

_SOLUTIONS THAT OFFER OPPORTUNITIES

Product Innovations catalogue



How to find and order your standard tools:



Personal – worldwide

You can contact us by phone, fax or e-mail. The contact details for your local contact can be found on our website at: **walter-tools.com**



The Walter General Catalogue 2017

contains the entire standard range of our competence brands Walter, Walter Titex and Walter Prototyp. It is supplemented regularly with the latest Product Innovations catalogues.

At **walter-tools.com**, you can access and order your Walter products quickly and conveniently online – via smartphone, tablet or PC. The benefit for you: Direct access from any device, displayed in an optimised form, at any time.

Walter online catalogue



Tool-specific search

You can find products in the Walter online catalogue using the familiar structure of our product catalogue as well as filter and search functions. Other features: A shopping function and links to drawings and models.

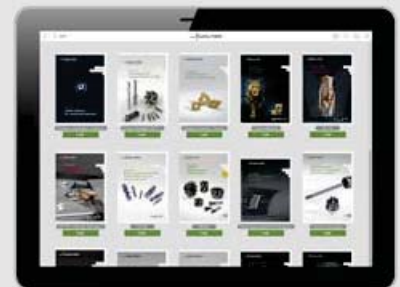
Walter GPS



Application-based search

With Walter GPS, it takes just a few steps for you to find the best machining solution for your component, online and offline – and the solution can be transferred directly to the Walter TOOLSHOP if required!

Walter eLibrary



Document-based search

The Walter eLibrary app provides you with all the information you need on your mobile devices within a matter of seconds: E.g. brochures and catalogues – online and offline, in 17 languages.

Digital ordering methods



TOOLSHOP



EDI B2B

Walter TOOLSHOP & EDI

The Walter TOOLSHOP offers customers opportunities to find information and place orders quickly.

EDI (electronic data interchange) also makes it possible to exchange documents (e.g. orders) – even special tools can be ordered.

Technologies at Walter

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Technologies at Walter.

Accure-tec

The patented Walter Accure-tec technology ensures maximum vibration damping on boring bars for turning and adaptors for milling. Ideal for turning, milling and drilling operations involving extended tool applications.

Tiger-tec®Gold

Tiger-tec® Gold is the new Walter generation platform for unique indexable insert coatings. It makes maximum tool life and process reliability possible. The CVD grade is produced using the innovative ultra low pressure method (ULP-CVD). The special titanium aluminium nitride layer makes them highly resistant to abrasion, hairline cracks, oxidation and plastic deformation. The heat-resistant, tough PVD grade with aluminium oxide multi-layer is suitable for difficult machining conditions.

Tiger-tec®Silver

With Tiger-tec® Silver, Walter is offering a world first in coating technology for indexable inserts. The special aluminium oxide layer with optimised microstructure reduces wear during turning, milling and drilling operations, and increases toughness and temperature resistance for significantly higher cutting data.

Walter BLAXX

Walter BLAXX is the benchmark for a new generation of milling cutters: The milling bodies are extremely robust thanks to their special surface treatment. The milling systems, which are mainly positioned tangentially, are equipped with Tiger-tec® indexable inserts. Tools with the "Walter BLAXX" designation combine high wear resistance with unbeatable performance data.

Xtra-tec®

Xtra-tec® indexable insert milling cutters and drills guarantee extremely soft cutting action and optimal surface quality on almost all materials. Indexable inserts with highly positive geometries and the Tiger-tec® coating have a particularly beneficial hardness/toughness ratio. For maximum productivity and process reliability.

Walter Nexxt

Engineering Kompetenz and digital expertise go hand in hand at Walter. Together with our wholly owned software subsidiary Comara, we develop digital solutions that efficiently connect machines and tools, optimising their performance on the basis of real-time data. Digital solutions on a level playing field with Industry 4.0 – Walter Nexxt.

Xtra-tec® XT

Xtra-tec® XT is the latest generation of Walter milling tools. As the "Xtended" Xtra-tec® technology, it offers a completely new perspective on productivity and process reliability. It can cover nearly all milling operations in every common material group: More reliable, productive, cost-efficient than ever before – all while compensating for the CO₂ emissions through Walter Green.

XD Technology

Walter Titex solid carbide drilling and reaming tools stand for precision, high performance and cost-efficiency when drilling in practically any material. Walter Titex XD Technology offers the greatest precision and cost-efficiency in deep-hole drilling operations up to $70 \times D_c$ without pecking.

Walter Xpress

Walter Xpress is the rapid ordering and delivery service offered by Walter Multiply for high-quality special tools. It is available for around 10,000 tool varieties, with a maximum delivery time of two to four weeks from the order date. The ordering process is clearly structured and guarantees absolute planning security. Quotations for all enquiries are calculated and provided within 24 hours.

Walter Green

Walter Green: Sustainability and responsible use of resources are central components of our company principles. We use our "Walter Green" seal to show how we implement these principles, such as by offsetting our CO₂ emissions with environmental conservation projects.



Walter Capto™ is a modular tool adaptor system. It is suitable for all turning, milling, drilling and threading processes. Its ISO-standardised polygon taper absorbs torsional moments and bending moments extremely well and ensures optimal repeat accuracy.



Walter ConeFit is an extremely flexible solid carbide milling system with a wide range of high-performance exchangeable heads and shaft variants. Its conical thread can self-centre, thereby guaranteeing maximum stability and concentricity.



Walter ScrewFit users benefit from maximum flexibility. Its modular interface is suitable for a wide variety of boring bars and adaptors and a wide range of tool diameters and lengths for milling and drilling.



The precision-ground QuadFit interface with taper and support face characterises the precision of the vibration-damped boring bars for turning and thread turning with Walter Accure-tec technology. The exchangeable head system, which can be rotated by 180°, makes it possible to rapidly replace tools with high indexing accuracy.



The Walter precision cooling system provides cooling at the centre of chip formation. Its dual coolant jets are directed precisely onto the flank and rake faces of the insert. This system provides significantly increased tool life, improved chip breaking and greater efficiency for turning and grooving applications.



"Flash" refers to specialised solid carbide milling cutters for high-feed milling. Their end-face geometry reduces the chip thickness "h" and therefore enables an extremely high feed per tooth. Forces that occur are diverted axially towards the centre of the tool, which helps to stabilise the machining process.



On Walter turning toolholders with "SmartLock", the clamping screw can be operated from the side of the tool. This makes it possible to change the inserts in the machine quickly and easily. Tool change times are reduced as a result. Ideal for use on CNC lathe and multi-spindle machines.



ISO turning – A1

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



Indexable inserts

Insert shape	Description	Page
  C	Negative basic shape	12
	Positive basic shape 7°	16
	Positive basic shape 11°	16
  D	Negative basic shape	13
	Positive basic shape 7°	17
  T	Negative basic shape	14
	Positive basic shape 7°	17
 V	Positive basic shape 5°/7°	18
  W	Negative basic shape	15

System inserts

Insert shape	Description	Page
 WL	WL copy turning inserts, three-edge	19

Cutting tool materials: Carbide

		Range of applications					
Application	Coating	01	10	20	30	40	
		05	15	25	35	45	
ISO P	CVD	WPP01					
	CVD	WPP05S					
	PVD*	WEP10C					
	CVD	WPP10S					
	CVD		WPP20S				
	CVD			WMP20S			
	CVD				WPP30S		
	CVD					WKP30S	
ISO M	PVD	WSM01					
	PVD	WSM10S					
	CVD		WMP20S				
	PVD		WSM20S				
	PVD		WSM21				
	PVD			WSM30S			
ISO K	CVD	WKK10S					
	CVD		WKK20S				
	CVD			WKP30S			
ISO N	PVD	WNN10					
	—	WK1					
ISO S	PVD	WSM01					
	PVD	WSM10S					
	—	WS10					
	PVD		WSM20S				
	PVD		WSM21				
	PVD			WSM30S			
		Wear resistance Toughness					

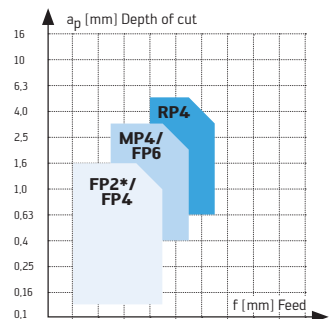
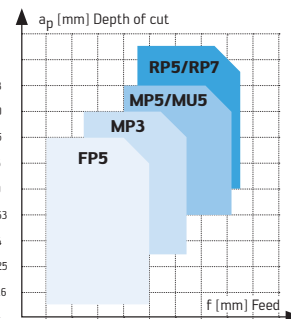
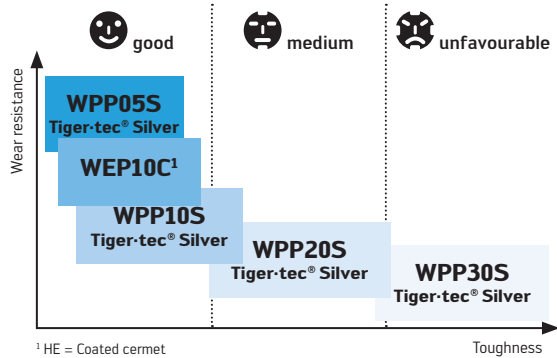
* Cermet

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

 Negative basic shape

 Positive basic shape

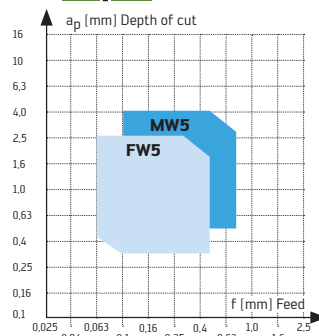
Machining steel ISO P



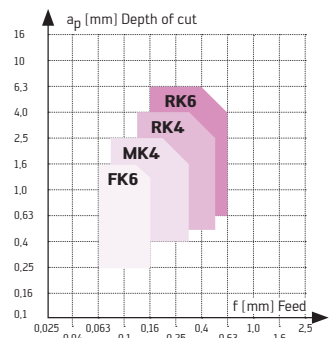
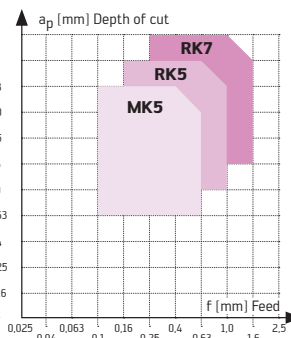
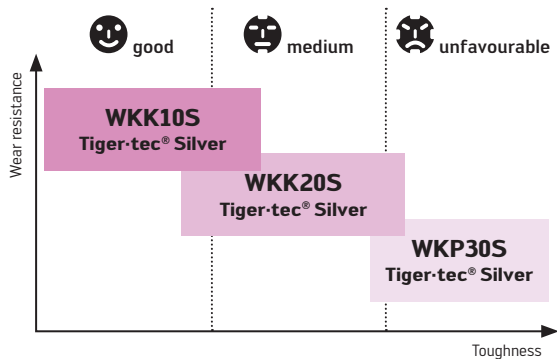
MP5: For universal machining
 MU5: Easy-cutting – for ISO P and ISO M
 RP5: For universal machining
 RP7: For interrupted cuts, cast skin/forged skin

MP4: For universal machining, copy turning
 FP6: For semi-finishing operations
 * Fully ground circumference

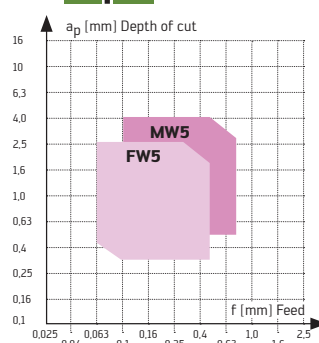
Wiper



Cast iron machining ISO K



Wiper



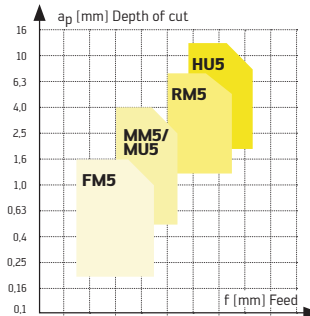
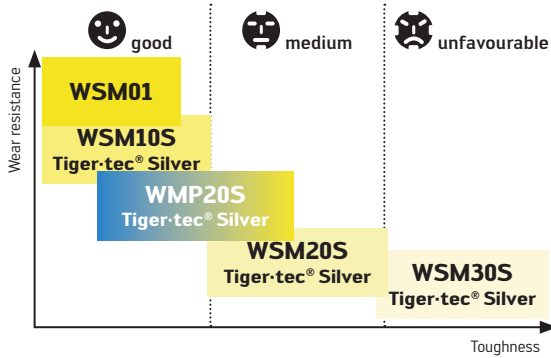


Negative basic shape

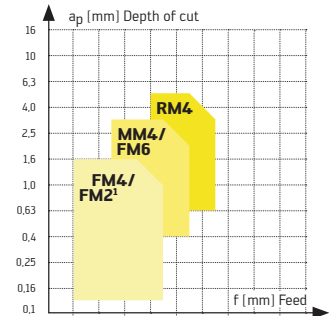


Positive basic shape

Stainless steel ISO M

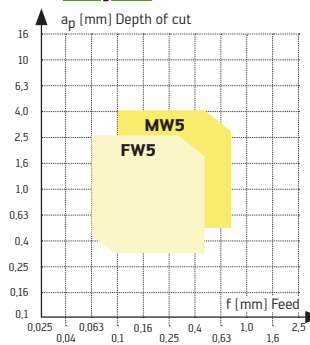


MM5: For universal machining
MU5: Easy-cutting – for ISO P and ISO M

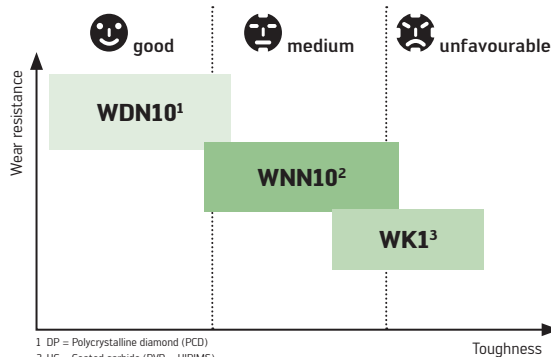


MM4: For universal machining, copy turning
FM6: For semi-finishing operations
¹ Fully ground circumference

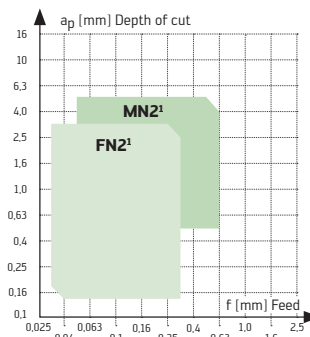
Wiper



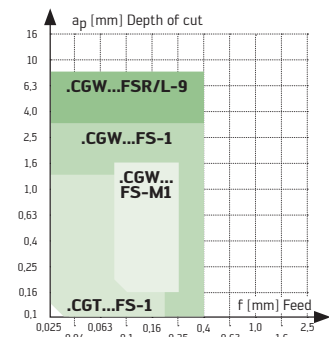
NF metals ISO N



¹ DP = Polycrystalline diamond (PCD)
² HC = Coated carbide (PVD – HIPIMS)
³ HW = Uncoated carbide

Positive basic shape
CarbidePositive basic shape
PCD

¹ Fully ground circumference



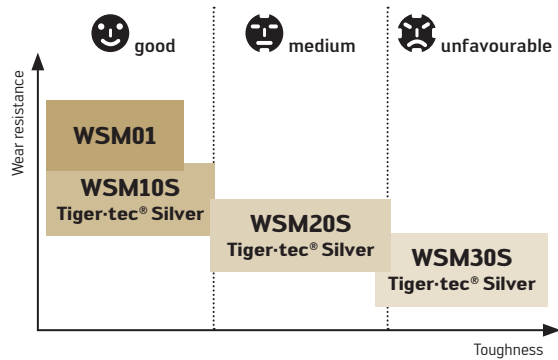


Negative basic shape

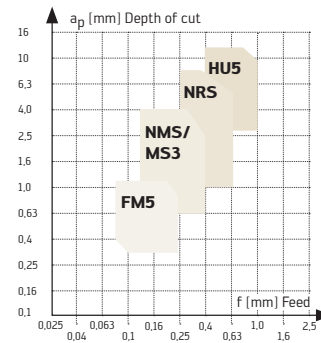


Positive basic shape

ISO S high-temperature alloys and titanium alloys

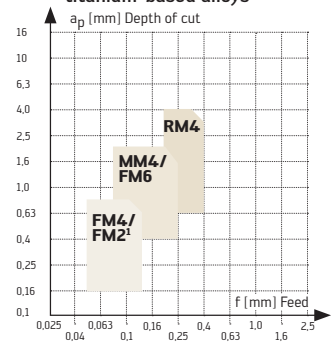


Ni, Co and Fe-based alloys



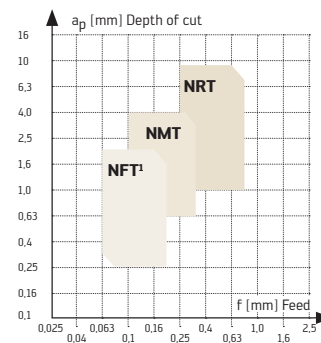
NMS: For universal machining
MS3: For low cutting pressure

Ni, Co, Fe and titanium-based alloys



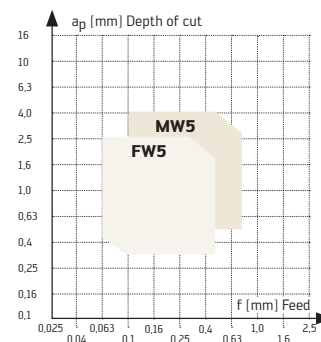
MM4: For universal machining, copy turning
FM6: For semi-finishing operations
¹ Fully ground circumference

Titanium-based alloys



¹ Fully ground circumference

Wiper



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

Example 1:

C	N	M	G	12	04	08M	–	M	P	5
1	2	3	4	5	6	7		12	13	14

1	
Insert shape	
A	
B	
C	
D	
E	
H	
K	
L	
M	
O	
P	
R	
S	
T	
V	
W	

2	
Clearance angle	
A	
B	
C	
D	
E	
F	
G	
N	
P	

3

Tolerances

Permissible deviation in mm for

The image contains four diagrams of cutting inserts, each with its type labeled inside a yellow shape:

- T (Triangular):** A yellow triangle with width d and thickness m .
- CS (Square):** A yellow square with width d and thickness m .
- DV (Diamond):** A yellow diamond with width d and thickness m .
- S (Square):** A yellow square with width d and thickness s .

	d	m	s
A	$\pm 0,025$	$\pm 0,005$	$\pm 0,025$
C	$\pm 0,025$	$\pm 0,013$	$\pm 0,025$
E	$\pm 0,025$	$\pm 0,025$	$\pm 0,025$
F	$\pm 0,013$	$\pm 0,005$	$\pm 0,025$
G	$\pm 0,025$	$\pm 0,025$	$\pm 0,130$
H	$\pm 0,013$	$\pm 0,013$	$\pm 0,025$
J ¹	$\pm 0,05-0,15^2$	$\pm 0,005$	$\pm 0,025$
K ¹	$\pm 0,05-0,15^2$	$\pm 0,013$	$\pm 0,025$
L ¹	$\pm 0,05-0,15^2$	$\pm 0,025$	$\pm 0,025$
M	$\pm 0,05-0,15^2$	$\pm 0,08-0,20^2$	$\pm 0,130$
N	$\pm 0,05-0,15^2$	$\pm 0,08-0,20^2$	$\pm 0,025$
U	$\pm 0,08-0,25^2$	$\pm 0,13-0,38^2$	$\pm 0,130$

¹ Inserts with ground planar cutting edges

² Depending on the insert size (see ISO standard 1832)

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

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

Example 2:

T	N	M	A	16	04	08	T	020	20
1	2	3	4	5	6	7	8	10	11

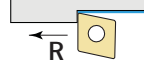
4			
Machining and fastening features			
A		H	 $\beta = 70-90^\circ$
B	 $\beta = 70-90^\circ$	J	 $\beta = 70-90^\circ$
C	 $\beta = 70-90^\circ$	M	
F		N	
G		Q	 $\beta = 40-60^\circ$
		R	
		T	 $\beta = 40-60^\circ$
		U	 $\beta = 40-60^\circ$
		W	 $\beta = 40-60^\circ$

X Drawing or precise description of the indexable insert is required

7	
Corner radius r [mm]	
	005 $r = 0,05$ 005M $r = 0,03$
	01 $r = 0,1$ 01M $r = 0,07$
	02 $r = 0,2$ 02M $r = 0,17$
	04 $r = 0,4$ 04M $r = 0,37$
	08 $r = 0,8$ 08M $r = 0,77$
	12 $r = 1,2$
	16 $r = 1,6$
	24 $r = 2,4$
M0 Metric version (diameter in [mm])	
00 Inch version (diameter with inch units in [mm])	

8	
Edge formation	
F	
E	
T	
S	

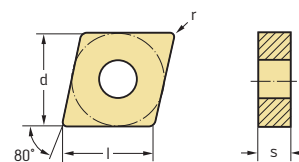
10	
Chamfer width	
	010 = 0,10 mm 070 = 0,70 mm
	020 = 0,20 mm 150 = 1,50 mm
	025 = 0,25 mm 200 = 2,00 mm

9	
Cutting direction	
	R
	L
	N

11	
Chamfer angle	
	15 = 15°
	20 = 20°

Negative rhombic 80° CNMG

Tiger-tec® Silver



Indexable inserts

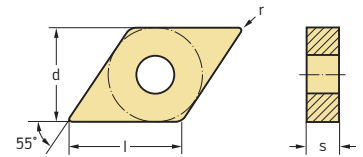
	Designation	r mm	f mm	a _p mm	P					M				K			S				HW	
						HC					HC					HC						
					WPP05S	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM01	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WKP30S	WSM01	WSM10S	WSM20S	WSM30S	WS10
 Wiper	CNMG120404-FW5	0,4	0,10–0,40	0,3–3,0		☹	☹					☹	☹						☹	☹		
	CNMG120408-FW5	0,8	0,15–0,60	0,4–3,0		☹	☹					☹	☹						☹	☹		
 Wiper	CNMG120408-MW5	0,8	0,20–0,65	0,8–4,0	☹	☹	☹		☹	☹					☹	☹						
	CNMG120412-MW5	1,2	0,25–0,70	1,5–4,0	☹	☹	☹		☹	☹					☹	☹						
 MS3	CNMG120404-MS3	0,4	0,12–0,25	0,6–3,0							☹	☹	☹	☹				☹	☹	☹	☹	☹
	CNMG120408-MS3	0,8	0,15–0,30	0,8–3,0		☹	☹				☹	☹	☹	☹				☹	☹	☹	☹	
	CNMG120412-MS3	1,2	0,15–0,40	1,0–3,5			☹				☹	☹	☹	☹				☹	☹	☹	☹	
	CNMG190612-MS3	1,2	0,18–0,50	1,2–5,0							☹	☹	☹	☹				☹		☹		
 MU5	CNMG120404-MU5	0,4	0,15–0,30	0,5–4,0		☹	☹		☹	☹			☹							☹		
	CNMG120408-MU5	0,8	0,15–0,40	0,6–5,0	☹	☹	☹		☹	☹			☹							☹		
	CNMG120412-MU5	1,2	0,20–0,50	1,0–5,0	☹	☹	☹		☹	☹			☹							☹		
	CNMG120416-MU5	1,6	0,25–0,55	1,2–5,0	☹	☹	☹	☹														
	CNMG160612-MU5	1,2	0,30–0,55	1,0–7,0	☹	☹	☹	☹	☹	☹			☹								☹	

See the ISO 1832 designation key for dimensions

 HC = Coated carbide
 HW = Uncoated carbide

Negative rhombic 55° DNMG

Tiger-tec® Silver

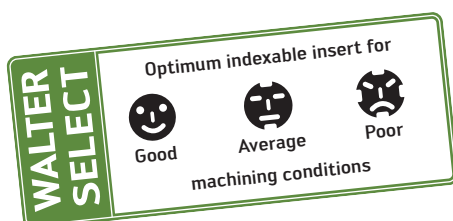


Indexable inserts

	Designation	r mm	f mm	a _p mm	P HC				M HC				K HC			S HC			
					WPP05S	WPP10S	WPP20S	WPP30S	WMP20S	WSM01	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WKP30S	WSM01	WSM10S	WSM20S
 Wiper	DNMG110404-FW5	0,4	0,10–0,35	0,3–2,0		☺	☺					☺	☺					☺	☺
	DNMG110408-FW5	0,8	0,15–0,50	0,4–2,0		☺	☺					☺	☺					☺	☺
	DNMG150404-FW5	0,4	0,10–0,40	0,3–3,0		☺							☺						☺
	DNMG150408-FW5	0,8	0,15–0,50	0,4–3,0		☺							☺						☺
	DNMG150604-FW5	0,4	0,10–0,40	0,3–3,0		☺	☺						☺	☺				☺	☺
	DNMG150608-FW5	0,8	0,15–0,50	0,4–3,0		☺	☺						☺	☺				☺	☺
 Wiper	DNMG110408-MW5	0,8	0,15–0,50	0,8–3,0		☺	☺							☺	☺				
	DNMG110412-MW5	1,2	0,20–0,60	1,5–3,0		☺	☺								☺	☺			
	DNMG150408-MW5	0,8	0,15–0,55	0,8–4,0		☺									☺				
	DNMG150412-MW5	1,2	0,20–0,65	1,5–4,0		☺									☺				
	DNMG150608-MW5	0,8	0,15–0,55	1,5–4,0	☺	☺	☺								☺	☺			
	DNMG150612-MW5	1,2	0,20–0,65	1,5–4,0	☺	☺	☺								☺	☺			
 Wiper	DNMG110408-MS3	0,8	0,12–0,30	0,8–2,5			☺				☺	☺	☺				☺	☺	☺
	DNMG150404-MS3	0,4	0,12–0,25	0,6–2,5							☺	☺	☺				☺	☺	☺
	DNMG150408-MS3	0,8	0,15–0,30	0,8–2,5		☺					☺	☺	☺	☺			☺	☺	☺
	DNMG150604-MS3	0,4	0,12–0,25	0,6–2,5							☺	☺	☺				☺	☺	☺
	DNMG150608-MS3	0,8	0,15–0,30	0,8–2,5			☺				☺	☺	☺	☺			☺	☺	☺
 Wiper	DNMG110408-MU5	0,8	0,18–0,35	0,6–4,0		☺	☺		☺	☺		☺	☺						☺
	DNMG150408-MU5	0,8	0,18–0,35	0,6–5,0		☺	☺		☺	☺		☺	☺						☺
	DNMG150608-MU5	0,8	0,18–0,35	0,6–5,0	☺	☺	☺		☺	☺		☺	☺						☺
	DNMG150612-MU5	1,2	0,20–0,45	1,0–5,0	☺	☺	☺		☺	☺		☺	☺						☺
	DNMG150616-MU5	1,6	0,25–0,50	1,2–5,0		☺	☺		☺	☺		☺	☺						☺

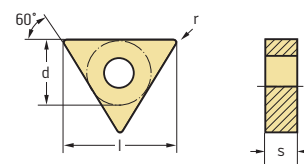
See the ISO 1832 designation key for dimensions

HC = Coated carbide



Negative triangular 60° TNMG

Tiger-tec® Silver



Indexable inserts

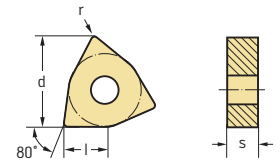
	Designation	r mm	f mm	a _p mm	P					M			K			S		
					HC					HC			HC			HC		
					WPP05S	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WKP30S	WSM10S	WSM20S
 Wiper	TNMG160404-FW5	0,4	0,10–0,40	0,3–3,0	☹	☹	☹				☹	☹				☹	☹	
	TNMG160408-FW5	0,8	0,15–0,50	0,4–3,0	☹	☹					☹	☹				☹	☹	
 Wiper	TNMG160408-MW5	0,8	0,15–0,55	0,8–4,0	☹	☹	☹						☹	☹				
	TNMG160412-MW5	1,2	0,20–0,65	1,5–4,0	☹	☹							☹	☹				
	TNMG160404-MU5	0,4	0,15–0,30	0,5–4,0	☹	☹	☹		☹	☹							☹	
	TNMG160408-MU5	0,8	0,18–0,35	0,6–4,0	☹	☹	☹		☹	☹							☹	
	TNMG160412-MU5	1,2	0,20–0,45	1,0–4,0	☹	☹			☹	☹							☹	

See the ISO 1832 designation key for dimensions

HC = Coated carbide

Negative Trigon 80° WNMG

Tiger-tec® Silver

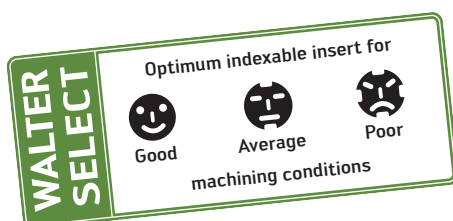


Indexable inserts

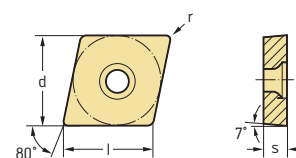
		Designation	r mm	f mm	a _p mm	P				M				K			S					
						HC				HC				HC			HC					
						WPP05S	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM01	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WKP30S	WSM01	WSM10S	WSM20S	WSM30S
 Wiper	WNMG060404-FW5	0,4	0,10–0,35	0,3–2,0		☺	☺						☺	☺						☺	☺	
	WNMG060408-FW5	0,8	0,15–0,50	0,4–2,0		☺	☺						☺	☺						☺	☺	
	WNMG080404-FW5	0,4	0,10–0,40	0,3–3,0		☺	☺						☺	☺						☺	☺	
	WNMG080408-FW5	0,8	0,15–0,60	0,4–3,0		☺	☺						☺	☺						☺	☺	
	WNMG080412-FW5	1,2	0,25–0,65	0,6–3,0		☺	☺															
 Wiper	WNMG060408-MW5	0,8	0,15–0,50	0,8–3,0		☺	☺									☺						
	WNMG060412-MW5	1,2	0,20–0,60	1,5–3,0		☺	☺									☺						
	WNMG080408-MW5	0,8	0,20–0,65	0,8–4,0	☺	☺	☺			☺	☺					☺	☺					
	WNMG080412-MW5	1,2	0,25–0,70	1,5–4,0	☺	☺	☺			☺	☺					☺	☺					
 	WNMG080404-MS3	0,4	0,12–0,25	0,6–3,0								☺	☺		☺					☺	☺	☺
	WNMG080408-MS3	0,8	0,15–0,30	0,8–3,0								☺	☺		☺					☺	☺	☺
 	WNMG060408-MU5	0,8	0,15–0,35	0,6–3,0		☺	☺	☺		☺	☺			☺							☺	
	WNMG080404-MU5	0,4	0,15–0,30	0,5–4,0		☺	☺	☺		☺	☺			☺							☺	
	WNMG080408-MU5	0,8	0,15–0,40	0,6–5,0		☺	☺	☺		☺	☺			☺							☺	
	WNMG080412-MU5	1,2	0,20–0,50	1,0–5,0	☺	☺	☺			☺	☺			☺							☺	

See the ISO 1832 designation key for dimensions

HC = Coated carbide



Positive rhombic 80° CCGT



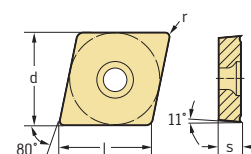
Indexable inserts

	Designation	l mm	r mm	f mm	a _p mm	P					M			K		S	
						HE	HC				HC	HC	HC	HC	HC	HC	
							WEP10C	WPP10S	WPP20S	WPP30S							WMP20S
	CCGT060201M-FP2	6,45	0,07	0,02–0,06	0,1–1,5												
	CCGT060202M-FP2	6,45	0,17	0,05–0,12	0,2–2,0												
	CCGT060204M-FP2	6,45	0,37	0,08–0,25	0,2–2,5												
	CCGT09T301M-FP2	9,67	0,07	0,02–0,06	0,1–1,5												
	CCGT09T302M-FP2	9,67	0,17	0,05–0,12	0,2–2,0												
	CCGT09T304M-FP2	9,67	0,37	0,08–0,25	0,2–2,5												
	CCGT09T308M-FP2	9,67	0,77	0,10–0,30	0,3–3,0												

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide

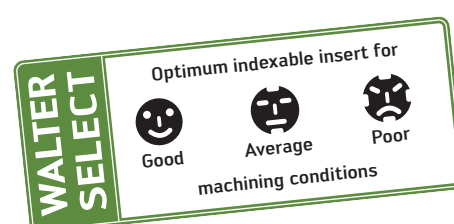
Positive rhombic 80° CPGT



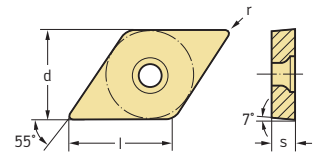
Indexable inserts

	Designation	l mm	r mm	f mm	a _p mm	P					M				K		S	
						HE	HC				HC				HC	HC	HC	HC
							WPP10S	WPP20S	WPP30S	WMP20S	WSM10S	WSM20S	WSM30S					
														WEP10C				
	CPGT050202M-FP2	5,64	0,17	0,05–0,12	0,2–2,0													
	CPGT050204M-FP2	5,64	0,37	0,08–0,20	0,2–2,0													

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide

Positive rhombic 55° DCGT



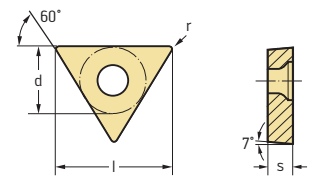
Indexable inserts

	Designation	l mm	r mm	f mm	a _p mm	P					M				K		S				
						HE	HC				HC				HC		HC		HC		
							WEP10C	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WSM10S	WSM20S	WSM30S	
	DCGT070202M-FP2	7,75	0,17	0,05–0,12	0,2–2,0	☞															
	DCGT070204M-FP2	7,75	0,37	0,08–0,25	0,2–2,5	☞															
	DCGT11T3005M-FP2	11,63	0,03	0,01–0,04	0,1–1,0	☞															
	DCGT11T301M-FP2	11,63	0,07	0,02–0,06	0,1–1,5	☞															
	DCGT11T302M-FP2	11,63	0,17	0,05–0,12	0,2–2,0	☞															
	DCGT11T304M-FP2	11,63	0,37	0,08–0,25	0,2–2,5	☞															
	DCGT11T308M-FP2	11,63	0,77	0,10–0,30	0,3–3,0	☞															

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide

Positive triangular 60° TCGT



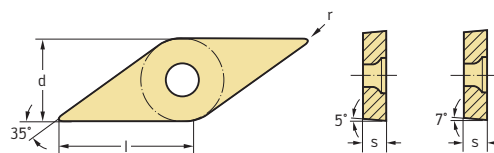
Indexable inserts

	Designation	l mm	r mm	f mm	a _p mm	P					M				K		S		
						HE	HC				HC	HC	HC	HC	HC	HC	HC		
							WEP10C	WPP10S	WPP20S	WPP30S								WMP20S	WMP20S
	TCGT06T104M-FP2	6,87	0,37	0,08–0,25	0,2–2,0														
	TCGT090204M-FP2	9,62	0,37	0,08–0,25	0,2–2,5														
	TCGT110202M-FP2	11,00	0,17	0,05–0,12	0,2–2,0														
	TCGT110204M-FP2	11,00	0,37	0,08–0,25	0,2–2,5														

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide

Positive rhombic 35° VCGT



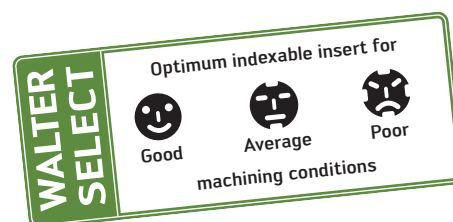
Indexable inserts

	Designation	l mm	r mm	f mm	a _p mm	P					M				K		S	
						HE	HC				HC				HC		HC	
						WEP10C	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WSM10S	WSM20S
	VCGT1103005M-FP2	11,07	0,03	0,01–0,04	0,1–1,0													
	VCGT110301M-FP2	11,07	0,07	0,02–0,06	0,1–1,5													
	VCGT110302M-FP2	11,07	0,17	0,05–0,12	0,2–2,0													
	VCGT110304M-FP2	11,07	0,37	0,08–0,25	0,2–2,5													
	VCGT160402M-FP2	16,61	0,17	0,05–0,12	0,2–2,0													
	VCGT160404M-FP2	16,61	0,37	0,08–0,25	0,2–2,5													
	VCGT160408M-FP2	16,61	0,77	0,10–0,30	0,3–3,0													

See the ISO 1832 designation key for dimensions

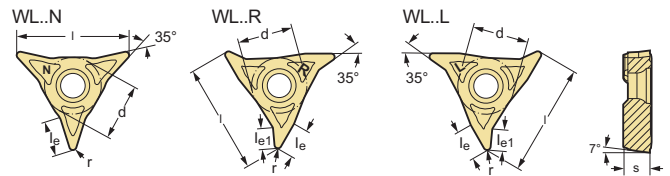
HE = Coated cermet

HC = Coated carbide



Indexable inserts for copy turning system WL

Tiger-tec® Silver



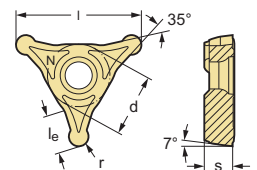
Indexable inserts

	Designation	r mm	l mm	l _e mm	l _{e1} mm	f mm	a _p mm	P			M			K		S	
								HC			HC			HC		HC	
								WPP10S	WPP20S	WMP20S	WMP20S	WSM20S	WSM30S	WKK10S	WKK20S	WSM20S	WSM30S
	WL25-VC0704N-MP4	0,4	25	6,3		0,08–0,25	0,4–2,5	☹	☹								
	WL25-VC0708N-MP4	0,8	25	7,1		0,12–0,32	0,5–2,5	☹	☹								
	WL25-VC0704R-MP4	0,4	25	6,2	3,9	0,08–0,25	0,4–2,5	☹	☹								
	WL25-VC0708R-MP4	0,8	25	6,6	4,6	0,12–0,32	0,5–2,5	☹	☹								
	WL25-VC0704L-MP4	0,4	25	6,2	3,9	0,08–0,25	0,4–2,5	☹	☹								
	WL25-VC0708L-MP4	0,8	25	6,6	4,6	0,12–0,32	0,5–2,5	☹	☹								
	WL25-VC0704N-MM4	0,4	25	6,3		0,08–0,25	0,4–2,5			☹	☹	☹				☹	
	WL25-VC0708N-MM4	0,8	25	7,1		0,12–0,32	0,5–2,5			☹	☹	☹				☹	
	WL25-VC0704R-MM4	0,4	25	6,2	3,9	0,08–0,25	0,4–2,5			☹	☹	☹				☹	
	WL25-VC0708R-MM4	0,8	25	6,6	4,6	0,12–0,32	0,5–2,5			☹	☹	☹				☹	
	WL25-VC0704L-MM4	0,4	25	6,2	3,9	0,08–0,25	0,4–2,5			☹	☹	☹				☹	
	WL25-VC0708L-MM4	0,8	25	6,6	4,6	0,12–0,32	0,5–2,5			☹	☹	☹				☹	

HC = Coated carbide

Indexable inserts for copy turning system WL

Tiger-tec® Silver

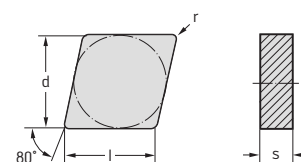


Indexable inserts

	Designation	r mm	l mm	l _e mm	f mm	a _p mm	P			M			K		S	
							HC			HC			HC		HC	
							WPP10S	WPP20S	WMP20S	WMP20S	WSM20S	WSM30S	WKK10S	WKK20S	WSM20S	WSM30S
	WL25-RC0420N-MU6	2	25	7,2	0,12–0,40	0,5–2,0										

HC = Coated carbide

CBN – Negative rhombic 80° CNGN



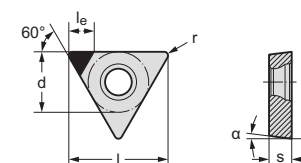
Indexable inserts

Designation	Number of cutting edges	r mm	f mm	a _p mm	K		N	S	H	O		
					CN	BH						
					WCK10	WBK20	DP	BH	BL	DP		
 CNGN120408TM-S	4	0,8	0,05–0,50	0,1–5,0								
CNGN120412TM-S	4	1,2	0,05–0,50	0,1–5,0								
CNGN120416TM-S	4	1,6	0,05–0,50	0,1–5,0								

See the ISO 1832 designation key for dimensions

CN = Silicon nitride Si₃N₄
 BH = CBN with high CBN content
 DP = Polycrystalline diamond
 BL = CBN with low CBN content

