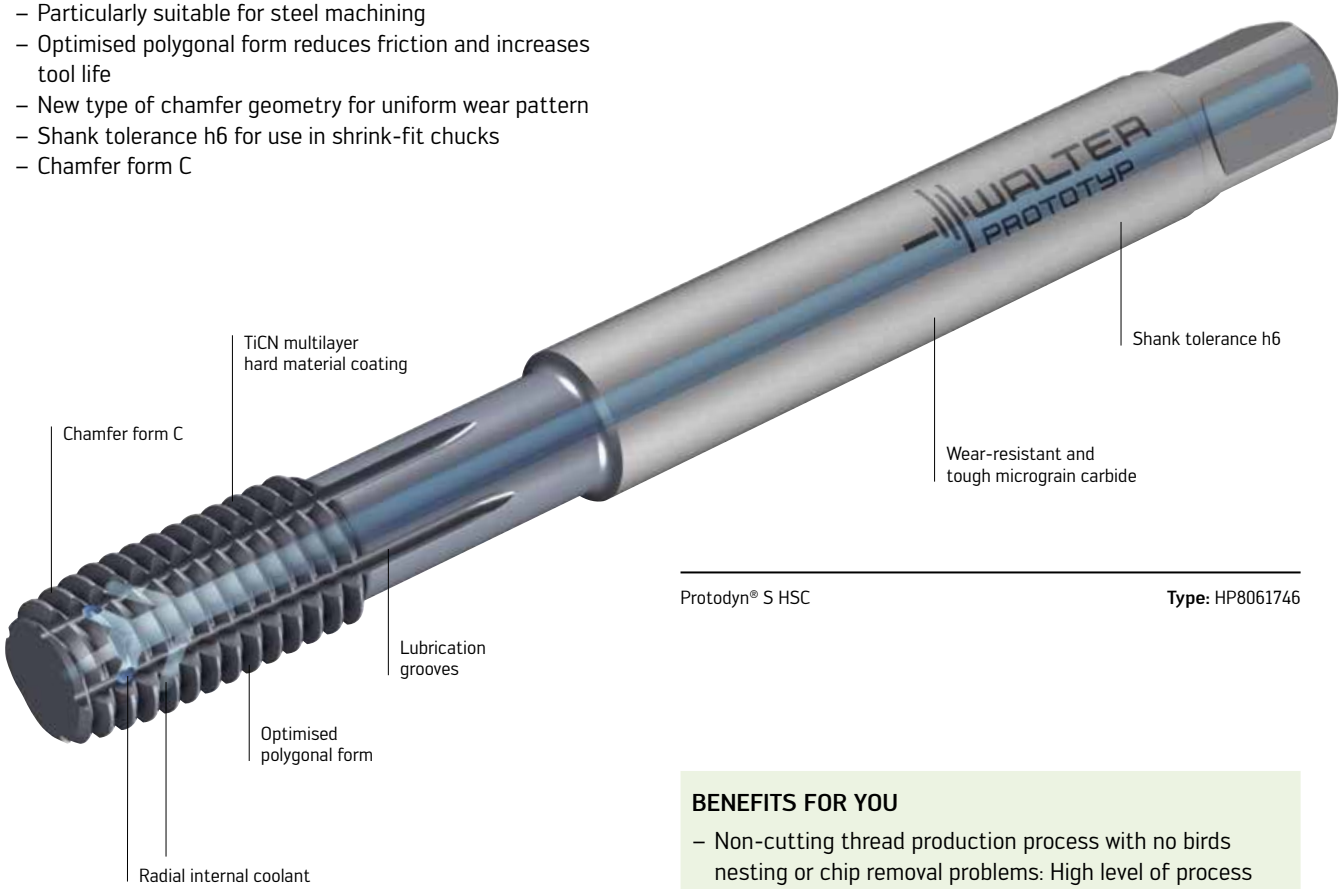
DIMENSION RANGE
M: M6 - M10
MF: M12x1.5 - M16x1.5

THE TOOL

- **NEW:** With internal coolant, radial exit
- Solid carbide thread former for use in all formable materials
- New carbide substrate guarantees maximum toughness with highest possible wear resistance
- TiCN hard material coating for ideal wear resistance
- Particularly suitable for steel machining
- Optimised polygonal form reduces friction and increases tool life
- New type of chamfer geometry for uniform wear pattern
- Shank tolerance h6 for use in shrink-fit chucks
- Chamfer form C

THE APPLICATION

- Blind and through-hole threads
- Primary application
  - ISO material groups P (< 1200 N/mm²) and N
- Secondary application
  - ISO material groups M (< 1000 N/mm²) and S



Protodyn® S HSC **Type:** HP8061746

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

BENEFITS FOR YOU

- Non-cutting thread production process with no birds nesting or chip removal problems: High level of process reliability, even for deep blind and through hole threads
- Impressive tool life and attractive price/performance ratio
- Fewer tool changes because of longer tool life
- High level of dynamic tensile strength of the formed thread due to cold work hardening of the thread flanks and thread root
- The tool has no centre point and guarantees the best possible utilisation of the hole depth

Ordering information can be found from page 159 onwards.

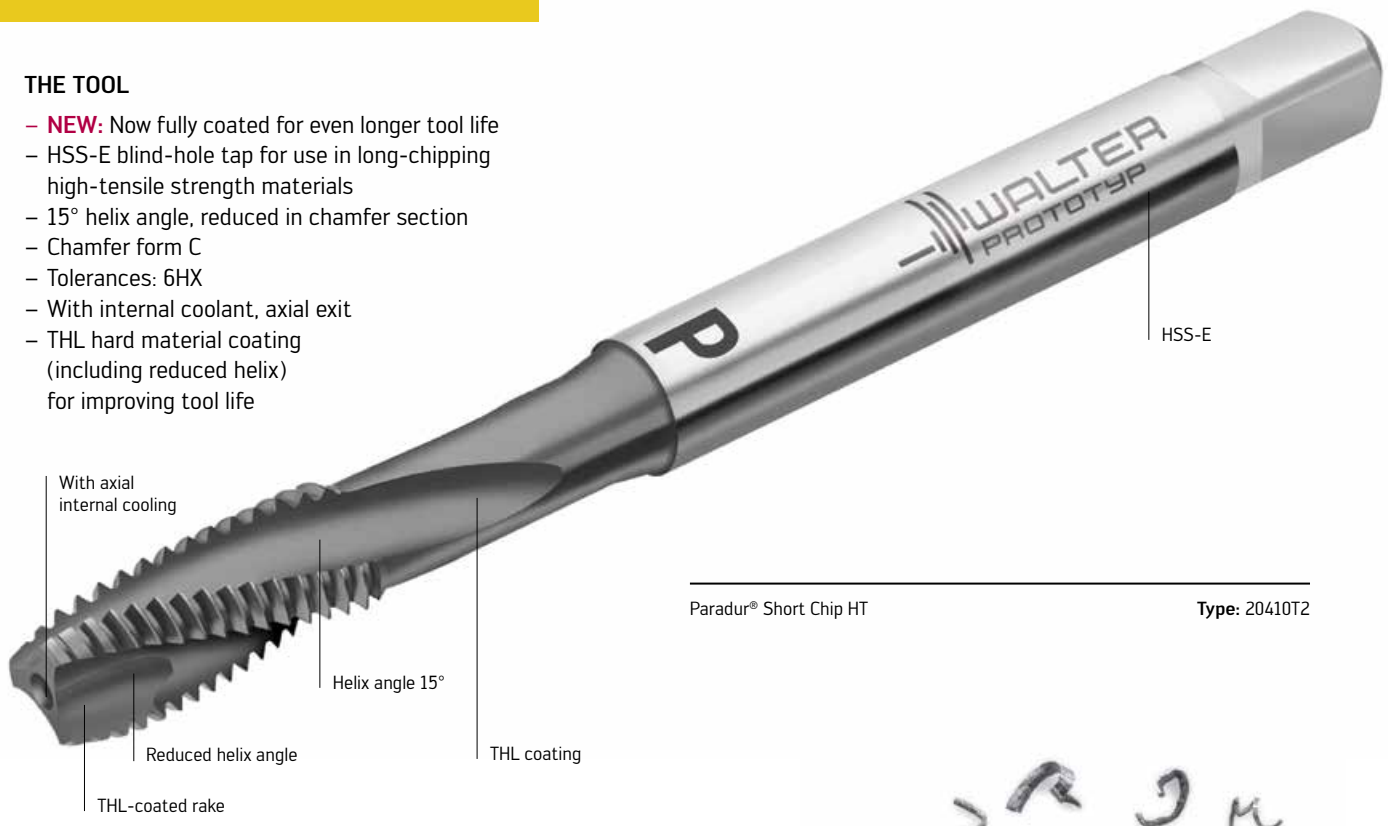
Walter Prototyp Paradur® Short Chip HT – short chips, process reliability, long tool life.