CBN – Positive triangular 60° TCGW



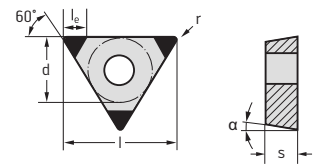
Indexable inserts

Designation	Number of cutting edges	l _e mm	r mm	α	f mm	a _p mm	K		N	S	H	O		
							CN	BH						
							WCK10	WBK20	DP	BH	BL	DP		
 TCGW06T102TS-1	1	2,4	0,2	7°	0,05–0,15	0,1–0,3								
TCGW06T102TS-1	1	2,4	0,2	7°	0,02–0,12	0,1–0,3								
TCGW06T104TS-1	1	2,2	0,4	7°	0,05–0,15	0,1–0,3								
TCGW06T104TS-1	1	2,2	0,4	7°	0,02–0,12	0,1–0,3								

See the ISO 1832 designation key for dimensions

CN = Silicon nitride Si₃N₄
 BH = CBN with high CBN content
 DP = Polycrystalline diamond
 BL = CBN with low CBN content

CBN – Positive triangular 60° TCGW



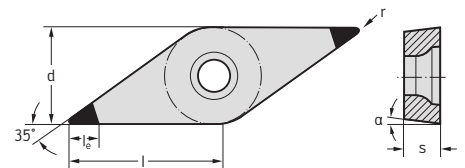
Indexable inserts

	Designation	Number of cutting edges	l _e mm	r mm	α	f mm	a _p mm	K		N		S		H		O			
								CN	BH	DP	BH	BL	BL	BL	BL	DP			
	TCGW110202TS-3	3	2,8	0,2	7°	0,05–0,15	0,1–0,3	WCK10	WBK20	WBK30	WDN10	WBS10	WBH10C	WBH10	WBH20	WDN10			
	TCGW110204TS-3	3	3,1	0,4	7°	0,05–0,20	0,1–0,3	WCK10	WBK20	WBK30	WDN10	WBS10	WBH10C	WBH10	WBH20	WDN10			
	TCGW110204TM-3	3	3,1	0,4	7°	0,05–0,20	0,1–0,3							☹	☹	☹			
	TCGW110208TM-3	3	2,8	0,8	7°	0,05–0,25	0,1–0,5							☹	☹	☹			

See the ISO 1832 designation key for dimensions

CN = Silicon nitride Si₃N₄
 BH = CBN with high CBN content
 DP = Polycrystalline diamond
 BL = CBN with low CBN content

CBN – Positive rhombic 35° VBGW

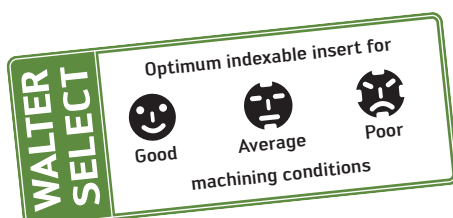


Indexable inserts

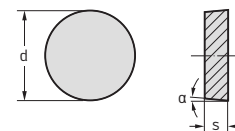
	Designation	Number of cutting edges	l _e mm	r mm	α	f mm	a _p mm	K		N		S		H		O			
								CN	BH	DP	BH	BL	BL	BL	BL	DP			
	VBGW160404TS-2	2	3	0,4	5°	0,05–0,20	0,1–0,5	WCK10	WBK20	WBK30	WDN10	WBS10	WBH10C	WBH10	WBH20	WDN10			
	VBGW160408TS-2	2	3	0,8	5°	0,05–0,25	0,1–0,5							☹	☹				
	VBGW110304TM-2	2	3	0,4	5°	0,05–0,20	0,1–0,5							☹	☹				
	VBGW160402TM-2	2	3,4	0,2	5°	0,05–0,25	0,1–0,5							☹	☹				
	VBGW160404TM-2	2	3	0,4	5°	0,05–0,20	0,1–0,5							☹	☹				
	VBGW160408TM-2	2	3	0,8	5°	0,05–0,25	0,1–0,5							☹	☹				

See the ISO 1832 designation key for dimensions

CN = Silicon nitride Si₃N₄
 BH = CBN with high CBN content
 DP = Polycrystalline diamond
 BL = CBN with low CBN content



Ceramic – Positive round RPGN

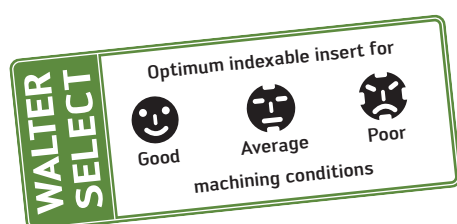


Indexable inserts

	Designation	d mm	α	f mm	a _p mm	K			N		S		H		O	
						CN		BH	DP	BH	CN	WBH10C	WBH10	WBH20	WDN10	DP
						WCK10	WBK20	WBK30								
	RPGN090300E	9,53	11°	0,10–0,20	0,1–2,4											
	RPGN120400E	12,7	11°	0,10–0,30	0,1–3,6											
	RPGN090300T01020	9,53	11°	0,10–0,25	0,2–2,4											
	RPGN120400T01020	12,7	11°	0,10–0,32	0,2–3,6											

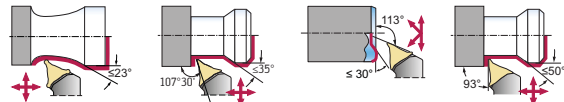
See the ISO 1832 designation key for dimensions

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



Walter Turn turning tools product range overview – External machining

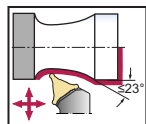
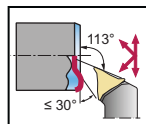
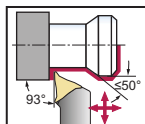
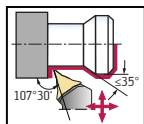
Square shank turning toolholders – WL copy turning system

Machining	
Type	 WL...
Designation	W1011...-P
Clamping system	Screw
Coolant supply	Precision cooling
Shank size h [mm]	20–25
Shank size h [inch]	0,750–1,000
Insert size l [mm]	25
Page	24
	

Shank tool – copy turning system

W1011...-P

Walter Turn

[illegible]

Measured with master insert: WL25-VC0708N

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s , see "Technical information – ISO turning"

For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"

The maximum recommended coolant pressure is 150 bar (2175 psi)

Ordering example, right-hand tool: W1011-2020R-WL25-P/ordering example, left-hand tool: W1011-2020L-WL25-P

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

Assembly parts

Type		WL25..
	Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1464 (Torx 20IP)

Indexable inserts

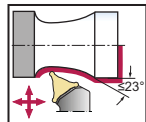
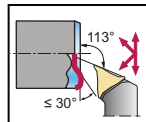
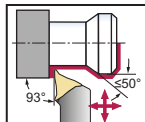
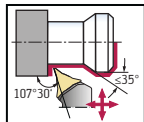
	Designation	r mm	l _{e1} mm	f mm	a _p mm	P			M			K		S	
						WPP10S	WPP20S	WMP20S	WMP20S	WSM20S	WSM30S	WKK10S	WKK20S	WSM20S	WSM30S
	WL25-VC0704N-MM4	0,4		0,08–0,25	0,4–2,5										
	WL25-VC0708N-MM4	0,8		0,12–0,32	0,5–2,5										
	WL25-VC0704N-MP4	0,4		0,08–0,25	0,4–2,5										
	WL25-VC0708N-MP4	0,8		0,12–0,32	0,5–2,5										
	WL25-VC0704R-MM4	0,4	3,9	0,08–0,25	0,4–2,5										
	WL25-VC0708R-MM4	0,8	4,6	0,12–0,32	0,5–2,5										
	WL25-VC0704R-MP4	0,4	3,9	0,08–0,25	0,4–2,5										
	WL25-VC0708R-MP4	0,8	4,6	0,12–0,32	0,5–2,5										
	WL25-VC0704L-MM4	0,4	3,9	0,08–0,25	0,4–2,5										
	WL25-VC0708L-MM4	0,8	4,6	0,12–0,32	0,5–2,5										
	WL25-VC0704L-MP4	0,4	3,9	0,08–0,25	0,4–2,5										
	WL25-VC0708L-MP4	0,8	4,6	0,12–0,32	0,5–2,5										
	WL25-RC0420N-MU6	2		0,12–0,40	0,5–2,0										

HC = Coated carbide

Shank tool – copy turning system

W1011...-P

Walter Turn

[illegible]

Measured with master insert: WL25-VC0708N

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s , see "Technical information – ISO turning"

For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"

The maximum recommended coolant pressure is 150 bar (2175 psi)

Ordering example, right-hand tool: W1011.12R-WL25-P/ordering example, left-hand tool: W1011.12L-WL25-P

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

Assembly parts

	Type	WL25..
	Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1464 (Torx 20IP)

Indexable inserts

	Designation	r mm	l _{e1} mm	f mm	a _p mm	P			M			K		S			
						WPP10S	WPP20S	WMP20S	WMP20S	WSM20S	WSM30S	WKK10S	WKK20S	WSM20S	WSM30S		
	WL25-VC0704N-MM4	0,4		0,08–0,25	0,4–2,5												
	WL25-VC0708N-MM4	0,8		0,12–0,32	0,5–2,5												
	WL25-VC0704N-MP4	0,4		0,08–0,25	0,4–2,5												
	WL25-VC0708N-MP4	0,8		0,12–0,32	0,5–2,5												
	WL25-VC0704R-MM4	0,4	3,9	0,08–0,25	0,4–2,5												
	WL25-VC0708R-MM4	0,8	4,6	0,12–0,32	0,5–2,5												
	WL25-VC0704R-MP4	0,4	3,9	0,08–0,25	0,4–2,5												
	WL25-VC0708R-MP4	0,8	4,6	0,12–0,32	0,5–2,5												
	WL25-VC0704L-MM4	0,4	3,9	0,08–0,25	0,4–2,5												
	WL25-VC0708L-MM4	0,8	4,6	0,12–0,32	0,5–2,5												
	WL25-VC0704L-MP4	0,4	3,9	0,08–0,25	0,4–2,5												
	WL25-VC0708L-MP4	0,8	4,6	0,12–0,32	0,5–2,5												
	WL25-RC0420N-MU6	2		0,12–0,40	0,5–2,0												

HC = Coated carbide

Walter Turn turning tools product range overview – Internal machining

Boring bar/adaptor

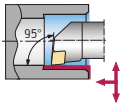
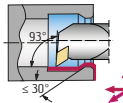
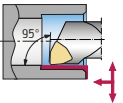
Designation	A2140-W
Coolant supply	Axial
Boring bar diameter d ₁ [mm]	16–40
Page	30
	

Accuretec vibration-damped boring bar/adaptor

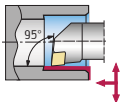
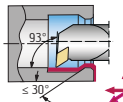
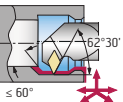
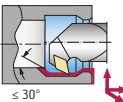
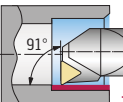
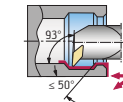
Designation	A3000	A3000-C	A3000-HSK-T
Tool type	QuadFit boring bars		
Machine-side	Parallel shank	Walter Capto™ in acc. with ISO 26623	HSK-T DIN 69893-7
Tool-side	Q25 / Q32 / Q40 / Q50	Q25 / Q32 / Q40 / Q50	Q25 / Q32 / Q40 / Q50
Boring bar diameter d ₂ [mm]	25–50	25–50	25–50
Boring bar length l ₄ [mm]	130–470	130–468	130–468
Page	31	33	34
			

Walter Turn turning tools product range overview – Internal machining

QuadFit exchangeable head – negative basic shape

Machining			
Type			
Designation	Q...-DCLN	Q...-DDUN	Q...-DWLN
Lead angle κ	95°	93°	95°
Clamping system	Clamp	Clamp	Clamp
Coolant supply	Internal	Internal	Internal
QuadFit size	Q32–Q50	Q32–Q50	Q32–Q50
Insert size l [mm]	12–16	11–15	6–8
Page	35	36	37
			

QuadFit exchangeable head – positive basic shape

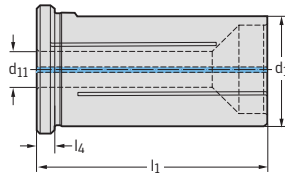
Machining						
Type						
Designation	Q...-SCLC	Q...-SDUC	Q...-SDXC	Q...-SDUC...-X	Q...-STFC	Q...-SVUB
Lead angle κ	95°	93°	62.5°	32°	91°	93°
Clamping system	Screw	Screw	Screw	Screw	Screw	Screw
Coolant supply	Internal	Internal	Internal	Internal	Internal	Internal
QuadFit size	Q25–Q50	Q25–Q50	Q25–Q50	Q25–Q50	Q25–Q50	Q25–Q50
Insert size l [mm]	9–12	11	11	11	11–16	11–16
Page	38	39	41	40	42	43
						

Boring bar/adaptor

A2140-W mm



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

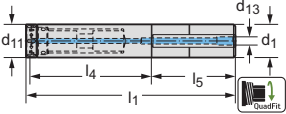
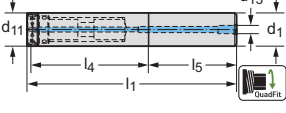
Tool	Designation	d ₁ mm	d ₁₁ mm	l ₁ mm	l ₄ mm	kg
Parallel shank with flat in acc. with ISO 9766 	★ A2140-W16-R06-048	16	6	48	5	0,1
	★ A2140-W16-R08-048	16	8	48	5	0,1
	★ A2140-W16-R10-048	16	10	48	5	0,1
	★ A2140-W16-R12-048	16	12	48	5	0,1
	★ A2140-W20-R06-055	20	6	55	5	0,1
	★ A2140-W20-R08-055	20	8	55	5	0,1
	★ A2140-W20-R10-055	20	10	55	5	0,1
	★ A2140-W20-R12-055	20	12	55	5	0,1
	★ A2140-W20-R16-055	20	16	55	5	0,1
	A2140-W25-R06-061	25	6	61	5	0,2
	A2140-W25-R08-061	25	8	61	5	0,2
	A2140-W25-R10-061	25	10	61	5	0,2
	A2140-W25-R12-061	25	12	61	5	0,2
	A2140-W25-R16-061	25	16	61	5	0,1
	A2140-W32-R06-065	32	6	65	5	0,3
	A2140-W32-R08-065	32	8	65	5	0,3
	A2140-W32-R10-065	32	10	65	5	0,3
	A2140-W32-R12-065	32	12	65	5	0,3
	A2140-W32-R16-065	32	16	65	5	0,3
	A2140-W32-R20-065	32	20	65	5	0,2
	A2140-W40-R06-075	40	6	75	5	0,6
	A2140-W40-R08-075	40	8	75	5	0,6
	A2140-W40-R10-075	40	10	75	5	0,6
	A2140-W40-R12-075	40	12	75	5	0,6
	A2140-W40-R16-075	40	16	75	5	0,6
	A2140-W40-R20-075	40	20	75	5	0,6
	A2140-W40-R25-075	40	25	75	5	0,5

Note: Groove for self-centring is present on all Walter Turn boring bars with fully rounded shank (-R) dia. 6–25 mm.
The maximum recommended coolant pressure is 80 bar (1160 psi)

Plain cylindrical adaptor – vibration-damped

A3000 mm
Accure-tec


- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁ mm	d ₁₁	l ₄ mm	l ₅ mm	l ₁ mm	d ₁₃	kg
 Parallel shank with clamping surface	★ A3000-25-Q25-130	25	Q25	130	100	235	G 1/4	0,9
	★ A3000-25-Q25-180	25	Q25	180	100	285	G 1/4	1,1
	A3000-32-Q32-160	32	Q32	160	128	293	G 1/4	1,8
	A3000-32-Q32-224	32	Q32	224	128	357	G 1/4	2,3
	A3000-40-Q40-208	40	Q40	208	160	374	G 1/4	3,8
	A3000-40-Q40-288	40	Q40	288	160	454	G 1/4	4,6
	A3000-50-Q50-268	50	Q50	268	200	475	G 1/4	7,5
	A3000-50-Q50-368	50	Q50	368	200	575	G 1/4	9,1
 Parallel shank without clamping surface	★ A3000-25-Q25-230-CS	25	Q25	230	75	310	M8X1	1,7
	★ A3000-32-Q32-288-CS	32	Q32	288	98	389	M8X1	2,7
	A3000-40-Q40-368	40	Q40	368	160	534	G 1/4	5,5
	A3000-50-Q50-468	50	Q50	468	200	675	G 1/4	11

QuadFit exchangeable heads – see the “Turning” section

A3000...-CS = Carbide-reinforced version

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

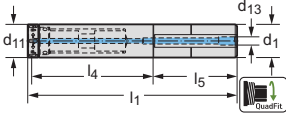
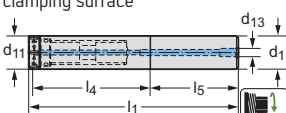
Assembly parts		d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench		SD9000-Q25	SD9000-Q32	SD9000-Q40	SD9000-Q50
	Tightening torque		25 Nm	25 Nm	35 Nm	55 Nm
	Coolant adaptor for CS variant		CN3001-M8-G1/4	CN3001-M8-G1/4		

Accessories		d ₁₁	Q32	Q40	Q50
	Torque wrench with hook		SD4000-Q32-25	SD4000-Q40-35	SD4000-Q50-55
	Tightening torque		25 Nm	35 Nm	55 Nm
	Hook for torque wrench		SD6000-Q32	SD6000-Q40	SD6000-Q50

Plain cylindrical adaptor – vibration-damped

A3000 inch
Accure-tec


- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁ inch	d ₁₁	l ₄ inch	l ₅ inch	l ₁ inch	d ₁₃	lbs
 Parallel shank with clamping surface	★ A3000.16-Q25-133	1,000	Q25	5,250	4,000	9,430	G 1/4	4,37
	★ A3000.16-Q25-184	1,000	Q25	7,250	4,000	11,430	G 1/4	5,36
	A3000.20-Q32-165	1,250	Q32	6,500	5,000	11,713	G 1/4	3,97
	A3000.20-Q32-229	1,250	Q32	9,000	5,000	14,213	G 1/4	5,07
	A3000.24-Q40-203	1,500	Q40	8,000	6,000	14,252	G 1/4	7,72
	A3000.24-Q40-279	1,500	Q40	11,000	6,000	17,252	G 1/4	9,48
	A3000.32-Q50-267	2,000	Q50	10,500	8,000	18,791	G 1/4	16,76
	A3000.32-Q50-368	2,000	Q50	14,496	8,000	22,791	G 1/4	20,28
 Parallel shank without clamping surface	★ A3000.16-Q25-235-CS	1,000	Q25	9,250	3,000	12,430	M8X1	8,75
	★ A3000.20-Q32-292-CS	1,250	Q32	11,500	3,750	15,463	M8X1	13,12
	A3000.24-Q40-356	1,500	Q40	14,000	6,000	20,252	G 1/4	11,46
	A3000.32-Q50-470	2,000	Q50	18,500	8,000	26,791	G 1/4	24,69

QuadFit exchangeable heads – see the “Turning” section

A3000...-CS = Carbide-reinforced version

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

Assembly parts

	d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench Tightening torque	SD9000-Q25 25 Nm	SD9000-Q32 25 Nm	SD9000-Q40 35 Nm	SD9000-Q50 55 Nm
	Coolant adaptor for CS variant	CN3001-M8-G1/4	CN3001-M8-G1/4		

Accessories

	d ₁₁	Q32	Q40	Q50
	Torque wrench with hook Tightening torque	SD4000-Q32-25 25 Nm	SD4000-Q40-35 35 Nm	SD4000-Q50-55 55 Nm
	Hook for torque wrench	SD6000-Q32	SD6000-Q40	SD6000-Q50

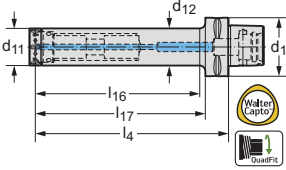
Walter Capto™ boring bar – vibration-damped

A3000-C mm

Accure-tec



- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁	d ₁₁	d ₁₂ mm	l ₄ mm	l ₁₆ mm	l ₁₇ mm	n _{max}	kg
	★ A3000-C4-Q25-130	C4	Q25	25	130	107	110	10000	0,8
	★ A3000-C4-Q25-180	C4	Q25	25	180	157	160	8000	1
	★ A3000-C4-Q32-160	C4	Q32	32	160	137	140	10000	1,2
	★ A3000-C4-Q32-224	C4	Q32	32	224	201	204	8000	1,7
	★ A3000-C5-Q25-130	C5	Q25	25	130	107	110	10000	0,9
	★ A3000-C5-Q25-180	C5	Q25	25	180	157	160	8000	1,1
	★ A3000-C5-Q25-230	C5	Q25	25	230	207	210	6000	1,3
	★ A3000-C5-Q32-160	C5	Q32	32	160	136	140	10000	1,4
	★ A3000-C5-Q32-224	C5	Q32	32	224	200	204	8000	1,8
	★ A3000-C5-Q32-288	C5	Q32	32	288	264	268	6000	2,2
	★ A3000-C5-Q40-208	C5	Q40	40	208	184	188	8000	2,5
	★ A3000-C5-Q40-288	C5	Q40	40	288	264	268	6000	3,3
	★ A3000-C5-Q40-368	C5	Q40	40	368	344	348	5000	4,3
	★ A3000-C6-Q25-130	C6	Q25	25	130	102	105	10000	1,3
	★ A3000-C6-Q25-180	C6	Q25	25	180	152	155	8000	1,5
	★ A3000-C6-Q25-230	C6	Q25	25	230	202	205	6000	1,7
	A3000-C6-Q32-160	C6	Q32	32	160	129	135	10000	1,8
	A3000-C6-Q32-224	C6	Q32	32	224	193	199	8000	2,1
	A3000-C6-Q32-288	C6	Q32	32	288	257	263	6000	2,6
	A3000-C6-Q40-208	C6	Q40	40	208	177	183	8000	2,9
	A3000-C6-Q40-288	C6	Q40	40	288	257	263	6000	3,7
	A3000-C6-Q40-368	C6	Q40	40	368	337	343	5000	4,5
	A3000-C6-Q50-268	C6	Q50	50	268	238	243	6000	5
	A3000-C6-Q50-368	C6	Q50	50	368	338	343	4000	6,6
	A3000-C6-Q50-468	C6	Q50	50	468	438	443	2500	8,5
	A3000-C8-Q32-224	C8	Q32	32	224	181	191	8000	3,2
	A3000-C8-Q32-288	C8	Q32	32	288	245	255	6000	3,6
	A3000-C8-Q40-288	C8	Q40	40	288	245	255	6000	4,7
	A3000-C8-Q40-368	C8	Q40	40	368	325	335	5000	5,6
	A3000-C8-Q50-268	C8	Q50	50	268	225	235	6000	5,9
	A3000-C8-Q50-368	C8	Q50	50	368	325	335	4000	7,5
	A3000-C8-Q50-468	C8	Q50	50	468	425	435	2500	9,4

QuadFit exchangeable heads – see the “Turning” section
Bodies and assembly parts are included in the scope of delivery.

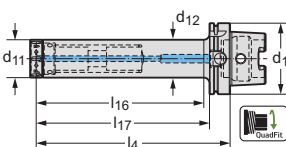
Assembly parts		d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench		SD9000-Q25	SD9000-Q32	SD9000-Q40	SD9000-Q50
	Tightening torque		25 Nm	25 Nm	35 Nm	55 Nm
Accessories		d ₁₁	Q32	Q40	Q50	
	Torque wrench with hook		SD4000-Q32-25	SD4000-Q40-35	SD4000-Q50-55	
	Tightening torque		25 Nm	35 Nm	55 Nm	
	Hook for torque wrench		SD6000-Q32	SD6000-Q40	SD6000-Q50	

 / ★ New addition to the product range

HSK-T boring bar – vibration-damped

A3000-HSK-T mm
Accure-tec


- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁ mm	d ₁₁	d ₁₂ mm	l ₄ mm	l ₁₆ mm	l ₁₇ mm	n _{max}	kg
 HSK-T DIN 69893-7	★ A3000-H63T-Q25-130	63	Q25	25	130	101	104	10000	1,1
	★ A3000-H63T-Q25-180	63	Q25	25	180	151	154	8000	1,3
	★ A3000-H63T-Q25-230	63	Q25	25	230	201	204	6000	1,5
	★ A3000-H63T-Q32-160	63	Q32	32	160	128	134	10000	1,6
	★ A3000-H63T-Q32-224	63	Q32	32	224	192	198	8000	2
	★ A3000-H63T-Q40-208	63	Q40	40	208	176	182	8000	2,7
	★ A3000-H63T-Q40-288	63	Q40	40	288	256	262	6000	3,5
	★ A3000-H63T-Q50-268	63	Q50	50	268	241	242	6000	4,8
	★ A3000-H63T-Q50-368	63	Q50	50	368	341	342	4000	6,4
	A3000-H100T-Q32-224	100	Q32	32	224	189	195	8000	3,4
	A3000-H100T-Q32-288	100	Q32	32	288	253	259	6000	3,8
	A3000-H100T-Q40-288	100	Q40	40	288	253	259	6000	4,9
	A3000-H100T-Q40-368	100	Q40	40	368	333	339	5000	5,8
	A3000-H100T-Q50-268	100	Q50	50	268	234	239	6000	6,2
	A3000-H100T-Q50-368	100	Q50	50	368	334	339	4000	7,8
	A3000-H100T-Q50-468	100	Q50	50	468	434	439	2500	9,7

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

Assembly parts		d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench Tightening torque		SD9000-Q25 25 Nm	SD9000-Q32 25 Nm	SD9000-Q40 35 Nm	SD9000-Q50 55 Nm

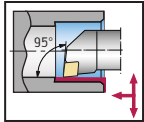
Accessories		d ₁₁	Q32	Q40	Q50
	Torque wrench with hook Tightening torque		SD4000-Q32-25 25 Nm	SD4000-Q40-35 35 Nm	SD4000-Q50-55 55 Nm
	Hook for torque wrench		SD6000-Q32	SD6000-Q40	SD6000-Q50

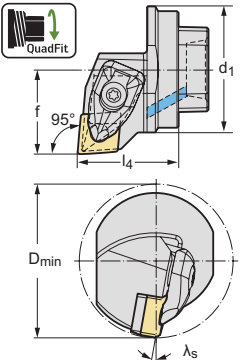
Exchangeable head – rigid clamping

Q...-DCLN mm

Walter Turn

- QuadFit
- For Accure-tec boring bars



Tool	Designation		d ₁	D _{min} mm	f mm	l ₄ mm	γ	λ _s	Type
	Q32-DCLNR/L-22032-12	12	Q32	40	22	32	-6°	-10°	CN .. 1204 ..
	Q40-DCLNR/L-27032-12	12	Q40	50	27	32	-6°	-10°	
	Q50-DCLNR/L-32032-12	12	Q50	63	32	32	-6°	-8°	
	Q50-DCLNR/L-32037-16	16	Q50	63	32	37	-5°	-14°	CN .. 1606 ..

Measured with master insert: CN .. 120408/CN .. 160612

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Ordering example, right-hand tool: Q32-DCLNR-22032-12/ordering example, left-hand tool: Q32-DCLNL-22032-12

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

Assembly parts			
	Type	CN .. 1204 ..	CN .. 1606 ..
	Shim	AP354-CN12	AP302-CN16
	Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm	FS1463 (Torx 20IP) 5,0 Nm
	Clamp	PK241	PK242
	Clamp screw Tightening torque	FS1473 (Torx 15IP) 3,9 Nm	FS1474 (Torx 20IP) 6,4 Nm
	Pressure spring	FS1470	FS1471
	Pin	RS117	RS117
	Torx key	FS1465 (Torx 15IP /SW 3,5)	FS1464 (Torx 20IP)

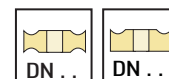
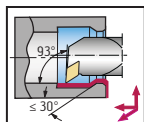
Accessories			
	Type	CN .. 1204 ..	CN .. 1606 ..
	Clamp set (standard assembly parts)	PK241 SET	PK242 SET
	Carbide clamp set Insert with bore	PK245 SET	PK246 SET
	Carbide clamp set Insert without bore	PK254 SET	

Exchangeable head – rigid clamping

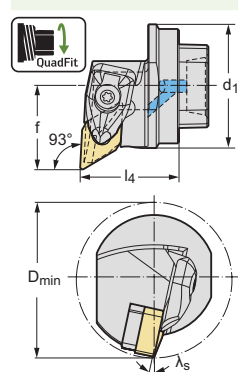
Q...-DDUN mm

Walter Turn

- QuadFit
- For Accuretec boring bars



Tool



Designation

Designation		d ₁	D _{min} mm	f mm	l ₄ mm	γ	λ _s	Type
★ Q32-DDUNR/L-22032-11	11	Q32	40	22	32	-6°	-10°	DN .. 1104 ..
★ Q40-DDUNR/L-27032-11	11	Q40	50	27	32	-5°	-10°	
Q32-DDUNR/L-22032-15	15	Q32	40	21,9	32	-6°	-14°	DN .. 1506 ..
Q40-DDUNR/L-27032-15	15	Q40	50	27	32	-6°	-12°	
Q50-DDUNR/L-32032-15	15	Q50	63	32	32	-6°	-12°	

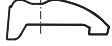
Measured with master insert: DN .. 110408/DN .. 150608

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Ordering example, right-hand tool: Q32-DDUNR-22032-11/ordering example, left-hand tool: Q32-DDUNL-22032-11

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

Assembly parts

	Type	DN .. 1104 ..	DN .. 1506 ..
	Shim	AP305-DN11	AP304-DN15
	Screw for shim	FS1462 (Torx 9IP)	FS1461 (Torx 15IP)
	Tightening torque	1,5 Nm	2,5 Nm
	Clamp	PK240	PK241
	Clamp screw	FS1472 (Torx 9IP)	FS1473 (Torx 15IP)
	Tightening torque	1,7 Nm	3,9 Nm
	Pressure spring	FS1469	FS1470
	Pin	RS116	RS117
	Torx key	FS1466 (Torx 9IP)	FS1465 (Torx 15IP / SW 3,5)

Accessories

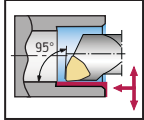
	Type	DN .. 1104 ..	DN .. 1506 ..
	Carbide clamp set		PK245 SET
	Insert with bore		
	Clamp set	PK240 SET	PK241 SET
	(standard assembly parts)		
	Carbide clamp set		PK254 SET
	Insert without bore		
	Shim for DN .. 1504 ..		AP304-DN1504

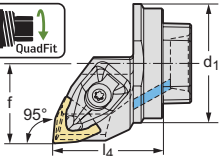
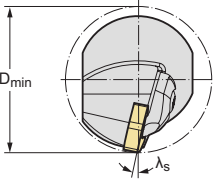
Exchangeable head – rigid clamping

Q...-DWLN

Walter Turn

- QuadFit
- For Accure-tec boring bars

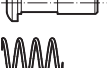


Tool									
	Designation		d ₁	D _{min} mm	f mm	l ₄ mm	γ	λ _s	Type
 	★ Q32-DWLN/L-22032-06	6	Q32	40	22	32	-5°	-12°	WN .. 0604 ..
	Q32-DWLN/L-22035-08	8	Q32	40	22	35	-5°	-14°	WN .. 0804 ..
	Q40-DWLN/L-27037-08	8	Q40	50	27	37	-5°	-12°	
	Q50-DWLN/L-32038-08	8	Q50	63	32	38	-5°	-12°	
									

Measured with master insert: WN .. 060408/WN .. 080408

Ordering example, right-hand tool: Q32-DWLN/L-22032-06/ordering example, left-hand tool: Q32-DWLN/L-22032-06

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

Assembly parts		WN .. 0604 ..	WN .. 0804 ..
	Shim	AP306-WN06	AP331-WN08
	Screw for shim	FS1462 (Torx 9IP)	FS1461 (Torx 15IP)
	Tightening torque	1,5 Nm	2,5 Nm
	Clamp	PK240	PK241
	Clamp screw	FS1472 (Torx 9IP)	FS1473 (Torx 15IP)
	Tightening torque	1,7 Nm	3,9 Nm
	Pressure spring	FS1469	FS1470
	Pin	RS116	RS117
	Torx key	FS1466 (Torx 9IP)	FS1465 (Torx 15IP / SW 3,5)

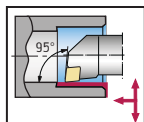
Accessories		WN .. 0604 ..	WN .. 0804 ..
	Clamp set (standard assembly parts)	PK240 SET	PK241 SET
	Carbide clamp set Insert with bore		PK245 SET
	Carbide clamp set Insert without bore		PK254 SET

Exchangeable head – screw clamping

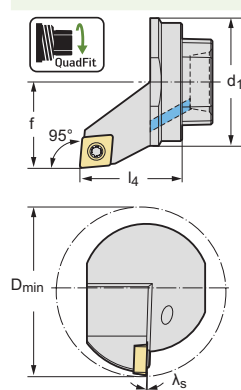
Q...-SCLC mm

Walter Turn

- QuadFit
- For Accuretec boring bars



Tool



Designation

		d_1	D_{min} mm	f mm	l_4 mm	γ	λ_s	Type
★ Q25-SCLCR/L-17020-09	9	Q25	32	17	20	0°	-3°	CC .. 09T3 ..
Q32-SCLCR/L-22032-09	9	Q32	40	22	32	0°	-2°	
Q40-SCLCR/L-27032-09	9	Q40	50	27	32	0°	-2°	
Q50-SCLCR/L-32032-09	9	Q50	63	32	32	0°	-2°	
Q32-SCLCR/L-22032-12	12	Q32	40	22	32	0°	-8°	CC .. 1204 ..
Q40-SCLCR/L-27032-12	12	Q40	50	27	32	0°	-8°	
Q50-SCLCR/L-32032-12	12	Q50	63	32	32	0°	-9°	

Measured with master insert: CC .. 09T308/CC .. 120408

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s , see "Technical information – ISO turning"

Ordering example, right-hand tool: Q25-SCLCR-17020-09/ordering example, left-hand tool: Q25-SCLCL-17020-09

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

Assembly parts



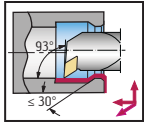
Type D_{min} [mm]	CC .. 09T3 .. 32	CC .. 09T3 .. 40–63	CC .. 1204 .. 40–63
Clamping screw for indexable insert Tightening torque	FS1461 (Torx 15IP) 2,5 Nm	FS2062 (Torx 15IP) 3,0 Nm	FS2281 (Torx 20IP) 5,0 Nm
Shim			AP364-CC1208
Screw for shim			FS2592 (SW 5)
Torx key	FS1465 (Torx 15IP /SW 3,5)	FS1465 (Torx 15IP /SW 3,5)	
Allen key			FS1464 (Torx 20IP)
Allen key for shim			ISO2936-5 (SW 5)

Exchangeable head – screw clamping

Q...-SDUC 

Walter Turn

- QuadFit
- For Accuretec boring bars

[illegible]

Measured with master insert: DC .. 11T308

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s , see “Technical information – ISO turning”

Ordering example, right-hand tool: Q25-SDUCR-17020-11/ordering example, left-hand tool: Q25-SDUCL-17020-11

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

Assembly parts

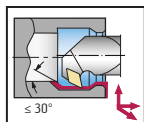
	Type	DC .. 11T3 ..
	Clamping screw for indexable insert Tightening torque	FS1461 (Torx 15IP) 2,5 Nm
	Torx key	FS1465 (Torx 15IP /SW 3,5)

Exchangeable head – screw clamping

Q...-SDUC...-X

Walter Turn

- QuadFit
- For Accuretec boring bars

[illegible]

Measured with master insert: DC .. 11T308

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s , see "Technical information – ISO turning"

Ordering example, right-hand tool: Q25-SDUCR-17012-11X/ordering example, left-hand tool: Q25-SDUCL-17012-11X

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

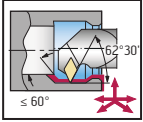
Assembly parts	
	Type DC .. 11T3 .. Clamping screw for indexable insert Tightening torque FS1461 (Torx 15IP) 2,5 Nm
	Torx key FS1465 (Torx 15IP /SW 3,5)

Exchangeable head – screw clamping

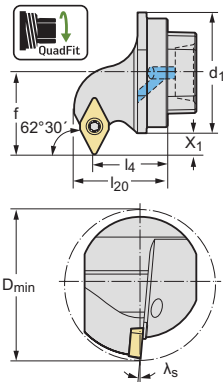
Q...-SDXC 

Walter Turn

- QuadFit
- For Accuretec boring bars



Tool

[illegible]

Measured with master insert: DC .. 11T308

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s , see “Technical information – ISO turning”

Ordering example, right-hand tool: Q25-SDXCR-17018-11/ordering example, left-hand tool: Q25-SDXCL-17018-11

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

Assembly parts

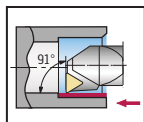
Assembly parts		Type	DC .. 11T3 ..
	Clamping screw for indexable insert Tightening torque		FS1461 (Torx 15IP) 2,5 Nm
	Torx key		FS1465 (Torx 15IP /SW 3,5)

Exchangeable head – screw clamping

Q...-STFC

Walter Turn

- QuadFit
- For Accuretec boring bars

[illegible]

Measured with master insert: TC .. 110200/TC .. 16T308

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s , see "Technical information – ISO turning"

Ordering example, right-hand tool: Q25-STFCR-17020-11/ordering example, left-hand tool: Q25-STFCL-17020-11

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

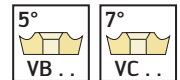
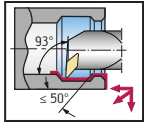
Assembly parts			
	Type	TC .. 1102 ..	TC .. 16T3 ..
	Clamping screw for indexable insert Tightening torque	FS2061 (Torx 7IP) 0,9 Nm	FS2063 (Torx 15IP) 3,0 Nm
	Shim for radius		AP317-TC1612 r ≤ 1,2 mm
	Screw for shim		FS2068 (SW 3,5)
	Torx key	FS1490 (Torx 7IP)	FS1465 (Torx 15IP /SW 3,5)

Exchangeable head – screw clamping

Q...-SVUB

Walter Turn

- QuadFit
- For Accuretec boring bars

[illegible]

Measured with master insert: VB .. 110304/VB .. 160408

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s , see "Technical information – ISO turning"

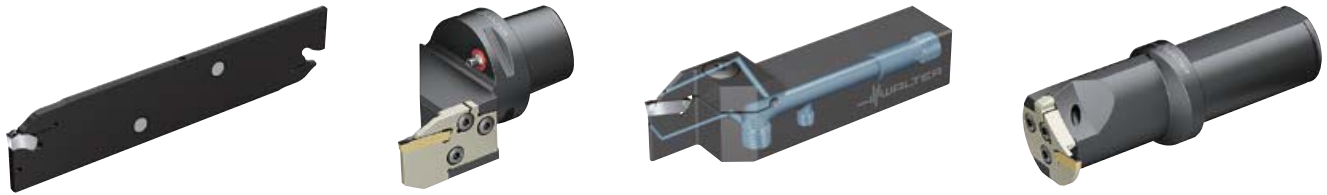
Ordering example, right-hand tool: Q25-SVUBR-17020-11/ordering example, left-hand tool: Q25-SVUBL-17020-11

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

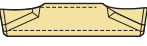
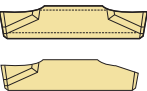
Assembly parts		VB .. 1103 .. VC .. 1103 ..	VB .. 1604 .. VC .. 1604 ..
	Type		
	Clamping screw for indexable insert Tightening torque	FS2061 (Torx 7IP) 0,9 Nm	FS2063 (Torx 15IP) 3,0 Nm
	Shim for radius		AP316-VB1608 $r \leq 0,8 \text{ mm}$
	Screw for shim		FS2068 (SW 3,5)
	Torx key	FS1490 (Torx 7IP)	FS1465 (Torx 15IP / SW 3,5)

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

A2



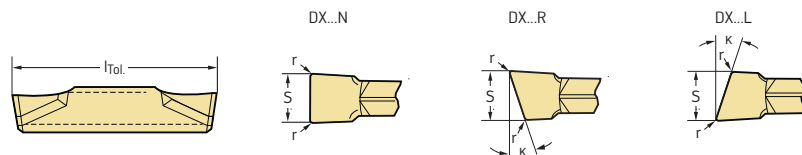
Cutting inserts

Insert shape	Description	Page
 DX	Walter Cut DX grooving inserts, double-edged	45
 GX	Walter Cut GX grooving inserts, double-edged/ single-edged	48

Cutting tool materials: Carbide

		Range of applications										
Application	Coating	01		10		20		30		40		
			05		15		25		35		45	
ISO P	CVD	WKP13S										
	CVD			WKP23S								
	CVD					WKP33S						
	PVD			WSM23S								
	PVD					WSM33S						
	PVD							WSM43S				
ISO M	PVD			WSM13S								
	PVD			WSM23S								
	PVD					WSM33S						
	PVD							WSM43S				
ISO K	CVD			WKP13S								
	CVD			WKP23S								
	CVD					WKP33S						
ISO N	—			WK1								
	PCD			WDN10								
ISO S	PVD			WSM13S								
	PVD			WSM23S								
	PVD					WSM33S						
	PVD							WSM43S				
	CBN			WBS10								
ISO H	CBN			WBH20								
		Wear resistance Toughness										