NEW 2014

DIMENSION RANGE
M: M5 - M12
MF: M12x1.5 - M16x1.5

THE TOOL

- **NEW:** Now fully coated for even longer tool life
- HSS-E blind-hole tap for use in long-chipping high-tensile strength materials
- 15° helix angle, reduced in chamfer section
- Chamfer form C
- Tolerances: 6HX
- With internal coolant, axial exit
- THL hard material coating (including reduced helix) for improving tool life



Paradur® Short Chip HT **Type:** 20410T2

THE APPLICATION

- Blind hole threads up to 4 x D_N in long-chipping materials
- Primary application
  - ISO material group P (800-1250 N/mm²)
- Secondary application
  - ISO material groups K (ductile cast iron) and N (AlSi and Al wrought alloy with good chip-breaking properties)

42CrMo4 – typical chips

BENEFITS FOR YOU

- No bird nesting ,only short broken chips
- High level of process reliability even with deeper blind hole threads
- Interference contours present no problem thanks to short broken chips
- No chips in the bottom of the hole after machining
- Blind-hole threads to a depth of 4 x D_N with no increase in torque

Watch the product video:
Scan this QR code
or go directly to
http://goo.gl/6Er8oT

Ordering information can be found from page 155 onwards.

Walter Prototyp – The Supreme line sets new standards in thread milling.

TC610 and TC611 thread mills
Dimension range:
M: M6 - M24
MF: M6x0.5 - M28x2
UNC: UNC1/4 - UNC1
UNF: UNF10 - UNF3/4
G: G1/8 - G1

THE TOOL

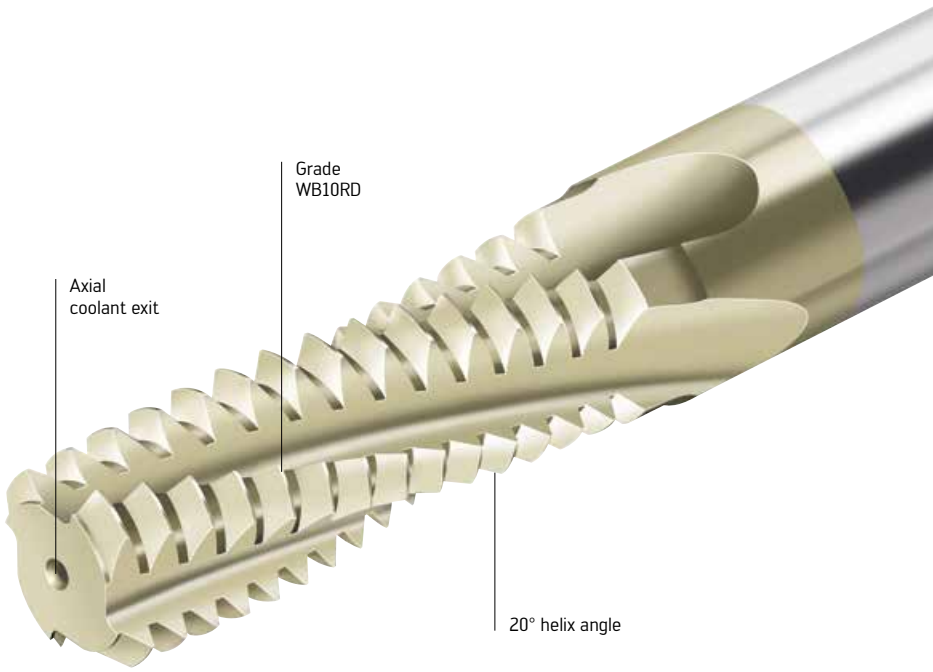
- Special micro-grain carbide with high wear resistance and cutting edge strength, optimised for toughness
- Grade: WJ30RC and WB10RD
- Variant with through coolant and axial exit for additional process reliability
- Shank tolerance h6 for use in hydraulic expansion, shrink-fit and precision chucks
- High-precision concentricity (radial runout less than 10 µm) for outstanding thread quality and long tool life
- Thread lengths 1.5 and 2.0 x D_N available

THE APPLICATION

- Blind-hole and through-hole threads up to 2.0 x D_N
- **Primary application:** ISO material groups P, M, K, N, S up to 48 HRC
- **Secondary application:** ISO material group O

REQUIREMENT:

- 3D CNC control
- Machining centre or turn/mill centre
- For use in hydraulic expansion, shrink-fit, Weldon and precision chucks



Walter Prototyp Supreme

*** Types:** TC610 (1.5 x D_N)
TC611 (2.0 x D_N)

BENEFITS FOR YOU

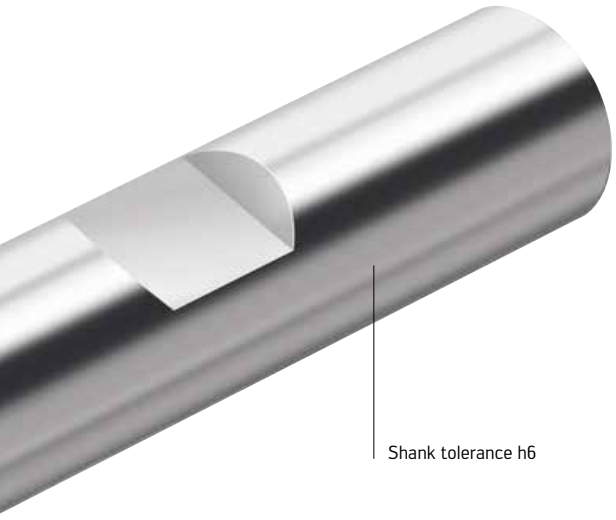
- Significant increases in tool life and process reliability thanks to the new WB10RD and WJ30RC grades
- Reduction in machining time through increased number of teeth
- New geometry prevents vibration and produces excellent surface finishes
- Optimum chip removal as through coolant prevents chip build up

* For the new designation key, see page 154.

Ordering information can be found from page 162 onwards.

The new Walter Prototyp Supreme product line

When high cutting speeds and maximum tool life are needed – for example in mass production – tools are required that win favour through their performance. The Walter Supreme product line was designed not only to achieve the most demanding of productivity targets but to surpass them without compromising process reliability. The full passion of our developers has gone into these tools.

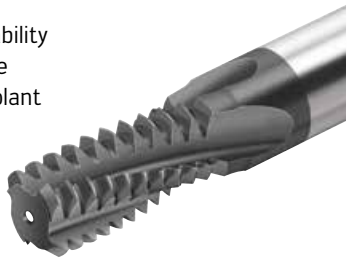


THE WB10RD GRADE

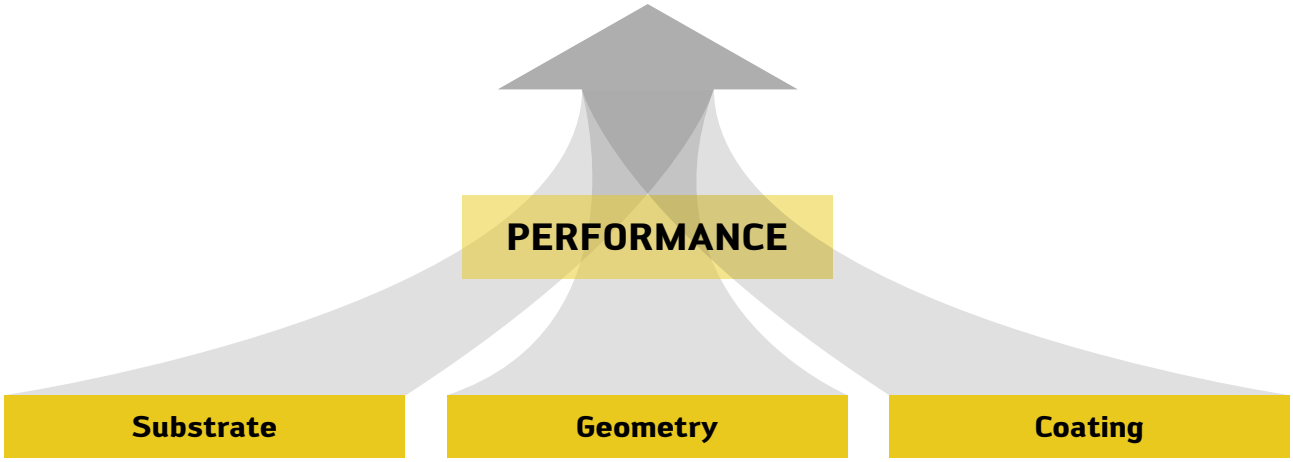
– Maximum productivity under stable conditions and with through coolant

DIE WJ30RC GRADE

– Machining with process reliability possible even under unstable conditions . Not through coolant



Watch the product video:
Scan this QR code or go directly to
http://goo.gl/iU3b6g



Designation key for Walter Prototyp thread milling tools

Example

T	C	6	10	–	M10	-	W	1	-	W	B	10	RD
1	2	3	4	5	6		7	8		Grade			

1	2	3	4	5
Tool group	**Generation**	**Tool type**	**Tool type**	**1. Delimiters**
T Threading		6 Thread mills	10 Universal Helix angle 20° 1.5 x D_N 11 Universal Helix angle 20° 2.0 x D_N	– Metric · Inch

6	7	8
Thread dimensions	**Shank type**	**Cooling**
	W Weldon shank	0 External coolant 1 Axial through coolant

Grade designation key for solid carbide and HSS cutting materials

Example

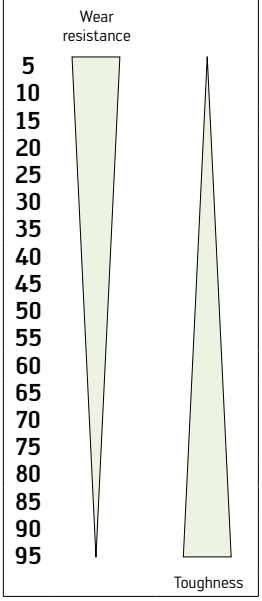
W	B	10	RD
Walter	1	2	3

1 Substrate

VHM: B, J, K

HSS

2 Application range



3 Coating

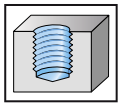
RC TiALN

RD TiALN (+ ZrN)

Watch the video:
Scan this QR code or go directly to http://goo.gl/79eO5x

Machine tap
Paradur® Short Chip HT

≤ 4 x D_N



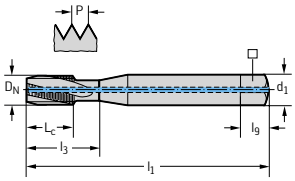
- HSS-E
- Chamfer form C = 2-3 thread
- 15° helix angle
- Helix reduction to 9°
- Materials from 800 to 1,250 N/mm² or 38 HRC
- For long-chipping materials

M

DIN 13

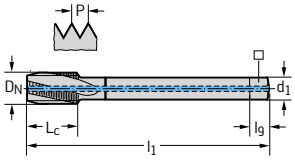
	P	M	K	N	S	H	O
THL	●●		●	●			
Uncoated	●●		●	●			

DIN 371 6HX



D_N	P mm	l_1 js16 mm	L_c mm	l_3 ±1 mm	d_1 h9 mm	□ h12 mm	l_9 mm	N	THL/bare Designation 20410TR	THL Designation 20410T2
M 5	0,8	70	8	25	6	4,9	8	3	-M5	★ -M5
M 6	1	80	10	30	6	4,9	8	3	-M6	★ -M6
M 8	1,25	90	12	35	8	6,2	9	3	-M8	★ -M8
M 10	1,5	100	15	39	10	8	11	3	-M10	★ -M10

DIN 376 6HX

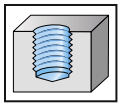


D_N	P mm	l_1 js16 mm	L_c mm	l_3 ±1 mm	d_1 h9 mm	□ h12 mm	l_9 mm	N	THL/bare Designation 20460TR	THL Designation 20460T2
M 12	1,75	110	16	-	9	7	10	3	-M12	★ -M12

★ New addition to the product range

Machine tap
Paradur® Short Chip HT

≤ 4 x D_N



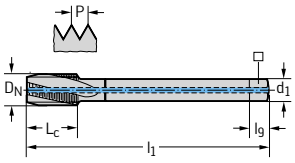
- HSS-E
- Chamfer form C = 2-3 thread
- 15° helix angle
- Helix reduction to 9°
- Materials from 800 to 1,250 N/mm² or 38 HRC
- For long-chipping materials

MF

DIN 13

	P	M	K	N	S	H	O
THL	●●		●	●			
Uncoated	●●		●	●			

DIN 374 6HX

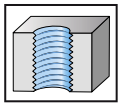


D_N	P mm	l_1 js16 mm	L_c mm	d_1 h9 mm	□ h12 mm	l_9 mm	N	THL/bare Designation 21460TR	THL Designation 21460T2
M 12X1,5	1,5	100	13	9	7	10	3	-M12X1.5	★ -M12X1.5
M14X1.5	1,5	100	15	11	9	12	4	-M14X1.5	★ -M14X1.5
M16X1.5	1,5	100	15	12	9	12	4	-M16X1.5	★ -M16X1.5