Grooving and parting off DX cutting inserts Tiger-tec® Silver



A2

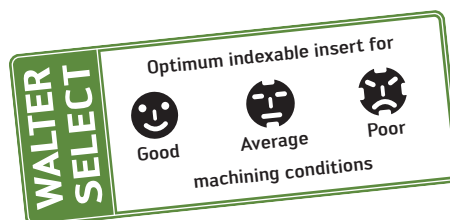
Cutting inserts

									P	M	K	S		
									HC	HC	HC	HC		
		s	r	κ	l	f	S _{Tol}	l _{Tol}	WKP23S	WKP33S	WSM23S	WSM33S	WSM43S	
Designation		mm	mm		mm	mm	mm	mm						
	DX18-1E150N01-CF6	1,5	0,15		18	0,03–0,12	±0,05	±0,15						
	DX18-2E200N02-CF6	2	0,2		18	0,03–0,14	±0,05	±0,15						
	DX18-2E250N02-CF6	2,5	0,2		18	0,03–0,18	±0,05	±0,15						
	DX18-3E300N02-CF6	3	0,2		18	0,04–0,23	±0,05	±0,15						
	DX18-1E150L10-CF6	1,5	0	10°	18	0,03–0,10	±0,05	±0,15						
	DX18-2E200L6-CF6	2	0,2	6°	18	0,03–0,12	±0,05	±0,15						
	DX18-2E200L15-CF6	2	0	15°	18,3	0,03–0,13	±0,05	±0,15						
	DX18-2E250L6-CF6	2,5	0,2	6°	18	0,03–0,15	±0,05	±0,15						
	DX18-3E300L6-CF6	3	0,2	6°	18	0,04–0,19	±0,05	±0,15						
	DX18-1E150R10-CF6	1,5	0	10°	18	0,03–0,10	±0,05	±0,15						
	DX18-2E200R6-CF6	2	0,2	6°	18	0,03–0,12	±0,05	±0,15						
	DX18-2E200R15-CF6	2	0	15°	18,3	0,03–0,13	±0,05	±0,15						
	DX18-2E250R6-CF6	2,5	0,2	6°	18	0,03–0,15	±0,05	±0,15						
	DX18-3E300R6-CF6	3	0,2	6°	18	0,04–0,19	±0,05	±0,15						
	DX18-1E150N01-CF5	1,5	0,15		18	0,03–0,12	±0,05	±0,15						
	DX18-2E200N00-CF5	2	0		18	0,03–0,12	±0,05	±0,15						
	DX18-2E200N02-CF5	2	0,2		18	0,04–0,14	±0,05	±0,15						
	DX18-2E250N02-CF5	2,5	0,2		18	0,05–0,18	±0,05	±0,15						
	DX18-3E300N02-CF5	3	0,2		18	0,08–0,23	±0,05	±0,15						
	DX18-1E150L10-CF5	1,5	0	10°	18	0,03–0,06	±0,05	±0,15						
	DX18-2E200L6-CF5	2	0,2	6°	18	0,03–0,12	±0,05	±0,15						
	DX18-2E200L7-CF5	2	0	7°	18	0,03–0,12	±0,05	±0,15						
	DX18-2E200L15-CF5	2	0	15°	18	0,03–0,12	±0,05	±0,15						
	DX18-2E250L6-CF5	2,5	0,2	6°	18	0,03–0,15	±0,05	±0,15						
	DX18-3E300L6-CF5	3	0,2	6°	18	0,04–0,19	±0,05	±0,15						
	DX18-3E300L7-CF5	3	0	7°	18,8	0,04–0,16	±0,05	±0,15						
	DX18-3E300L15-CF5	3	0	15°	18,8	0,04–0,16	±0,05	±0,15						
	DX18-1E150R10-CF5	1,5	0	10°	18	0,03–0,06	±0,05	±0,15						
	DX18-2E200R6-CF5	2	0,2	6°	18	0,03–0,12	±0,05	±0,15						
	DX18-2E200R7-CF5	2	0	7°	18	0,03–0,12	±0,05	±0,15						
	DX18-2E200R15-CF5	2	0	15°	18	0,03–0,12	±0,05	±0,15						
	DX18-2E250R6-CF5	2,5	0,2	6°	18	0,03–0,15	±0,05	±0,15						
	DX18-3E300R6-CF5	3	0,2	6°	18	0,04–0,19	±0,05	±0,15						
	DX18-3E300R7-CF5	3	0	7°	18,8	0,04–0,16	±0,05	±0,15						
	DX18-3E300R15-CF5	3	0	15°	18,8	0,04–0,16	±0,05	±0,15						
	DX18-1E150N01-CE4	1,5	0,15		18	0,03–0,12	±0,05	±0,15						
	DX18-2E200N02-CE4	2	0,2		18	0,06–0,17	±0,05	±0,15						
	DX18-2E250N02-CE4	2,5	0,2		18	0,07–0,21	±0,05	±0,15						
	DX18-3E300N02-CE4	3	0,2		18	0,09–0,33	±0,05	±0,15						

l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

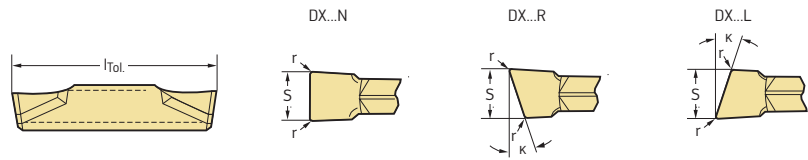
HC = Coated carbide

☹ ☹ ☹ / ★ New addition to the product range



Grooving and parting off DX cutting inserts Tiger-tec® Silver

A2

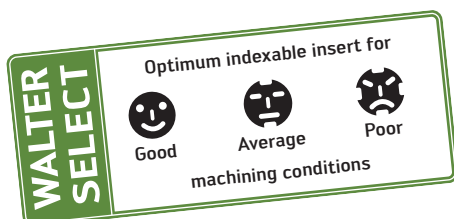


Cutting inserts

									P	M	K	S					
									HC	HC	HC	HC					
		s	r	κ	l	f	S _{Tol}	l _{Tol}	WKP23S	WKP33S	WSM23S	WSM33S	WSM43S	WKP23S	WSM23S	WSM33S	WSM43S
Designation		mm	mm		mm	mm	mm	mm									
	DX18-2E200L6-CE4	2	0,2	6°	18	0,04–0,12	±0,05	±0,15				⊗	⊗			⊗	⊗
	DX18-2E250L6-CE4	2,5	0,2	6°	18	0,05–0,15	±0,05	±0,15				⊗				⊗	
	DX18-3E300L6-CE4	3	0,2	6°	18	0,09–0,27	±0,05	±0,15				⊗	⊗			⊗	⊗
	DX18-2E200R6-CE4	2	0,2	6°	18	0,04–0,12	±0,05	±0,15				⊗	⊗			⊗	⊗
	DX18-2E250R6-CE4	2,5	0,2	6°	18	0,05–0,15	±0,05	±0,15				⊗				⊗	
	DX18-3E300R6-CE4	3	0,2	6°	18	0,09–0,27	±0,05	±0,15				⊗	⊗			⊗	⊗
	DX18-2E200N02-GD3	2	0,2		18	0,04–0,15	±0,05	±0,15	⊗			⊗		⊗		⊗	
	DX18-2E250N02-GD3	2,5	0,2		18	0,04–0,17	±0,05	±0,15	⊗			⊗		⊗		⊗	
	DX18-3E300N03-GD3	3	0,3		18	0,06–0,21	±0,05	±0,15	⊗			⊗		⊗		⊗	
	DX18-2E200N02-GD6	2	0,2		18	0,04–0,14	±0,05	±0,15			⊗	⊗			⊗	⊗	
	DX18-2E250N02-GD6	2,5	0,2		18	0,06–0,20	±0,05	±0,15			⊗	⊗			⊗	⊗	
	DX18-3E300N03-GD6	3	0,2		18	0,08–0,21	±0,05	±0,15			⊗	⊗			⊗	⊗	

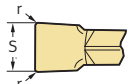
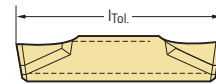
l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

HC = Coated carbide



Grooving and recessing DX cutting inserts Tiger-tec® Silver

DX...N



A2

Cutting inserts

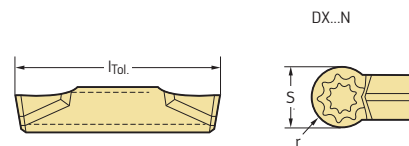
	Designation	s mm	r mm	l mm	f mm	a _p mm	S _{Tol} mm	l _{Tol} mm	P				M				K		S			
									HC		HC		HC		HC		HC		HC		HC	
									WKP13S	WKP23S	WKP33S	WSM23S	WSM33S	WSM43S	WKP23S	WSM23S	WSM33S	WSM43S				
	DX18-2E200N02-UF4	2	0,2	18	0,10–0,18	0,3–1,2	±0,05	±0,15	☹	☹		☹	☹	☹		☹	☹	☹				
	DX18-2E250N02-UF4	2,5	0,2	18	0,10–0,21	0,3–1,3	±0,05	±0,15	☹	☹		☹	☹	☹		☹	☹	☹				
	DX18-3E300N03-UF4	3	0,3	18	0,10–0,23	0,4–2,0	±0,05	±0,15	☹	☹		☹	☹	☹		☹	☹	☹				
	DX18-2E200N02-UD4	2	0,2	18	0,10–0,18	0,3–1,2	±0,05	±0,15	☹	☹		☹	☹	☹		☹	☹	☹				
	DX18-3E300N03-UD4	3	0,3	18	0,10–0,23	0,4–2,0	±0,05	±0,15	☹	☹		☹	☹	☹		☹	☹	☹				
	DX18-2E200N02-UA4	2	0,2	18	0,08–0,18	0,3–1,2	±0,05	±0,15	☺	☹												
	DX18-3E300N03-UA4	3	0,3	18	0,10–0,25	0,4–2,0	±0,05	±0,15	☺	☹												

l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

HC = Coated carbide

Grooving and copy turning DX cutting inserts Tiger-tec® Silver

A2



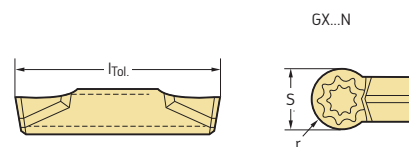
Cutting inserts

									P	M	K	S							
									HC	HC	HC	HC							
		s	r	l	f	a _p	S _{Tol}	l _{Tol}	WKP23S	WKP33S	WSM23S	WSM33S	WSM43S	WKP23S	WSM23S	WSM33S	WSM43S		
	Designation	mm	mm	mm	mm	mm	mm	mm											
	DX18-2E200N10-RF7	2	1	18,3	0,08–0,26	0,1–1,0	±0,05	±0,15			⚡				⚡				
	DX18-3E300N15-RF7	3	1,5	18,3	0,10–0,36	0,1–1,5	±0,05	±0,15			⚡				⚡				
																			
	DX18-2E200N10-RD4	2	1	18,3	0,08–0,28	0,2–1,0	±0,05	±0,15	☹			⚡		⚡		⚡			
	DX18-3E300N15-RD4	3	1,5	18,3	0,10–0,38	0,5–1,5	±0,05	±0,15			☹	⚡			☹	⚡			

l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

HC = Coated carbide

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



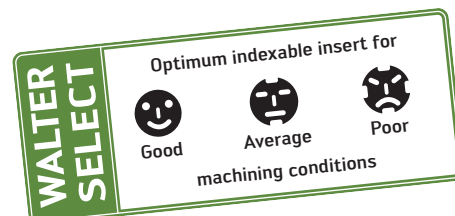
Cutting inserts

	Designation	s mm	r mm	l mm	f mm	a _p mm	S _{Tol} mm	l _{Tol} mm	P					M				K	S				
									HC					HC				HC	HC				
									WKP23S	WSM13S	WSM23S	WSM33S	WSM43S	WSM13S	WSM23S	WSM33S	WSM43S	WKP23S	WSM13S	WSM23S	WSM33S	WSM43S	
	GX24-2E300N15-RF7	3	1,5	24	0,10–0,33	0,1–1,5	±0,05	±0,15		☹	☹			☹	☹				☹	☹			
	GX24-3E400N20-RF7	4	2	24	0,12–0,48	0,1–2,0	±0,05	±0,15		☹	☹			☹	☹				☹	☹			
	GX24-3E500N25-RF7	5	2,5	24	0,12–0,53	0,1–2,5	±0,05	±0,15		☹	☹			☹	☹				☹	☹			
	GX24-2F300N15-RF7	3	1,5	24	0,10–0,33	0,1–1,5	±0,05	±0,15						☹					☹				
	GX24-3F400N20-RF7	4	2	24	0,12–0,48	0,1–2,0	±0,05	±0,15						☹					☹				
	GX24-3F500N25-RF7	5	2,5	24	0,12–0,53	0,1–2,5	±0,05	±0,15						☹					☹				

l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

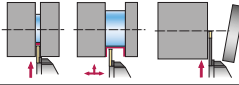
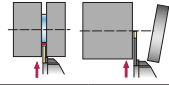
HC = Coated carbide

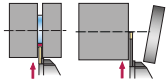
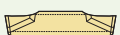
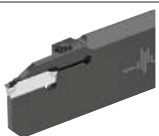
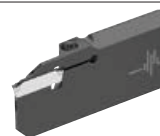
☹️ ☹️ ☹️ / ★ New addition to the product range



Walter Cut grooving tools product range overview

Shank tools / parting blades / boring bars

Machining						
Type						
Designation	G4014	G4014...-P	G4011	G4011...-P	G4041	G4041...-P
Insert width s [mm]	1,5–3	2–3	2–3	2–3	1,5–3	2
Cutting depth T_{max} [mm]	10–18	12–18	10–17	17	17–21	17–21
Coolant supply	External	Precision cooling	External	Precision cooling	External	Precision cooling
Shank size h [mm]	10–20	12–20	25	25	26–32	26–32
Shank size h [inch]	0,394–0,787	0,472–0,787	0,984–1,000	0,984–1,000	1,024–1,260	1,024–1,260
Page	52	53	59	60	63	64
						

Machining		
Type		
Designation	G4041...C	G4041...C-P
Insert width s [mm]	1,5–3	2
Cutting depth T_{max} [mm]	17–21	17
Coolant supply	External	Precision cooling
Shank size h [mm]	26–32	26
Shank size h [inch]	1,024–1,260	1,024
Page	65	66
		

Designation key for Walter Cut grooving tools

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Example:

G	1	1	11	–	2020	R	–	3	T33	–	090	GX24	–	C	–	P
1	2	3	4		5	6		7	8		9	10		11		12

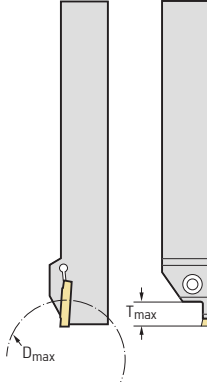
1
Tool group
G Grooving

2
Generation
1 GX
2 SX / UX
3 MX
4 DX

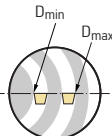
3
Tool type
0 Radial grooving tool
1 Axial grooving tool
5 Grooving tool without support
6 Modular external radial grooving

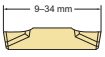
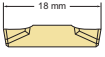
4
Tool type
11 Angled at 0°, straight clamping screw
12 Angled at 0°, self-clamping system
14 Angled at 0°, clamping screw from the side (SmartLock)
16 Angled at 0°, clamping screw from the front
21 Angled at 90°, straight clamping screw
22 Angled at 90°, self-clamping system
32 Grooving module, self-clamping system
41 Parting blade, clamping screw
42 Parting blade, self-clamping system
51 Angled, straight clamping screw
61 Clamping block/split

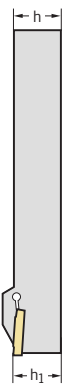
8
Cutting depth / parting off diameter
T06 6 mm
T12 12 mm
T21 21 mm
T32 32 mm
T33 33 mm
T35 35 mm
D16 Ø 16 mm
D32 Ø 32 mm

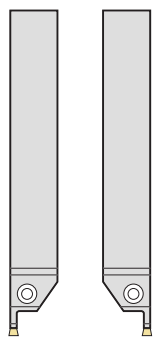


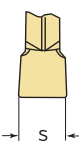
9
Minimum axial grooving diameter / blade height
Minimum axial grooving diameter
034 Ø 34 mm
042 Ø 42 mm
054 Ø 54 mm
067 Ø 67 mm
090 Ø 90 mm
130 Ø 130 mm
220 Ø 220 mm
Blade height
26 26 mm
32 32 mm
52 52 mm



10
Type of indexable insert
GX 
DX 
SX 
MX 
UX 

5																			
Shank size																			
<table><tr><th colspan="2">Square shank</th></tr><tr><td>1010</td><td>10 × 10 mm</td></tr><tr><td>1212</td><td>12 × 12 mm</td></tr><tr><td>1616</td><td>16 × 16 mm</td></tr><tr><td>2020</td><td>20 × 20 mm</td></tr><tr><td>2525</td><td>25 × 25 mm</td></tr><tr><td>3225</td><td>32 × 25 mm</td></tr><tr><td>3232</td><td>32 × 32 mm</td></tr><tr><td>4032</td><td>40 × 32 mm</td></tr></table>		Square shank		1010	10 × 10 mm	1212	12 × 12 mm	1616	16 × 16 mm	2020	20 × 20 mm	2525	25 × 25 mm	3225	32 × 25 mm	3232	32 × 32 mm	4032	40 × 32 mm
Square shank																			
1010	10 × 10 mm																		
1212	12 × 12 mm																		
1616	16 × 16 mm																		
2020	20 × 20 mm																		
2525	25 × 25 mm																		
3225	32 × 25 mm																		
3232	32 × 32 mm																		
4032	40 × 32 mm																		
<table><tr><th colspan="2">Module size h₁</th></tr><tr><td>E12</td><td>12 mm</td></tr><tr><td>E16</td><td>16 mm</td></tr><tr><td>E20</td><td>20 mm</td></tr><tr><td>E25</td><td>25 mm</td></tr><tr><td>E32</td><td>32 mm</td></tr></table>		Module size h ₁		E12	12 mm	E16	16 mm	E20	20 mm	E25	25 mm	E32	32 mm						
Module size h ₁																			
E12	12 mm																		
E16	16 mm																		
E20	20 mm																		
E25	25 mm																		
E32	32 mm																		
 																			

6	
Toolholder design	
	
L R R Right-hand L Left-hand N Neutral	

7																	
Insert width																	
<table><tr><td>1,5</td><td>1.5 mm</td></tr><tr><td>2</td><td>2 mm</td></tr><tr><td>3</td><td>3 mm</td></tr><tr><td>4</td><td>4 mm</td></tr><tr><td>5</td><td>5 mm</td></tr><tr><td>6</td><td>6 mm</td></tr><tr><td>8</td><td>8 mm</td></tr><tr><td>10</td><td>10 mm</td></tr></table>		1,5	1.5 mm	2	2 mm	3	3 mm	4	4 mm	5	5 mm	6	6 mm	8	8 mm	10	10 mm
1,5	1.5 mm																
2	2 mm																
3	3 mm																
4	4 mm																
5	5 mm																
6	6 mm																
8	8 mm																
10	10 mm																
																	

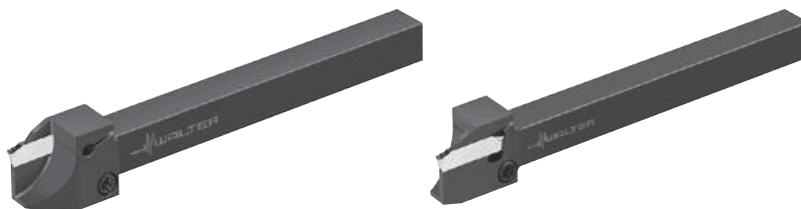
11	
Version	
– C Contra	

12	
Cooling	
– P Precision cooling 	

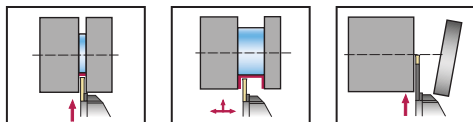
G4014

mm

A2



- Side screw clamping

[illegible]
$$\overline{f} = f_1 + s/2$$

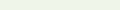
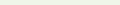
Ordering example, right-hand tool: G4014-1010R-1.5T10DX18/ordering example, left-hand tool: G4014-1010L-1.5T10DX18

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

Assembly parts

Assembly parts		h = h ₁ [mm]	10-12	16-20
	Clamping screw for grooving insert Tightening torque		FS2586 (Torx 15IP) 2,0 Nm	FS2585 (Torx 15IP) 3,0 Nm
	Screw plug		FS2589	FS2589
	Torx key		FS1465 (Torx 15IP /SW 3,5)	FS1465 (Torx 15IP /SW 3,5)

Accessories

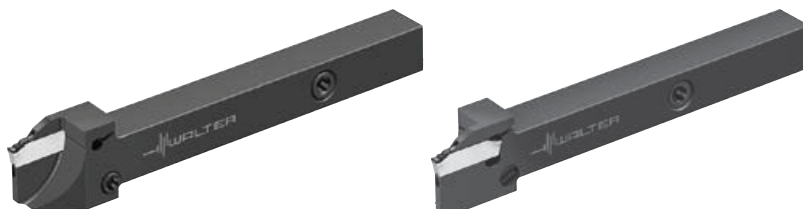
Accessories		h = h ₁ [mm]	10-20
	Torque screwdriver, analogue Tightening torque		FS2003 1,5–5,0 Nm
	Interchangeable blade		FS2014 (Torx 15IP)

Shank tool – Radial grooving

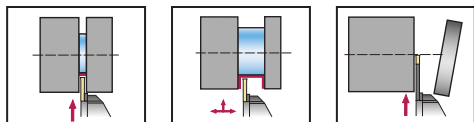
G4014...-P

Walter Cut

- Side screw clamping
- Precision cooling



A2

[illegible]
$$\overline{f} = f_1 + s/2$$

For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"

The maximum recommended coolant pressure is 150 bar (2175 psi).

Ordering example, right-hand tool: G4014-1212R-2T12DX18-P/ordering example, left-hand tool: G4014-1212L-2T12DX18-P

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

Assembly parts

Assembly parts		h = h ₁ [mm]	12
	Clamping screw for grooving insert		FS2586 (Torx 15IP)
	Tightening torque		2,0 Nm
	Screw plug		FS2589
	M8x1 threaded plug		FS2587
	Torx key		FS1465 (Torx 15IP /SW 3,5)

Accessories

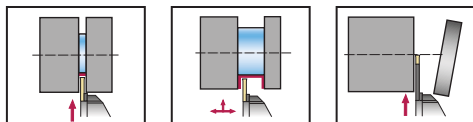
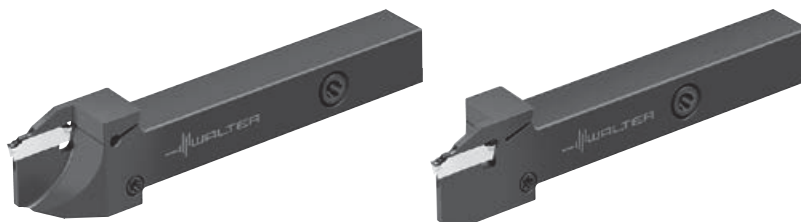
Accessories		h = h ₁ [mm]	12
	Torque screwdriver, analogue Tightening torque		FS2003 1,5–5,0 Nm
	Interchangeable blade		FS2014 (Torx 15IP)
	M8x1 angle connection		FS2596
	M8x1 connection element		FS2597
	Copper gasket		FS2598

G4014...-P

mm

A2

- Side screw clamping
- Precision cooling



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

$$h = h_1 \text{ [mm]}$$

16

	Clamping screw for grooving insert Tightening torque	FS2585 (Torx 15IP) 3,0 Nm
	Screw plug	FS2589
	G 1/8" threaded plug	FS2258 (SW 5)
	Torx key	FS1465 (Torx 15IP /SW 3,5)

$$h = h_1 \text{ [mm]}$$

16

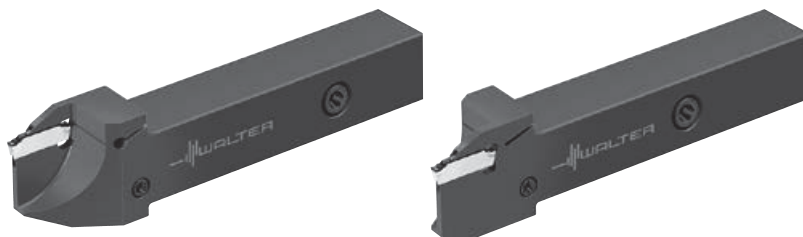
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)

Shank tool – Radial grooving

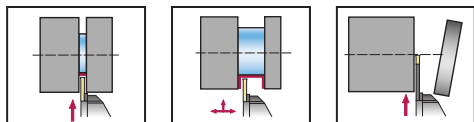
G4014...-P

Walter Cut

- Side screw clamping
- Precision cooling



A2



Tool		Designation	s mm	$D_{\max}$ mm	$h = h_1$ mm	b mm	f_1 mm	l_1 mm	h_4 mm	l_4 mm	Type
		G4014-2020R/L-2T17DX18-P	2	35	20	20	19,2	120	3	30	DX18-2E2.
		G4014-2020R/L-3T17DX18-P	3	35	20	20	18,8	120	3	30	DX18-3E3.

$$\overline{f} = f_1 + s/2$$

For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"

The maximum recommended coolant pressure is 150 bar (2175 psi).

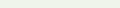
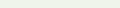
Ordering example, right-hand tool: G4014-2020R-2T17DX18-P/ordering example, left-hand tool: G4014-2020L-2T17DX18-P

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

Assembly parts

Assembly parts		h = h ₁ [mm]	20
	Clamping screw for grooving insert		FS2585 (Torx 15IP)
	Tightening torque		3,0 Nm
	Screw plug		FS2589
	G 1/8" threaded plug		FS2258 (SW 5)
	M6 threaded plug		FS2288 (SW 3)
	Torx key		FS1465 (Torx 15IP /SW 3,5)

Accessories

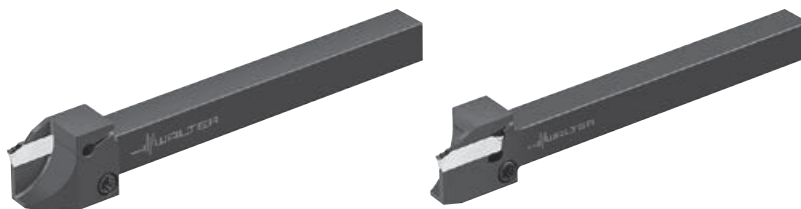
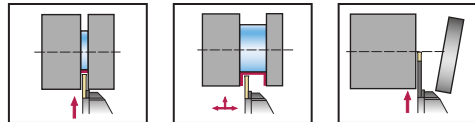
Accessories		h = h ₁ [mm]	20
	Torque screwdriver, analogue Tightening torque		FS2003 1,5–5,0 Nm
	Interchangeable blade		FS2014 (Torx 15IP)

Shank tool – Radial grooving

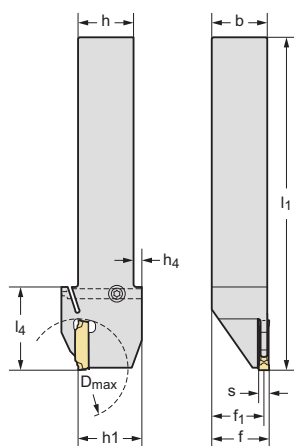
G4014 inch

Walter Cut

– Side screw clamping



Tool



Designation

G4014.08R/L-1.5T12DX18

s
inch

D_{max}
inch

h = h₁
inch

b
inch

f₁
inch

l₁
inch

h₄
inch

l₄
inch

Type

DX18-1E1 ..

$$f = f_1 + s/2$$

Ordering example, right-hand tool: G4014.08R-1.5T12DX18/ordering example, left-hand tool: G4014.08L-1.5T12DX18

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

Assembly parts

h = h₁ [inch]

0,500



Clamping screw for grooving insert
Tightening torque

FS2586 (Torx 15IP)
2,0 Nm



Screw plug

FS2589



Torx key

FS1465 (Torx 15IP /SW 3,5)

Accessories

h = h₁ [inch]

0,500



Torque screwdriver, analogue
Tightening torque

FS2003
1,5–5,0 Nm



Interchangeable blade

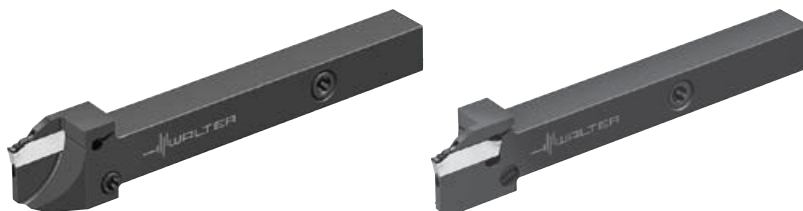
FS2014 (Torx 15IP)

Shank tool – Radial grooving

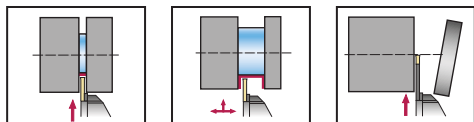
G4014...-P inch

Walter Cut

- Side screw clamping
- Precision cooling



A2



Tool		Designation	s inch	D _{max} inch	h = h ₁ inch	b inch	f ₁ inch	l ₁ inch	h ₄ inch	l ₄ inch	Type
  	 	G4014.08R/L-2T12DX18-P	0,079	0,984	0,500	0,500	0,469	4,331	0,091	0,866	DX18-2E2 ..
		G4014.08R/L-3T12DX18-P	0,118	0,984	0,500	0,500	0,453	4,331	0,091	0,866	DX18-3E3 ..

$$f = f_1 + s/2$$

The maximum recommended coolant pressure is 150 bar (2175 psi)

Ordering example, right-hand tool: G4014.08R-2T12DX18-P/ordering example, left-hand tool: G4014.08L-2T12DX18-P

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

Assembly parts		h = h ₁ [inch]	0,500
	Clamping screw for grooving insert		FS2586 (Torx 15IP)
	Tightening torque		2,0 Nm
	Screw plug		FS2589
	UNF 5/16-24 threaded plug		FS2593
	Torx key		FS1465 (Torx 15IP /SW 3,5)

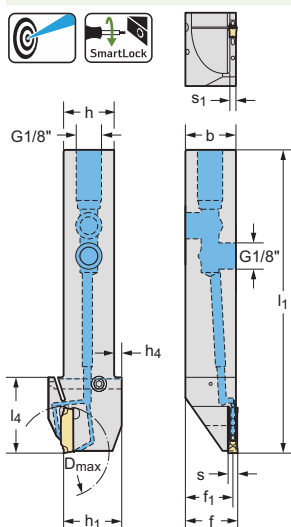
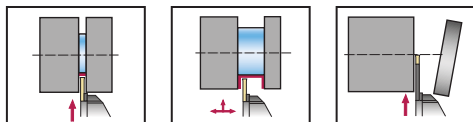
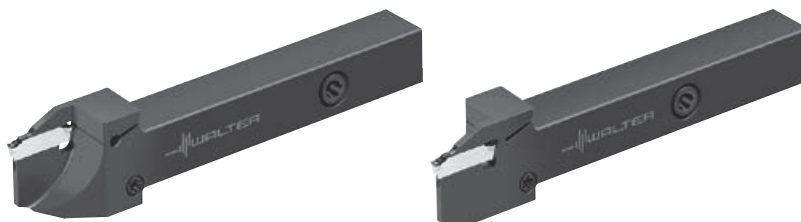
Accessories		h = h ₁ [inch]	0,500
	Torque screwdriver, analogue		FS2003
	Tightening torque		1,5–5,0 Nm
	Interchangeable blade		FS2014 (Torx 15IP)
	5/16" UNF angle connection		FS2594
	5/16" UNF connection element		FS2597
	Copper gasket		FS2598

G4014...-P inch

inch

A2

- Side screw clamping
- Precision cooling

[illegible]
$$\overline{f} = f_1 + s/2$$

The maximum recommended coolant pressure is 150 bar (2175 psi)

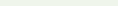
Ordering example, right-hand tool: G4014.10R-2T17DX18-P/ordering example, left-hand tool: G4014.10L-2T17DX18-P

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

Technical drawing of a mechanical part. The part has a cylindrical body with a central hole. The right end of the part is tapered to a point. A cross-section is indicated by a dashed line on the left side of the part.

Assembly parts		h = h ₁ [inch]	0,625	0,750
	Clamping screw for grooving insert Tightening torque		FS2585 (Torx 15IP) 3,0 Nm	FS2585 (Torx 15IP) 3,0 Nm
	Screw plug		FS2589	FS2589
	G 1/8" threaded plug		FS2258 (SW 5)	FS2258 (SW 5)
	M6 threaded plug			FS2288 (SW 3)
	Torx key		FS1465 (Torx 15IP /SW 3,5)	FS1465 (Torx 15IP /SW 3,5)



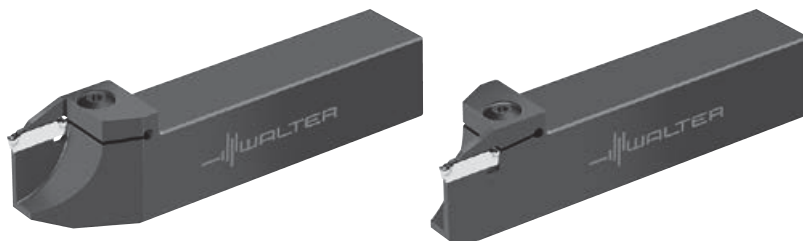
Accessories		h = h ₁ [inch]	0,625-0,750
	Torque screwdriver, analogue Tightening torque		FS2003 1,5–5,0 Nm
	Interchangeable blade		FS2014 (Torx 15IP)



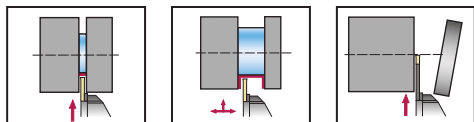
Shank tool – Radial grooving

G4011

Walter Cut



- Screw clamping

[illegible]
$$\overline{f} = f_1 + s/2$$

If no D_2 or $D_{\max}$ is specified, the tool has no diameter limit.

Ordering example, right-hand tool: G4011-2525R-2T10DX18/ordering example, left-hand tool: G4011-2525L-2T10DX18

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

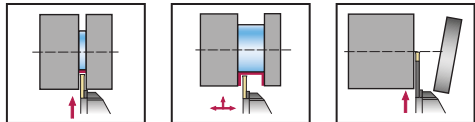
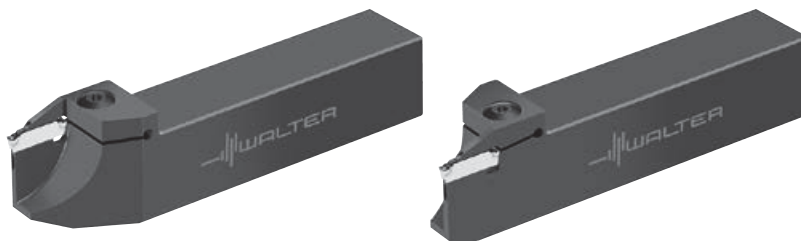
Assembly parts

Assembly parts		h = h ₁ [mm]	25
	Clamping screw for grooving insert		FS2118 (Torx 20IP)
	Tightening torque		5,0 Nm
	Torx key		FS1464 (Torx 20IP)

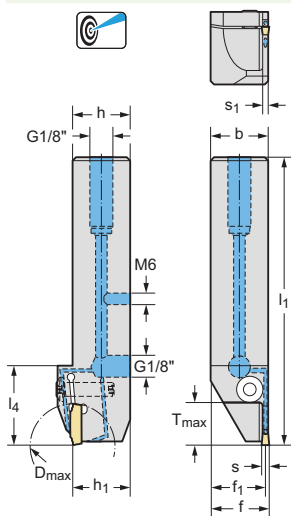
G4011...-P

mm

- Screw clamping
- Precision cooling



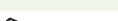
Designation

[illegible]

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

$$h = h_1 \text{ [mm]}$$

25

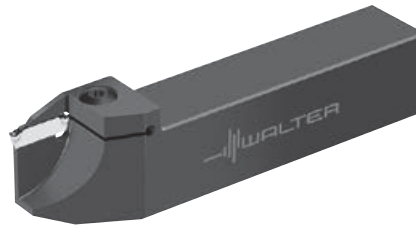
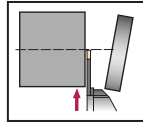
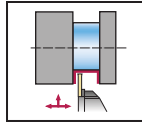
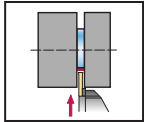
	Clamping screw for grooving insert Tightening torque	FS2118 (Torx 20IP) 5,0 Nm
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1464 (Torx 20IP)

Shank tool – Radial grooving

G4011 **inch**

Walter Cut

- Screw clamping



A2

[illegible]
$$\overline{f} = f_1 + s/2$$

If no D_2 or $D_{\max}$ is specified, the tool has no diameter limit.