★ New addition to the product range

Machine tap
Prototex® Eco Plus

≤ 3 x D_N



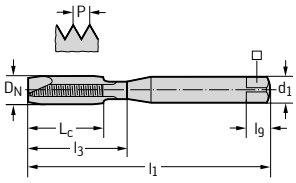
- HSS-E-PM
- Chamfer form B = 3.5-5 thread
- Materials from 500 to 1,350 N/mm² or 42 HRC
- For long-chipping materials
- Suitable for minimum quantity lubrication

UNC

ASME B1.1

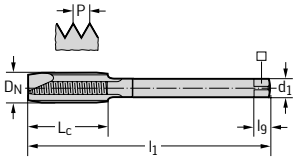
	P	M	K	N	S	H	O
THL	●●	●●	●●	●●			

DIN/ANSI 2B



D_N-TPI Nom	D_N inch	l_1 inch	L_c inch	L_3 inch	D_1 inch	□ inch	l_9 inch	N	THL Designation AEP2221002
No. 4-40	0.112	2.205	0.354	0.709	0.141	0.110	3/16	3	-UNC4
No. 6-32	0.138	2.205	0.433	0.787	0.141	0.110	3/16	3	-UNC6
No. 8-32	0.164	2.480	0.472	0.827	0.168	0.131	1/4	3	-UNC8
No. 10-24	0.190	2.756	0.512	0.984	0.194	0.152	1/4	3	-UNC10
1/4-20	0.250	3.150	0.591	1.181	0.255	0.191	5/16	3	-UNC1/4
5/16-18	0.313	3.543	0.709	1.378	0.318	0.238	3/8	3	-UNC5/16
3/8-16	0.375	3.937	0.787	1.535	0.381	0.286	7/16	3	-UNC3/8

DIN/ANSI 2B

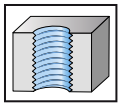


D_N-TPI Nom	D_N inch	l_1 inch	L_c inch	L_3 inch	D_1 inch	□ inch	l_9 inch	N	THL Designation AEP2226002
1/2-13	0.500	4.331	0.906	-	0.367	0.275	7/16	4	-UNC1/2
5/8-11	0.625	4.331	0.984	-	0.480	0.360	9/16	4	-UNC5/8
3/4-10	0.750	4.921	1.181	-	0.590	0.442	11/16	4	-UNC3/4

★ New addition to the product range

Machine tap
Prototex® Eco Plus

≤ 3 x D_N



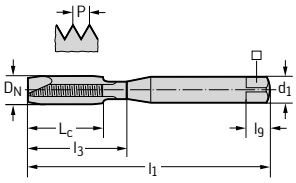
- HSS-E-PM
- Chamfer form B = 3.5-5 thread
- Materials from 500 to 1,350 N/mm² or 42 HRC
- For long-chipping materials
- Suitable for minimum quantity lubrication

UNF

ASME B1.1

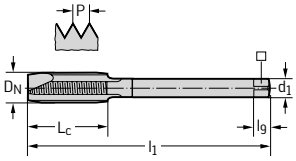
	P	M	K	N	S	H	O
THL	●●	●●	●●	●●			

DIN/ANSI 2B



D_N-TPI Nom	D_N inch	l_1 inch	L_c inch	L_3 inch	D_1 inch	□ inch	l_9 inch	N	THL Designation AEP2321002
No. 6-40	0.138	2.205	0.433	0.787	0.141	0.110	3/16	3	-UNF6
No. 10-32	0.190	2.756	0.512	0.984	0.194	0.152	1/4	3	-UNF10
1/4-28	0.250	3.150	0.591	1.181	0.255	0.191	5/16	3	-UNF1/4
5/16-24	0.313	3.543	0.709	1.378	0.318	0.238	3/8	3	-UNF5/16
3/8-24	0.375	3.937	0.787	1.535	0.381	0.286	7/16	3	-UNF3/8

DIN/ANSI 2B

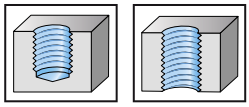


D_N-TPI Nom	D_N inch	l_1 inch	L_c inch	L_3 inch	D_1 inch	□ inch	l_9 inch	N	THL Designation AEP2326002
7/16-20	0.438	3.937	0.787	-	0.323	0.242	13/32	3	-UNF7/16
1/2-20	0.500	3.937	0.827	-	0.367	0.275	7/16	4	-UNF1/2
5/8-18	0.625	3.937	0.827	-	0.480	0.360	9/16	4	-UNF5/8
3/4-16	0.750	4.330	0.944	-	0.590	0.442	11/16	4	-UNF3/4

★ New addition to the product range

Machine thread former
Protodyn® S HSC

≤ 4 x D_N



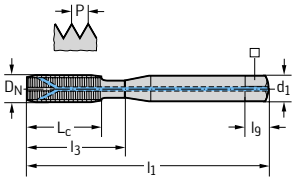
- Solid carbide
- Chamfer form C = 2-3.5 thread
- Materials from 200 to 1,200 N/mm² or 36 HRC
- For long-chipping materials

M

DIN 13

	P	M	K	N	S	H	O
TiCN	●●	●		●●	●		

DIN 2174 6HX

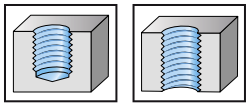


D_N	P mm	l_1 js16 mm	L_c mm	l_3 ±1 mm	d_1 h6 mm	□ h12 mm	l_9 mm	TICN Designation HP8061746
M 6	1	80	15	30	6	4,9	8	★ -M6
M 8	1,25	90	18	35	8	6,2	9	★ -M8
M 10	1,5	100	20	39	10	8	11	★ -M10

★ New addition to the product range

Machine thread former
Protodyn® S HSC

≤ 4 x D_N



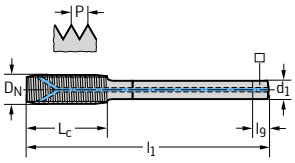
- Solid carbide
- Chamfer form C = 2-3.5 thread
- Materials from 200 to 1,200 N/mm² or 36 HRC
- For long-chipping materials

MF

DIN 13

	P	M	K	N	S	H	O
TiCN	●●	●		●●	●		

DIN 2174 6HX

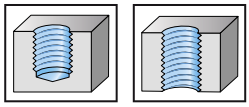


D_N	P mm	l_1 js16 mm	L_c mm	d_1 h6 mm	□ h12 mm	l_9 mm	TICN Designation HP8166746
M 8	1	90	12	6	4,9	8	★ -M8X1
M 10	1	90	14	7	5,5	8	★ -M10X1
M 12	1,5	100	21	9	7	10	★ -M12X1.5
M 14	1,5	100	21	11	9	12	★ -M14X1.5
M 16	1,5	100	21	12	9	12	★ -M16X1.5

★ New addition to the product range

Machine thread former
Protodyn® S Plus

≤ 3,5 x D_N



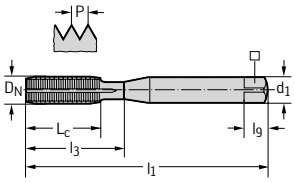
- HSS-E
- Chamfer form C = 2-3.5 thread
- Materials from 200 to 1,200 N/mm² or 36 HRC
- For long-chipping materials

MF

DIN 13

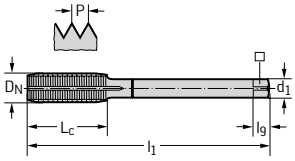
	P	M	K	N	S	H	O
TiN	●●	●●		●●	●		

DIN 2174 6HX



D_N	P mm	l_1 js16 mm	L_c mm	l_3 ±1 mm	d_1 h9 mm	□ h12 mm	l_9 mm	TIN Designation DP2161705
M 4	0,5	63	12	21	4,5	3,4	6	-M4X0.5
M 5	0,5	70	13	25	6	4,9	8	-M5X0.5
M 6	0,5	80	15	30	6	4,9	8	-M6X0.5
M 6	0,75	80	15	30	6	4,9	8	-M6X0.75
M 7	0,75	80	15	30	7	5,5	8	-M7X0.75

DIN 2174 6HX

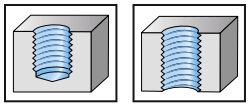


D_N	P mm	l_1 js16 mm	L_c mm	l_3 ±1 mm	d_1 h9 mm	□ h12 mm	l_9 mm	TIN Designation DP2166705
M 8	0,5	80	15	-	6	4,9	8	-M8X0.5
M 8	0,75	80	15	-	6	4,9	8	-M8X0.75
M 8	1	90	18	-	6	4,9	8	-M8X1
M 10	1	90	20	-	7	5,5	8	-M10X1
M 10	1,25	100	20	-	7	5,5	8	-M10X1.25
M 12	1	100	21	-	9	7	10	-M12X1
M 12	1,25	100	21	-	9	7	10	-M12X1.25
M 12	1,5	100	21	-	9	7	10	-M12X1.5
M 14	1,5	100	21	-	11	9	12	-M14X1.5
M 16	1,5	100	21	-	12	9	12	-M16X1.5
M 18	1,5	110	24	-	14	11	14	-M18X1.5
M 20	1,5	125	24	-	16	12	15	-M20X1.5
M 20	2	140	30	-	16	12	15	★ -M20X2
M 22	1,5	125	24	-	18	14,5	17	-M22X1.5
M 24	1,5	140	26	-	18	14,5	17	-M24X1.5
M 24	2	140	26	-	18	14,5	17	★ -M24X2
M 27	1,5	140	26	-	20	16	19	★ -M27X1.5
M 27	2	140	26	-	20	16	19	★ -M27X2
M 30	1,5	150	26	-	22	18	21	★ -M30X1.5
M 30	2	150	26	-	22	18	21	★ -M30X2

★ New addition to the product range

Thread mill
Supreme TC610

≤ 1,5 x D_N



- Solid carbide
- 4 to 6 cutting edges
- 20° helix angle
- Materials up to 48 HRC
- WJ30RC (TiALN)
- WB10RD (TiALN + ZrN)

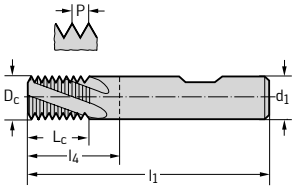
M

DIN 13

	P	M	K	N	S	H	O
WJ30RC	●●	●●	●●	●●	●●		●
WB10RD	●●	●●	●●	●●	●●		●

Tool

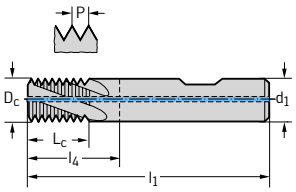
Shank DIN 6535 HB



Designation	P mm	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
TC610-M6-W0-	1	4,5	9	57	21	6	4	☺
TC610-M8-W0-	1,25	6	12,5	65	21	6	4	☺
TC610-M10-W0-	1,5	7,5	15	72	27	8	4	☺
TC610-M12-W0-	1,75	9,5	19,25	80	32	10	4	☺
TC610-M14-W0-	2	10	22	83	32	10	4	☺
TC610-M16-W0-	2	12	24	92	38	12	5	☺
TC610-M20-W0-	2,5	16	30	92	44	16	6	☺
TC610-M24-W0-	3	19	36	104	54	20	6	☺

Tool

Shank DIN 6535 HB

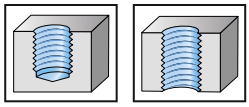


Designation	P mm	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC	WB10RD
TC610-M6-W1-	1	4,5	9	57	21	6	4	☺	☺
TC610-M8-W1-	1,25	6	12,5	65	21	6	4	☺	☺
TC610-M10-W1-	1,5	7,5	15	72	27	8	4	☺	☺
TC610-M12-W1-	1,75	9,5	19,25	80	32	10	4	☺	☺
TC610-M14-W1-	2	10	22	83	32	10	4	☺	☺
TC610-M16-W1-	2	12	24	92	38	12	5	☺	☺
TC610-M20-W1-	2,5	16	30	92	44	16	6	☺	☺
TC610-M24-W1-	3	19	36	104	54	20	6	☺	☺

Ordering example: TC610 thread mill with solid carbide shank, M10 thread dimension, in the WB10RD grade
Ordering code: TC610-M10-W1-WB10RD

Thread mill
Supreme TC611

≤ 2 x D_N



- Solid carbide
- 4 to 6 cutting edges
- 20° helix angle
- Materials up to 48 HRC
- WJ30RC (TiALN)
- WB10RD (TiALN + ZrN)

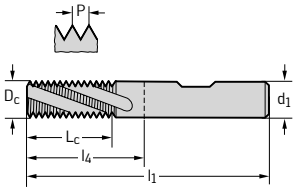
M

DIN 13

	P	M	K	N	S	H	O
WJ30RC	●●	●●	●●	●●	●●		●
WB10RD	●●	●●	●●	●●	●●		●

Tool

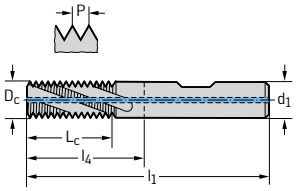
Shank DIN 6535 HB



Designation	P mm	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
TC611-M6-W0-	1	4,5	12	57	21	6	4	☹
TC611-M8-W0-	1,25	6	16,25	57	21	6	4	☹
TC611-M10-W0-	1,5	7,5	21	63	27	8	4	☹
TC611-M12-W0-	1,75	9,5	24,5	72	32	10	4	☹
TC611-M14-W0-	2	10	28	80	40	10	4	☹
TC611-M16-W0-	2	12	32	89	44	12	5	☹
TC611-M20-W0-	2,5	16	40	105	57	16	6	☹
TC611-M24-W0-	3	19	48	118	68	20	6	☹

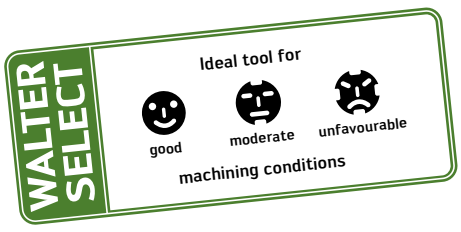
Tool

Shank DIN 6535 HB



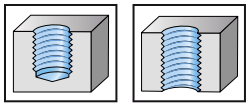
Designation	P mm	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC	WB10RD
TC611-M6-W1-	1	4,5	12	57	21	6	4	☹	☺
TC611-M8-W1-	1,25	6	16,25	57	21	6	4	☹	☺
TC611-M10-W1-	1,5	7,5	21	63	27	8	4	☹	☺
TC611-M12-W1-	1,75	9,5	24,5	72	32	10	4	☹	☺
TC611-M14-W1-	2	10	28	80	40	10	4	☹	☺
TC611-M16-W1-	2	12	32	89	44	12	5	☹	☺
TC611-M20-W1-	2,5	16	40	105	57	16	6	☹	☺
TC611-M24-W1-	3	19	48	118	68	20	6	☹	☺