Ordering example, right-hand tool: G4011.16R-2T10DX18/ordering example, left-hand tool: G4011.16L-2T10DX18

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

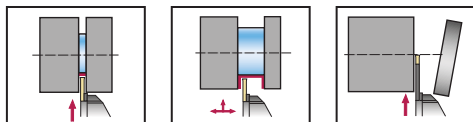
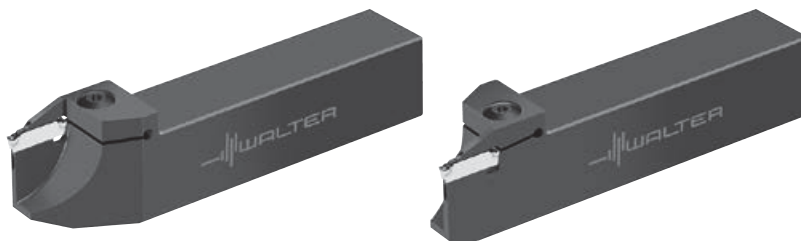
Assembly parts

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

G4011...-P inch

inch

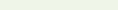
- Screw clamping
- Precision cooling



$f = f_1 + s/2$
If no D_2 or D_{max} is specified, the tool has no diameter limit.
The maximum recommended coolant pressure is 150 bar (2175 psi)
Ordering example, right-hand tool: G4011.16R-2T17DX18-P/ordering example, left-hand tool: G4011.16L-2T17DX18-P
Bodies and assembly parts are included in the scope of delivery.

$$h = h_1 \text{ [inch]}$$

1,000

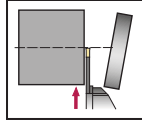
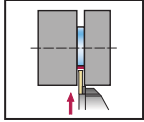
	Clamping screw for grooving insert Tightening torque	FS2118 (Torx 20IP) 5,0 Nm
	G 1/8" threaded plug	FS2258 (SW 5)
	M6 threaded plug	FS2288 (SW 3)
	Torx key	FS1464 (Torx 20IP)

Reinforced parting blade

G4041

Walter Cut

- Screw clamping



A2

[illegible]

Ordering example, right-hand tool: G4041-26R-1.5T17DX18/ordering example, left-hand tool: G4041-26L-1.5T17DX18
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Assembly parts		h ₄ [mm]	26-32
	Clamping screw for grooving insert Tightening torque		FS2164 (Torx 15IP) 3,5 Nm

Accessories

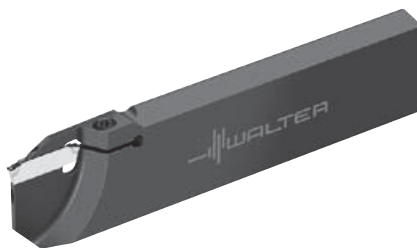
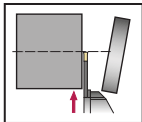
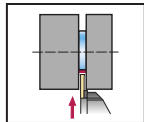
Accessories	
h ₄ [mm]	26-32
	Screwdriver for grooving insert FS1485 (Torx 15IP)

G4041...-P

mm

A2

- Screw clamping
- Precision cooling



Ordering example, right-hand tool: G4041-26R-2T17DX18-P/ordering example, left-hand tool: G4041-26L-2T17DX18-P
Bodies and assembly parts are included in the scope of delivery.

 h_4 [mm]

26-32

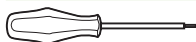


Clamping screw for grooving insert
Tightening torque

FS2164 (Torx 15IP)
3,5 Nm

 h_4 [mm]

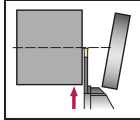
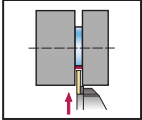
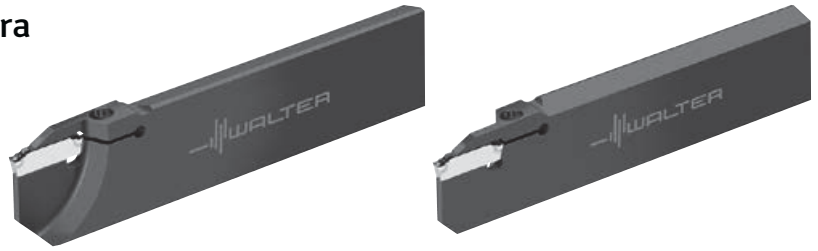
26-32



Screwdriver for grooving insert

FS1485 (Torx 15IP)

G4041...C



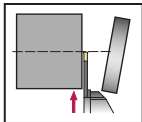
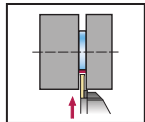
Accessories		
	h ₄ [mm]	26-32
	Screwdriver for grooving insert	FS1485 (Torx 15IP)

G4041...C-P

mm

A2

- Screw clamping
- Precision cooling



Ordering example, right-hand tool: G4041-26R-2T17DX18C-P/ordering example, left-hand tool: G4041-26L-2T17DX18C-P
Bodies and assembly parts are included in the scope of delivery.

 h_4 [mm]

26

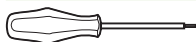


Clamping screw for grooving insert
Tightening torque

FS2164 (Torx 15IP)
3,5 Nm

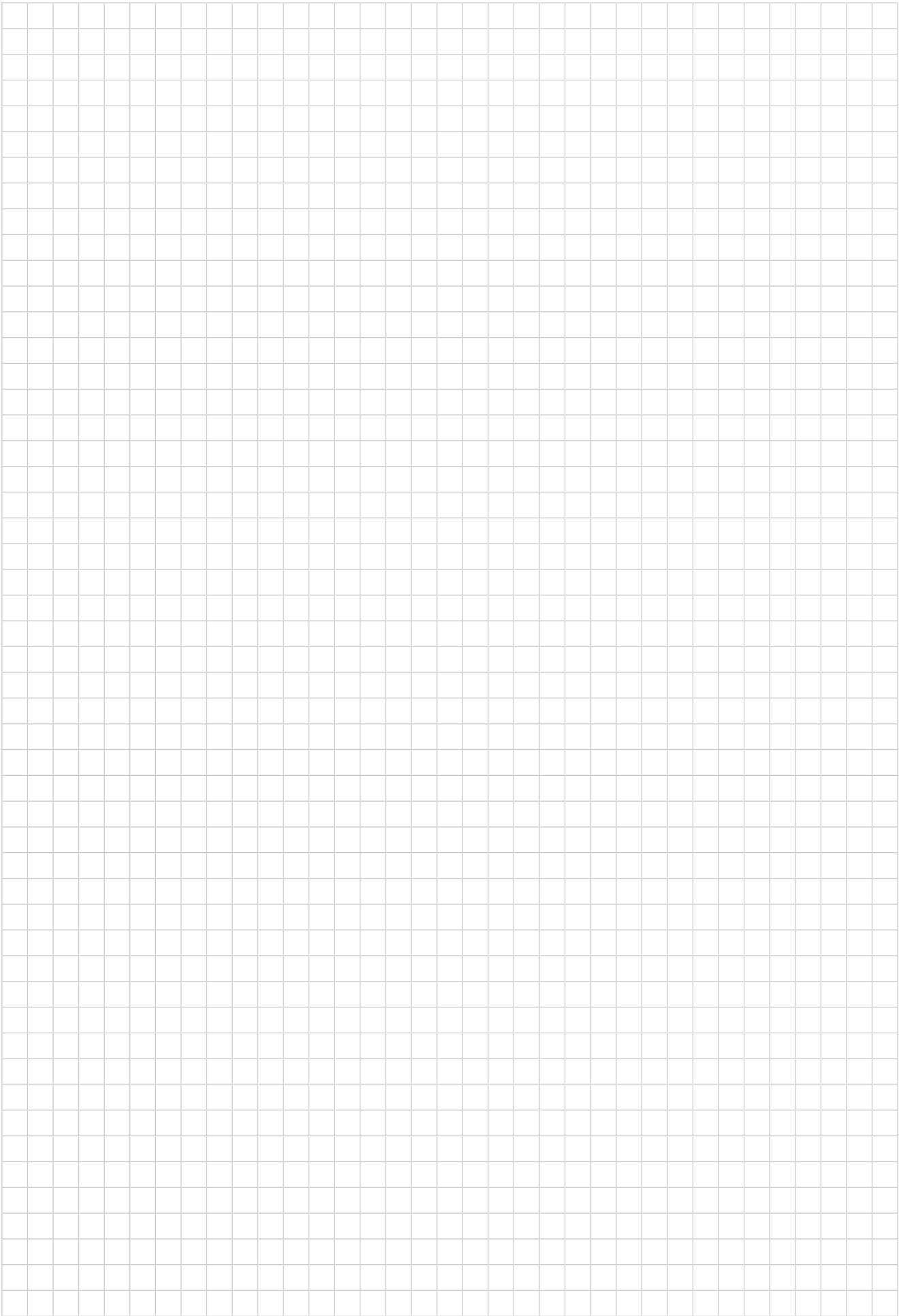
 h_4 [mm]

26



Screwdriver for grooving insert

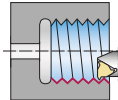
FS1485 (Torx 15IP)



Walter NTS threading tools product range overview

Thread turning tools – Internal machining

A3

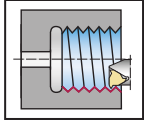
	
Type	 NTS..
Designation	Q...-T1820...-P
Clamping system	Toggle
Coolant supply	Precision cooling
QuadFit size	Q25–Q50
Insert size	16–22
Page	69
	

Exchangeable head – internal thread

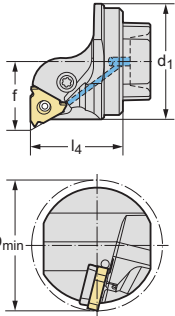
Q...-T1820...-P

Walter NTS

- QuadFit
- Precision cooling



A3

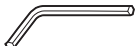
Tool	Designation		d ₁	D _{min} mm	f mm	l ₄ mm	β	Type
  	★ T1820-Q25R/L-16I-P	16	Q25	29	16,3	25	1°	NTS-I . -16 ..
	★ T1820-Q32R/L-16I-P	16	Q32	36	19,8	32	1°	
	★ T1820-Q40R/L-16I-P	16	Q40	44	23,8	32	1°	
	★ T1820-Q50R/L-16I-P	16	Q50	54	28,8	32	1°	
	★ T1820-Q32R/L-22I-P	22	Q32	38	21,3	32	1°	NTS-I . -22 ..
	★ T1820-Q40R/L-22I-P	22	Q40	46	25,3	32	1°	
	★ T1820-Q50R/L-22I-P	22	Q50	56	30,3	32	1°	

For information on the inclination angle β and compatible shim, see "Technical information – Thread turning"

The maximum recommended coolant pressure is 150 bar (2175 psi)

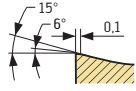
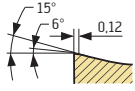
Ordering example, right-hand tool: T1820-Q25R-16I-P/ordering example, left-hand tool: T1820-Q25L-16I-P

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

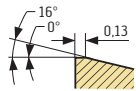
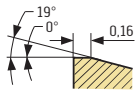
Assembly parts			
	Type	NTS-I . -16 ..	NTS-I . -22 ..
	Shim	GXA16-1	NXA22-1
	Clamping screw	FS2615 (Torx 15IP)	FS2616 (Torx 25IP)
	Tightening torque	2,0 Nm	5,0 Nm
	Lever	KN129	KN130
	Pin	RS123	RS124
	Torx key	FS1465 (Torx 15IP /SW 3,5)	
	Allen key		FS1592 (Torx 25IP)

Geometry overview of turning inserts – Negative basic shape

Finishing operation

Geometry	Remarks/field of applications	Material groups							Section Main cutting edge	Section Corner radius	a_p [mm]	f [mm]
		P	M	K	N	S	H	O				
		Steel	Stainless steel	Cast iron	NF metals	Materials with difficult cutting properties	Hard materials	Other				
	FW5 – Finishing with wiper technology – Double the feed rate – the same high surface quality – Reduced cutting pressure thanks to short wiper curved cutting edge	••	••	••		•					0,3–3,0	0,10–0,60

Medium machining

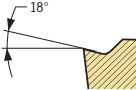
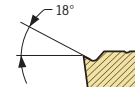
	MW5 – Medium machining with wiper technology – Double the feed rate – the same high surface quality – Maximum feeds thanks to long wiper curved cutting edge	••	••	••		•					0,8–4,0	0,15–0,75
---	--	----	----	----	--	---	--	--	--	---	---------	-----------

- Primary application
- Additional application

Note: Sectional views show CNMG120408 . .

Geometry overview of turning inserts – Positive basic shape

Finishing operation

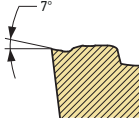
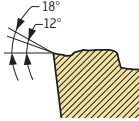
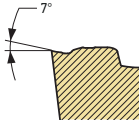
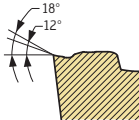
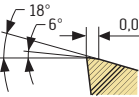
Geometry	Remarks/field of applications	Material groups							Section Main cutting edge	Section Corner radius	a_p [mm]	f [mm]
		P	M	K	N	S	H	O				
		Steel	Stainless steel	Cast iron	NF metals	Materials with difficult cutting properties	Hard materials	Other				
	FP2 – Finishing insert with fully ground circumference – Long, small-diameter shafts with a tendency to vibrate – Low cutting forces	••	••	••	•	•					0,12–2,5	0,02–0,32

- Primary application
- Additional application

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

Geometry overview of system inserts – WL

Medium machining

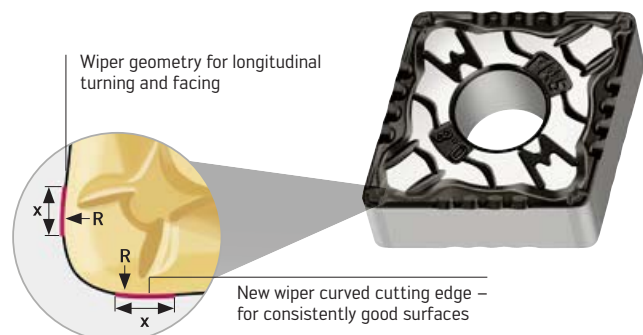
Geometry	Remarks/field of applications	Material groups							Section Main cutting edge	Section Corner radius	a_p [mm]	f [mm]
		P	M	K	N	S	H	O				
		Steel	Stainless steel	Cast iron	NF metals	Materials with difficult cutting properties	Hard materials	Other				
	MM4 – Medium machining – with a large range of applications – Machining for long-chipping materials – Specially developed for copy turning – Chip breaking during forward and reverse turning	•	••	•		••					0,4–2,5	0,08–0,35
	MP4 – Medium machining – with a large range of applications – Machining for long-chipping materials – Specially developed for copy turning – Chip breaking during forward and reverse turning	••	•	•		•					0,4–2,5	0,08–0,35
	MU6 – Full-radius geometry for copy turning – Soft cutting action with excellent chip breaking – Chip breaking during forward and reverse turning	••	••	••		••	•				0,4–2,5	0,1–0,40

- Primary application
 • Additional application

Note: Sectional views show WL25-VC0708 . . and WL25-RC0420 . .

Application information for wiper indexable inserts

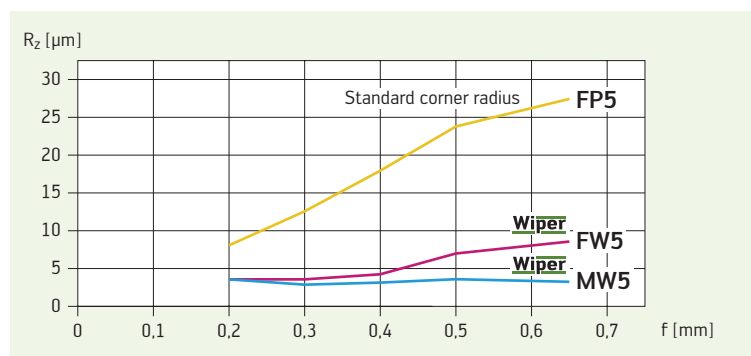
Wiper



Application area:

- Double the surface quality with the same feed compared to the standard corner radius
- Same surface quality with double the feed rate compared to the standard corner radius
- Increased productivity – the higher feeds reduce the machining time
- Fewer tools – there is the option to combine roughing and finishing in a single operation
- Longer tool life as the higher feed reduces the contact time with the workpiece

1. Surface quality that can be achieved with wiper indexable inserts



Material: 42CrMo4
Indexable insert: CNMG120408-FP5 WPP20S
CNMG120408-FW5 WPP20S
CNMG120408-MW5 WPP20S

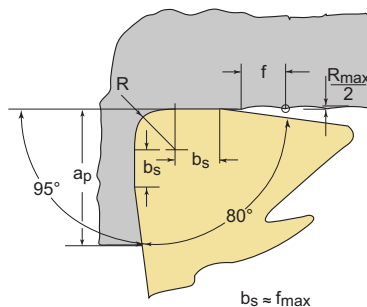
2. Edge formation: Comparison of wiper indexable inserts and standard indexable inserts

The specified maximum feeds [f_{max}] should not be exceeded with wiper geometries. They approximately correspond to the wiper curved cutting edge length.

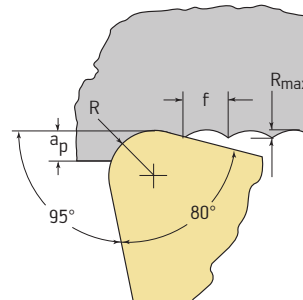
Corner radius

R	FW5 f_{max} [mm]	MW5 f_{max} [mm]
0,4	0,45	–
0,8	0,55	0,65
1,2	0,65	0,75

Wiper geometry:
Example of CNMG120408-FW5 /
CNMG120408-MW5



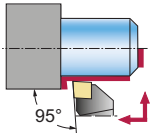
Standard geometry with corner radius:
Example of CNMG120408-FP5



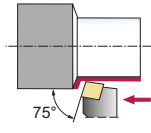
3. Turning toolholder for using wiper geometries

To achieve the wiper effect, the wiper indexable insert has to be used in a toolholder with the correct lead angle.

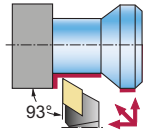
CNMG / CCMT – 80° corner



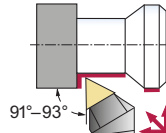
CNMG / CCMT – 100° corner



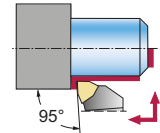
DNMG / DCMT



TNMG / TCMT



WNMG / WCMT



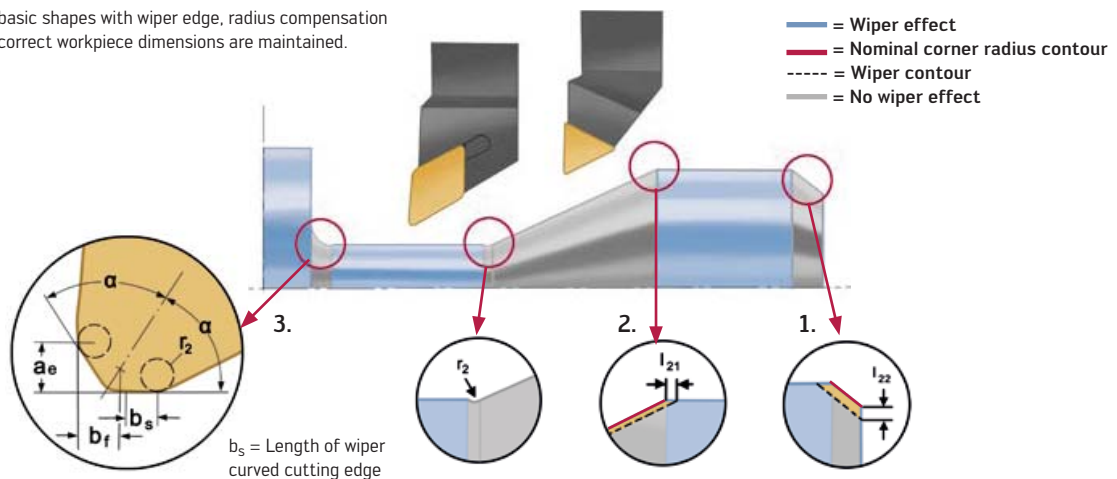
— = Wiper effect

Comments:

- The standard CNC range can be used with CNMG, CCMT, WNMG and WCMT indexable inserts
- The wiper effect is not achieved when profiling and turning inclined surfaces with DNMG, DCMT, TNMG and TCMT indexable inserts
- Please note that compensation is required in the area of radii/inclined surfaces; otherwise contour distortions may occur (see point 4).

4. Effects on the workpiece dimensions when machining with DNMG/DCMT and TNMG/TCMT wiper indexable inserts

When using D and T basic shapes with wiper edge, radius compensation can ensure that the correct workpiece dimensions are maintained.

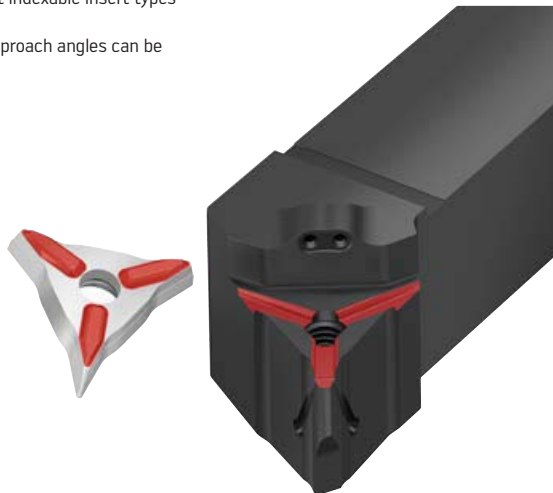


Indexable insert designation		Dimensions				Compensation dimensions		
		r_2 [mm]	a_e [mm]	b_s [mm]	b_f [mm]	1. Chamfer with 45° inclined surface l_{22} [mm]	2. Profiling 27° D basic shape l_{21} [mm]	3. Profiling 22° T basic shape l_{21} [mm]
	DNMG110404-FW5	0,3	0,42	0,18	0,41	0,01	0,09	
	DNMG110408-FW5	0,4	0,73	0,42	0,56	0,06	0,04	
	DNMG150404-FW5	0,3	0,42	0,18	0,41	0,01	0,09	
	DNMG150408-FW5	0,4	0,73	0,42	0,56	0,06	0,04	
	DNMG150604-FW5	0,3	0,42	0,18	0,41	0,01	0,09	
	DNMG150608-FW5	0,4	0,73	0,42	0,56	0,06	0,04	
	DNMG110408-MW5	0,35	0,82	0,55	0,61	–0,01	0,24	
	DNMG110412-MW5	0,47	1,04	0,7	0,75	0,11	0,06	
	DNMG150408-MW5	0,3	0,82	0,55	0,61	–0,01	0,24	
	DNMG150412-MW5	0,47	1,04	0,7	0,75	0,11	0,06	
	DNMG150608-MW5	0,35	0,82	0,55	0,61	–0,01	0,24	
	DNMG150612-MW5	0,47	1,04	0,77	0,75	0,11	0,06	
	TNMG160404-FW5	0,3	0,44	0,18	0,34	0,01		0,1
	TNMG160408-FW5	0,4	0,76	0,39	0,56	0,06		0,07
	TNMG160408-MW5	0,35	0,85	0,55	0,58	0,02		0,24
	TNMG160412-MW5	0,56	1,09	0,7	0,7	0,15		0,07

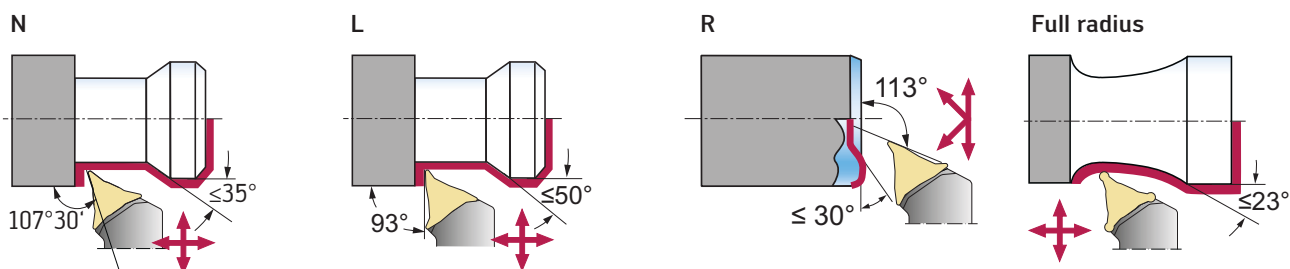
Application information: W1011-P Walter Turn copy turning system

W1011-P Walter Turn copy turning system

On W1011-P copy turning tools, four different indexable insert types can be fitted in the same tool.
This means that different profiling angles/approach angles can be achieved with the same tool.

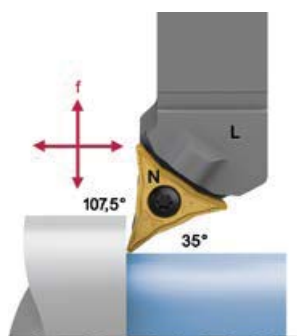


1. Application area and profiling angle

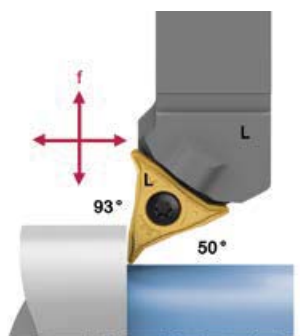


2. Fitting options and approach angle

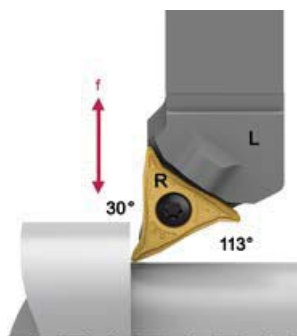
Four different indexable inserts can be fitted in the same tool.
The approach angles are formed by fitting the different indexable inserts.



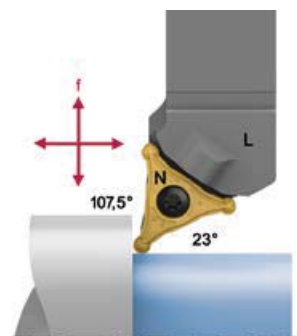
Example:
Left-hand tool:
W1011-2525L-WL25-P
Neutral indexable insert:
WL25-VC0708N-MP4 WPP20S



Example:
Left-hand tool:
W1011-2525L-WL25-P
Left-hand indexable insert:
WL25-VC0708L-MP4 WPP20S



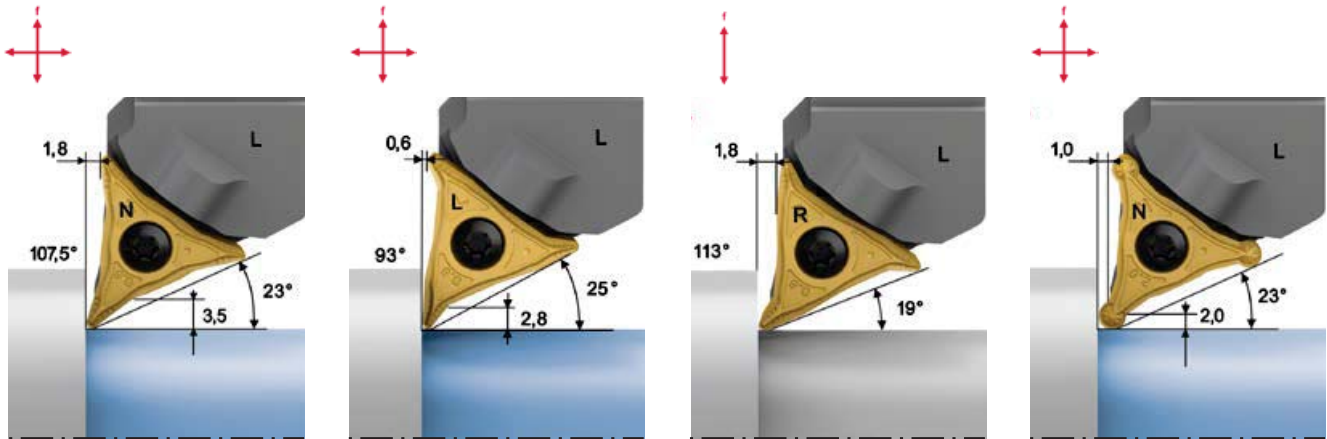
Example:
Left-hand tool:
W1011-2525L-WL25-P
Right-hand indexable insert:
WL25-VC0708R-MP4 WPP20S



Example:
Left-hand tool:
W1011-2525L-WL25-P
Neutral indexable insert:
WL25-RC0420N-MU6 WPP20S

3. Maximum feed WL25 indexable inserts / W1011-P

Example – left-hand tool

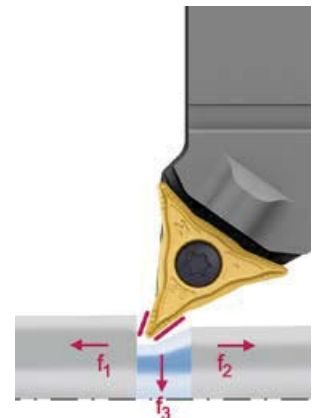


4. Cutting data

Geometry/corner radius	MM4 / MP4 – R0,4				
	Reverse turning (f_2)			Forward turning (f_1)	
Approach angle	31°/35°	50°	72,5°	93°	107,5/113°
$a_{p\min}$ [mm]	0,2	0,3	0,4	0,4	0,4
$a_{p\max}$ [mm]	1,4	1,9	2,4	2,5	2,4
$f_{\min}$ [mm]	0,14	0,10	0,08	0,08	0,08
$f_{\max}$ [mm]	0,40	0,33	0,26	0,25	0,26

Geometry/corner radius	MM4 / MP4 – R0,8				
	Reverse turning (f_2)			Forward turning (f_1)	
Approach angle	31°/35°	50°	72,5°	93°	107,5/113°
$a_{p\min}$ [mm]	0,3	0,4	0,5	0,5	0,5
$a_{p\max}$ [mm]	1,4	1,9	2,4	2,5	2,4
$f_{\min}$ [mm]	0,21	0,16	0,13	0,12	0,13
$f_{\max}$ [mm]	0,50	0,42	0,34	0,32	0,34

Geometry/corner radius	MU6 – R2,0				
	Reverse turning (f_2)			Forward turning (f_1)	
Approach angle	31°/35°	50°	72,5°	93°	107,5/113°
$a_{p\min}$ [mm]	0,3	0,4	0,5	0,5	0,5
$a_{p\max}$ [mm]	1,1	1,5	1,9	2,0	1,9
$f_{\min}$ [mm]	0,21	0,16	0,13	0,12	0,13
$f_{\max}$ [mm]	0,60	0,52	0,42	0,40	0,42

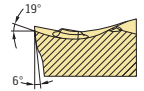
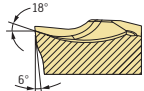
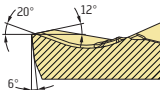
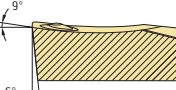
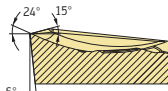


f_1 = forward turning
 f_2 = reverse turning
 f_3 = plunging
 A feed of f 0.2 mm is recommended for plunging into the workpiece (-X).

These values correspond to the depths of cut and feed values on the catalogue ordering page.

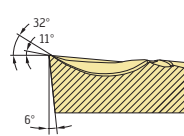
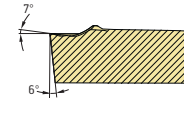
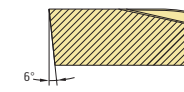
Geometry overview of cutting inserts

DX system: Grooving and parting off

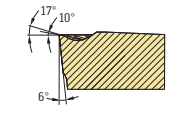
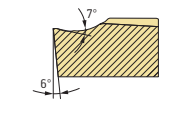
Geometry	Remarks/ field of applications	Material groups							Section Main cutting edge	View Main cutting edge	s [mm]	f [mm]
		P	M	K	N	S	H	O				
		Steel	Stainless steel	Cast iron	NI metals	Materials with difficult cutting properties	Hard materials	Other				
 CF6 – Low feeds – Low burr/centre pip formation – Low cutting force		••	••		••	••		•			1,5	0,03–0,12
											2	0,03–0,14
											2,5	0,03–0,18
											3	0,04–0,23
 CF5 – Grooving and parting off operations – Light to moderate feeds – Good chip control – Low burr/centre pip formation		••	••	•	••	••		•			1,5	0,03–0,12
											2	0,04–0,15
											2,5	0,05–0,18
											3	0,08–0,23
 CE4 – Grooving and parting off operations – Moderate to high feeds – Good chip constrictor – Stable cutting edge		••	•	••	•	•		•			1,5	0,03–0,12
											2	0,06–0,17
											2,5	0,07–0,21
											3	0,09–0,33
 GD3 – Extremely soft cutting action – Light to moderate feeds – General parting off and grooving operations		••	••	•	•	•		•			2	0,04–0,15
											2,5	0,04–0,17
											3	0,06–0,21
 GD6 – Moderate feeds – Long-chipping materials – Medium machining conditions		••	••	•	•	••					2	0,04–0,14
											2,5	0,06–0,20
											3	0,08–0,21

- Primary application
 • Additional application

DX system: Grooving, parting off and recessing

Geometry	Remarks/ field of applications	Material groups							Section Main cutting edge	View Main cutting edge	s [mm]	a _p [mm]	f [mm]
		P	M	K	N	S	H	O					
 UF4 – All grooving operations – Good chip control – Average feed range – Positive cut		●●	●●	●●	●	●					2	0,3–1,2	0,10–0,18
											2,5	0,3–1,3	0,10–0,21
											3	0,4–2,0	0,10–0,23
 UD4 – Large chip breaking range – Optimum chip breaking when machining forged parts – Stable cutting edge – For moderate to high feeds		●●	●	●●							2	0,3–1,2	0,10–0,18
											3	0,4–2,0	0,10–0,23
 UA4 – For cast iron machining – For middle to high machining parameters – For maximum process reliability in cast iron machining				●●		●					2	0,3–1,2	0,08–0,18
											3	0,4–2,0	0,10–0,25

DX system: Full radius cutting inserts for grooving and copy turning

Geometry	Remarks/ field of applications	Material groups							Section Main cutting edge	View Main cutting edge	s [mm]	a _p [mm]	f [mm]
		P	M	K	N	S	H	O					
 RF7 – For copy and relief turning – High surface quality – Stable cutting edge		●●	●●	●	●	●●					2	0,1–1,0	0,08–0,26
											3	0,1–1,5	0,10–0,36
 RD4 – For copy turning – Outstanding chip control when grooving – For moderate to high feeds – Circumference-sintered		●●	●	●●	●						2	0,2–1,0	0,08–0,28
											3	0,5–1,5	0,10–0,38

- Primary application
- Additional application

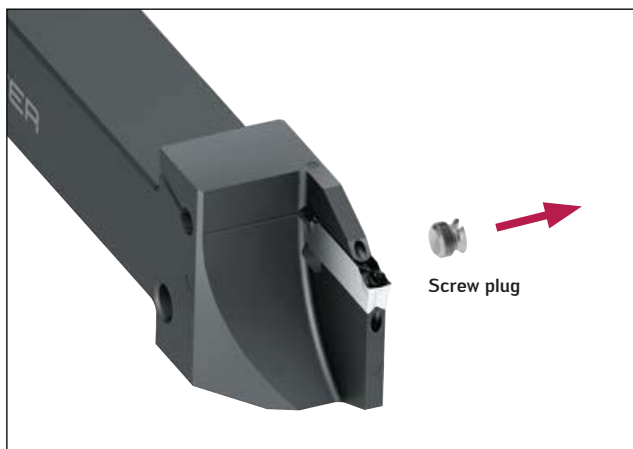
Assembly instructions for Walter Cut DX

Purpose: The tool activation side can be converted as required.

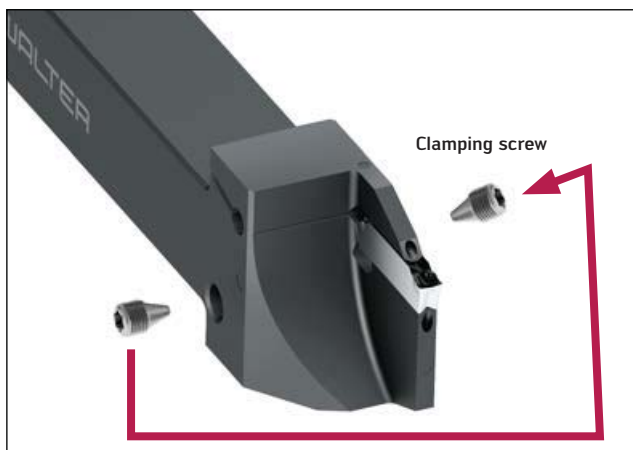
The Torx 15IP clamping screw is delivered fitted on the left-hand side of the toolholder. To fit this screw on the other side, follow the instructions below:

Important: Conversion is only possible when the indexable insert is fitted.

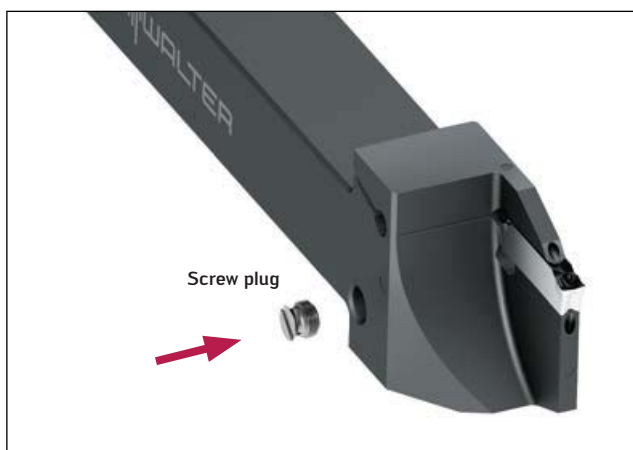
1. Remove the screw plug on the right-hand side of the toolholder using a slotted screwdriver.



2. Unscrew the Torx 15IP clamping screw from the left-hand side and screw it into the right-hand side at the prescribed torque.



3. Screw the screw plug back into the left-hand side of the toolholder, which is now free, to protect against contamination.



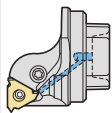
[Link to the video with conversion instructions](#)

Application information: Thread turning with Walter NTS

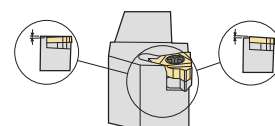
Thread turning – Shims

Shims fitted in the tool holder exchangeable head

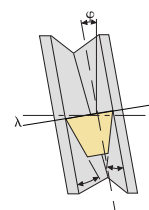
The table shows the shims that are fitted in the tool holder as standard and are used when cutting in the direction of the head stock.

Tool adaptor		QuadFit Q...-T1820... exchangeable head with precision cooling	
Tool adaptor			
		Internal thread	
Type of indexable insert		Single-tooth indexable insert	
Shim			
Indexable insert size	16	GXA 16-1	
	22	NXA 22-1	

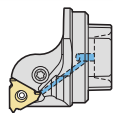
By replacing the shim, the inclination angle can be selected between +5 and -2. The same shims should be used for right-hand and left-hand threads. The centre height dimension always remains constant.



To achieve the best possible profile accuracy and even wear, the indexable insert inclination angle (λ) must be correspond to the thread inclination angle (φ) as closely as possible.



Selecting a shim

Tool adaptor		QuadFit Q...-T1820... exchangeable head with precision cooling	
Tool adaptor			
		Internal thread	
Type of indexable insert		Single-tooth indexable insert	
Shim			
		Direction of cut towards the head stock	Direction of cut towards the tail stock
Indexable insert size	16	GXA16-0, -1, -2, -3, -4	GXA16-0, -99, -98
	22	NXA22-0, -1, -2, -3, -4	NXA22-0, -99, -98

Selecting a shim

Use the diagram below to select the right shim. The diagram shows you the last digit in the shim designation.
Example: GX16-1

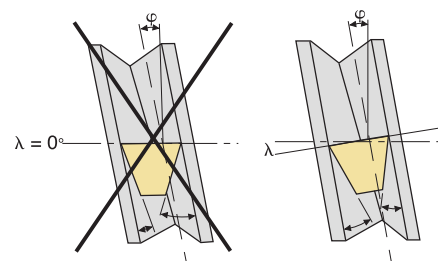
Production method

Direction of cut towards the head stock = see right-hand triangle on the diagram
Direction of cut towards the tail stock = see left-hand triangle on the diagram

Vertical rows – pitch

Single-start thread, pitch height (P_h) = pitch (P)

Multi-start thread, pitch height (P_h) = pitch (P) x number of starts



Application information: Thread turning with Walter NTS

(continued)

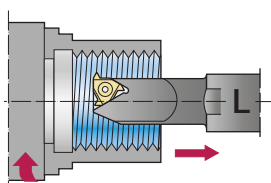
Horizontal rows = thread diameter [D_2]

[illegible]

Feed in the direction of the tail stock – internal thread

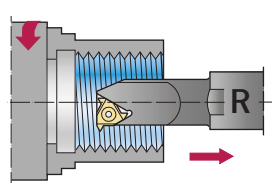
Right-hand thread

Opposite inclination angle



Left-hand thread

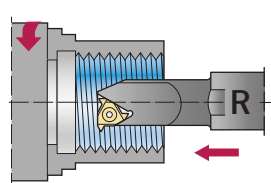
Right-hand tool holder
Right-hand insert
Opposite inclination angle



Feed in the direction of the head stock – internal thread

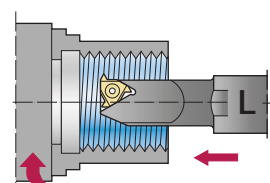
Right-hand thread

Right-hand tool holder
Right-hand insert



Left-hand thread

Left-hand tool holder
Left-hand insert



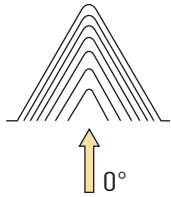
Application information: Standard values for thread turning with Walter NTS

Feed types and their influence on machining

Radial feed

Recommended for:

- Short-chipping materials
- Hard materials

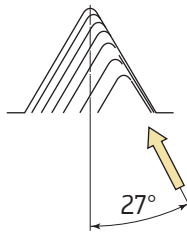


- Formation of V-shaped chips
- Both cutting edges engaged
- High cutting temperature
- Even indexable insert wear on both flanks
- Suitable for small pitches

Feed via flank 27°–29°

Recommended for:

- Pitches greater than 1.5 mm or 16 TPI
- The manufacture of trapezoidal threads

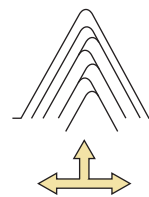


- Good chip formation
- Formation of helical chips
- One cutting edge engaged
- Chips are guided away from the thread
- Thread flanks with excellent surface quality

Alternating feed

Recommended for:

- Steep pitches
- Long-chipping materials



- Good chip formation
- Formation of flat helical chips
- Both cutting edges are evenly engaged, ensuring even wear

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

The recommended cutting passes are only to be regarded as standard values. They were determined under good operating conditions with medium-strength steel materials. In the case of high-strength steel materials, the number of feeds must be increased. It is important to reduce the initial threading cuts in this case. If the operating conditions are different, the feeds should be modified accordingly. This applies to internal thread turning with a projection length of more than $2.5 \times$ the boring bar diameter.