Ordering example: TC611 thread mill with solid carbide shank, M10 thread dimension, in the WB10RD grade
Ordering code: TC611-M10-W1-WB10RD



Thread mill
Supreme TC610

≤ 1,5 x D_N



- Solid carbide
- 4 to 8 cutting edges
- 20° helix angle
- Materials up to 48 HRC
- WJ30RC (TiALN)
- WB10RD (TiALN + ZrN)

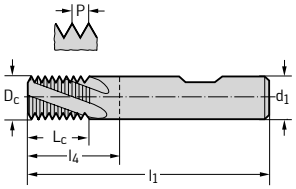
MF

DIN 13

	P	M	K	N	S	H	O
WJ30RC	●●	●●	●●	●●	●●		●
WB10RD	●●	●●	●●	●●	●●		●

Tool

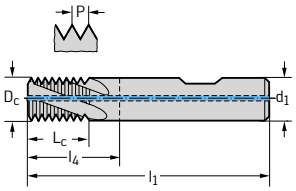
Shank DIN 6535 HB



Designation	P mm	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
TC610-M6X0.5-W0-	0,5	4,8	9	57	21	6	5	☺
TC610-M8X0.75-W0-	0,75	6	12	57	21	6	5	☺
TC610-M8X1-W0-	1	6	12	57	21	6	4	☺
TC610-M10X0.5-W0-	0,5	8	15	63	27	8	7	☺
TC610-M10X1-W0-	1	8	15	63	27	8	5	☺
TC610-M12X1-W0-	1	10	18	72	32	10	6	☺
TC610-M12X1.25-W0-	1,25	10	18,75	72	32	10	6	☺
TC610-M12X1.5-W0-	1,5	10	18	72	32	10	5	☺
TC610-M14X1-W0-	1	12	21	83	38	12	7	☺
TC610-M14X1.5-W0-	1,5	12	21	83	38	12	6	☺
TC610-M16X1-W0-	1	14	24	83	38	14	7	☺
TC610-M16X1.5-W0-	1,5	14	24	83	38	14	6	☺
TC610-M18X1-W0-	1	16	27	92	44	16	8	☺
TC610-M18X1.5-W0-	1,5	16	27	92	44	16	7	☺
TC610-M20X2-W0-	2	16	30	92	44	16	6	☺
TC610-M24X2-W0-	2	20	36	104	54	20	7	☺
TC610-M28X2-W0-	2	25	42	121	65	25	8	☺

Tool

Shank DIN 6535 HB

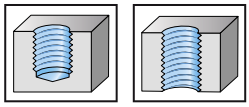


Designation	P mm	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC	WB10RD
TC610-M6X0.5-W1-	0,5	4,8	9	57	21	6	5	☺	
TC610-M8X0.75-W1-	0,75	6	12	57	21	6	5	☺	☺
TC610-M8X1-W1-	1	6	12	57	21	6	4	☺	☺
TC610-M10X0.5-W1-	0,5	8	15	63	27	8	7	☺	
TC610-M10X1-W1-	1	8	15	63	27	8	5	☺	☺
TC610-M12X1-W1-	1	10	18	72	32	10	6	☺	☺
TC610-M12X1.25-W1-	1,25	10	18,75	72	32	10	6	☺	☺
TC610-M12X1.5-W1-	1,5	10	18	72	32	10	5	☺	
TC610-M14X1-W1-	1	12	21	83	38	12	7	☺	☺
TC610-M14X1.5-W1-	1,5	12	21	83	38	12	6	☺	☺
TC610-M16X1-W1-	1	14	24	83	38	14	7	☺	☺
TC610-M16X1.5-W1-	1,5	14	24	83	38	14	6	☺	☺
TC610-M18X1-W1-	1	16	27	92	44	16	8	☺	
TC610-M18X1.5-W1-	1,5	16	27	92	44	16	7	☺	☺
TC610-M20X2-W1-	2	16	30	92	44	16	6	☺	☺
TC610-M24X2-W1-	2	20	36	104	54	20	7	☺	
TC610-M28X2-W1-	2	25	42	121	65	25	8	☺	

Ordering example: TC610 thread mill with solid carbide shank, M10x1 thread dimension, in the WB10RD grade
Ordering code: TC610-M10x1-W1-WB10RD

Thread mill
Supreme TC610

≤ 1,5 x D_N



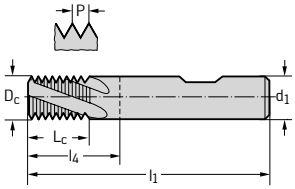
- Solid carbide
- 3 to 6 cutting edges
- 20° helix angle
- Materials up to 48 HRC
- WJ30RC (TiALN)

UNC

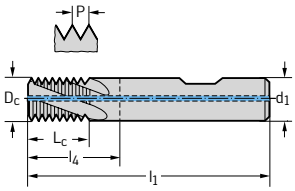
ASME B1.1

	P	M	K	N	S	H	O
WJ30RC	●●	●●	●●	●●	●●		●

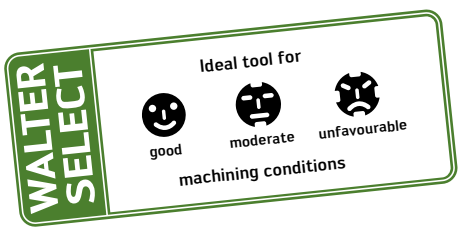
Tool	Designation	P Threads per inch	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
Shank DIN 6535 HB	TC610-UNC1/4-W0-	20	4,8	10,16	57	21	6	3	
	TC610-UNC5/16-W0-	18	5,5	12,7	57	21	6	4	
	TC610-UNC3/8-W0-	16	7,5	14,287	63	27	8	4	
	TC610-UNC7/16-W0-	14	8	18,142	63	27	8	4	
	TC610-UNC9/16-W0-	12	10	19,538	72	32	10	4	
	TC610-UNC1/2-W0-	13	10	19,538	72	32	10	4	
	TC610-UNC5/8-W0-	11	12	25,4	83	38	12	5	
	TC610-UNC3/4-W0-	10	14	30,48	90	45	14	5	
	TC610-UNC7/8-W0-	9	16	33,866	98	50	16	5	
	TC610-UNC1-W0-	8	18	38,1	104	54	20	5	



Tool	Designation	P Threads per inch	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
Shank DIN 6535 HB	TC610-UNC1/4-W1-	20	4,8	10,16	57	21	6	3	
	TC610-UNC5/16-W1-	18	5,5	12,7	57	21	6	4	
	TC610-UNC3/8-W1-	16	7,5	14,287	63	27	8	4	
	TC610-UNC7/16-W1-	14	8	18,142	63	27	8	4	
	TC610-UNC9/16-W1-	12	10	19,538	72	32	10	4	
	TC610-UNC1/2-W1-	13	10	19,538	72	32	10	4	
	TC610-UNC5/8-W1-	11	12	25,4	83	38	12	5	
	TC610-UNC3/4-W1-	10	14	30,48	90	45	14	5	
	TC610-UNC7/8-W1-	9	16	33,866	98	50	16	5	
	TC610-UNC1-W1-	8	18	38,1	104	54	20	5	

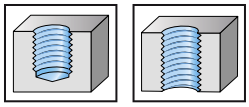


Ordering example: TC610 thread mill with solid carbide shank, UNC9/16 thread dimension, in the WJ30RC grade
Ordering code: TC610-UNC9/16-W0-WJ30RC



Thread mill
Supreme TC611

≤ 2 x D_N



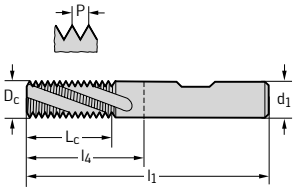
- Solid carbide
- 3 to 6 cutting edges
- 20° helix angle
- Materials up to 48 HRC
- WJ30RC (TiALN)

UNC

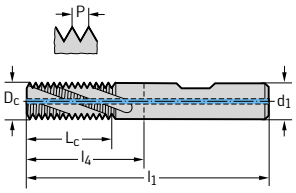
ASME B1.1

	P	M	K	N	S	H	O
WJ30RC	●●	●●	●●	●●	●●		●

Tool	Designation	P Threads per inch	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
Shank DIN 6535 HB	TC611-UNC1/4-W0-	20	4,8	12,7	57	21	6	3	
	TC611-UNC5/16-W0-	18	5,5	16,933	57	21	6	4	
	TC611-UNC3/8-W0-	16	7,5	19,05	63	27	8	4	
	TC611-UNC7/16-W0-	14	8	23,585	68	32	8	4	
	TC611-UNC9/16-W0-	12	10	29,633	80	36	10	4	
	TC611-UNC1/2-W0-	13	10	25,4	76	40	10	4	
	TC611-UNC5/8-W0-	11	12	32,327	90	45	12	5	
	TC611-UNC3/4-W0-	10	14	38,1	98	53	14	5	
	TC611-UNC7/8-W0-	9	16	45,155	108	60	16	5	
	TC611-UNC1-W0-	8	18	50,8	116	68	20	5	



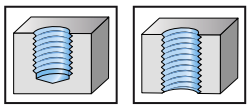
Tool	Designation	P Threads per inch	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
Shank DIN 6535 HB	TC611-UNC1/4-W1-	20	4,8	12,7	57	21	6	3	
	TC611-UNC5/16-W1-	18	5,5	16,933	57	21	6	4	
	TC611-UNC3/8-W1-	16	7,5	19,05	63	27	8	4	
	TC611-UNC7/16-W1-	14	8	23,585	68	32	8	4	
	TC611-UNC9/16-W1-	12	10	29,633	80	36	10	4	
	TC611-UNC1/2-W1-	13	10	25,4	76	40	10	4	
	TC611-UNC5/8-W1-	11	12	32,327	90	45	12	5	
	TC611-UNC3/4-W1-	10	14	38,1	98	53	14	5	
	TC611-UNC7/8-W1-	9	16	45,155	108	60	16	5	
	TC611-UNC1-W1-	8	18	50,8	116	68	20	5	



Ordering example: TC611 thread mill with solid carbide shank, UNC9/16 thread dimension, in the WJ30RC grade
Ordering code: TC611-UNC9/16-W0-WJ30RC

Thread mill
Supreme TC610

≤ 1,5 x D_N



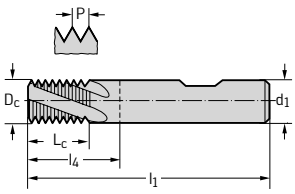
- Solid carbide
- 3 to 6 cutting edges
- 20° helix angle
- Materials up to 48 HRC
- WJ30RC (TiALN)

UNF

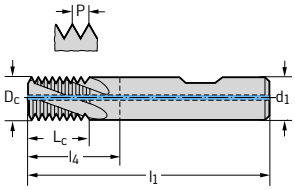
ASME B1.1

	P	M	K	N	S	H	O
WJ30RC	●●	●●	●●	●●	●●		●

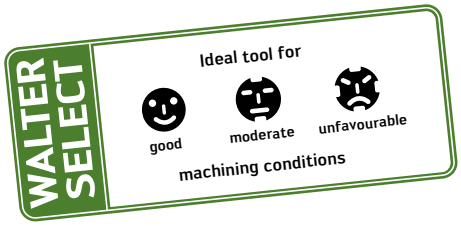
Tool	Designation	P Threads per inch	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
Shank DIN 6535 HB	TC610-UNF10-W0-	32	3,6	7,937	57	21	6	3	
	TC610-UNF1/4-W0-	28	4,8	9,978	57	21	6	4	
	TC610-UNF5/16-W0-	24	6	12,7	57	21	6	4	
	TC610-UNF7/16-W0-	20	8	17,78	63	27	8	4	
	TC610-UNF9/16-W0-	18	10	22,557	72	32	10	5	
	TC610-UNF3/4-W0-	16	14	28,575	88	43	14	6	



Tool	Designation	P Threads per inch	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
Shank DIN 6535 HB	TC610-UNF10-W1-	32	3,6	7,937	57	21	6	3	
	TC610-UNF1/4-W1-	28	4,8	9,978	57	21	6	4	
	TC610-UNF5/16-W1-	24	6	12,7	57	21	6	4	
	TC610-UNF7/16-W1-	20	8	17,78	63	27	8	4	
	TC610-UNF9/16-W1-	18	10	22,557	72	32	10	5	
	TC610-UNF3/4-W1-	16	14	28,575	88	43	14	6	



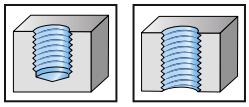
Ordering example: TC610 thread mill with solid carbide shank, UNF9/16 thread dimension, in the WJ30RC grade
Ordering code: TC610-UNF9/16-W0-WJ30RC



★ New addition to the product range

Thread mill
Supreme TC611

≤ 2 x D_N



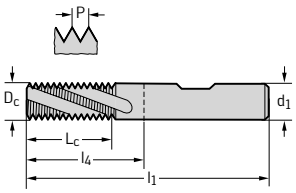
- Solid carbide
- 3 to 6 cutting edges
- 20° helix angle
- Materials up to 48 HRC
- WJ30RC (TiALN)

UNF

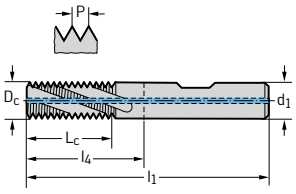
ASME B1.1

	P	M	K	N	S	H	O
WJ30RC	●●	●●	●●	●●	●●		●

Tool	Designation	P Threads per inch	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
Shank DIN 6535 HB	TC611-UNF10-W0-	32	3,6	10,318	57	21	6	3	●
	TC611-UNF1/4-W0-	28	4,8	12,7	57	21	6	4	●
	TC611-UNF5/16-W0-	24	6	15,875	57	21	6	4	●
	TC611-UNF7/16-W0-	20	8	22,86	68	32	8	4	●
	TC611-UNF9/16-W0-	18	10	29,633	80	40	10	5	●
	TC611-UNF3/4-W0-	16	14	38,1	98	53	14	6	●



Tool	Designation	P Threads per inch	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
Shank DIN 6535 HB	TC611-UNF10-W1-	32	3,6	10,318	57	21	6	3	●
	TC611-UNF1/4-W1-	28	4,8	12,7	57	21	6	4	●
	TC611-UNF5/16-W1-	24	6	15,875	57	21	6	4	●
	TC611-UNF7/16-W1-	20	8	22,86	68	32	8	4	●
	TC611-UNF9/16-W1-	18	10	29,633	80	40	10	5	●
	TC611-UNF3/4-W1-	16	14	38,1	98	53	14	6	●