Whitworth (WH), external and internal machining

No. of feeds	Pitch [TPI]														
	28	26	20	19	18	16	14	12	11	10	9	8	7	6	5
Total depth [mm]	0,64	0,68	0,87	0,91	1,07	1,12	1,23	1,42	1,54	1,69	1,87	2,09	2,41	2,80	3,34
16															
15															
14														0,10	0,10
13														0,12	0,12
12												0,08	0,08	0,14	0,15
11											0,08	0,12	0,12	0,14	0,17
10										0,08	0,12	0,12	0,14	0,15	0,18
9									0,08	0,12	0,12	0,13	0,15	0,16	0,19
8						0,08	0,08	0,08	0,12	0,13	0,13	0,14	0,16	0,17	0,20
7					0,08	0,10	0,11	0,13	0,13	0,13	0,14	0,15	0,18	0,19	0,22
6			0,08	0,08	0,11	0,10	0,12	0,14	0,14	0,15	0,15	0,16	0,19	0,20	0,24
5	0,08	0,08	0,11	0,12	0,13	0,12	0,13	0,15	0,16	0,16	0,17	0,18	0,21	0,21	0,27
4	0,11	0,11	0,13	0,13	0,14	0,14	0,15	0,17	0,18	0,18	0,19	0,20	0,23	0,24	0,30
3	0,12	0,14	0,15	0,16	0,17	0,16	0,18	0,21	0,21	0,21	0,22	0,23	0,27	0,28	0,36
2	0,15	0,16	0,19	0,20	0,21	0,20	0,22	0,26	0,25	0,26	0,27	0,28	0,33	0,34	0,41
1	0,18	0,19	0,21	0,22	0,23	0,22	0,24	0,28	0,27	0,27	0,28	0,30	0,35	0,36	0,43

Radial infeed [mm]



Reduce the cutting speed

Application information: Standard values for thread turning with Walter NTS

(continued)

Internal machining, metric 60°

No. of feeds	Pitch [mm]																	
	0,5	0,6	0,7	0,75	0,8	1,0	1,25	1,5	1,75	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0
Total depth [mm]	0,34	0,38	0,44	0,48	0,51	0,63	0,77	0,90	1,07	1,20	1,49	1,77	2,04	2,32	2,62	2,89	3,20	3,46
16																	0,10	0,10
15																	0,12	0,12
14														0,08	0,10	0,10	0,12	0,13
13														0,10	0,11	0,12	0,13	0,14
12												0,08	0,08	0,10	0,12	0,14	0,14	0,15
11												0,09	0,10	0,11	0,12	0,14	0,14	0,15
10											0,08	0,10	0,11	0,12	0,13	0,15	0,15	0,16
9											0,10	0,10	0,12	0,12	0,14	0,15	0,16	0,18
8									0,08	0,08	0,10	0,11	0,13	0,13	0,15	0,16	0,17	0,19
7									0,09	0,10	0,11	0,12	0,14	0,14	0,16	0,17	0,18	0,20
6							0,08	0,08	0,09	0,11	0,12	0,13	0,15	0,15	0,19	0,20	0,20	0,22
5						0,08	0,09	0,11	0,10	0,12	0,13	0,14	0,17	0,18	0,21	0,22	0,22	0,24
4	0,07	0,07	0,07	0,07	0,07	0,09	0,10	0,13	0,13	0,14	0,15	0,16	0,19	0,21	0,23	0,25	0,26	0,28
3	0,07	0,08	0,08	0,10	0,11	0,11	0,13	0,15	0,15	0,17	0,18	0,20	0,23	0,24	0,27	0,30	0,32	0,35
2	0,09	0,11	0,13	0,14	0,15	0,16	0,17	0,21	0,21	0,23	0,25	0,26	0,30	0,31	0,33	0,38	0,38	0,41
1	0,11	0,12	0,16	0,17	0,18	0,19	0,20	0,22	0,22	0,25	0,27	0,28	0,32	0,33	0,36	0,41	0,41	0,44

Radial infeed [mm]

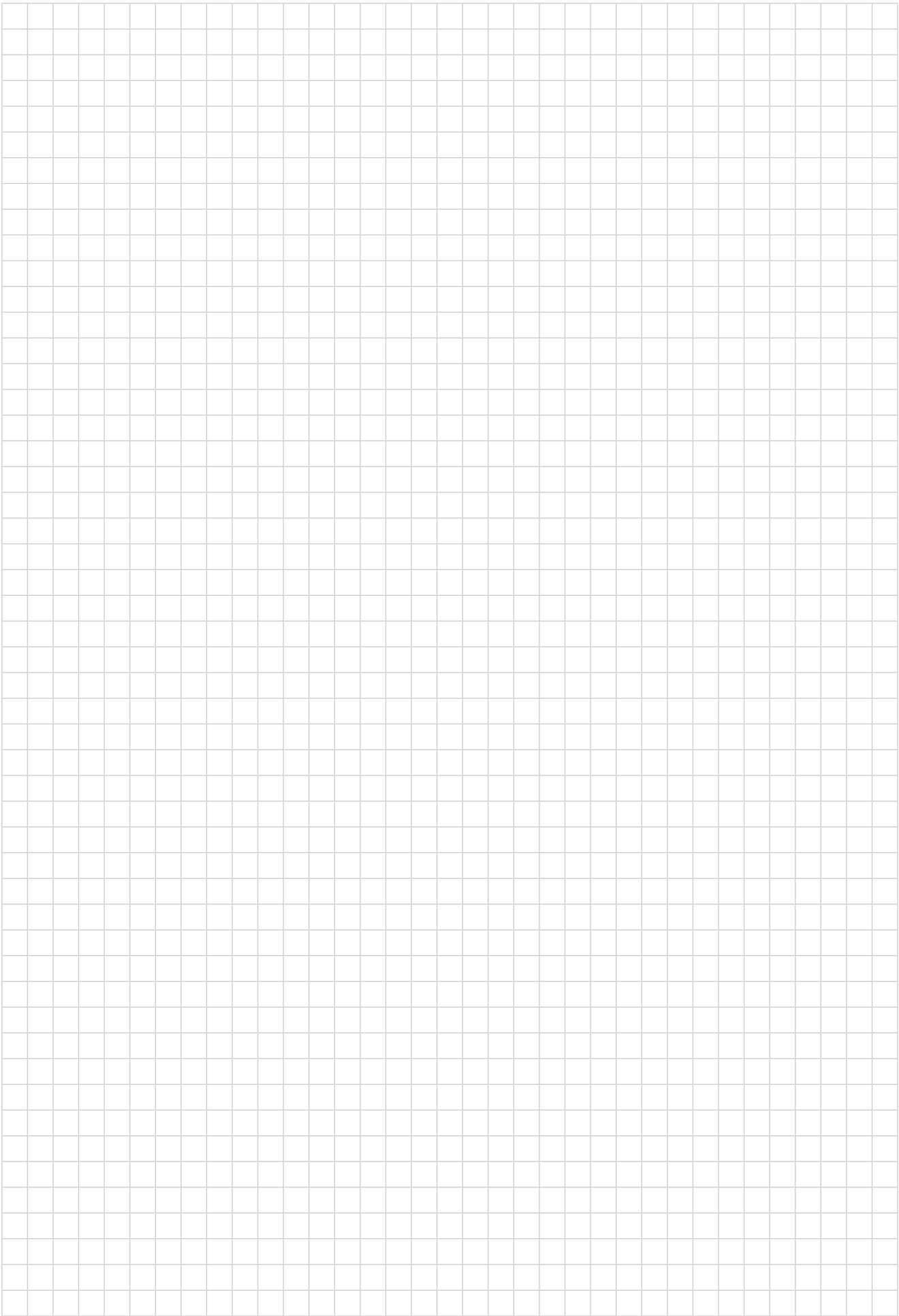
Reduce the cutting speed

Internal machining, UN 60°

No. of feeds	Pitch [TPI]															
	32	28	24	20	18	16	14	13	12	11	10	9	8	7	6	5
Total depth [mm]	0,49	0,59	0,66	0,78	0,86	0,95	1,10	1,17	1,26	1,38	1,49	1,66	1,86	2,11	2,44	2,93
16																
15																
14															0,10	0,10
13															0,11	0,12
12													0,08	0,08	0,11	0,14
11												0,08	0,10	0,11	0,12	0,14
10											0,08	0,09	0,10	0,12	0,12	0,15
9										0,08	0,10	0,10	0,11	0,12	0,13	0,16
8							0,08	0,08	0,08	0,10	0,10	0,11	0,11	0,13	0,14	0,17
9						0,08	0,09	0,10	0,10	0,11	0,11	0,12	0,12	0,14	0,15	0,18
6				0,08	0,08	0,09	0,10	0,11	0,11	0,12	0,12	0,13	0,13	0,15	0,16	0,20
5		0,08	0,08	0,09	0,10	0,10	0,11	0,12	0,13	0,13	0,13	0,14	0,15	0,17	0,18	0,22
4	0,08	0,10	0,10	0,11	0,12	0,12	0,13	0,13	0,15	0,15	0,15	0,16	0,17	0,20	0,20	0,25
3	0,10	0,10	0,14	0,13	0,14	0,14	0,15	0,16	0,18	0,18	0,18	0,19	0,21	0,23	0,24	0,30
2	0,14	0,14	0,16	0,17	0,19	0,20	0,21	0,22	0,24	0,24	0,25	0,26	0,28	0,28	0,32	0,38
1	0,17	0,17	0,18	0,20	0,23	0,22	0,23	0,25	0,27	0,27	0,27	0,28	0,30	0,34	0,35	0,42

Radial infeed [mm]

Reduce the cutting speed





Drilling from solid – B1

Indexable inserts for drilling	Product range overview	86
	Designation key	87
	Indexable inserts for drilling	90
Boring tools with indexable inserts	Product range overview	95
	Indexable insert drills	96
Technical information	Cutting data	112
	Cutting tool material application chart	118

Boring and precision boring – B2

Indexable inserts for boring and precision boring	Indexable inserts for counterboring and precision boring tools	119
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Product range overview of indexable inserts for drilling from solid

B 1



Machining	Insert shape	Description	Page
Drilling from solid		P484 . . For drilling from solid	90
		P284 . . For drilling from solid	92
		L For drilling from solid	93
		W For drilling from solid	94

Designation key for square indexable inserts for drilling from solid

P 284	0	S	–	2	N	–	A57
1	2	3		4	5		6

1	2	3	4
Walter indexable insert designation	Version	Position	Insert size
P284 For D3120 P484 For D4120 and B421 . .	0 Fully ground circumference 1 Circumference-sintered	C Centre insert P Outer insert S Centre insert and outer insert identical	P284 1 D _C = 16,00–20,00 2 D _C = 21,00–25,00 3 D _C = 26,00–30,00 4 D _C = 31,00–36,00 5 D _C = 37,00–42,00 P484 1 D _C = 13,50–16,00 2 D _C = 16,50–20,00 3 D _C = 20,50–24,00 4 D _C = 24,50–29,00 5 D _C = 29,50–35,00 6 D _C = 36,00–42,00 7 D _C = 43,00–50,00 8 D _C = 51,00–59,00

5	6
Cutting direction	Walter geometry
R RH-cutting N Neutral	A57 The stable one E57 The universal one E67 The sharp one

Designation key for exchangeable-tip drills for drilling from solid

P 600	5	–	D 18,50	R	WKK45C
1	2		3	4	5

1	2	3	4
Walter exchangeable-tip drill designation	Walter geometry	Insert diameter	Cutting direction
P600x For D4140 / D4240 / B401 . .	1 For ISO P 3 For ISO M and ISO S 4 For ISO N 5 For ISO K	D In mm	R RH-cutting

5
Coating

Designation key in accordance with ISO 1832 for indexable inserts for drilling from solid

L	C	M	X	06	T2	04	—	D57
1	2	3	4	5	6	7		8

B 1

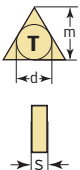
1
Insert shape
  

2
Clearance angle
 

3

Tolerances

Permissible deviation in mm for

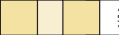


	d	m	s
E	± 0,025	± 0,025	± 0,025
M	± 0,05–0,15 ²	± 0,08–0,20 ²	± 0,130

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

4
Machining and fastening features
 
X Drawing or precise description of the indexable insert is required

5
Cutting edge length


6
Insert thickness

02 s = 2,38 T2 s = 2,78 03 s = 3,18 T3 s = 3,97 04 s = 4,76 05 s = 5,56 06 s = 6,35

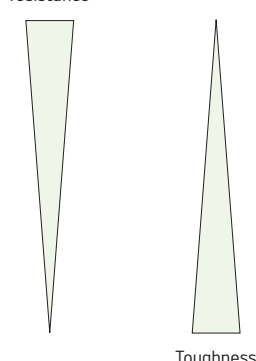
7
Corner radius

02 r = 0,2 mm 04 r = 0,4 mm 08 r = 0,8 mm

8
Manufacturer specifications
The ISO code includes nine symbols. The eighth and/or ninth symbols should only be used when required. The manufacturer can add other symbols which can be combined with the ISO code by means of a hyphen (e.g. for the chip breaker form).
Drilling from solid
A57, B57, D57, E57, E67

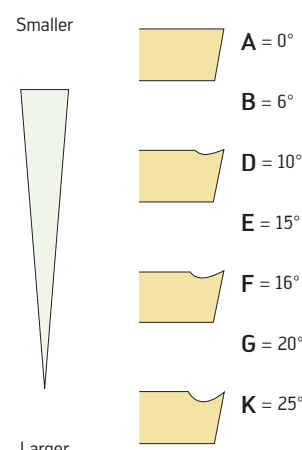
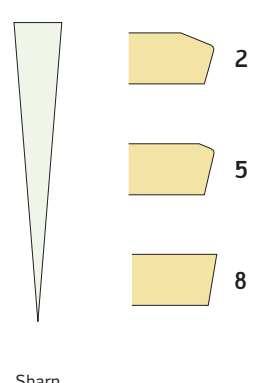
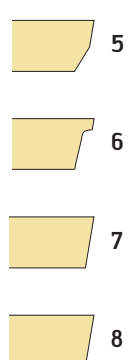
Designation key for cutting material grades – Drilling

W	S	P	45	G
Walter	1	2	3	4

1	2	3	4
1. Primary application or coating type	2. Primary application	ISO range of applications	Generation
P Steel M Stainless steel K Cast iron N NF metals S Materials with difficult cutting properties H Hard materials A CVD aluminium coating X PVD coating	P Steel M Stainless steel K Cast iron N NF metals S Materials with difficult cutting properties H Hard materials	Wear resistance 01 10 15 20 25 30 35 45  Toughness	S Tiger-tec® Silver C Color Select G Tiger-tec® Gold

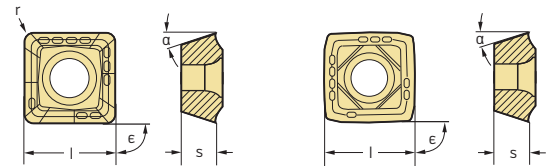
Geometry designation key for indexable inserts for drilling from solid

B	5	7
1	2	3

1	2	3
Chip breaker groove	Cutting edge	Flank face design
Smaller  Larger A = 0° B = 6° D = 10° E = 15° F = 16° G = 20° K = 25°	Heavily ground down  Sharp 2 5 8	 5 6 7 8

Square P484 .

Tiger-tec® Gold



Indexable inserts – external

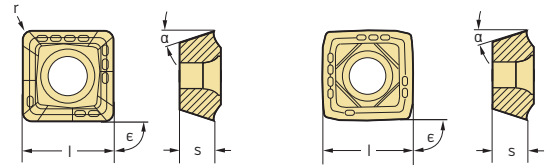
B 1

	Designation	Number of cutting edges	l mm	s mm	r mm	α	ε	P					M			K			N			S		
								HC					HC			HC			HC			HC		
								WKP25S	WKP35S	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40
	P4840P-1R-A57	4	4,55	1,96	0,29	11°	90°																	
	P4840P-2R-A57	4	5,52	2,28	0,34	11°	90°																	
	P4840P-3R-A57	4	6,5	2,8	0,4	11°	90°																	
	P4840P-4R-A57	4	7,8	3,36	0,48	11°	90°																	
	P4840P-5R-A57	4	9,56	4,12	0,59	11°	90°																	
	P4840P-6R-A57	4	11,75	4,87	0,7	11°	90°																	
	P4840P-7R-A57	4	14,03	5,53	0,8	11°	90°																	
	P4840P-8R-A57	4	16,5	5,53	1	11°	90°																	
	P4840P-1R-E57	4	4,55	1,96	0,29	11°	90°																	
	P4840P-2R-E57	4	5,52	2,28	0,34	11°	90°																	
	P4840P-3R-E57	4	6,5	2,8	0,4	11°	90°																	
	P4840P-4R-E57	4	7,8	3,36	0,48	11°	90°																	
	P4840P-5R-E57	4	9,56	4,12	0,59	11°	90°																	
	P4840P-6R-E57	4	11,75	4,87	0,7	11°	90°																	
	P4840P-7R-E57	4	14,03	5,53	0,8	11°	90°																	
	P4840P-8R-E57	4	16,5	5,53	1	11°	90°																	
	P4840P-1R-E67	4	4,55	1,96	0,29	11°	90°																	
	P4840P-2R-E67	4	5,52	2,28	0,34	11°	90°																	
	P4840P-3R-E67	4	6,5	2,8	0,4	11°	90°																	
	P4840P-4R-E67	4	7,8	3,36	0,48	11°	90°																	
	P4840P-5R-E67	4	9,56	4,12	0,59	11°	90°																	
	P4840P-6R-E67	4	11,75	4,87	0,7	11°	90°																	
	P4840P-7R-E67	4	14,03	5,53	0,8	11°	90°																	
	P4840P-8R-E67	4	16,5	5,53	1	11°	90°																	
	P4841P-1R-A57	4	4,55	1,96	0,29	11°	90°																	
	P4841P-2R-A57																							

HC = Coated carbide

Square P484 .

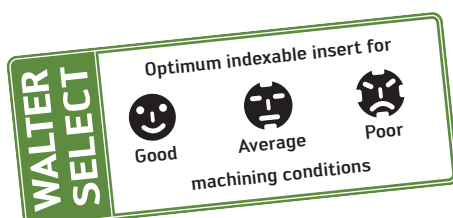
Tiger-tec® Gold



Indexable inserts – internal

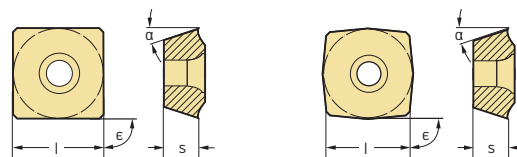
	Designation	Number of cutting edges	l mm	s mm	r mm	α	ε	P					M			K			N			S	
								HC					HC			HC			HC			HC	
								WKP25S	WKP35S	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WSP45	WSP45G	WXP40	WSP45	WSP45G
	P4841C-1R-A57	4	4,9	1,96	0,29	11°	90°																
	P4841C-2R-A57	4	5,95	2,38	0,34	11°	90°																
	P4841C-3R-A57	4	7	2,8	0,4	11°	90°																
	P4841C-4R-A57	4	8,4	3,36	0,48	11°	90°																
	P4841C-5R-A57	4	10,29	4,12	0,59	11°	90°																
	P4841C-6R-A57	4	12,24	4,87	0,7	11°	90°																
	P4841C-7R-A57	4	14,69	5,53	0,8	11°	90°																
	P4841C-8R-A57	4	17,49	5,53	1	11°	90°																
	P4841C-1R-E57	4	4,9	1,96	0,29	11°	90°																
	P4841C-2R-E57	4	5,95	2,38	0,34	11°	90°																
	P4841C-3R-E57	4	7	2,8	0,4	11°	90°																
	P4841C-4R-E57	4	8,4	3,36	0,48	11°	90°																
	P4841C-5R-E57	4	10,29	4,12	0,59	11°	90°																
	P4841C-6R-E57	4	12,24	4,87	0,7	11°	90°																
	P4841C-7R-E57	4	14,69	5,53	0,8	11°	90°																
	P4841C-8R-E57	4	17,49	5,53	1	11°	90°																
	P4840C-1R-E67	4	4,9	1,96	0,29	11°	90°																
	P4840C-2R-E67	4	5,95	2,38	0,34	11°	90°																

HC = Coated carbide



Square P284..

Tiger-tec® Gold

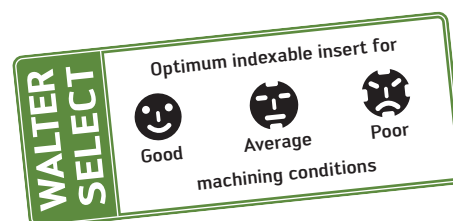


Indexable inserts

B 1

	Designation	Number of cutting edges	l mm	s mm	α	ε	P					M			K			N		S			
							WKP25S	WKP35S	WSP45S	WSP45G	WXP40	WSP45S	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WK40	WSP45G	WK40	WSP45S	WSP45G	WXP40
	P2840S-1N-A57	4	6,35	2,38	14°	90°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2840S-2N-A57	4	7,8	3,18	14°	90°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2840S-3N-A57	4	9,52	3,97	11°	96°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2840S-4N-A57	4	11	3,97	11°	96°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2840S-5N-A57	4	12,7	4,76	11°	96°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2840S-6N-A57	4	15	4,76	11°	96°		✖		✖		✖			✖							✖	
	P2840S-7N-A57	4	17,6	5,56	11°	96°		✖		✖		✖			✖							✖	
	P2840S-1N-E67	4	6,35	2,38	14°	90°		✖	✖	✖	✖	✖	✖		✖	✖	✖	✖		✖	✖	✖	✖
	P2840S-2N-E67	4	7,8	3,18	14°	90°		✖	✖	✖	✖	✖	✖		✖	✖	✖	✖		✖	✖	✖	✖
	P2840S-3N-E67	4	9,52	3,97	11°	96°		✖	✖	✖	✖	✖	✖		✖	✖	✖	✖		✖	✖	✖	✖
	P2840S-4N-E67	4	11	3,97	11°	96°		✖	✖	✖	✖	✖	✖		✖	✖	✖	✖		✖	✖	✖	✖
	P2840S-5N-E67	4	12,7	4,76	11°	96°		✖	✖	✖	✖	✖	✖		✖	✖	✖	✖		✖	✖	✖	✖
	P2840S-6N-E67	4	15	4,76	11°	96°		✖	✖	✖		✖	✖		✖		✖				✖	✖	
	P2840S-7N-E67	4	17,6	5,56	11°	96°		✖	✖	✖		✖	✖		✖	✖		✖			✖	✖	
	P2841S-1N-A57	4	6,35	2,38	14°	90°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2841S-2N-A57	4	7,8	3,18	14°	90°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2841S-3N-A57	4	9,52	3,97	11°	96°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2841S-4N-A57	4	11	3,97	11°	96°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2841S-5N-A57	4	12,7	4,76	11°	96°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2841S-6N-A57	4	15	4,76	11°	96°	✖	✖		✖	✖		✖	✖	✖	✖	✖					✖	
	P2841S-7N-A57	4	17,6	5,56	11°	96°	✖	✖		✖	✖		✖	✖	✖	✖	✖					✖	
	P2841S-1N-E57	4	6,35	2,38	14°	90°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2841S-2N-E57	4	7,8	3,18	14°	90°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2841S-3N-E57	4	9,52	3,97	11°	96°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2841S-4N-E57	4	11	3,97	11°	96°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2841S-5N-E57	4	12,7	4,76	11°	96°	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖				✖	✖	✖
	P2841S-6N-E57	4	15	4,76	11°	96°		✖		✖	✖		✖	✖	✖	✖	✖					✖	
	P2841S-7N-E57	4	17,6	5,56	11°	96°		✖		✖	✖		✖	✖	✖	✖	✖					✖	
	P2841S-1N-E67	4	6,35	2,38	14°	90°		✖	✖	✖	✖	✖	✖		✖	✖	✖				✖	✖	✖
	P2841S-2N-E67	4	7,8	3,18	14°	90°		✖	✖	✖	✖	✖	✖		✖	✖	✖				✖	✖	✖
	P2841S-3N-E67	4	9,52	3,97	11°	96°		✖	✖	✖	✖	✖	✖		✖	✖	✖				✖	✖	✖
	P2841S-4N-E67	4	11	3,97	11°	96°		✖	✖	✖	✖	✖	✖		✖	✖	✖				✖	✖	✖
	P2841S-5N-E67	4	12,7	4,76	11°	96°		✖	✖	✖	✖	✖	✖		✖	✖	✖				✖	✖	✖
	P2841S-6N-E67	4	15	4,76	11°	96°		✖		✖	✖		✖	✖	✖	✖	✖					✖	
	P2841S-7N-E67	4	17,6	5,56	11°	96°		✖		✖	✖		✖	✖	✖	✖	✖					✖	

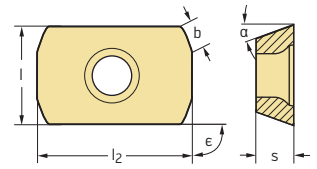
HC = Coated carbide



✖ ✖ ✖ / ★ New addition to the product range

Rectangular LCMX

Tiger-tec® Gold



Indexable inserts

Designation		Number of cutting edges	l mm	l ₂ mm	s mm	α	b mm	ε	P HC					M HC			K HC			N HC		S HC			
									WKP25S	WKP35S	WSP45S	WSP45G	WXP40	WSP45S	WSP45G	WXP40	WAK15	WKP25S	WKP35S	WXP40	WSP45S	WSP45G	WSP45S	WSP45G	WXP40
	LCMX050203-B57	2	4	5,2	2,38	7°	0,6	90°	☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺			☺	☺	☺
	LCMX06T204-B57	2	5,2	6,6	2,78	7°	0,8	90°	☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺			☺	☺	☺
	LCMX050203-D57	2	4	5,2	2,38	7°	0,6	90°	☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺			☺	☺	☺
	LCMX06T204-D57	2	5,2	6,6	2,78	7°	0,8	90°	☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺			☺	☺	☺
	LCMX050203-E57	2	4	5,2	2,38	7°	0,6	90°	☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺	☺	☺	☺	☺
	LCMX06T204-E57	2	5,2	6,6	2,78	7°	0,8	90°	☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺	☺	☺	☺	☺

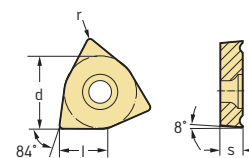
HC = Coated carbide

B 1

Trigon

WOMX / WOEX

Tiger-tec® Gold

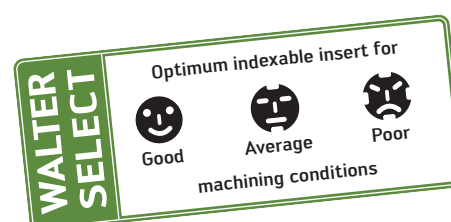


Indexable inserts

B 1

	Designation	Number of cutting edges	l mm	s mm	r mm	d mm	P					M			K				N	S		
							HC					HC			HC				HC	HC		
							WKP25S	WKP35S	WSP45S	WSP45G	WXP40	WSP45S	WSP45G	WXP40	WAK15	WKP25S	WKP35S	WXP40	WSP45G	WSP45S	WSP45G	WXP40
	WOMX030204-B57	3	3,31	2,3	0,4	5																
	WOMX040304-B57	3	4,2	3,18	0,4	6,35																
	WOMX05T304-B57	3	5,29	3,8	0,4	8																
	WOMX06T304-B57	3	6,62	3,8	0,4	10																
	WOMX080408-B57	3	7,94	4,8	0,8	12																
	WOMX100508-B57	3	9,92	5,3	0,8	15																
	WOMX120608-B57	3	11,64	6	0,8	17,5																
	WOMX030204-D57	3	3,31	2,3	0,4	5																
	WOMX040304-D57	3	4,2	3,18	0,4	6,35																
	WOMX05T304-D57	3	5,29	3,8	0,4	8																
	WOMX06T304-D57	3	6,62	3,8	0,4	10																
	WOMX080408-D57	3	7,94	4,8	0,8	12																
	WOMX100508-D57	3	9,92	5,3	0,8	15																
	WOMX120608-D57	3	11,64	6	0,8	17,5																
	WOEX030204-E57	3	3,31	2,3	0,4	5																
	WOEX040304-E57	3	4,2	3,18	0,4	6,35																
	WOEX05T304-E57	3	5,29	3,8	0,4	8																
	WOEX06T304-E57	3	6,62	3,8	0,4	10																
	WOEX080408-E57	3	7,94	4,8	0,8	12																
	WOEX100508-E57	3	9,92	5,3	0,8	15																
	WOEX120608-E57	3	11,64	6	0,8	17,5																

HC = Coated carbide



Product range overview of boring tools with indexable inserts

Indexable insert drills

				
Drilling depth	2 x D _c	3 x D _c	4 x D _c	5 x D _c
Designation	D4120.02	D4120.03	D4120.04	D4120.05
Dia. range [mm]	13,5–41,3	13,5–41,3	16,7–41,3	16,7–41,3
Page	96	100	104	108
				

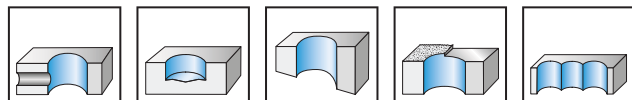
B 1

Indexable insert drills

D4120.02 inch


2×D_C

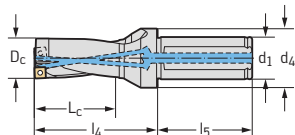
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	P	M	K	N	S	H	O
D4120.02	●	●	●	●	●	●	●

Tool

Parallel shank with flat



Designation	D _C inch	L _C inch	l ₄ inch	l ₅ inch	d ₁ inch	d ₄ inch	lbs	No. of indexable inserts	Type
★ D4120.02-13.49F19-P41	0,531	1,062	1,849	2,031	0,750	1,125	0,51	1 1	P484 . P-1R- .. P484 . C-1R- ..
★ D4120.02-13.89F19-P41	0,547	1,094	1,881	2,031	0,750	1,125	0,51	1 1	
★ D4120.02-14.27F19-P41	0,562	1,124	1,911	2,031	0,750	1,125	0,52	1 1	
★ D4120.02-14.68F19-P41	0,578	1,156	1,943	2,031	0,750	1,125	0,52	1 1	
★ D4120.02-15.09F19-P41	0,594	1,188	1,975	2,031	0,750	1,125	0,52	1 1	
★ D4120.02-15.47F19-P41	0,609	1,218	2,005	2,031	0,750	1,125	0,53	1 1	
★ D4120.02-15.88F19-P41	0,625	1,250	2,037	2,031	0,750	1,125	0,54	1 1	
Parallel shank with flat									
★ D4120.02-16.66F26-P42	0,656	1,312	2,310	2,281	1,000	1,375	0,93	1 1	P484 . P-2R- .. P484 . C-2R- ..
★ D4120.02-17.04F26-P42	0,671	1,342	2,340	2,281	1,000	1,375	0,94	1 1	
★ D4120.02-17.45F26-P42	0,687	1,374	2,370	2,281	1,000	1,375	0,77	1 1	
★ D4120.02-17.86F26-P42	0,703	1,406	2,410	2,281	1,000	1,375	0,95	1 1	
★ D4120.02-18.24F26-P42	0,718	1,436	2,440	2,281	1,000	1,375	0,98	1 1	
★ D4120.02-19.05F26-P42	0,750	1,500	2,500	2,281	1,000	1,375	0,99	1 1	
★ D4120.02-19.43F26-P42	0,765	1,530	2,530	2,281	1,000	1,375	1,00	1 1	
★ D4120.02-19.84F26-P42	0,781	1,562	2,560	2,281	1,000	1,375	0,88	1 1	
Parallel shank with flat									
★ D4120.02-20.62F26-P43	0,812	1,624	2,620	2,281	1,000	1,375	1,03	1 1	P484 . P-3R- .. P484 . C-3R- ..
★ D4120.02-21.41F26-P43	0,843	1,686	2,690	2,281	1,000	1,375	1,04	1 1	
★ D4120.02-22.23F31-P43	0,875	1,750	2,880	2,281	1,250	1,625	1,48	1 1	
★ D4120.02-23.01F31-P43	0,906	1,812	2,940	2,281	1,250	1,625	1,51	1 1	
★ D4120.02-23.39F31-P43	0,921	1,842	2,970	2,281	1,250	1,625	1,53	1 1	
★ D4120.02-23.80F31-P43	0,937	1,874	3,000	2,281	1,250	1,625	1,50	1 1	

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

Assembly parts

	D _c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,375	1,421–1,625
	Clamping screw for indexable insert Tightening torque	FS2120 (Torx 6IP) 0,4 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

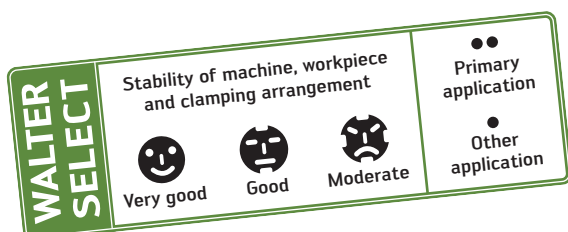
Accessories

	D _c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

			P HC					M HC			K HC			N HC			S HC			
Designation		Size	WKP25S	WKP35S	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	
	P4840P-R-A57	1-3																		
	P4840P-R-E57	1-3																		
	P4840P-R-E67	1-3																		
	P4841P-R-A57	1-3																		
	P4841P-R-E57	1-3																		
	P4840C-R-E67	1-3																		
	P4841C-R-A57	1-3																		
	P4841C-R-E57	1-3																		

HC = Coated carbide

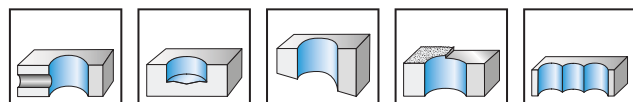


Indexable insert drills

D4120.02 inch

2×D_C

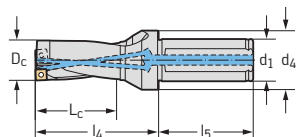
Z=1



	P	M	K	N	S	H	O
D4120.02	●	●	●	●	●	●	●

Tool

Parallel shank with flat



Designation	D _C inch	L _C inch	l ₄ inch	l ₅ inch	d ₁ inch	d ₄ inch	lbs	No. of indexable inserts	Type
★ D4120.02-24.59F31-P44	0,968	1,936	3,070	2,281	1,250	1,625	1,57	1 1	P484 . P-4R- ... P484 . C-4R- ...
★ D4120.02-24.99F31-P44	0,984	1,968	3,100	2,281	1,250	1,625	1,59	1 1	
★ D4120.02-25.40F31-P44	1,000	2,000	3,130	2,281	1,250	1,625	1,61	1 1	
★ D4120.02-26.57F31-P44	1,046	2,092	3,220	2,281	1,250	1,625	1,59	1 1	
★ D4120.02-26.97F31-P44	1,062	2,124	3,250	2,281	1,250	1,625	1,61	1 1	
★ D4120.02-28.17F31-P44	1,109	2,218	3,350	2,281	1,250	1,625	1,66	1 1	
★ D4120.02-28.58F31-P44	1,125	2,250	3,380	2,281	1,250	1,625	1,72	1 1	
Parallel shank with flat									
★ D4120.02-29.74F31-P45	1,171	2,342	3,470	2,281	1,250	1,625	1,70	1 1	P484 . P-5R- ... P484 . C-5R- ...
★ D4120.02-30.15F31-P45	1,187	2,374	3,500	2,281	1,250	1,625	1,74	1 1	
★ D4120.02-31.75F31-P45	1,250	2,500	3,630	2,281	1,250	1,625	1,81	1 1	
★ D4120.02-33.32F31-P45	1,312	2,624	3,750	2,281	1,250	1,625	1,90	1 1	
★ D4120.02-34.11F31-P45	1,343	2,686	3,820	2,281	1,250	1,625	1,95	1 1	
★ D4120.02-34.93F31-P45	1,375	2,750	3,880	2,281	1,250	1,625	1,99	1 1	
Parallel shank with flat									
★ D4120.02-36.09F31-P46	1,421	2,842	3,970	2,281	1,250	1,625	1,97	1 1	P484 . P-6R- ... P484 . C-6R- ...
★ D4120.02-36.50F38-P46	1,437	2,874	4,250	2,688	1,500	1,940	2,86	1 1	
★ D4120.02-38.10F38-P46	1,500	3,000	4,380	2,688	1,500	1,940	3,00	1 1	
★ D4120.02-39.67F38-P46	1,562	3,124	4,500	2,688	1,500	1,940	3,10	1 1	
★ D4120.02-41.28F38-P46	1,625	3,250	4,630	2,688	1,500	1,940	3,38	1 1	

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

Assembly parts

	D _c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,375	1,421–1,625
	Clamping screw for indexable insert Tightening torque	FS2120 (Torx 6IP) 0,4 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

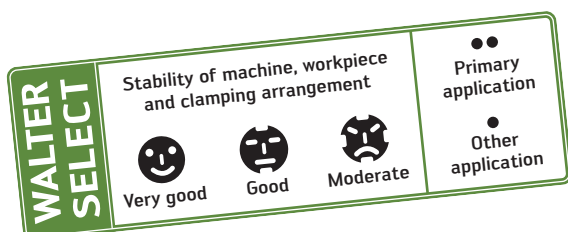
Accessories

	D _c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	Size	P HC					M HC			K HC			N HC			S HC		
			WKP25S	WKP35S	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40
	P4840P-R-A57	4–6																	
	P4840P-R-E57	4–6																	
	P4840P-R-E67	4–6																	
	P4841P-R-A57	4–6																	
	P4841P-R-E57	4–6																	
	P4840C-R-E67	4–6																	
	P4841C-R-A57	4–6																	
	P4841C-R-E57	4–6																	

HC = Coated carbide

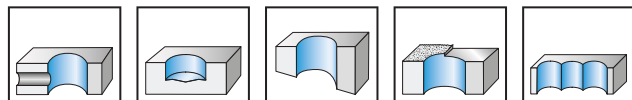


Indexable insert drills

D4120.03 inch


3×D_C

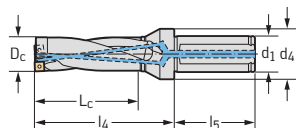
Z=1



	P	M	K	N	S	H	O
D4120.03	●	●	●	●	●	●	●

Tool

Parallel shank with flat



Designation	D _C inch	L _C inch	l ₄ inch	l ₅ inch	d ₁ inch	d ₄ inch	lbs	indexable inserts	Type
★ D4120.03-13.49F19-P41	0,531	1,593	2,380	2,031	0,750	1,125	0,52	1 1	P484 . P-1R- ... P484 . C-1R- ...
★ D4120.03-13.89F19-P41	0,547	1,641	2,428	2,031	0,750	1,125	0,53	1 1	
D4120.03-14.27F19-P41	0,562	1,686	2,473	2,031	0,750	1,125	0,53	1 1	
D4120.03-14.68F19-P41	0,578	1,734	2,521	2,031	0,750	1,125	0,54	1 1	
★ D4120.03-15.09F19-P41	0,594	1,782	2,569	2,031	0,750	1,125	0,55	1 1	
★ D4120.03-15.47F19-P41	0,609	1,827	2,614	2,031	0,750	1,125	0,55	1 1	
D4120.03-15.88F19-P41	0,625	1,875	2,662	2,031	0,750	1,125	0,56	1 1	
D4120.03-16.66F26-P42	0,656	1,968	2,970	2,281	1,000	1,375	0,95	1 1	P484 . P-2R- ... P484 . C-2R- ...
★ D4120.03-17.04F26-P42	0,671	2,013	3,010	2,281	1,000	1,375	0,98	1 1	
★ D4120.03-17.45F26-P42	0,687	2,061	3,060	2,281	1,000	1,375	0,97	1 1	
★ D4120.03-17.86F26-P42	0,703	2,109	3,110	2,281	1,000	1,375	1,02	1 1	
★ D4120.03-18.24F26-P42	0,718	2,154	3,150	2,281	1,000	1,375	1,01	1 1	
D4120.03-19.05F26-P42	0,750	2,250	3,250	2,281	1,000	1,375	1,01	1 1	
★ D4120.03-19.43F26-P42	0,765	2,295	3,300	2,281	1,000	1,375	1,04	1 1	
D4120.03-19.84F26-P42	0,781	2,343	3,340	2,281	1,000	1,375	1,04	1 1	P484 . P-3R- ... P484 . C-3R- ...
D4120.03-20.62F26-P43	0,812	2,436	3,440	2,281	1,000	1,375	1,04	1 1	
D4120.03-21.41F26-P43	0,843	2,529	3,530	2,281	1,000	1,375	1,06	1 1	
D4120.03-22.23F31-P43	0,875	2,625	3,760	2,281	1,250	1,625	1,56	1 1	
★ D4120.03-23.01F31-P43	0,906	2,718	3,850	2,281	1,250	1,625	1,60	1 1	
★ D4120.03-23.39F31-P43	0,921	2,763	3,890	2,281	1,250	1,625	1,62	1 1	
★ D4120.03-23.80F31-P43	0,937	2,811	3,940	2,281	1,250	1,625	1,64	1 1	

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

Assembly parts

	D _c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,375	1,421–1,625
	Clamping screw for indexable insert Tightening torque	FS2120 (Torx 6IP) 0,4 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

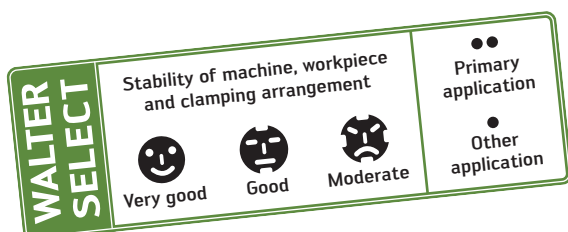
Accessories

	D _c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	Size	P HC					M HC			K HC			N HC			S HC			
			WKP25S	WKP35S	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	
	P4840P-R-A57	1–3																		
	P4840P-R-E57	1–3																		
	P4840P-R-E67	1–3																		
	P4841P-R-A57	1–3																		
	P4841P-R-E57	1–3																		
	P4840C-R-E67	1–3																		
	P4841C-R-A57	1–3																		
	P4841C-R-E57	1–3																		