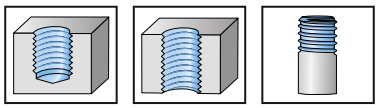


Ordering example: TC611 thread mill with solid carbide shank, UNF9/16 thread dimension, in the WJ30RC grade
Ordering code: TC611-UNF9/16-W0-WJ30RC

★ New addition to the product range

Thread mill
Supreme TC610

≤ 1,5 x D_N



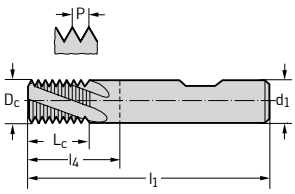
- Solid carbide
- 5 to 8 cutting edges
- 20° helix angle
- Materials up to 48 HRC
- WJ30RC (TiALN)

G

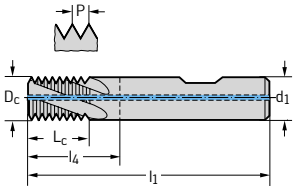
DIN EN ISO 228

	P	M	K	N	S	H	O
WJ30RC	●●	●●	●●	●●	●●		●

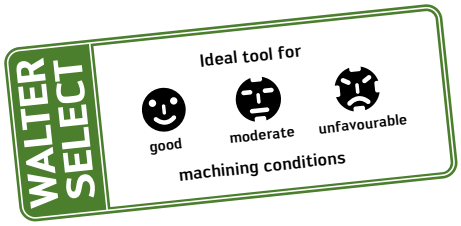
Tool	Designation	P Threads per inch	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
Shank DIN 6535 HB	TC610-G1/8-W0-	28	6	15,42	57	21	6	5	
	TC610-G1/4-W0-	19	10	20,05	72	32	10	5	
	TC610-G3/8-W0-	19	14	25,4	83	38	14	7	
	TC610-G1/2-W0-	14	16	32,66	96	44	16	6	
	TC610-G5/8-W0-	14	20	34,47	104	54	20	8	
	TC610-G1X20-W0-	11	20	50,8	120	75	20	6	



Tool	Designation	P Threads per inch	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RC
Shank DIN 6535 HB	TC610-G1/8-W1-	28	6	15,42	57	21	6	5	
	TC610-G1/4-W1-	19	10	20,05	72	32	10	5	
	TC610-G3/8-W1-	19	14	25,4	83	38	14	7	
	TC610-G1/2-W1-	14	16	32,66	96	44	16	6	
	TC610-G5/8-W1-	14	20	34,47	104	54	20	8	
	TC610-G1X20-W1-	11	20	50,8	120	75	20	6	



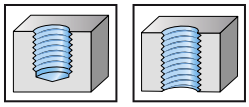
Ordering example: TC610 thread mill with solid carbide shank, G1/4 thread dimension, in the WJ30RC grade
Ordering code: TC6010-G1/4-W0-WJ30RC



★ New addition to the product range

Orbital thread mill
TMO

≤ 2 x D_N



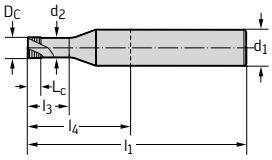
- Solid carbide
- 3-4 cutting edges
- 15° helix angle
- Materials up to 48 HRC

UNF

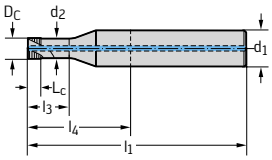
ASME B1.1

	P	M	K	N	S	H	O
TiCN	●●	●●	●●	●●	●●		●

Tool		P Threads per inch	D_c mm	L_c mm	l_3 ±1 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	TICN Designation H5387006
Shank DIN 6535 HA	10-32 UNF	32	3,85	3,175	10,9	1,21	57	21	6	3	-UNF10



Tool		P Threads per inch	D_c mm	L_c mm	l_3 ±1 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	TICN Designation H5387016
Shank DIN 6535 HA	1/4-UNF	28	5,25	3,81	14,1	4	57	21	6	3	-UNF1/4
	5/16-UNF	24	6,55	4,233	17,5	5,1	63	27	8	3	-UNF5/16
	3/8-UNF	24	7,85	3,175	20,7	6,4	63	27	8	4	-UNF3/8



★ New addition to the product range

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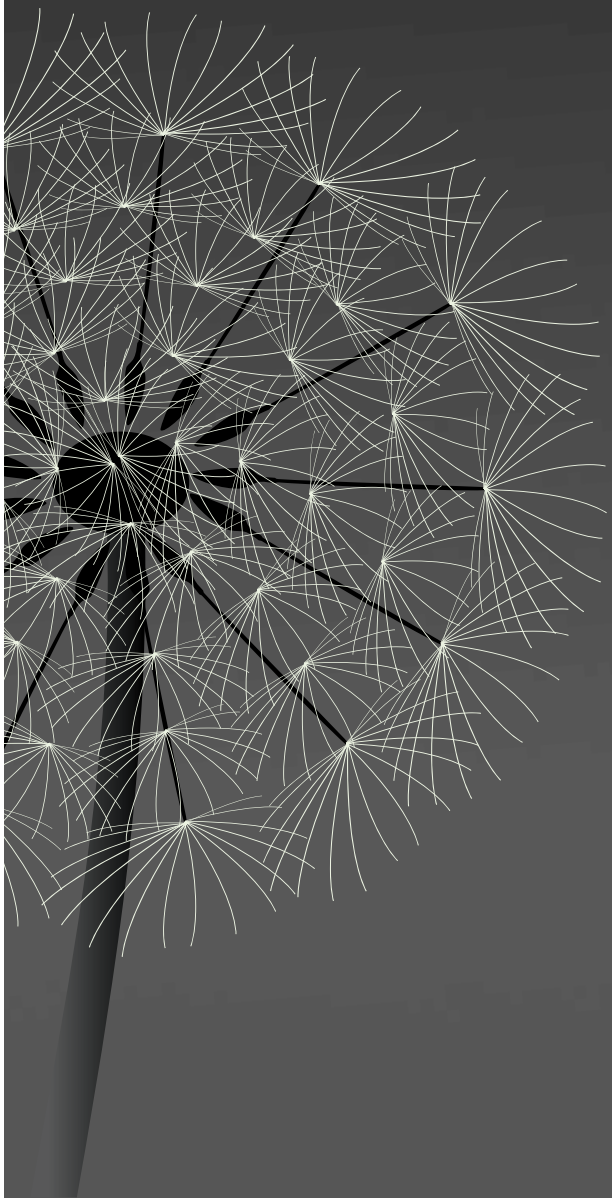
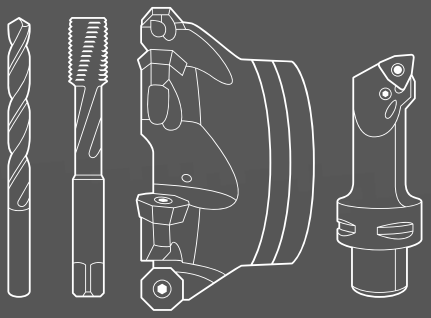
EXPERTISE FOR INCREASED PRODUCTIVITY.



Walter Multiply is carefully examining their overall process: From procurement, to preparation and deployment, through to the reconditioning of the tools. **Walter Multiply** ensures that you achieve maximum productivity by combining your knowledge in the area of production with our expertise in the area of machining. In short: Tailor-made solutions for your production from a single source – cooperative, consistent and target-oriented.

Complexity made easy.



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