HC = Coated carbide

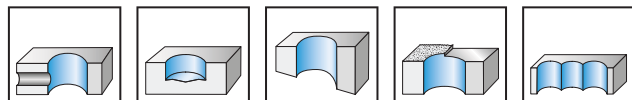


Indexable insert drills

D4120.03 inch

3×D_C

Z=1



	P	M	K	N	S	H	O
D4120.03	●	●	●	●	●	●	●

Tool

	Designation	D _C inch	L _C inch	l ₄ inch	l ₅ inch	d ₁ inch	d ₄ inch	lbs	No. of indexable inserts	Type
Parallel shank with flat 	★ D4120.03-24.59F31-P44	0,968	2,904	4,030	2,281	1,250	1,625	1,69	1 1	P484 . P-4R- .. P484 . C-4R- ..
	★ D4120.03-24.99F31-P44	0,984	2,952	4,080	2,281	1,250	1,625	1,70	1 1	
	D4120.03-25.40F31-P44	1,000	3,000	4,130	2,281	1,250	1,625	1,68	1 1	
	★ D4120.03-26.57F31-P44	1,046	3,138	4,270	2,281	1,250	1,625	1,73	1 1	
	D4120.03-26.97F31-P44	1,062	3,186	4,320	2,281	1,250	1,625	1,76	1 1	
	★ D4120.03-28.17F31-P44	1,109	3,327	4,459	2,281	1,250	1,625	1,83	1 1	
	D4120.03-28.58F31-P44	1,125	3,375	4,509	2,281	1,250	1,625	1,86	1 1	
Parallel shank with flat 	★ D4120.03-29.74F31-P45	1,171	3,513	4,640	2,281	1,250	1,625	1,90	1 1	P484 . P-5R- .. P484 . C-5R- ..
	★ D4120.03-30.15F31-P45	1,187	3,561	4,690	2,281	1,250	1,625	1,92	1 1	
	D4120.03-31.75F31-P45	1,250	3,750	4,880	2,281	1,250	1,625	2,06	1 1	
	D4120.03-33.32F31-P45	1,312	3,936	5,070	2,281	1,250	1,625	2,20	1 1	
	★ D4120.03-34.11F31-P45	1,343	4,029	5,160	2,281	1,250	1,625	2,27	1 1	
	D4120.03-34.93F31-P45	1,375	4,125	5,260	2,281	1,250	1,625	2,34	1 1	
Parallel shank with flat 	★ D4120.03-36.09F31-P46	1,421	4,263	5,390	2,281	1,250	1,625	2,33	1 1	P484 . P-6R- .. P484 . C-6R- ..
	★ D4120.03-36.50F38-P46	1,437	4,311	5,690	2,688	1,500	1,940	3,31	1 1	
	★ D4120.03-38.10F38-P46	1,500	4,500	5,880	2,688	1,500	1,940	3,49	1 1	
	★ D4120.03-39.67F38-P46	1,562	4,686	6,070	2,688	1,500	1,940	3,68	1 1	
	★ D4120.03-41.28F38-P46	1,625	4,875	6,260	2,688	1,500	1,940	3,89	1 1	

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

Assembly parts

	D _c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,375	1,421–1,625
	Clamping screw for indexable insert Tightening torque	FS2120 (Torx 6IP) 0,4 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

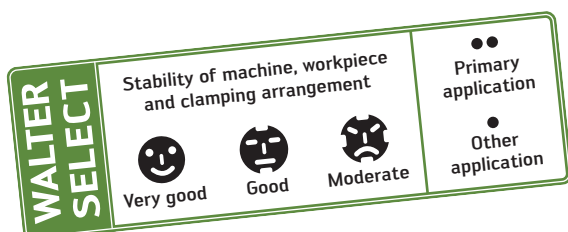
Accessories

	D _c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	Size	P				M			K			N			S				
			HC				HC			HC			HC			HC				
			WKP25S	WKP35S	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	
	P4840P-R-A57	4-6																		
	P4840P-R-E57	4-6																		
	P4840P-R-E67	4-6																		
	P4841P-R-A57	4-6																		
	P4841P-R-E57	4-6																		
	P4840C-R-E67	4-6																		
	P4841C-R-A57	4-6																		
	P4841C-R-E57	4-6																		

HC = Coated carbide

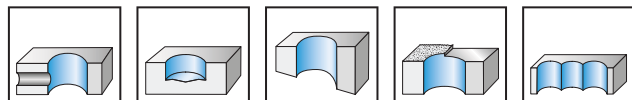


Indexable insert drills

D4120.04 inch

4×D_C

Z=1



	P	M	K	N	S	H	O
D4120.04	●	●	●	●	●		

Tool	Designation	D _C inch	L _C inch	l ₄ inch	l ₅ inch	d ₁ inch	d ₄ inch	lbs	No. of indexable inserts	Type
Parallel shank with flat 	★ D4120.04-16.66F26-P42	0,656	2,624	3,620	2,281	1,000	1,375	1,03	1 1	P484 . P-2R- .. P484 . C-2R- ..
	★ D4120.04-17.04F26-P42	0,671	2,684	3,680	2,281	1,000	1,375	1,04	1 1	
	★ D4120.04-17.45F26-P42	0,687	2,748	3,750	2,281	1,000	1,375	1,00	1 1	
	★ D4120.04-17.86F26-P42	0,703	2,812	3,810	2,281	1,000	1,375	1,05	1 1	
	★ D4120.04-18.24F26-P42	0,718	2,872	3,870	2,281	1,000	1,375	1,03	1 1	
	★ D4120.04-19.05F26-P42	0,750	3,000	4,000	2,281	1,000	1,375	1,10	1 1	
	★ D4120.04-19.43F26-P42	0,765	3,060	4,060	2,281	1,000	1,375	1,07	1 1	
	★ D4120.04-19.84F26-P42	0,781	3,124	4,120	2,281	1,000	1,375	1,13	1 1	
Parallel shank with flat 	D4120.04-20.62F26-P43	0,812	3,248	4,250	2,281	1,000	1,375	1,08	1 1	P484 . P-3R- .. P484 . C-3R- ..
	★ D4120.04-21.41F26-P43	0,843	3,372	4,370	2,281	1,000	1,375	1,19	1 1	
	D4120.04-22.23F31-P43	0,875	3,500	4,630	2,281	1,250	1,625	1,65	1 1	
	★ D4120.04-23.01F31-P43	0,906	3,624	4,750	2,281	1,250	1,625	1,71	1 1	
	★ D4120.04-23.39F31-P43	0,921	3,684	4,810	2,281	1,250	1,625	1,72	1 1	
	D4120.04-23.80F31-P43	0,937	3,748	4,880	2,281	1,250	1,625	1,74	1 1	
Parallel shank with flat 	★ D4120.04-24.59F31-P44	0,968	3,872	5,000	2,281	1,250	1,625	1,81	1 1	P484 . P-4R- .. P484 . C-4R- ..
	D4120.04-24.99F31-P44	0,984	3,936	5,070	2,281	1,250	1,625	1,79	1 1	
	D4120.04-25.40F31-P44	1,000	4,000	5,130	2,281	1,250	1,625	1,81	1 1	
	★ D4120.04-26.57F31-P44	1,046	4,184	5,309	2,281	1,250	1,625	1,90	1 1	
	D4120.04-26.97F31-P44	1,062	4,248	5,380	2,281	1,250	1,625	1,92	1 1	
	★ D4120.04-28.17F31-P44	1,109	4,436	5,570	2,281	1,250	1,625	2,02	1 1	
	★ D4120.04-28.58F31-P44	1,125	4,500	5,630	2,281	1,250	1,625	1,97	1 1	

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

Assembly parts

	D _c [inch]	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,375	1,421–1,625
	Clamping screw for indexable insert Tightening torque	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

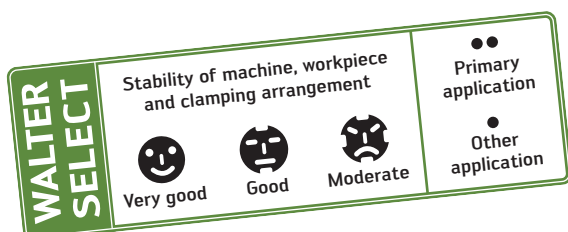
Accessories

	D _c [inch]	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	Size	P HC					M HC			K HC			N HC			S HC		
			WKP25S	WKP35S	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40
	P4840P-R-A57	2–4																	
	P4840P-R-E57	2–4																	
	P4840P-R-E67	2–4																	
	P4841P-R-A57	2–4																	
	P4841P-R-E57	2–4																	
	P4840C-R-E67	2–4																	
	P4841C-R-A57	2–4																	
	P4841C-R-E57	2–4																	

HC = Coated carbide

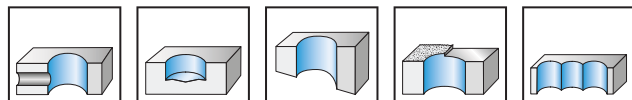


Indexable insert drills

D4120.04 inch

4×D_C

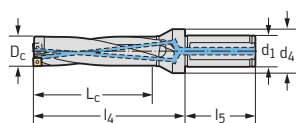
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	P	M	K	N	S	H	O
D4120.04	●	●	●	●	●		

Tool

Parallel shank with flat



Designation	D _C inch	L _C inch	l ₄ inch	l ₅ inch	d ₁ inch	d ₄ inch	lbs	No. of indexable inserts	Type
★ D4120.04-29.74F31-P45	1,171	4,684	5,810	2,281	1,250	1,625	2,13	1 1	P484 . P-5R- .. P484 . C-5R- ..
D4120.04-30.15F31-P45	1,187	4,748	5,880	2,281	1,250	1,625	2,16	1 1	
D4120.04-31.75F31-P45	1,250	5,000	6,130	2,281	1,250	1,625	2,31	1 1	
★ D4120.04-33.32F31-P45	1,312	5,248	6,380	2,281	1,250	1,625	2,51	1 1	
★ D4120.04-34.11F31-P45	1,343	5,372	6,496	2,281	1,250	1,625	2,36	1 1	
D4120.04-34.93F31-P45	1,375	5,500	6,630	2,281	1,250	1,625	2,69	1 1	
Parallel shank with flat									
★ D4120.04-36.09F31-P46	1,421	5,684	6,810	2,281	1,250	1,625	2,39	1 1	P484 . P-6R- .. P484 . C-6R- ..
★ D4120.04-36.50F38-P46	1,437	5,748	7,130	2,688	1,500	1,940	3,65	1 1	
★ D4120.04-38.10F38-P46	1,500	6,000	7,380	2,688	1,500	1,940	3,88	1 1	
★ D4120.04-39.67F38-P46	1,562	6,248	7,630	2,688	1,500	1,940	4,14	1 1	
★ D4120.04-41.28F38-P46	1,625	6,500	7,880	2,688	1,500	1,940	4,42	1 1	

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

Assembly parts

	D _c [inch]	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,375	1,421–1,625
	Clamping screw for indexable insert Tightening torque	FS2111 (Torx 7IP) 0,9 Nm	FS1454 (Torx 8IP) 1,2 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

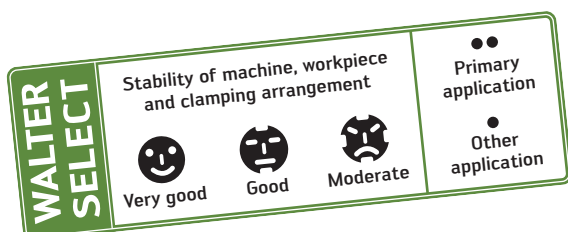
Accessories

	D _c [inch]	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	Size	P HC					M HC			K HC			N HC			S HC		
			WKP25S	WKP35S	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40
	P4840P-R-A57	5–6																	
	P4840P-R-E57	5–6																	
	P4840P-R-E67	5–6																	
	P4841P-R-A57	5–6																	
	P4841P-R-E57	5–6																	
	P4840C-R-E67	5–6																	
	P4841C-R-A57	5–6																	
	P4841C-R-E57	5–6																	

HC = Coated carbide

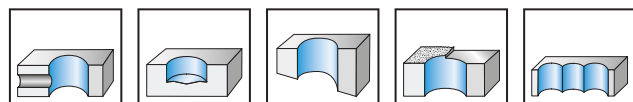


Indexable insert drills

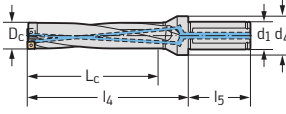
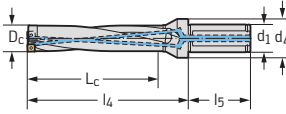
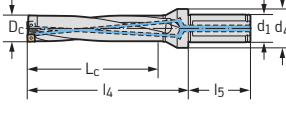
D4120.05 inch


5×D_C

Z=1



	P	M	K	N	S	H	O
D4120.05	●	●	●	●	●	●	●

Tool	Designation	D _C inch	L _C inch	l ₄ inch	l ₅ inch	d ₁ inch	d ₄ inch	lbs	No. of indexable inserts	Type
Parallel shank with flat 	★ D4120.05-16.66F26-P42	0,656	3,280	4,280	2,281	1,000	1,375	1,03	1 1	P484 . P-2R- ... P484 . C-2R- ...
	★ D4120.05-17.04F26-P42	0,671	3,355	4,355	2,281	1,000	1,375	1,05	1 1	
	★ D4120.05-17.45F26-P42	0,687	3,435	4,435	2,281	1,000	1,375	1,07	1 1	
	★ D4120.05-17.86F26-P42	0,703	3,515	4,515	2,281	1,000	1,375	1,05	1 1	
	★ D4120.05-18.24F26-P42	0,718	3,590	4,590	2,281	1,000	1,375	1,11	1 1	
	★ D4120.05-19.05F26-P42	0,750	3,750	4,750	2,281	1,000	1,375	1,18	1 1	
	★ D4120.05-19.43F26-P42	0,765	3,825	4,825	2,281	1,000	1,375	1,12	1 1	
Parallel shank with flat 	★ D4120.05-19.84F26-P42	0,781	3,905	4,905	2,281	1,000	1,375	1,14	1 1	P484 . P-3R- ... P484 . C-3R- ...
	★ D4120.05-20.62F26-P43	0,812	4,060	5,060	2,281	1,000	1,375	1,18	1 1	
	★ D4120.05-21.41F26-P43	0,843	4,215	5,215	2,281	1,000	1,375	1,24	1 1	
	★ D4120.05-22.23F31-P43	0,875	4,375	5,505	2,281	1,250	1,625	1,77	1 1	
	★ D4120.05-23.01F31-P43	0,906	4,530	5,660	2,281	1,250	1,625	1,77	1 1	
	★ D4120.05-23.39F31-P43	0,921	4,605	5,735	2,281	1,250	1,625	1,80	1 1	
Parallel shank with flat 	★ D4120.05-23.80F31-P43	0,937	4,685	5,815	2,281	1,250	1,625	1,88	1 1	P484 . P-4R- ... P484 . C-4R- ...
	★ D4120.05-24.59F31-P44	0,968	4,840	5,970	2,281	1,250	1,625	1,96	1 1	
	★ D4120.05-24.99F31-P44	0,984	4,920	6,050	2,281	1,250	1,625	1,98	1 1	
	★ D4120.05-25.40F31-P44	1,000	5,000	6,130	2,362	1,250	1,625	2,01	1 1	
	★ D4120.05-26.57F31-P44	1,046	5,230	6,359	2,281	1,250	1,625	2,06	1 1	
	★ D4120.05-26.97F31-P44	1,062	5,310	6,440	2,281	1,250	1,625	2,10	1 1	
	★ D4120.05-28.17F31-P44	1,109	5,545	6,675	2,281	1,250	1,625	2,22	1 1	
	★ D4120.05-28.58F31-P44	1,125	5,625	6,755	2,281	1,250	1,625	2,27	1 1	

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

Assembly parts

	D _c [inch]	0,656–0,781	0,812–0,937	0,906	0,968–1,125	1,171–1,375	1,421–1,625
	Clamping screw for indexable insert	FS2111 (Torx 7IP)	FS1454 (Torx 8IP)	FS1454 (Torx 8IP)	FS1457 (Torx 9IP)	FS2080 (Torx 15IP)	FS1453 (Torx 15IP)
	Tightening torque	0,9 Nm	1,2 Nm	1,2 Nm	2,0 Nm	2,5 Nm	3,5 Nm
	Interchangeable blade			FS2012 (Torx 8IP)			

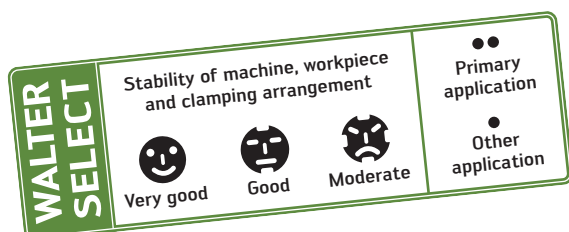
Accessories

	D _c [inch]	0,656–0,781	0,812–0,937	0,906	0,968–1,125	1,171–1,625
	Torque screwdriver, analogue	FS2002	FS2002	FS2002	FS2004	FS2004
	Tightening torque	0,4–1,2 Nm	0,4–1,2 Nm	0,4–1,2 Nm	1,5–5,0 Nm	1,5–5,0 Nm
	Torque screwdriver, digital		FS2248	FS2248	FS2248	FS2248
	Tightening torque		1,0–6,0 Nm	1,0–6,0 Nm	1,0–6,0 Nm	1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)		FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	Size	P HC					M HC			K HC			N HC			S HC		
			WKP25S	WKP35S	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40
	P4840P-R-A57	2–4																	
	P4840P-R-E57	2–4																	
	P4840P-R-E67	2–4																	
	P4841P-R-A57	2–4																	
	P4841P-R-E57	2–4																	
	P4840C-R-E67	2–4																	
	P4841C-R-A57	2–4																	
	P4841C-R-E57	2–4																	

HC = Coated carbide

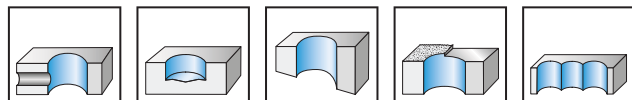


Indexable insert drills

D4120.05 inch


5×D_c

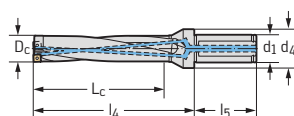
Z=1



	P	M	K	N	S	H	O
D4120.05	●	●	●	●	●	●	●

Tool

Parallel shank with flat



Designation	D _c inch	L _c inch	l ₄ inch	l ₅ inch	d ₁ inch	d ₄ inch	lbs	No. of indexable inserts	Type
★ D4120.05-29.74F31-P45	1,171	5,855	6,985	2,281	1,250	1,625	2,33	1 1	P484 . P-5R- .. P484 . C-5R- ..
★ D4120.05-30.15F31-P45	1,187	5,935	7,065	2,281	1,250	1,625	2,37	1 1	
★ D4120.05-31.75F31-P45	1,250	6,250	7,380	2,281	1,250	1,625	2,58	1 1	
★ D4120.05-33.32F31-P45	1,312	6,560	7,690	2,281	1,250	1,625	2,80	1 1	
★ D4120.05-34.11F31-P45	1,343	6,715	7,845	2,281	1,250	1,625	2,91	1 1	
★ D4120.05-34.93F31-P45	1,375	6,875	8,005	2,281	1,250	1,625	3,03	1 1	
Parallel shank with flat									
★ D4120.05-36.09F31-P46	1,421	7,105	8,235	2,281	1,250	1,625	2,98	1 1	P484 . P-6R- .. P484 . C-6R- ..
★ D4120.05-36.50F38-P46	1,437	7,185	8,565	2,688	1,500	1,940	3,89	1 1	
★ D4120.05-38.10F38-P46	1,500	7,500	8,880	2,688	1,500	1,940	4,27	1 1	
★ D4120.05-39.67F38-P46	1,562	7,810	9,190	2,688	1,500	1,940	4,60	1 1	
★ D4120.05-41.28F38-P46	1,625	8,125	9,505	2,688	1,500	1,940	5,06	1 1	

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

Assembly parts

	D _c [inch]	0,656–0,781	0,812–0,937	0,906	0,968–1,125	1,171–1,375	1,421–1,625
	Clamping screw for indexable insert	FS2111 (Torx 7IP)	FS1454 (Torx 8IP)	FS1454 (Torx 8IP)	FS1457 (Torx 9IP)	FS2080 (Torx 15IP)	FS1453 (Torx 15IP)
	Tightening torque	0,9 Nm	1,2 Nm	1,2 Nm	2,0 Nm	2,5 Nm	3,5 Nm
	Interchangeable blade			FS2012 (Torx 8IP)			

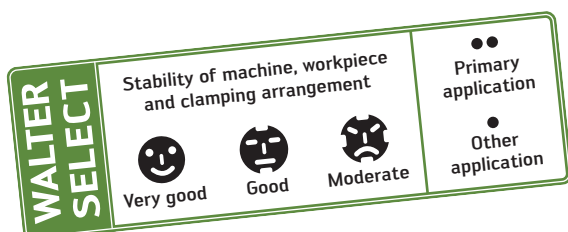
Accessories

	D _c [inch]	0,656–0,781	0,812–0,937	0,906	0,968–1,125	1,171–1,625
	Torque screwdriver, analogue	FS2002	FS2002	FS2002	FS2004	FS2004
	Tightening torque	0,4–1,2 Nm	0,4–1,2 Nm	0,4–1,2 Nm	1,5–5,0 Nm	1,5–5,0 Nm
	Torque screwdriver, digital		FS2248	FS2248	FS2248	FS2248
	Tightening torque		1,0–6,0 Nm	1,0–6,0 Nm	1,0–6,0 Nm	1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)		FS2013 (Torx 9IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	Size	P					M			K			N			S		
			HC					HC			HC			HC			HC		
			WKP25S	WKP35S	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40	WKP25S	WKP35S	WXP40	WSP45	WSP45G	WXP40	WSP45	WSP45G	WXP40
	P4840P-R-A57	5–6																	
	P4840P-R-E57	5–6																	
	P4840P-R-E67	5–6																	
	P4841P-R-A57	5–6																	
	P4841P-R-E57	5–6																	
	P4840C-R-E67	5–6																	
	P4841C-R-A57	5–6																	
	P4841C-R-E57	5–6																	

HC = Coated carbide



Cutting data for D4120

= Wet machining (E = emulsion, O = oil)
 = Dry machining is possible (M = MQL, L = dry)
The cutting data must be selected from Walter GPS

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

B 1

Material group	 = Wet machining (E = emulsion, O = oil)  = Dry machining is possible (M = MQL, L = dry) The cutting data must be selected from Walter GPS * The classification of the machining groups can be found in the material group comparison table				Brinell hardness HB	Tensile strength R _m N/mm²	Machining group *			Indexable insert geometry						
										Starting values for feed f [mm/rev]						
										A 57						
										Size 1	Size 2	Size 3	Size 4	Size 5 Size 6	Size 7 Size 8	
D _c [mm]																
13,5–16,4 16,5–20,4 20,5–24,4 24,5–29,4 29,5–42,4 42,5–59,4																
Overview of the main material groups and code letters																
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●		0,05	0.06	0.06	0.09	0.12	0.13		
		C > 0.25% to ≤ 0.55%	Annealed	190	640	P2	●●		0.07	0.09	0.10	0.13	0.18	0.19		
		C > 0.25% to ≤ 0.55%	Heat-treated	210	710	P3	●●		0.07	0.09	0.10	0.13	0.18	0.19		
		C > 0.55%	Annealed	190	640	P4	●●		0.07	0.09	0.10	0.13	0.18	0.19		
		C > 0.55%	Heat-treated	300	1010	P5	●●		0.07	0.09	0.10	0.13	0.18	0.19		
		Free-machining steel (short-chipping)	Annealed	220	750	P6	●●●●		0.07	0.09	0.10	0.13	0.18	0.19		
	Low-alloy steel	Annealed		175	590	P7	●●		0.08	0.10	0.12	0.15	0.20	0.21		
		Heat-treated		285	960	P8	●●		0.07	0.09	0.10	0.13	0.15	0.16		
		Heat-treated		380	1280	P9	●●		0.07	0.09	0.10	0.13	0.15	0.16		
		Heat-treated		430	1480	P10	●●		0.05	0.06	0.06	0.09	0.12	0.13		
	High-alloy steel and high-alloy tool steel	Annealed		200	680	P11	●●		0.08	0.10	0.12	0.15	0.18	0.19		
		Hardened and tempered		300	1010	P12	●●		0.07	0.09	0.10	0.13	0.15	0.16		
		Hardened and tempered		380	1280	P13	●●		0.06	0.08	0.09	0.12	0.14	0.15		
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●●		0.07	0.09	0.10	0.13	0.15	0.16		
		Martensitic, heat-treated		330	1110	P15	●●		0.06	0.08	0.09	0.12	0.14	0.15		
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●		0.06	0.07	0.08	0.10	0.13	0.14		
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●		0.06	0.07	0.08	0.10	0.13	0.14		
		Austenitic/ferritic, duplex		230	780	M3	●●		0.06	0.07	0.08	0.10	0.13	0.14		
K	Malleable cast iron	Ferritic		200	400	K1	●●●●		0.09	0.12	0.14	0.17	0.22	0.23		
		Pearlitic		260	700	K2	●●●●		0.07	0.09	0.11	0.14	0.19	0.20		
	Grey cast iron	Low tensile strength		180	200	K3	●●●●		0.10	0.13	0.15	0.18	0.23	0.24		
		High tensile strength/austenitic		245	350	K4	●●●●		0.08	0.10	0.12	0.15	0.20	0.21		
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●●●		0.10	0.13	0.15	0.18	0.23	0.24		
		Pearlitic		265	700	K6	●●●●		0.08	0.10	0.12	0.18	0.23	0.24		
	GGV (CGI)			230	400	K7	●●●●		0.09	0.12	0.14	0.17	0.22	0.23		
N	Wrought aluminium alloys	Not hardenable		30	–	N1	●●									
		Hardenable, hardened		100	340	N2	●●									
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●									
		≤ 12% Si, hardenable, hardened		90	310	N4	●●									
		> 12% Si, not hardenable		130	450	N5	●●●●									
	Magnesium-based alloys			70	250	N6	●●									
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●									
			Hardened	280	940	S2	●●									
		Ni- or Co-based	Annealed	250	840	S3	●●									
			Hardened	350	1180	S4	●●									
			Cast	320	1080	S5	●●									
Titanium alloys	Pure titanium		200	680	S6	●●										
	α and β alloys, hardened		375	1260	S7	●●										
	β alloys		410	1400	S8	●●										
Tungsten alloys			300	1010	S9	●●		0.05	0.06	0.06	0.09	0.11	0.12			
	Molybdenum alloys			300	1010	S10	●●		0.05	0.06	0.06	0.09	0.11	0.12		
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	●●		0.05	0.06	0.06	0.09	0.10	0.10		
		Hardened and tempered		55 HRC	–	H2	●●		0.05	0.06	0.06	0.09	0.10	0.10		
		Hardened and tempered		60 HRC	–	H3	●●									
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	●●		0.05	0.06	0.06	0.09	0.10	0.10		
O	Thermoplastics	Without abrasive fillers				O1	●●●●									
	Thermosets	Without abrasive fillers				O2	●●●●									
	Plastic, glass-fibre-reinforced	GFRP				O3										
	Plastic, carbon-fibre-reinforced	CFRP				O4										
	Plastic, aramid-fibre-reinforced	AFRP				O5										
	Graphite (technical)			80 Shore		O6	●●●●		0.09	0.12	0.14	0.17	0.22	0.23		

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

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

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

	Indexable insert geometry												Cutting material grade Outer insert [P484.P..]											
	Starting values for feed f [mm/rev]												Starting values for cutting speed v _c [m/min]											
	E 57						E 67						HC											
	Size 1	Size 2	Size 3	Size 4	Size 5 Size 6	Size 7 Size 8	Size 1	Size 2	Size 3	Size 4	Size 5 Size 6	Size 7 Size 8	WKP25S f [mm/rev]			WKP35S f [mm/rev]			WSP45 f [mm/rev]			WSP45G f [mm/rev]		
	D _c [mm]						D _c [mm]																	
13,5– 16,4	16,5– 20,4	20,5– 24,4	24,5– 29,4	29,5– 42,4	42,5– 59,4	13,5– 16,4	16,5– 20,4	20,5– 24,4	24,5– 29,4	29,5– 42,4	42,5– 59,4	0,06	0,10	0,16	0,06	0,10	0,16	0,06	0,10	0,16	0,06	0,10	0,16	
	0,05	0,06	0,06	0,09	0,12	0,13	0,05	0,06	0,06	0,09	0,12	0,13	350	320		300	270		250	220		250	220	
	0,06	0,07	0,08	0,11	0,17	0,18	0,06	0,07	0,08	0,11	0,17	0,18	260	240	220	220	200	180	170	160	150	170	160	150
	0,06	0,07	0,08	0,11	0,17	0,18							240	220	200	200	180	150	150	140	130	150	140	130
	0,06	0,07	0,08	0,11	0,17	0,18							220	200	180	180	150	140	140	130	120	140	130	120
	0,06	0,07	0,08	0,11	0,17	0,18							190	170	150	150	130	120	130	120	110	130	120	110
	0,06	0,07	0,08	0,11	0,17	0,18							220	200	180	180	150	140	140	130	120	140	130	120
	0,06	0,08	0,10	0,13	0,19	0,20	0,06	0,08	0,10	0,14	0,20	0,21	260	240	220	220	200	180	170	160	160	170	160	160
	0,06	0,07	0,08	0,11	0,14	0,15							230	210	190	190	170	140	140	130	120	140	130	120
	0,06	0,07	0,08	0,11	0,14	0,15							210	190	170	180	160	130	140	120	110	140	120	110
	0,05	0,06	0,06	0,09	0,11	0,12							190	170	160	170	140	130	140	120	110	140	120	110
	0,06	0,08	0,10	0,13	0,17	0,18	0,06	0,08	0,10	0,12	0,16	0,17	220	200	180	200	170	150	140	130	120	140	130	120
	0,06	0,07	0,08	0,11	0,14	0,15							200	170	150	180	140	130	130	120	110	130	120	110
	0,05	0,06	0,07	0,10	0,13	0,14							190	160	140	170	130	120	120	110	100	120	110	100
	0,06	0,07	0,08	0,11	0,14	0,15	0,06	0,07	0,08	0,11	0,14	0,15				190	170	150	140	130	120	140	130	120
	0,05	0,06	0,07	0,10	0,13	0,14	0,05	0,06	0,07	0,10	0,13	0,15				150	130	120	120	110	100	120	110	100
	0,06	0,07	0,08	0,10	0,13	0,14	0,06	0,07	0,09	0,12	0,14	0,15				220	200	180	180	170	150	180	170	150
	0,06	0,07	0,08	0,10	0,13	0,14	0,06	0,07	0,09	0,12	0,14	0,15				150	130	110	130	110	100	130	110	100
	0,06	0,07	0,08	0,10	0,13	0,14	0,06	0,07	0,09	0,12	0,14	0,15				120	100	80	100	80	70	100	80	70
	0,07	0,09	0,11	0,14	0,21	0,22	0,07	0,09	0,11	0,14	0,21	0,22	210	190	170	190	180	160	170	140	120	170	140	120
	0,05	0,07	0,08	0,11	0,18	0,19	0,05	0,07	0,09				190	140	120	130	120	110	130	120	110	130	120	110
	0,08	0,10	0,12	0,15	0,22	0,23	0,08	0,10	0,12	0,15	0,22	0,23	220	200	180	200	190	170	180	160	130	180	160	130
	0,06	0,08	0,09	0,12	0,19	0,20							180	150	130	150	130	110	150	130	110	150	130	110
	0,08	0,10	0,12	0,15	0,22	0,23	0,08	0,10	0,12	0,15	0,22	0,23	150	140	130	140	120	110	150	130	120	150	130	120
	0,06	0,08	0,09	0,12	0,22	0,23	0,06	0,08					140	130	120	120	110	100	120	110	110	120	110	110
	0,07	0,09	0,11	0,14	0,21	0,22	0,07	0,09	0,11	0,14	0,21	0,22	180	150	130	150	130	110	150	130	110	150	130	110
	0,07	0,09	0,10	0,12	0,17	0,18	0,07	0,09	0,11	0,12	0,17	0,18						450	450	450	450	450	450	
	0,08	0,10	0,12	0,15	0,17	0,18	0,08	0,10	0,12	0,15	0,17	0,18						300	300	300	300	300	300	
	0,08	0,10	0,12	0,15	0,17	0,18	0,08	0,10	0,12	0,15	0,17	0,18						250	250	250	250	250	250	
	0,08	0,10	0,12	0,15	0,17	0,18	0,08	0,10	0,12	0,15	0,17	0,18						200	200	200	200	200	200	
	0,08	0,10	0,12	0,15	0,17	0,18	0,08	0,10	0,12	0,15	0,17	0,18						300	300	300	300	300	300	
	0,10	0,12	0,14	0,17	0,22	0,23	0,10	0,12	0,14	0,17	0,22	0,23						300	250	200	300	250	200	
	0,10	0,12	0,14	0,17	0,22	0,23	0,10	0,12	0,14	0,17	0,22	0,23						350	300	250	350	300	250	
	0,06	0,07	0,08	0,10	0,13	0,14	0,06	0,07	0,09	0,12	0,14	0,15				150	130	110	130	110	100	130	110	100
	0,05	0,06	0,07	0,10	0,13	0,14	0,05	0,06	0,07	0,10	0,13	0,14	100	100		100	100		90	90		90	90	
	0,05	0,06	0,06	0,09	0,11	0,12	0,05	0,06	0,06	0,09	0,11	0,12	80	80		80	80		70	70		70	70	
	0,05	0,06	0,07	0,10	0,12	0,13	0,05	0,06	0,07	0,10	0,12	0,13	60	60		60	60		50	50		50	50	
	0,05	0,06	0,06	0,09	0,11	0,12	0,05	0,06	0,06	0,09	0,11	0,12	50	50		50	50		40	40		40	40	
	0,05	0,06	0,06	0,09	0,11	0,12	0,05	0,06	0,06	0,09	0,11	0,12	50	50		50	50		40	40		40	40	
	0,05	0,06	0,07	0,10	0,12	0,13	0,05	0,06	0,07	0,10	0,12	0,13				50	50		50	45		50	45	
	0,05	0,06	0,06	0,09	0,11	0,12	0,05	0,06	0,06	0,09	0,11	0,12				50	50		40	40		40	40	
	0,05	0,06	0,06	0,09	0,11	0,12	0,05	0,06	0,06	0,09	0,11	0,12	70	60										
	0,05	0,06	0,06	0,09	0,11	0,12	0,05	0,06	0,06	0,09	0,11	0,12	70	60										
	0,05	0,06	0,06	0,09	0,10	0,10							70	60	50									
	0,05	0,06	0,06	0,09	0,10	0,10							60	50	50									
	0,05	0,06	0,06	0,09	0,10	0,10							60	50	50									
	0,16	0,18	0,20	0,25	0,30	0,30	0,16	0,18	0,20	0,25	0,30	0,30				400	400	400	400	400	400	400	400	
	0,12	0,14	0,18	0,20	0,25	0,25	0,12	0,14	0,18	0,20	0,25	0,25	300	300	300	300	300	300	300	300	300	300	300	
	0,07	0,09	0,11	0,14	0,21	0,22							300	250	200	250	200	150	250	200	150	250	200	150

HC = Coated carbide

Cutting data for D3120

= Wet machining (E = emulsion, O = oil)
 = Dry machining is possible (M = MQL, L = dry)
The cutting data must be selected from Walter GPS

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

B 1

Material group	 = Wet machining (E = emulsion, O = oil)  = Dry machining is possible (M = MQL, L = dry) The cutting data must be selected from Walter GPS * The classification of the machining groups can be found in the material group comparison table					Brinell hardness HB	Tensile strength R _m N/mm²	Machining group *			Indexable insert geometry						
											Starting values for feed f [mm/rev]						
											A 57						
											Size 1	Size 2	Size 3	Size 4	Size 5		
											D _c [mm]						
Overview of the main material groups and code letters													16–20	21–25	26–30	31–36	37–42
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●			0,05	0,06	0,06	0,09	0,12			
		C > 0.25% to ≤ 0.55%	Annealed	190	640	P2	●●			0,07	0,09	0,10	0,13	0,18			
		C > 0.25% to ≤ 0.55%	Heat-treated	210	710	P3	●●			0,07	0,09	0,10	0,13	0,18			
		C > 0.55%	Annealed	190	640	P4	●●			0,07	0,09	0,10	0,13	0,18			
		C > 0.55%	Heat-treated	300	1010	P5	●●			0,07	0,09	0,10	0,13	0,18			
		Free-machining steel (short-chipping)	Annealed	220	750	P6	●●	●		0,07	0,09	0,10	0,13	0,18			
	Low-alloy steel	Annealed		175	590	P7	●●			0,08	0,10	0,12	0,15	0,20			
		Heat-treated		285	960	P8	●●			0,07	0,09	0,10	0,13	0,15			
		Heat-treated		380	1280	P9	●●			0,07	0,09	0,10	0,13	0,15			
		Heat-treated		430	1480	P10	●●			0,05	0,06	0,06	0,09	0,12			
	High-alloy steel and high-alloy tool steel	Annealed		200	680	P11	●●			0,08	0,10	0,12	0,15	0,18			
		Hardened and tempered		300	1010	P12	●●			0,07	0,09	0,10	0,13	0,15			
		Hardened and tempered		380	1280	P13	●●			0,06	0,08	0,09	0,12	0,14			
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●●			0,07	0,09	0,10	0,13	0,15			
		Martensitic, heat-treated		330	1110	P15	●●			0,06	0,08	0,09	0,12	0,14			
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●			0,06	0,07	0,08	0,10	0,13			
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●			0,06	0,07	0,08	0,10	0,13			
		Austenitic/ferritic, duplex		230	780	M3	●●			0,06	0,07	0,08	0,10	0,13			
K	Malleable cast iron	Ferritic		200	400	K1	●●	●		0,09	0,12	0,14	0,17	0,22			
		Pearlitic		260	700	K2	●●	●		0,07	0,09	0,11	0,14	0,19			
	Grey cast iron	Low tensile strength		180	200	K3	●●	●		0,10	0,13	0,15	0,18	0,23			
		High tensile strength/austenitic		245	350	K4	●●	●		0,08	0,10	0,12	0,15	0,20			
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●	●		0,10	0,13	0,15	0,18	0,23			
		Pearlitic		265	700	K6	●●			0,08	0,10	0,12	0,18	0,23			
	GGV (CGI)			230	400	K7	●●	●		0,09	0,12	0,14	0,17	0,22			
N	Wrought aluminium alloys	Not hardenable		30	–	N1											
		Hardenable, hardened		100	340	N2	●●										
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●										
		≤ 12% Si, hardenable, hardened		90	310	N4	●●										
		> 12% Si, not hardenable		130	450	N5	●●	●									
	Magnesium-based alloys			70	250	N6	●●										
		Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7										
			Brass, bronze, red brass		90	310	N8	●●									
Cu alloys, short-chipping			110	380	N9	●●	●										
High tensile, Ampco			300	1010	N10	●●	●		0,06	0,07	0,08	0,10	0,13				
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●										
			Hardened	280	940	S2	●●										
		Ni- or Co-based	Annealed	250	840	S3	●●										
			Hardened	350	1180	S4	●●										
			Cast	320	1080	S5	●●										
	Titanium alloys	Pure titanium		200	680	S6											
		α and β alloys, hardened		375	1260	S7	●●										
		β alloys		410	1400	S8	●●										
Tungsten alloys			300	1010	S9	●●			0,05	0,06	0,06	0,09	0,11				
Molybdenum alloys			300	1010	S10	●●			0,05	0,06	0,06	0,09	0,11				
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	●●			0,05	0,06	0,06	0,09	0,10			
		Hardened and tempered		55 HRC	–	H2	●●			0,05	0,06	0,06	0,09	0,10			
		Hardened and tempered		60 HRC	–	H3											
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	●●			0,05	0,06	0,06	0,09	0,10			
O	Thermoplastics	Without abrasive fillers				O1	●●	●									
	Thermosets	Without abrasive fillers				O2	●●	●									
	Plastic, glass-fibre-reinforced	GFRP				O3											
	Plastic, carbon-fibre-reinforced	CFRP				O4											
	Plastic, aramid-fibre-reinforced	AFRP				O5											
	Graphite (technical)			80 Shore		O6	●●	●		0,09	0,12	0,14	0,17	0,22			

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

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

B 1

HC = Coated carbide
HW = Uncoated carbide

Cutting data for B321.

B 1

Material group	 = Wet machining (E = emulsion, O = oil)  = Dry machining is possible (M = MQL, L = dry) The cutting data must be selected from Walter GPS * The classification of the machining groups can be found in the material group comparison table			Brinell hardness HB	Tensile strength R_m N/mm ²	Machining group *			Indexable insert geometry		
									Starting values for feed f [mm/rev]		
									LCMX ...-B57		
									D _c [mm]		
Overview of the main material groups and code letters								10,0–12,0	12,1–18,0		
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	••		0,05	0,06	
		C > 0.25% to ≤ 0.55%	Annealed	190	640	P2	••		0,06	0,08	
		C > 0.25% to ≤ 0.55%	Heat-treated	210	710	P3	••				
		C > 0.55%	Annealed	190	640	P4	••				
		C > 0.55%	Heat-treated	300	1010	P5	••				
		Free-machining steel (short-chipping)	Annealed	220	750	P6	••	•			
	Low-alloy steel	Annealed		175	590	P7	••		0,06	0,07	
		Heat-treated		285	960	P8	••				
		Heat-treated		380	1280	P9	••				
		Heat-treated		430	1480	P10	••				
	High-alloy steel and high-alloy tool steel	Annealed		200	680	P11	••				
		Hardened and tempered		300	1010	P12	••				
		Hardened and tempered		380	1280	P13	••				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	••				
		Martensitic, heat-treated		330	1110	P15	••				
M	Stainless steel	Austenitic, quench hardened		200	680	M1	••		0,05	0,06	
		Austenitic, precipitation hardened (PH)		300	1010	M2	••		0,05	0,06	
		Austenitic/ferritic, duplex		230	780	M3	••		0,05	0,06	
K	Malleable cast iron	Ferritic		200	400	K1	••	•	0,09	0,10	
		Pearlitic		260	700	K2	••	•	0,07	0,08	
	Grey cast iron	Low tensile strength		180	200	K3	••	•	0,09	0,10	
		High tensile strength/austenitic		245	350	K4	••	•	0,07	0,08	
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	••	•	0,07	0,09	
		Pearlitic		265	700	K6	••		0,06	0,08	
	GGV (CGI)		230	400	K7	••	•	0,09	0,10		
N	Wrought aluminium alloys	Not hardenable		30	–	N1					
		Hardenable, hardened		100	340	N2	••				
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	••				
		≤ 12% Si, hardenable, hardened		90	310	N4	••				
		> 12% Si, not hardenable		130	450	N5	••	•			
	Magnesium-based alloys			70	250	N6	••				
		Unalloyed, electrolytic copper		100	340	N7					
		Brass, bronze, red brass		90	310	N8	••				
Copper and copper alloys (bronze/brass)	Cu alloys, short-chipping		110	380	N9	••	•				
	High tensile, Ampco		300	1010	N10	••	•				
	S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	••		0,05	0,06
Hardened				280	940	S2	••				
Ni- or Co-based			Annealed	250	840	S3	••				
			Hardened	350	1180	S4	••				
			Cast	320	1080	S5	••				
Titanium alloys		Pure titanium		200	680	S6					
		α and β alloys, hardened		375	1260	S7	••		0,05	0,06	
		β alloys		410	1400	S8	••		0,05	0,06	
Tungsten alloys			300	1010	S9	••					
Molybdenum alloys		300	1010	S10	••						
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	••				
		Hardened and tempered		55 HRC	–	H2	••				
		Hardened and tempered		60 HRC	–	H3					
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	••				
O	Thermoplastics	Without abrasive fillers				O1	••	•			
	Thermosets	Without abrasive fillers				O2	••	•			
	Plastic, glass-fibre-reinforced	GFRP				O3					
	Plastic, carbon-fibre-reinforced	CFRP				O4					
	Plastic, aramid-fibre-reinforced	AFRP				O5					
	Graphite (technical)		80 Shore		O6	••	•	0,07	0,09		

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

When using drills $> 3 \times D_c$, the following reductions are recommended:
 $> 3 \times D_c$: Cutting speed v_c –20%, feed f –30% when spot drilling, feed f –50% when spot drilling on inclined surfaces.

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

B 1

	Indexable insert geometry				Cutting material grades									
	Starting values for feed f [mm/rev]				Starting values for cutting speed v _c [m/min]									
	LCMX...-D57		LCMX...-E57		HC									
	D _c [mm]		D _c [mm]		WKP25S f [mm/rev]		WKP35S f [mm/rev]		WSP45S f [mm/rev]		WSP45G f [mm/rev]		WXP40 f [mm/rev]	
	10,0– 12,0	12,1– 18,0	10,0– 12,0	12,1– 18,0	0,06	0,1	0,06	0,1	0,06	0,1	0,06	0,1	0,06	0,1
	0,06	0,07	0,07	0,10	290	260	260	240	220	200	220	200	200	180
	0,06	0,08	0,08	0,12	260	240	220	200	160	150	160	150	150	140
	0,06	0,08	0,08	0,12	260	240	220	200	160	150	160	150	150	140
	0,06	0,08	0,08	0,12	260	240	220	200	160	150	160	150	150	140
	0,05	0,06	0,07	0,10	200	180	150	130	130	120	130	120	120	110
	0,05	0,06	0,07	0,10	200	180	150	130	130	120	130	120	120	110
	0,07	0,08	0,08	0,12	260	240	220	200	180	170	180	170	150	140
	0,07	0,08	0,08	0,10	220	200	190	170	150	130	150	130	140	120
	0,07	0,08	0,08	0,10	220	200	190	170	150	130	150	130	140	120
	0,05	0,06	0,06	0,08	200	180	150	130	130	120	130	120	120	110
	0,06	0,08	0,07	0,10	220	200	180	170	140	130	140	130	130	120
	0,05	0,07	0,06	0,08	180	170	150	140	130	120	130	120	120	110
	0,06	0,07	0,07	0,09	170	160	140	130	120	110	120	110	110	100
	0,06	0,08	0,07	0,10			180	170	140	130	140	130	130	120
	0,06	0,07	0,07	0,09	170	160	140	130	120	110	120	110	110	100
	0,06	0,07					220	200	180	160	180	160	160	150
	0,06	0,07					150	130	130	110	130	110	110	100
	0,06	0,07					120	100	100	80	100	80	80	70
	0,10	0,12	0,10	0,14	240	220	220	200	170	150	170	150	160	140
	0,08	0,10	0,08	0,12	180	170	180	150	140	130	140	130	130	120
	0,10	0,12	0,10	0,14	240	220	220	200	170	150	170	150	160	140
	0,08	0,10	0,08	0,12	180	170	180	150	140	130	140	130	130	120
	0,08	0,10	0,10	0,12	170	150	150	140	140	130	140	130	130	120
	0,07	0,08	0,08	0,10	140	130	140	130	120	110	120	110	110	100
	0,10	0,12	0,10	0,14	180	170	180	150	140	130	140	130	130	120
	0,08	0,10							450	450	450	450		
	0,08	0,10							300	300	300	300		
	0,08	0,10							250	250	250	250		
	0,08	0,10							200	200	200	200		
	0,08	0,10							300	300	300	300		
	0,08	0,10	0,08	0,10										
	0,07	0,09	0,07	0,09										
	0,06	0,08												
	0,05	0,06	0,05	0,06			100	100					80	80
	0,04	0,05	0,04	0,05			80	80					60	60
	0,04	0,05	0,04	0,05			60	60					50	50
	0,04	0,05	0,04	0,05			50	50					40	40
	0,04	0,05	0,04	0,05			50	50					40	40
	0,05	0,06							50	40	50	40		
	0,05	0,06					50	50	40	40	40	40		
	0,05	0,06			70	60								
	0,05	0,06			70	60								
	0,04	0,05			70	60								
	0,04	0,05			60	50								
	0,04	0,05			60	50								
	0,12	0,14	0,12	0,14			400	400	400	400	400	400	400	400
	0,10	0,12	0,10	0,12	300	300	300	300	300	300	300	300	300	300
	0,06	0,08	0,06	0,08	300	250	250	200	250	200	250	200	250	200

HC = Coated carbide

Cutting tool material application charts – drilling and boring

Grades for drilling from solid

Walter grade designation	Standard designation	Material group							Range of applications									Coating process	Coating composition	Indexable insert example			
		P	M	K	N	S	H	O	01	05	10	15	20	25	30	35	40				45		
		Steel	Stainless steel	Cast iron	NF metals	Materials with difficult cutting properties	Hard materials	Other															
WKP25S	HC – P 25	●●																					
	HC – K 25			●●																			
WKP35S	HC – P 35	●●																					
	HC – K 35			●●																			
WSP45S	HC – P 45	●●																					
	HC – M 45		●●																				
	HC – S 45					●●																	
WSP45	HC – P 45	●●																					
	HC – M 45		●●																				
	HC – S 45					●●																	
	HC – N 30				●																		
WSP45G	HC – P 45	●●																					
	HC – M 45		●●																				
	HC – S 45					●●																	
	HC – N 30				●																		
WXP40	HC – P 40	●●																					
	HC – M 30		●●																				
	HC – K 40			●●																			
	HC – S 30					●																	
WXP30	HC – P 30	●●																					
	HC – M 30		●																				
	HC – K 30			●●																			
	HC – N 30				●																		
	HC – S 30					●																	
WPP45C	HC – P 45	●●																					
	HC – K 45			●																			
WKK45C	HC – P 45	●																					
	HC – K 45			●●																			
WMP35	HC – P 35	●●																					
	HC – M 35		●●																				
	HC – S 35					●●																	
WNN25	HC – N 25				●●																		
	HC – O 25							●															

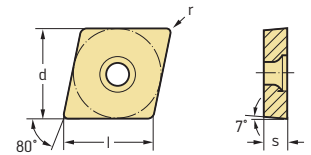
HC = Coated carbide

HW = Uncoated carbide

●● Primary application

● Additional application

Positive rhombic 80° CCGT



Indexable inserts

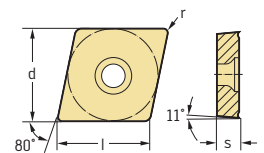
	Designation	l mm	r mm	P				M						K		N	S			
				HC				HC						HC		HC	HC			
				WEP10C	WPP10S	WPP20S	WPP30S	WMP20S	WSM01	WSM10S	WSM20S	WSM21	WSM30S	WSM10	WKK10S	WKK20S	WNN10	WSM01	WSM10S	WSM20S
	CCGT060201M-FP2	6,45	0,07	☹																
	CCGT060202M-FP2	6,45	0,17	☹																
	CCGT060204M-FP2	6,45	0,37	☹																
	CCGT09T301M-FP2	9,67	0,07	☹																
	CCGT09T302M-FP2	9,67	0,17	☹																
	CCGT09T304M-FP2	9,67	0,37	☹																
	CCGT09T308M-FP2	9,67	0,77	☹																

See the ISO 1832 designation key for dimensions

HC = Coated carbide

B 2

Positive rhombic 80° CPGT

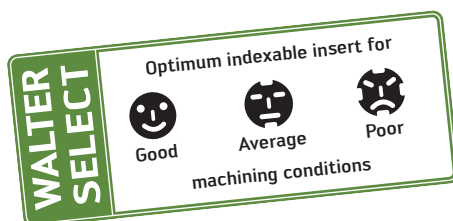


Indexable inserts

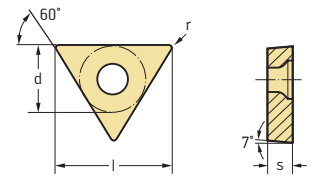
	Designation	l mm	r mm	P				M							K	N	S				
				HC				HC							HC	HC	HC				
				WEP10C	WPP10S	WPP20S	WPP30S	WMP20S	WSM01	WSM10S	WSM20S	WSM21	WSM30S	WSM10	WKK10S	WKK20S	WNN10	WSM01	WSM10S	WSM20S	WSM30S
	CPGT050202M-FP2	5,64	0,17																		
	CPGT050204M-FP2	5,64	0,37																		

See the ISO 1832 designation key for dimensions

HC = Coated carbide



Positive triangular 60° TCGT



Indexable inserts

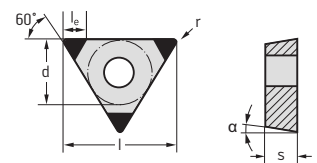
	Designation	l mm	r mm	P				M						K	N	S				
				HC				HC						HC	HC	HC				
				WEP10C	WPP10S	WPP20S	WPP30S	WMP20S	WSM01	WSM10S	WSM20S	WSM21	WSM30S	WSM10	WKK10S	WKK20S	WNN10	WSM01	WSM10S	WSM20S
	TCGT06T104M-FP2	6,87	0,37	☹️																
	TCGT110202M-FP2	11,00	0,17	☹️																
	TCGT110204M-FP2	11,00	0,37	☹️																

See the ISO 1832 designation key for dimensions

HC = Coated carbide

B2

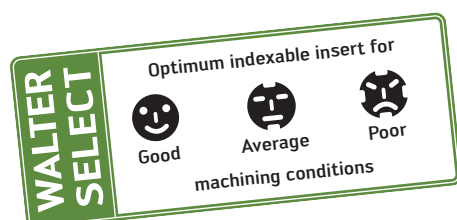
CBN – Positive triangular 60° TCGW



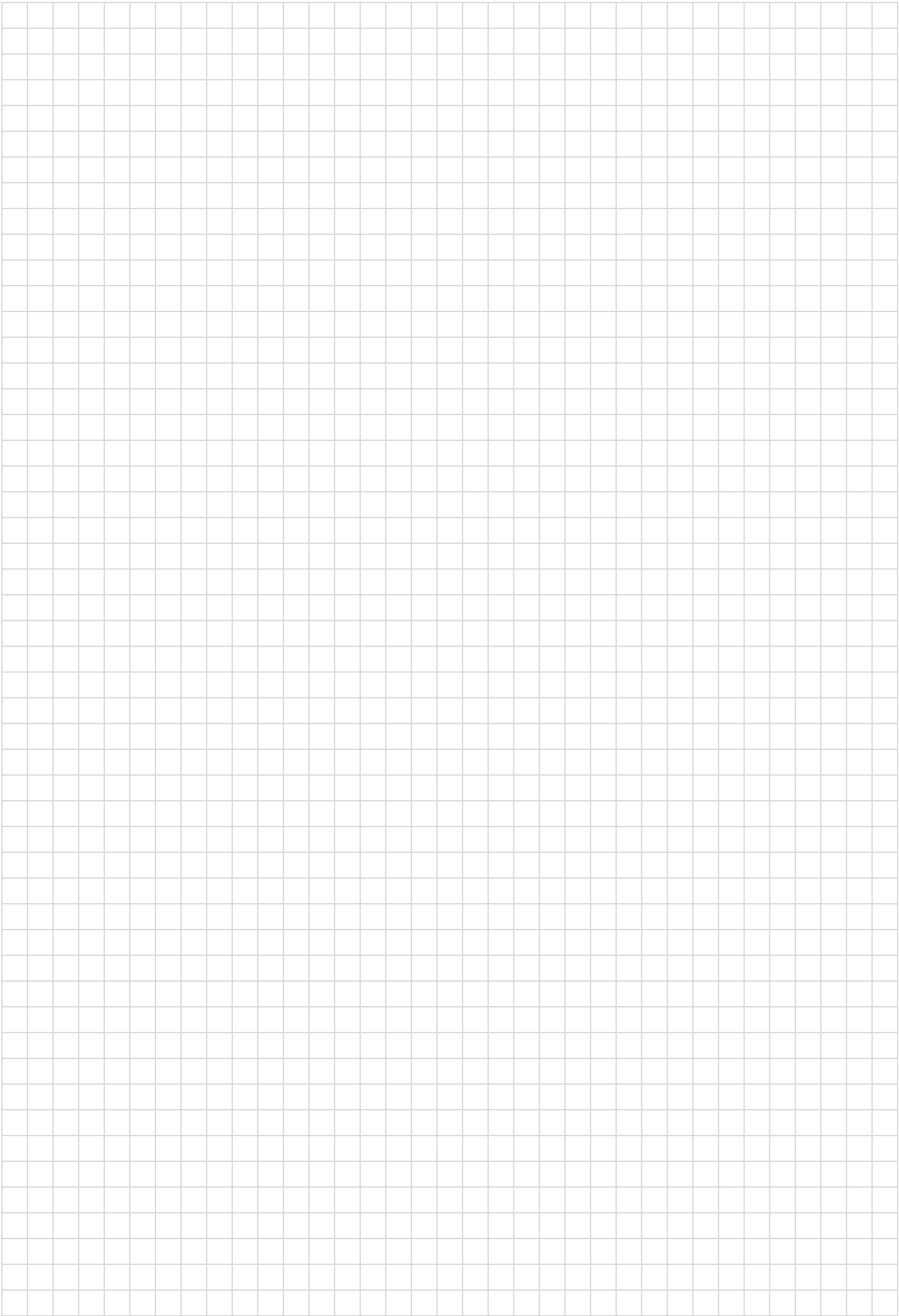
Indexable inserts

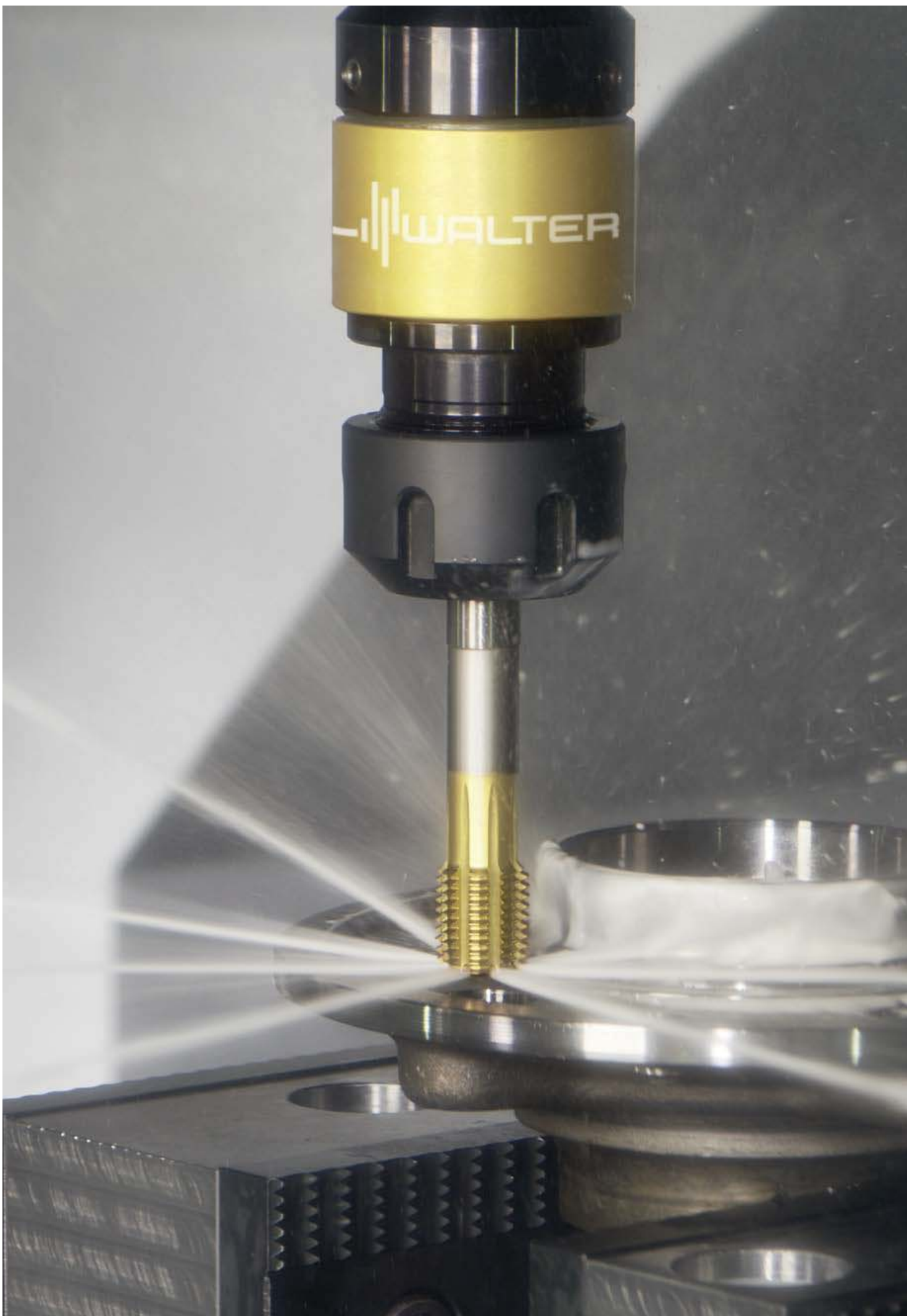
Designation	l _e mm	r mm	K		N	S	H		O			
			CN	BH			BL					
			WCK10	WBK20	WBK30	WDN10	WBS10	WBH10C	WBH10	WBH20	WDN10	
 TCGW110202TS-3	2,8	0,2	☹️									
TCGW110204TS-3	3,1	0,4	☹️									
 TCGW110208TM-3	2,8	0,8						☹️	☹️	☹️		
TCGW110204TM-3	3,1	0,4						☹️	☹️	☹️		

CN = Silicon nitride Si₃N₄
 BH = CBN with high CBN content
 HC = Coated carbide
 DP = Polycrystalline diamond
 BL = CBN with low CBN content



B 2





Tapping – B3

HSS-E taps	Product range overview	124
	UNF	125

Thread forming – B4

HSS-E-PM thread formers	Product range overview	127
	Designation key	128
	M – Metric thread	129
	MF – Metric fine-pitch thread	135

Thread milling – B5

Thread milling cutters	Product range overview	136
	Designation key	137
	Indexable insert thread milling cutter	138

Technical information – B3–B5

Cutting data	154
Radius correction values	156
Tool application	157

Product range overview of HSS-E taps UNF

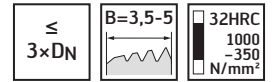
Machining		
Thread depth	3,5 x D _N	3 x D _N
Designation	TC216 Perform	TC115 Perform
Dimension range	UNF 6-40– UNF 1/2-20	UNF 6-40– UNF 1/2-20
Tolerance	2B	2B
Coolant supply	External	External
Chamfer form	B	C
Coating/grade	WY80AA	WY80AA
Version length	M	M
Page	125	126
		

HSS-E machine taps

TC216 Perform mm



– For long-chipping materials



	P	M	K	N	S	H	O
WY80AA	●	●	●	●			

DIN 371

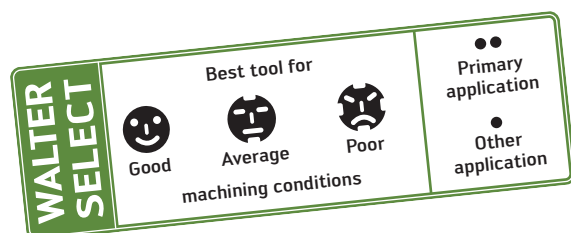
	Designation	D _N -P	D _N mm	l ₁ h9 mm	L _c mm	l ₃ mm	d ₁ mm	□ mm	l ₉ mm	N	WY80AA
	TC216-UNF6-C0-	UNF 6-40	3,505	56	11	20	4	3	6	3	✱
	TC216-UNF10-C0-	UNF 10-32	4,826	70	13	25	6	4,9	8	3	✱
	TC216-UNF1/4-C0-	UNF 1/4-28	6,35	80	15	30	7	5,5	8	3	✱
	TC216-UNF5/16-C0-	UNF 5/16-24	7,938	90	18	35	8	6,2	9	3	✱
	TC216-UNF3/8-C0-	UNF 3/8-24	9,525	100	20	39	10	8	11	3	✱

Ordering example for the WY80AA grade: TC216-UNF6-C0-WY80AA

DIN 376

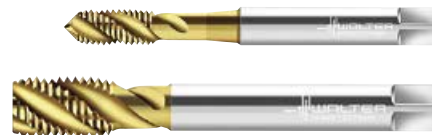
	Designation	D _N -P	D _N mm	l ₁ h9 mm	L _c mm	l ₃ mm	d ₁ mm	□ mm	l ₉ mm	N	WY80AA
	TC216-UNF7/16-L0-	UNF 7/16-20	11,113	100	20	76	8	6,2	9	3	✱
	TC216-UNF1/2-L0-	UNF 1/2-20	12,7	100	21	73	9	7	10	4	✱

Ordering example for the WY80AA grade: TC216-UNF7/16-L0-WY80AA

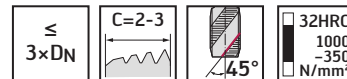
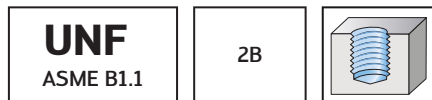


HSS-E machine taps

TC115 Perform mm

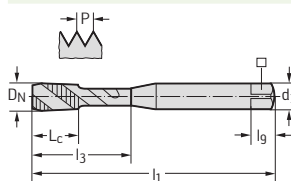


– For long-chipping materials



	P	M	K	N	S	H	O
WY80AA	●	●	●	●			

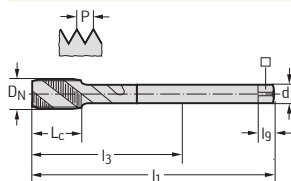
DIN 371



Designation	D _N -P	D _N mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l ₉ mm	N	WY80AA
TC115-UNF6-C0-	UNF 6-40	3,505	56	6,5	20	4	3	6	3	✱
TC115-UNF10-C0-	UNF 10-32	4,826	70	8	25	6	4,9	8	3	✱
TC115-UNF1/4-C0-	UNF 1/4-28	6,35	80	10	30	7	5,5	8	3	✱
TC115-UNF5/16-C0-	UNF 5/16-24	7,938	90	12	35	8	6,2	9	3	✱
TC115-UNF3/8-C0-	UNF 3/8-24	9,525	100	15	39	10	8	11	3	✱

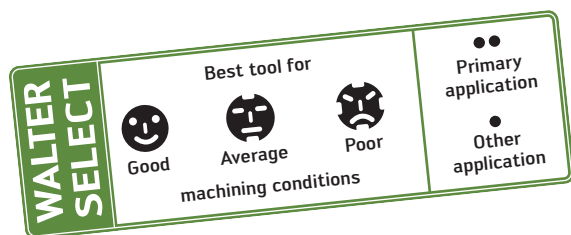
Ordering example for the WY80AA grade: TC115-UNF6-C0-WY80AA

DIN 376



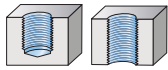
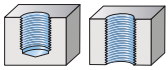
Designation	D _N -P	D _N mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l ₉ mm	N	WY80AA
TC115-UNF7/16-L0-	UNF 7/16-20	11,113	100	15	76	8	6,2	9	3	✱
TC115-UNF1/2-L0-	UNF 1/2-20	12,7	100	13	73	9	7	10	4	✱

Ordering example for the WY80AA grade: TC115-UNF7/16-L0-WY80AA

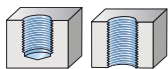


Product range overview of HSS-E-PM thread formers

M – Metric thread

Machining				
Thread depth	$3 \times D_N$	$3,5 \times D_N$	$3,5 \times D_N$	$3,5 \times D_N$
Designation	TC430 Supreme	TC420 Supreme	TC430 Supreme	TC430 Supreme
Dimension range	M 3–M 10	M 5–M 24	M 5–M 16	M 5–M 16
Tolerance	6HX	6HX / 6GX	6HX	6HX
Coolant supply	External	Axial/radial	Radial	Axial
Chamfer form	C	E / C	C	C
Coating/grade	WW60EL	WW60AD / WW60BA	WW60AD / WW60EL	WW60AD / WW60EL
Cutting tool material	HSS-E-PM	HSS-E-PM	HSS-E-PM	HSS-E-PM
Page	132	129	134	133
				

MF – Metric fine-pitch thread

Machining		
Thread depth	$3,5 \times D_N$	$3,5 \times D_N$
Designation	TC430 Supreme	TC430 Supreme
Dimension range	MF 8x1– MF 16x1.5	MF 8x1– MF 16x1.5
Tolerance	6HX	6HX
Coolant supply	Radial	Axial
Chamfer form	C	C
Coating/grade	WW60AD / WW60EL	WW60AD / WW60EL
Cutting tool material	HSS-E-PM	HSS-E-PM
Page	135	135
		

Designation key for HSS-E(-PM) and solid carbide thread formers

Example:

T	C	4	20	–	M10	–	C	1	–	W	W	60	AD
1	2	3	4	5	6		7	8		Grade			

1	2	3	4
Tool group	Generation	Tool type	Tool type
T Threading		4 Thread former	10 Universal, Advance 20 Universal, Supreme 30 ISO P, Supreme 70 ISO P, Supreme

5	6	7	8
1. Delimiters	Thread dimensions	Tolerance/shank type	Modification
– Metric · DIN/ANSI		C 6HX, 2BX Reinforced shank E 6GX Reinforced shank F 7GX Reinforced shank L 6HX, 2BX Reduced shank N 6GX Reduced shank P 7GX Reduced shank	0 External coolant without lubrication grooves 1 Axial internal coolant, without lubrication grooves 2 Radial internal coolant 5 Axial internal coolant, with lubrication grooves 6 External coolant with lubrication grooves D Chamfer form D E Chamfer form E F Chamfer form E, axial internal coolant without lubrication grooves L Left-hand thread H Extended shank XL

Grade designation key for solid carbide and HSS-E(-PM) cutting tool materials

Example:

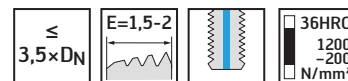
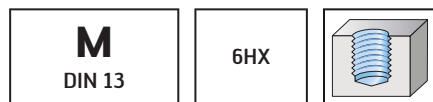
W	W	60	AD
Walter	1	2	3

1	2	3
Substrate	Range of applications	Coating
G VHM W HSS-E-PM Y HSS-E		AD TiN BA TiCN EL AlCrN

HSS-E-PM machine thread formers

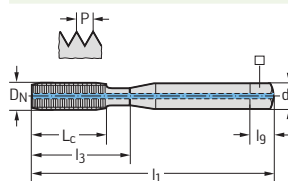
TC420 Supreme 

– For long-chipping materials



	P	M	K	N	S	H	O
WW60AD	●	●	●	●	●		
WW60BA	●	●	●	●	●		

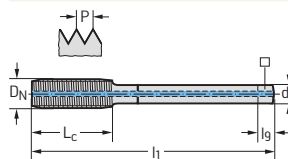
DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l ₉ mm	N	WW60AD	WW60BA
TC420-M5-CF-	M 5	0,8	70	8	25	6	4,9	8	5	✖	✖
TC420-M6-CF-	M 6	1	80	10	30	6	4,9	8	5	✖	✖
TC420-M8-CF-	M 8	1,25	90	12	35	8	6,2	9	5	✖	✖
TC420-M10-CF-	M 10	1,5	100	15	39	10	8	11	6	✖	✖

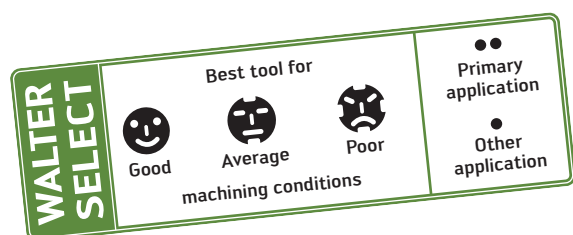
Ordering example for the WW60AD grade: TC420-M5-CF-WW60AD

DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l ₉ mm	N	WW60AD	WW60BA
TC420-M12-LF-	M 12	1,75	110	16	83	9	7	10	6	✖	
TC420-M16-LF-	M 16	2	110	20	68	12	9	12	6	✖	

Ordering example for the WW60AD grade: TC420-M12-LF-WW60AD

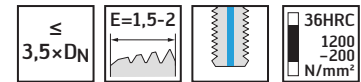


HSS-E-PM machine thread formers

TC420 Supreme

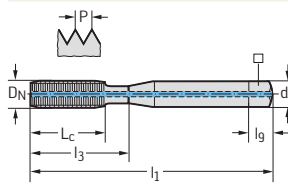


– For long-chipping materials



	P	M	K	N	S	H	O
WW60AD	●	●	●	●	●		
WW60BA	●	●	●	●	●		

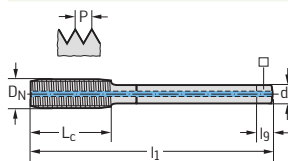
DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l _g mm	N	WW60AD	WW60BA
TC420-M5-EF-	M 5	0,8	70	8	25	6	4,9	8	5	✖	✖
TC420-M6-EF-	M 6	1	80	10	30	6	4,9	8	5	✖	✖
TC420-M8-EF-	M 8	1,25	90	12	35	8	6,2	9	5	✖	✖
TC420-M10-EF-	M 10	1,5	100	15	39	10	8	11	6	✖	✖

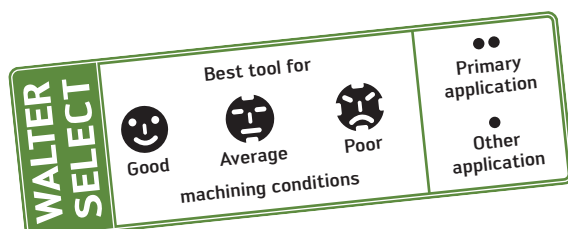
Ordering example for the WW60AD grade: TC420-M5-EF-WW60AD

DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l _g mm	N	WW60AD	WW60BA
TC420-M12-NF-	M 12	1,75	110	16	83	9	7	10	6	✖	
TC420-M16-NF-	M 16	2	110	20	68	12	9	12	6	✖	

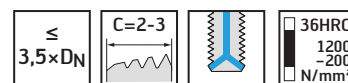
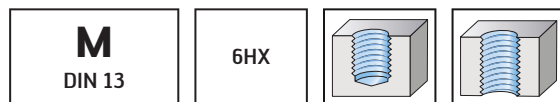
Ordering example for the WW60AD grade: TC420-M12-NF-WW60AD



HSS-E-PM machine thread formers

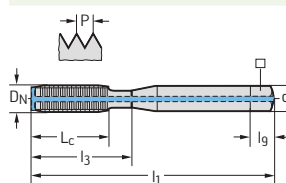
TC420 Supreme 

– For long-chipping materials



	P	M	K	N	S	H	O
WW60AD	●	●	●	●	●		
WW60BA	●	●	●	●	●		

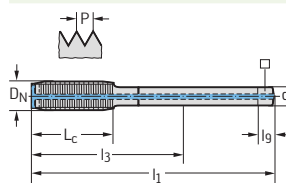
DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l _g mm	N	WW60AD	WW60BA
TC420-M5-C2-	M 5	0,8	70	8	25	6	4,9	8	5	✱	✱
TC420-M6-C2-	M 6	1	80	10	30	6	4,9	8	5	✱	✱
TC420-M8-C2-	M 8	1,25	90	12	35	8	6,2	9	5	✱	✱
TC420-M10-C2-	M 10	1,5	100	15	39	10	8	11	6	✱	✱

Ordering example for the WW60AD grade: TC420-M5-C2-WW60AD

DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l _g mm	N	WW60AD	WW60BA
TC420-M12-L2-	M 12	1,75	110	16	83	9	7	10	6	✱	✱
TC420-M14-L2-	M 14	2	110	20	81	11	9	12	6	✱	✱
TC420-M16-L2-	M 16	2	110	20	68	12	9	12	6	✱	✱
TC420-M20-L2-	M 20	2,5	140	25	95	16	12	15	7	✱	✱
TC420-M24-L2-	M 24	3	160	30	113	18	14,5	17	8	✱	✱

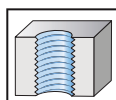
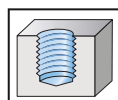
Ordering example for the WW60AD grade: TC420-M12-L2-WW60AD

HSS-E-PM machine thread formers

TC430 Supreme

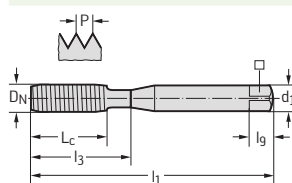


- For long-chipping materials
- ISO-M with oil only



	P	M	K	N	S	H	O
WW60EL	●	●	●	●	●	●	●

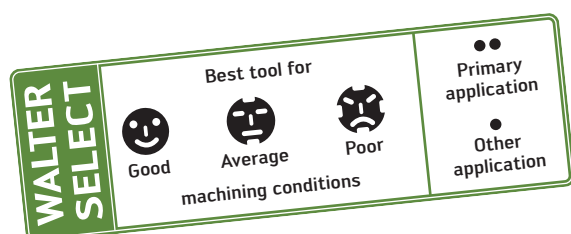
DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	□ mm	l _g mm	N	WW60EL
TC430-M3-C0-	M 3	0,5	56	6	18	3,5	2,7	6	4	✖
TC430-M4-C0-	M 4	0,7	63	7	21	4,5	3,4	6	5	✖
TC430-M5-C0-	M 5	0,8	70	8	25	6	4,9	8	5	✖
TC430-M6-C0-	M 6	1	80	10	30	6	4,9	8	5	✖
TC430-M8-C0-	M 8	1,25	90	12	35	8	6,2	9	6	✖
TC430-M10-C0-	M 10	1,5	100	15	39	10	8	11	7	✖

Ordering example for the WW60EL grade: TC430-M3-C0-WW60EL

B4



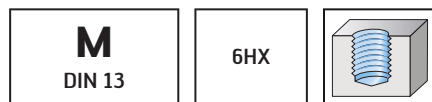
HSS-E-PM machine thread formers

TC430 Supreme 

- For long-chipping materials
- ISO-M with oil only

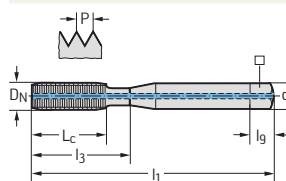
 $\leq$
3,5×DN

C=2-3


 36HRC
1200
–200
N/mm²


	P	M	K	N	S	H	O
WW60EL	●	●	●	●	●	●	●
WW60AD	●	●	●	●	●	●	●

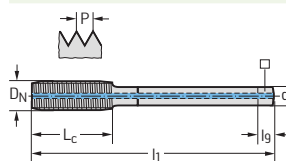
DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l _g mm	N	WW60EL	WW60AD
TC430-M5-C1-	M 5	0,8	70	8	25	6	4,9	8	5	✖	
TC430-M6-C1-	M 6	1	80	10	30	6	4,9	8	5	✖	
TC430-M8-C1-	M 8	1,25	90	12	35	8	6,2	9	6	✖	✖
TC430-M10-C1-	M 10	1,5	100	15	39	10	8	11	7	✖	✖

Ordering example for the WW60AD grade: TC430-M8-C1-WW60AD

DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l _g mm	N	WW60EL	WW60AD
TC430-M12-L1-	M 12	1,75	110	16	83	9	7	10	8	✖	✖
TC430-M16-L1-	M 16	2	110	20	68	12	9	12	8	✖	✖

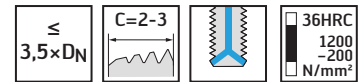
Ordering example for the WW60AD grade: TC430-M12-L1-WW60AD

HSS-E-PM machine thread formers

TC430 Supreme mm

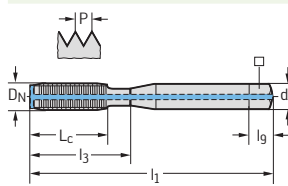


- For long-chipping materials
- ISO-M with oil only



	P	M	K	N	S	H	O
WW60EL	•	•	•	•	•	•	•
WW60AD	•	•	•	•	•	•	•

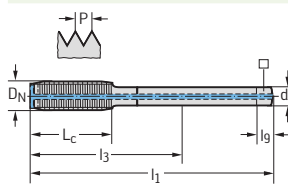
DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l _g mm	N	WW60EL	WW60AD
TC430-M5-C2-	M 5	0,8	70	8	25	6	4,9	8	5	•	•
TC430-M6-C2-	M 6	1	80	10	30	6	4,9	8	5	•	•
TC430-M8-C2-	M 8	1,25	90	12	35	8	6,2	9	6	•	•
TC430-M10-C2-	M 10	1,5	100	15	39	10	8	11	7	•	•

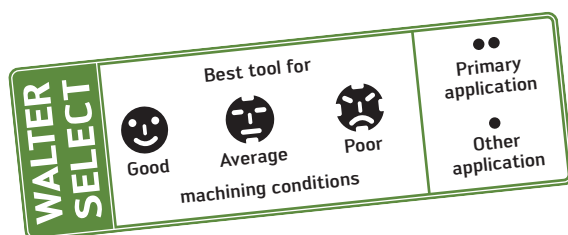
Ordering example for the WW60AD grade: TC430-M8-C2-WW60AD

DIN 2174



Designation	DN	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	mm	l _g mm	N	WW60EL	WW60AD
TC430-M12-L2-	M 12	1,75	110	16	83	9	7	10	8	•	•
TC430-M16-L2-	M 16	2	110	20	68	12	9	12	8	•	•

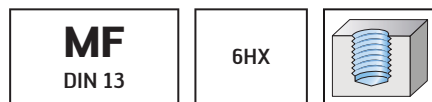
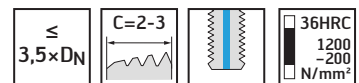
Ordering example for the WW60AD grade: TC430-M12-L2-WW60AD



HSS-E-PM machine thread formers

TC430 Supreme 

- For long-chipping materials
- ISO-M with oil only



	P	M	K	N	S	H	O
WW60EL	●	●	●	●			
WW60AD	●	●	●	●			

DIN 2174

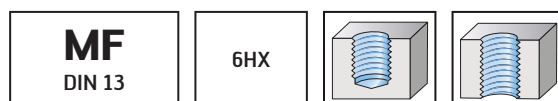
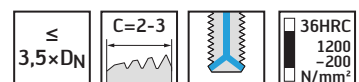
Designation	D _N	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	□ mm	l _g mm	N	WW60EL	WW60AD
TC430-M8X1-L1-	MF 8x1	1	90	12	67	6	4,9	8	6	✗	✗
TC430-M10X1-L1-	MF 10x1	1	90	12	67	7	5,5	8	7	✗	✗
TC430-M10X1.25-L1-	MF 10x1.25	1,25	100	15	77	7	5,5	8	7	✗	✗
TC430-M12X1-L1-	MF 12x1	1	100	13	73	9	7	10	8	✗	✗
TC430-M12X1.25-L1-	MF 12x1.25	1,25	100	13	73	9	7	10	8	✗	✗
TC430-M12X1.5-L1-	MF 12x1.5	1,5	100	13	73	9	7	10	8	✗	✗
TC430-M14X1.5-L1-	MF 14x1.5	1,5	100	15	71	11	9	12	8	✗	✗
TC430-M16X1.5-L1-	MF 16x1.5	1,5	100	15	58	12	9	12	8	✗	✗

Ordering example for the WW60AD grade: TC430-M8X1-L1-WW60AD

HSS-E-PM machine thread formers

TC430 Supreme 

- For long-chipping materials
- ISO-M with oil only



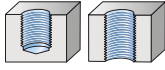
	P	M	K	N	S	H	O
WW60EL	●	●	●	●			
WW60AD	●	●	●	●			

DIN 2174

Designation	D _N	P mm	l ₁ mm	L _c mm	l ₃ mm	d ₁ h9 mm	□ mm	l _g mm	N	WW60EL	WW60AD
TC430-M8X1-L2-	MF 8x1	1	90	12	67	6	4,9	8	6	✗	✗
TC430-M10X1-L2-	MF 10x1	1	90	12	67	7	5,5	8	7	✗	✗
TC430-M10X1.25-L2-	MF 10x1.25	1,25	100	15	77	7	5,5	8	7	✗	✗
TC430-M12X1-L2-	MF 12x1	1	100	13	73	9	7	10	8	✗	✗
TC430-M12X1.25-L2-	MF 12x1.25	1,25	100	13	73	9	7	10	8	✗	✗
TC430-M12X1.5-L2-	MF 12x1.5	1,5	100	13	73	9	7	10	8	✗	✗
TC430-M14X1.5-L2-	MF 14x1.5	1,5	100	15	71	11	9	12	8	✗	✗
TC430-M16X1.5-L2-	MF 16x1.5	1,5	100	15	58	12	9	12	8	✗	✗

Ordering example for the WW60AD grade: TC430-M8X1-L2-WW60AD

Product range overview of thread milling cutters

Machining	Universal 				
Thread depth	1,5 × D _N	2,0 × D _N	2,5 × D _N		3,0 × D _N
Designation	T2710	T2711	T2712		T2713
Description	Multi-row thread milling cutter with indexable inserts	Multi-row thread milling cutter with indexable inserts	Multi-row thread milling cutter with indexable inserts	Single-row thread milling cutter with indexable inserts	Single-row thread milling cutter with indexable inserts
Coolant supply	Axial/radial	Axial/radial	Axial/radial	Axial/radial	Axial/radial
Coating/grade	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S
Shank	DIN 1835 B	DIN 1835 B	DIN 1835 B	DIN 1835 B	DIN 1835 B / Walter Capto™
Thread type Page	M / MF 138 UNC / UNF / UN 140	M / MF 142 UNC / UNF / UN 144	M / MF 146 UNC / UNF / UN 148	M / MF 150 UNC / UNF / UN 150	M / MF 152 UNC / UNF / UN 152
					

Designation key for indexable insert thread milling cutters

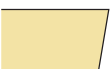
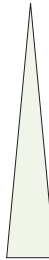
Tool:

T	2	7	11	–	29	-	W	32	-	3	-	09	-	3	-	24
1	2	3	4	5	6		7	8		9		10		11		12

1	2	3	4	5	6
Tool group	Generation	Tool type	Tool type	1. Delimiters	Cutting diameter
T Threading		7 Indexable insert thread milling cutter	10 Universal with triangular insert 1,5 × D _N 11 Universal with triangular insert 2,0 × D _N 12 Universal with triangular insert 2,5 × D _N 13 Universal with triangular insert 3,0 × D _N /modular	– Metric · Inch	
7	8	9	10	11	12
Boring bar/adaptor type	Boring bar/adaptor size	Number of teeth	Insert size	Number of cutting rows	Cutting row spacing
W Weldon shank C Walter Capto™					

Indexable insert:

P26300	-	09	02	-	D	6	7	W	SM	37	S
1		2	3		4	5	6	Walter	7	8	9

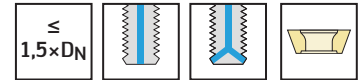
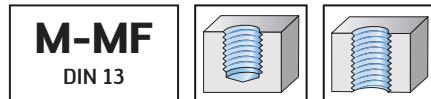
1	2	3	4	5
Family	Insert size	Insert radius/thread specification	Chip breaker groove	Cutting edge
P26300 Triangular positive thread milling cutter insert. P26310 Triangular positive thread milling cutter insert, for single-row tools	06 09 11 14 22	01 = 0,1 mm 02 = 0,2 mm 04 = 0,4 mm G11 = G thread, 11 TPI	 D = 10°	 6
6	7	8	9	
Flank face design	Application	ISO range of applications	Generation	
 1  7	SM Can be used universally with ISO P, M, K, N, S and H materials	Wear resistance  37 Toughness  Cutting tool materials for: 7 thread milling	S Tiger-tec® Silver	

B5

Indexable insert thread milling cutter

T2710 mm


- Universal indexable insert thread milling cutter
- Radius correction values: Walter GPS/Technical information



	P	M	K	N	S	H	O
T2710	●	●	●	●	●	●	●

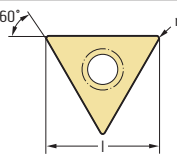
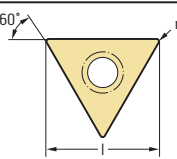
Tool	Designation	D _N	P _{max} mm	D _c mm	l ₂₁ mm	l ₃ mm	l ₁ mm	d ₁ mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B	★ T2710-17-W16-3-06-2-15	M 20	2,50	16,5	15	33	88	16	3	6	P26300-06 ..
Shank DIN 1835 B	★ T2710-19-W20-3-06-3-12	M 24	3,00	19	12	39,1	98	20	3	9	P26300-06 ..
	★ T2710-24-W25-3-09-3-14	M 30	3,50	24	14	49,5	117	25	3	9	P26300-09 ..
	★ T2710-29-W32-3-09-3-16	M 36	4,00	29	16	58,5	131	32	3	9	P26300-11 ..
	★ T2710-35-W32-3-11-3-18	M 42	4,50	35	18	68,5	139	32	3	9	P26300-11 ..
	★ T2710-40-W40-3-14-3-20	M 48	5,00	40	20	79	163	40	3	9	P26300-14 ..
	★ T2710-44-W40-3-14-3-22	M 56	5,50	44	22	91	174	40	3	9	P26300-14 ..
	★ T2710-52-W40-4-14-3-24	M 64	6,00	52	24	103	185	40	4	12	P26300-14 ..

Variable coolant supply: Remove the face-side coolant screw for blind hole machining
Bodies and assembly parts are included in the scope of delivery.

Assembly parts	D _c [mm]	16,5–19	24–29	35	40–52
	Clamping screw for indexable insert	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
	Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm
	Coolant screw	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
	Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm

Accessories	D _c [mm]	16,5–19	24–35	40–52
	Torque screwdriver, analogue	FS2001	FS2001	FS2003
	Tightening torque	0,4–1,2 Nm	0,4–1,2 Nm	1,5–5,0 Nm
	Torque screwdriver, digital			FS2248
	Tightening torque			1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O				
								HC	HC	HC	HC	HC	HC	HC				
	P26300-0601-D67	6	0,1	1,40–2,90	18–9	6,73	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0602-D67	6	0,2	3,00–3,20	8	6,58	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0901-D67	9	0,1	1,40–2,90	18–9	9,48	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0902-D67	9	0,2	3,00–4,30	8–6	9,34	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-1401-D67	14	0,1	1,40–2,90	18–9	13,87	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-1402-D67	14	0,2	3,00–5,20	8–5	13,72	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-1404-D67	14	0,4	5,50–6,40	4,5–4	13,43	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0601-D61	6	0,1	1,40–2,90	18–9	6,73	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0602-D61	6	0,2	3,00–3,20	8	6,58	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0901-D61	9	0,1	1,40–2,90	18–9	9,48	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0902-D61	9	0,2	3,00–4,30	8–6	9,34	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-1101-D61	11	0,1	1,40–2,90	18–9	10,85	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-1102-D61	11	0,2	3,00–4,50	8–6	10,71	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-1401-D61	14	0,1	1,40–2,90	18–9	13,87	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-1402-D61	14	0,2	3,00–5,20	8–5	13,72	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-1404-D61	14	0,4	5,50–6,40	4,5–4	13,43	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				

HC = Coated carbide

Tool selection

B5

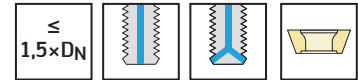
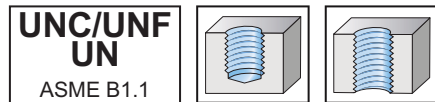
Metric thread		Coarse-pitch thread								Fine-pitch thread										
Body designation	l ₃ [mm]	M20/ M22	M24/ M27	M30/ M33	M36/ M39	M42/ M45	M48/ M52	M56/ M59	M64/ M68	D _N [mm]	P [mm]									
											1,5	2	2,5	3	3,5	4	4,5	5	5,5	6
T2710-17-W16-3-06-2-15	33,0	0601								≥ 20	0601		0601							
T2710-19-W20-3-06-3-12	39,1		0602							≥ 24	0601	0601		0602						
T2710-24-W25-3-09-3-14	49,5			0902						≥ 30		0901			0902					
T2710-29-W32-3-09-3-16	58,5				0902					≥ 36		0901				0902				
T2710-35-W32-3-11-3-18	68,5					1102				≥ 42	1101	1101		1102			1102			
T2710-40-W40-3-14-3-20	79,0						1402			≥ 48		1401	1401			1402		1402		
T2710-44-W40-3-14-3-22	91,0							1404		≥ 56		1401							1404	
T2710-52-W40-4-14-3-24	103,0								1404	≥ 64	1401	1401		1402		1402				1404

Example: With the T2710-35-W32-3-11-3-18 body and the size 11 indexable insert with 0.2 mm radius (1102 -> P26300-1102..), an M42 or M45 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 and 4.5 mm, when the nominal diameter is ≥ 42 mm.

Indexable insert thread milling cutter

T2710


- Universal indexable insert thread milling cutter
- Radius correction values: Walter GPS/Technical information



	P	M	K	N	S	H	O
T2710	●	●	●	●	●	●	●

Tool	Designation	D _N	P _{max} TPI	D _c mm	l ₂₁ mm	l ₃ mm	l ₁ mm	d ₁ mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B	★ T2710-18-W16-3-06-2-11.3	UNC 7/8-9	9	18	11,3	36,5	92	16	3	6	P26300-06 ..
Shank DIN 1835 B	★ T2710-20-W20-3-06-3-12.7	UNC 1-8	8	20	12,7	41,1	100	20	3	9	P26300-06 ..
	★ T2710-26-W25-3-09-3-12.7	UN 1.1/4-8	8	26	12,7	52,2	119	25	3	9	P26300-09 ..
	★ T2710-31-W32-3-09-3-19.1	UN 1.1/2-8	8	31	19,05	63,7	135	32	3	9	
	★ T2710-43-W40-4-09-3-25.4	UN 2-6	6	43	25,4	80,7	160	40	4	12	

Variable coolant supply: Remove the face-side coolant screw for blind hole machining
Bodies and assembly parts are included in the scope of delivery.

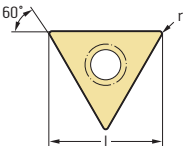
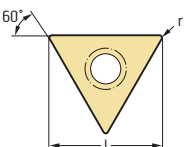
Assembly parts

	D _c [mm]	18–20	26–43
	Clamping screw for indexable insert	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)
	Tightening torque	0,6 Nm	0,9 Nm
	Coolant screw	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)
	Tightening torque	0,6 Nm	0,9 Nm

Accessories

	D _c [mm]	18–20	26–43
	Torque screwdriver, analogue	FS2001	FS2001
	Tightening torque	0,4–1,2 Nm	0,4–1,2 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O				
								WSM37S	HC	WSM37S	HC	WSM37S	HC	WSM37S	HC	WSM37S	HC	WSM37S
	P26300-0601-D67	6	0,1	1,40–2,90	18–9	6,73	3											
	P26300-0602-D67	6	0,2	3,00–3,20	8	6,58	3											
	P26300-0901-D67	9	0,1	1,40–2,90	18–9	9,48	3											
	P26300-0902-D67	9	0,2	3,00–4,30	8–6	9,34	3											
	P26300-0601-D61	6	0,1	1,40–2,90	18–9	6,73	3											
	P26300-0602-D61	6	0,2	3,00–3,20	8	6,58	3											
	P26300-0901-D61	9	0,1	1,40–2,90	18–9	9,48	3											
	P26300-0902-D61	9	0,2	3,00–4,30	8–6	9,34	3											

HC = Coated carbide

B5

Tool selection

UN threads		UNC		UNF				UN						
Body designation	l ₃ [mm]	7/8 –9	1–8	1 1/8 –12	1 1/4 –12	1 3/8 –12	1 1/2 –12	D _N	TPI					
									18*	16	14	12	8	6
T2710-18-W16-3-06-2-11.3	36,5	0601						≥ 0,87"	0601					
T2710-20-W20-3-06-3-12.7	41,1		0602	0601	0601	0601	0601	≥ 1,00"	0601	0601	0601	0601	0602	
T2710-26-W25-3-09-3-12.7	52,2				0601	0601	0601	≥ 1,25"	0901	0901	0901	0901	0902	
T2710-31-W32-3-09-3-19.1	63,7						0601	≥ 1,50"		0901		0901	0902	
T2710-43-W40-4-09-3-25.4	80,7							≥ 2,00"	0901	0901	0901	0901	0902	0902

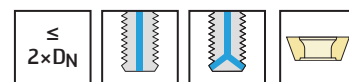
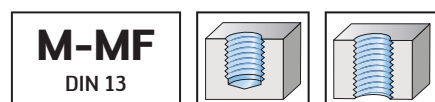
Example: With the T2710-20-W20-3-06-3-12.7 body and the size 06 indexable insert with 0.2 mm radius (0602 -> P26300-0602.), a UNC 1" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 TPI, when their nominal diameter is ≥ 1".

* = UNEF

Indexable insert thread milling cutter

T2711 mm


- Universal indexable insert thread milling cutter
- Radius correction values: Walter GPS/Technical information



	P	M	K	N	S	H	O
T2711	●	●	●	●	●	●	●

Tool	Designation	D _N	P _{max} mm	D _c mm	l ₂₁ mm	l ₃ mm	l ₁ mm	d ₁ mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B 	★ T2711-17-W16-3-06-2-20	M 20	2,50	16,5	20	43	98	16	3	6	P26300-06 ..
	T2711-19-W20-3-06-2-24	M 24	3,00	19	24	51	110	20	3	6	P26300-09 ..
	T2711-24-W25-3-09-2-31.5	M 30	3,50	24	31,5	64,5	132	25	3	6	P26300-14 ..
	T2711-52-W40-4-14-2-60	M 64	6,00	52	60	135	217	40	4	8	P26300-14 ..
Shank DIN 1835 B 	T2711-29-W32-3-09-3-24	M 36	4,00	29	24	76,5	149	32	3	9	P26300-09 ..
	T2711-35-W32-3-11-3-27	M 42	4,50	35	27	89,5	160	32	3	9	P26300-11 ..
	T2711-40-W40-3-14-3-30	M 48	5,00	40	30	103	187	40	3	9	P26300-14 ..
	T2711-44-W40-3-14-3-33	M 56	5,50	44	33	119	202	40	3	9	P26300-14 ..

Variable coolant supply: Remove the face-side coolant screw for blind hole machining
Bodies and assembly parts are included in the scope of delivery.

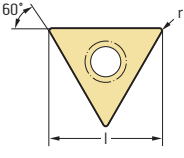
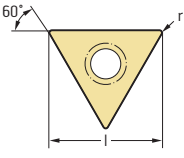
Assembly parts

D _c [mm]	16,5–19	24–29	35	40–52
Clamping screw for indexable insert	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm
Coolant screw	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm

Accessories

D _c [mm]	16,5–19	24–35	40–52
Torque screwdriver, analogue	FS2001	FS2001	FS2003
Tightening torque	0,4–1,2 Nm	0,4–1,2 Nm	1,5–5,0 Nm
Torque screwdriver, digital			FS2248
Tightening torque			1,0–6,0 Nm
Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O				
								HC	HC	HC	HC	HC	HC	HC				
	P26300-0601-D67	6	0,1	1,40–2,90	18–9	6,73	3											
	P26300-0602-D67	6	0,2	3,00–3,20	8	6,58	3											
	P26300-0901-D67	9	0,1	1,40–2,90	18–9	9,48	3											
	P26300-0902-D67	9	0,2	3,00–4,30	8–6	9,34	3											
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3											
	P26300-1401-D67	14	0,1	1,40–2,90	18–9	13,87	3											
	P26300-1402-D67	14	0,2	3,00–5,20	8–5	13,72	3											
	P26300-1404-D67	14	0,4	5,50–6,40	4,5–4	13,43	3											
	P26300-0601-D61	6	0,1	1,40–2,90	18–9	6,73	3											
	P26300-0602-D61	6	0,2	3,00–3,20	8	6,58	3											
	P26300-0901-D61	9	0,1	1,40–2,90	18–9	9,48	3											
	P26300-0902-D61	9	0,2	3,00–4,30	8–6	9,34	3											
	P26300-1101-D61	11	0,1	1,40–2,90	18–9	10,85	3											
	P26300-1102-D61	11	0,2	3,00–4,50	8–6	10,71	3											
	P26300-1401-D61	14	0,1	1,40–2,90	18–9	13,87	3											
	P26300-1402-D61	14	0,2	3,00–5,20	8–5	13,72	3											
	P26300-1404-D61	14	0,4	5,50–6,40	4,5–4	13,43	3											

HC = Coated carbide

Tool selection

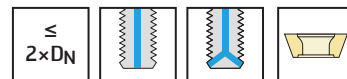
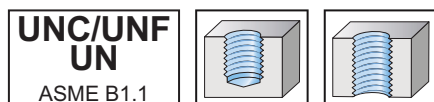
Metric thread		Coarse-pitch thread								Fine-pitch thread										
		M20/ M22	M24/ M27	M30/ M33	M36/ M39	M42/ M45	M48/ M52	M56/ M59	M64/ M68	D _N [mm]	P [mm]									
1,5	2										2,5	3	3,5	4	4,5	5	5,5	6		
Body designation	I ₃ [mm]																			
T2711-17-W16-3-06-2-20	43	0601								≥ 20		0601	0601							
T2711-19-W20-3-06-2-24	51		0602							≥ 24	0601	0601		0602						
T2711-24-W25-3-09-2-31.5	64,5			0902						≥ 30	0901				0902					
T2711-29-W32-3-09-3-24	76,5				0902					≥ 36	0901	0901		0902		0902				
T2711-35-W32-3-11-3-27	89,5					1102				≥ 42	1101			1102			1102			
T2711-40-W40-3-14-3-30	103						1402			≥ 48	1401	1401	1401	1402				1402		
T2711-44-W40-3-14-3-33	119							1404		≥ 56	1401			1402					1404	
T2711-52-W40-4-14-2-60	135								1404	≥ 64	1401	1401	1401	1402		1402		1402	1404	

Example: With the T2711-29-W32-3-09-3-24 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), an M36 or M39 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 or 4 mm, when the nominal diameter is ≥ 36 mm.

Indexable insert thread milling cutter

T2711 mm


- Universal indexable insert thread milling cutter
- Radius correction values: Walter GPS/Technical information



	P	M	K	N	S	H	O
T2711	●	●	●	●	●	●	●

Tool	Designation	D _N	P _{max} TPI	D _c mm	l ₂₁ mm	l ₃ mm	l ₁ mm	d ₁ mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B 	★ T2711-18-W16-3-06-2-25.4	UNC 7/8-9	9	18	25,4	47,5	103	16	3	6	P26300-06 ..
	T2711-20-W20-3-06-2-25.4	UNC 1-8	8	20	25,4	53,9	113	20	3	6	P26300-06 ..
	T2711-26-W25-3-09-2-32.7	UNC 1.1/4-7	7	26	32,66	68	135	25	3	6	P26300-09 ..
Shank DIN 1835 B 	T2711-31-W32-3-09-3-25.4	UNC 1.1/2-6	6	31	25,4	80,7	153	32	3	9	P26300-09 ..

Variable coolant supply: Remove the face-side coolant screw for blind hole machining
 Bodies and assembly parts are included in the scope of delivery.

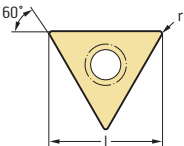
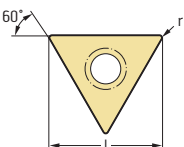
Assembly parts

	D _c [mm]	18–20	26–31
	Clamping screw for indexable insert	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)
	Tightening torque	0,6 Nm	0,9 Nm
	Coolant screw	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)
	Tightening torque	0,6 Nm	0,9 Nm

Accessories

	D _c [mm]	18–20	26–31
	Torque screwdriver, analogue	FS2001	FS2001
	Tightening torque	0,4–1,2 Nm	0,4–1,2 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O				
								HC	HC	HC	HC	HC	HC	HC				
	P26300-0601-D67	6	0,1	1,40–2,90	18–9	6,73	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0602-D67	6	0,2	3,00–3,20	8	6,58	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0901-D67	9	0,1	1,40–2,90	18–9	9,48	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0902-D67	9	0,2	3,00–4,30	8–6	9,34	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0601-D61	6	0,1	1,40–2,90	18–9	6,73	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0602-D61	6	0,2	3,00–3,20	8	6,58	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0901-D61	9	0,1	1,40–2,90	18–9	9,48	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				
	P26300-0902-D61	9	0,2	3,00–4,30	8–6	9,34	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S				

HC = Coated carbide

Tool selection

UN threads		UNC				UNF						UN						
Body designation	l ₃ [mm]	7/8 –9	1–8	1 1/4 –7	1 1/2 –6	7/8 –14	1–12	1 1/8 –12	1 1/4 –12	1 3/8 –12	1 1/2 –12	D _N	TPI					
													18*	16	14	12	8	6
T2711-18-W16-3-06-2-25.4	47,5	0601				0601	0601	0601	0601	0601	0601	≥ 0,87"	0601	0601	0601	0601		
T2711-20-W20-3-06-2-25.4	53,9		0602				0601	0601	0601	0601	0601	≥ 1,00"	0601	0601	0601	0601	0602	
T2711-26-W25-3-09-2-32.7	68			0902								≥ 1,25"			0901			
T2711-31-W32-3-09-3-25.4	80,7				0902						0901	≥ 1,50"	0901	0901	0901	0901	0902	0902

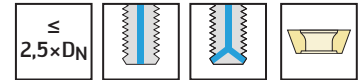
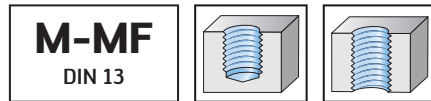
* = UNEF

Example: With the T2711-31-W32-3-09-3-25.4 body and the size 09 indexable insert with 0,2 mm radius (0902 -> P26300-0902.), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 and 6 TPI, when their nominal diameter is ≥ 1,5".

Indexable insert thread milling cutter

T2712 mm


- Universal indexable insert thread milling cutter
- Radius correction values: Walter GPS/Technical information



	P	M	K	N	S	H	O
T2712	●	●	●	●	●	●	●

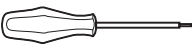
Tool	Designation	D _N	P _{max} mm	D _c mm	l ₂₁ mm	L _c mm	l ₃ mm	l ₁ mm	d ₁	Z	No. of indexable inserts	Type
Shank DIN 1835 B 	T2712-24-W25-3-09-2-31.5	M 30	3,50	24	31,5	63	79,5	147	25	3	6	P26300-09 ..
	T2712-29-W32-3-09-2-36	M 36	4,00	29	36	72	94,5	167	32	3	6	P26300-11 ..
	T2712-35-W32-3-11-2-40.5	M 42	4,50	35	40,5	81	110,5	180	32	3	6	P26300-11 ..
	T2712-40-W40-3-14-2-50	M 48	5,00	40	50	100	127	211	40	3	6	P26300-14 ..

Variable coolant supply: Remove the face-side coolant screw for blind hole machining
 Bodies and assembly parts are included in the scope of delivery.

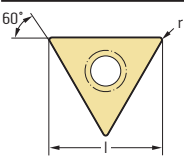
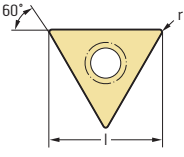
Assembly parts

D _c [mm]	24–29	35	40
 Clamping screw for indexable insert Tightening torque	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm
Coolant screw Tightening torque	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm

Accessories

D _c [mm]	24–35	40
 Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
 Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm
 Interchangeable blade	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
 Screwdriver	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O				
								HC	HC	HC	HC	HC	HC	HC				
	P26300-0901-D67	9	0,1	1,40–2,90	18–9	9,48	3											
	P26300-0902-D67	9	0,2	3,00–4,30	8–6	9,34	3											
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3											
	P26300-1401-D67	14	0,1	1,40–2,90	18–9	13,87	3											
	P26300-1402-D67	14	0,2	3,00–5,20	8–5	13,72	3											
	P26300-1404-D67	14	0,4	5,50–6,40	4,5–4	13,43	3											
	P26300-0901-D61	9	0,1	1,40–2,90	18–9	9,48	3											
	P26300-0902-D61	9	0,2	3,00–4,30	8–6	9,34	3											
	P26300-1101-D61	11	0,1	1,40–2,90	18–9	10,85	3											
	P26300-1102-D61	11	0,2	3,00–4,50	8–6	10,71	3											
	P26300-1401-D61	14	0,1	1,40–2,90	18–9	13,87	3											
	P26300-1402-D61	14	0,2	3,00–5,20	8–5	13,72	3											

HC = Coated carbide

B5

Tool selection

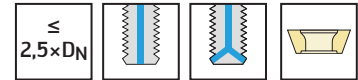
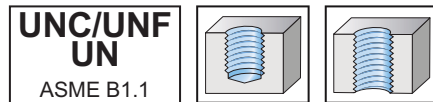
Metric thread		Coarse-pitch thread				Fine-pitch thread								
Body designation	l ₃ [mm]	M30 / M33	M36 / M39	M42 / M45	M48 / M52	D _N [mm]	P [mm]							
							1,5	2	2,5	3	3,5	4	4,5	5
T2712-24-W25-3-09-2-31.5	79,5	0902				≥ 30	0901				0902			
T2712-29-W32-3-09-2-36	94,5		0902			≥ 36	0901	0901		0902		0902		
T2712-35-W32-3-11-2-40.5	110,5			1102		≥ 42	1101						1102	
T2712-40-W40-3-14-2-50	127				1402	≥ 48		1401	1401					1402

Example: With the T2712-29-W32-3-09-2-36 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902...), an M36 or M39 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 or 4 mm, when the nominal diameter is ≥ 36 mm.

Indexable insert thread milling cutter

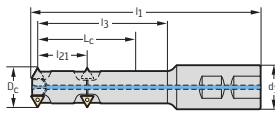
T2712


- Universal indexable insert thread milling cutter
- Radius correction values: Walter GPS/Technical information



	P	M	K	N	S	H	O
T2712	●	●	●	●	●	●	●

Tool	Designation	D _N	P _{max} TPI	D _c mm	l ₂₁ mm	L _c mm	l ₃ mm	l ₁ mm	d ₁ mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B	T2712-26-W25-3-09-2-32.7	UNC 1 1/4-7	7	26	32,66	65,32	84	151	25	3	6	P26300-09 ..
	T2712-31-W32-3-09-2-38.1	UNC 1 1/2-6	6	31	38,1	76,2	99,8	172	32	3	6	



Variable coolant supply: Remove the face-side coolant screw for blind hole machining
Bodies and assembly parts are included in the scope of delivery.

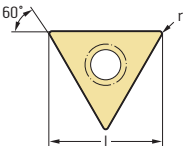
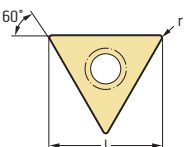
Assembly parts

	D _c [mm]	26–31
	Clamping screw for indexable insert	FS2111 (Torx 7IP)
	Tightening torque	0,9 Nm
	Coolant screw	FS2111 (Torx 7IP)
	Tightening torque	0,9 Nm

Accessories

	D _c [mm]	26–31
	Torque screwdriver, analogue	FS2001
	Tightening torque	0,4–1,2 Nm
	Interchangeable blade	FS2011 (Torx 7IP)
	Screwdriver	FS2088 (Torx 7IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O				
								WSM37S	HC	HC	HC	HC	HC	HC				
	P26300-0901-D67	9	0,1	1,40–2,90	18–9	9,48	3											
	P26300-0902-D67	9	0,2	3,00–4,30	8–6	9,34	3											
	P26300-0901-D61	9	0,1	1,40–2,90	18–9	9,48	3											
	P26300-0902-D61	9	0,2	3,00–4,30	8–6	9,34	3											

HC = Coated carbide

B5

Tool selection

UN threads		UNC		UNF	UN						
Body designation	l ₃ [mm]	1 1/4–7	1 1/2–6	1 1/2–12	D _N	18*	16	TPI			
								14	12	8	6
T2712-26-W25-3-09-2-32.7	84	0902			≥ 1,25"			0901			
T2712-31-W32-3-09-2-38.1	99,8		0902	0901	≥ 1,50"	0901	0901	0901	0901	0902	0902

* UNEF

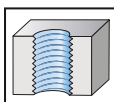
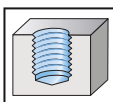
Example: With the T2712-31-W32-3-09-2-38.1 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902.), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 and 6 TPI, when their nominal diameter is ≥ 1.5".

Indexable insert thread milling cutter

T2712 mm


- Universal indexable insert thread milling cutter
- Radius correction values: Walter GPS/Technical information

M-MF
DIN 13

**UNC/UNF
UN**
ASME B1.1

 $\leq 2,5 \times D_N$


	P	M	K	N	S	H	O
T2712	●	●	●	●	●	●	●

Tool	Designation	D _N [mm]	D _N [inch]	P _{max} mm	P _{max} TPI	D _c mm	l ₃ mm	l ₁ mm	d ₁ mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B 	★ T2712-17-W16-3-06	M 20	0.87"	2,50	9	16,5	53	108	16	3	3	P26300-06 ..
	T2712-19-W20-3-06	M 24	1.00"	3,00	8	19	63	123	20	3	3	P263 . 0-09 ..
	T2712-24-W25-3-09	M 30	1.25"	3,50	7	24	79,5	148	25	3	3	
	T2712-29-W32-3-09	M 36	1.50"	4,00	6	29	94,5	167	32	3	3	P26300-11 ..
	T2712-35-W32-3-11	M 42	1.75"	4,50	6	35	110,5	181	32	3	3	P263 . 0-14 ..
	T2712-40-W40-3-14	M 48	2.00"	5,00	5	40	127	211	40	3	3	
	T2712-44-W40-3-14	M 56	2.25"	5,50	4,5	44	147	230	40	3	3	
	T2712-52-W40-4-14	M 64	2.75"	6,00	4	52	167	249	40	4	4	

Variable coolant supply: Remove the face-side coolant screw for blind hole machining

G (BSP) threads are presented on a separate double page in the Product Innovations catalogue 2020.

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

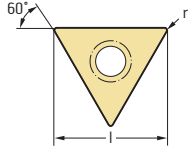
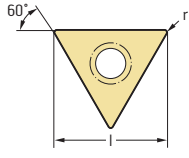
Assembly parts

D _c [mm]	16,5–19	24–29	35	40–52
Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm
Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm

Accessories

D _c [mm]	16,5–19	24–35	40–52
Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm
Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O					
								HC	HC	HC	HC	HC	HC	HC					
	P26300-0601-D67	6	0,1	1,40–2,90	18–9	6,73	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-0602-D67	6	0,2	3,00–3,20	8	6,58	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-0901-D67	9	0,1	1,40–2,90	18–9	9,48	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-0902-D67	9	0,2	3,00–4,30	8–6	9,34	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-1401-D67	14	0,1	1,40–2,90	18–9	13,87	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-1402-D67	14	0,2	3,00–5,20	8–5	13,72	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-1404-D67	14	0,4	5,50–6,40	4,5–4	13,43	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-0601-D61	6	0,1	1,40–2,90	18–9	6,73	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-0602-D61	6	0,2	3,00–3,20	8	6,58	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-0901-D61	9	0,1	1,40–2,90	18–9	9,48	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-0902-D61	9	0,2	3,00–4,30	8–6	9,34	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-1101-D61	11	0,1	1,40–2,90	18–9	10,85	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-1102-D61	11	0,2	3,00–4,50	8–6	10,71	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-1401-D61	14	0,1	1,40–2,90	18–9	13,87	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-1402-D61	14	0,2	3,00–5,20	8–5	13,72	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					
	P26300-1404-D61	14	0,4	5,50–6,40	4,5–4	13,43	3	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S					

HC = Coated carbide

Tool selection

Metric thread		Coarse-pitch thread								Fine-pitch thread								
										D _N [mm]	P [mm]							
											1,5–2,5	3	3,5	4	4,5	5	5,5	6
Body designation	l ₃ [mm]	M20/ M22	M24 / M27	M30 / M33	M36 / M39	M42 / M45	M48 / M52	M56 / M59	M64 / M68									
T2712-17-W16-3-06	53	0601								≥ 20	0601							
T2712-19-W20-3-06	63		0602							≥ 24	0601	0602						
T2712-24-W25-3-09	79,5			0902						≥ 30	0901	0902						
T2712-29-W32-3-09	94,5				0902					≥ 36	0901	0902						
T2712-35-W32-3-11	110,5					1102				≥ 42	1101	1102						
T2712-40-W40-3-14	127						1402			≥ 48	1401	1402						
T2712-44-W40-3-14	147							1404		≥ 56	1401	1402				1404		
T2712-52-W40-4-14	167								1404	≥ 64	1401	1402					1404	

Example: With the T2712-29-W32-3-09-2-36 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902...), an M36 or M39 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 or 4 mm, when the nominal diameter is ≥ 36 mm.

UN threads		UNC						UNF						UN						
Body designation	l ₃ [mm]	7/8-9	1-8	1 1/4-7	1 1/2-6	2 1/4-4.5	≥ 2 3/4-4	7/8-14	1-12	1 1/8-12	1 1/4-12	1 3/8-12	1 1/2-12	D _N	TPI					
															18-9	8	6	5	4,5	4
T2712-17-W16-3-06	53	0601						0601	0601	0601	0601	0601	0601	≥ 0,87"	0601					
T2712-19-W20-3-06	63		0602						0601	0601	0601	0601	0601	≥ 1,00"	0601	0602				
T2712-24-W25-3-09	79,5			0902						0901	0901	0901	0901	≥ 1,25"	0901	0902				
T2712-29-W32-3-09	94,5				0902							0901	0901	≥ 1,50"	0901	0902				
T2712-35-W32-3-11	110,5													≥ 1,75"	1101	1102				
T2712-40-W40-3-14	127													≥ 2,00"	1401	1402				
T2712-44-W40-3-14	147					1404								≥ 2,25"	1401	1402		1404		
T2712-52-W40-4-14	167						1404							≥ 2,75"	1401	1402			1404	

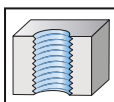
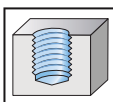
Example: With the T2712-29-W32-3-09 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902...), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 and 6 TPI, when their nominal diameter is ≥ 1.5".

Indexable insert thread milling cutter

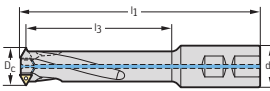
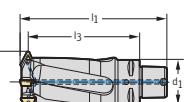
T2713 mm


- Universal indexable insert thread milling cutter
- Radius correction values: Walter GPS/Technical information

M-MF
DIN 13

**UNC/UNF
UN**
ASME B1.1

 $\leq 3 \times D_N$


	P	M	K	N	S	H	O
T2713	●	●	●	●	●	●	●

Tool	Designation	D _N [mm]	D _N [inch]	P _{max} mm	P _{max} TPI	D _c mm	l ₃ mm	l ₁ mm	d ₁ mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B 	★ T2713-17-W16-3-06	M 20	0.87"	2,50	9	16,5	63	118	16	3	3	P26300-06 ..
	T2713-19-W20-3-06	M 24	1.00"	3,00	8	19	75	135	20	3	3	P263 . 0-09 ..
	T2713-24-W25-3-09	M 30	1.25"	3,50	7	24	94,5	163	25	3	3	P26300-09 ..
	T2713-29-W32-3-09	M 36	1.50"	4,00	6	29	112,5	185	32	3	3	P26300-09 ..
	T2713-35-W32-3-11	M 42	1.75"	4,50	6	35	131,5	202	32	3	3	P26300-11 ..
	T2713-40-W40-3-14	M 48	2.00"	5,00	5	40	151	235	40	3	3	P263 . 0-14 ..
	T2713-44-W40-3-14	M 56	2.25"	5,50	4,5	44	175	258	40	3	3	
	T2713-52-W40-4-14	M 64	2.75"	6,00	4	52	199	281	40	4	4	
Walter Capto™ in acc. with ISO 26623 	T2713-60-C5-4-14	M 72	3.00"	6,00	4	60	115	152	50	4	4	P263 . 0-14 ..
	T2713-73-C6-5-14	M 85	3.50"	6,00	4	73	125	170	63	5	5	
	T2713-94-C8-5-22	M 125	5.00"	10,00	3	94	140	199	80	5	5	P26300-22 ..

Variable coolant supply: Remove the face-side coolant screw for blind hole machining
G (BSP) threads are presented on a separate double page in the Product Innovations catalogue 2020.
Bodies and assembly parts are included in the scope of delivery.

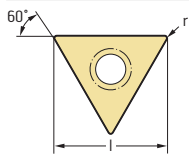
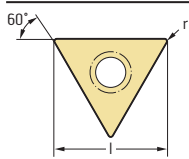
Assembly parts

D _c [mm]	16,5–19	24–29	35	40–73	94
 Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS1495 (Torx 20IP) 5,0 Nm
 Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm	FS1495 (Torx 20IP) 5,0 Nm

Accessories

D _c [mm]	16,5–19	24–35	40–73	94
 Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
 Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	
 Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)	FS2015 (Torx 20IP)
 Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)	FS1486 (Torx 20IP)

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O					
								HC	HC	HC	HC	HC	HC	HC					
	P26300-0601-D67	6	0,1	1,40–2,90	18–9	6,73	3												
	P26300-0602-D67	6	0,2	3,00–3,20	8	6,58	3												
	P26300-0901-D67	9	0,1	1,40–2,90	18–9	9,48	3												
	P26300-0902-D67	9	0,2	3,00–4,30	8–6	9,34	3												
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3												
	P26300-1401-D67	14	0,1	1,40–2,90	18–9	13,87	3												
	P26300-1402-D67	14	0,2	3,00–5,20	8–5	13,72	3												
	P26300-1404-D67	14	0,4	5,50–6,40	4,5–4	13,43	3												
	P26300-2204-D61	22	0,4	5,50–10,00	4,5–4	21,41	3												
	P26300-0601-D61	6	0,1	1,40–2,90	18–9	6,73	3												
	P26300-0602-D61	6	0,2	3,00–3,20	8	6,58	3												
	P26300-0901-D61	9	0,1	1,40–2,90	18–9	9,48	3												
	P26300-0902-D61	9	0,2	3,00–4,30	8–6	9,34	3												
	P26300-1101-D61	11	0,1	1,40–2,90	18–9	10,85	3												
	P26300-1102-D61	11	0,2	3,00–4,50	8–6	10,71	3												
	P26300-1401-D61	14	0,1	1,40–2,90	18–9	13,87	3												
	P26300-1402-D61	14	0,2	3,00–5,20	8–5	13,72	3												
	P26300-2204-D61	22	0,4	5,50–10,00	4,5–4	21,41	3												

HC = Coated carbide

Tool selection

Metric thread		Coarse-pitch thread								Fine-pitch thread									
Body designation	l ₃ [mm]									P [mm]									
		M20 / M22	M24 / M27	M30 / M33	M36 / M39	M42 / M45	M48 / M52	M56 / M59	M64 / M68	D _N [mm]	1,5– 2,5	3	3,5	4	4,5	5	5,5	6	7–10
T2713-17-W16-3-06	63	0601								≥ 20	0601								
T2713-19-W20-3-06	75		0602							≥ 24	0601	0602							
T2713-24-W25-3-09	94,5			0902						≥ 30	0901	0902							
T2713-29-W32-3-09	112,5				0902					≥ 36	0901	0902							
T2713-35-W32-3-11	131,5					1102				≥ 42	1101	1102							
T2713-40-W40-3-14	151						1402			≥ 48	1401	1402							
T2713-44-W40-3-14	175							1404		≥ 56	1401	1402					1404		
T2713-52-W40-4-14	199								1404	≥ 64	1401	1402					1404		
T2713-60-C5-4-14	115									≥ 72	1401	1402					1404		
T2713-73-C6-5-14	125									≥ 85	1401	1402					1404		
T2713-94-C8-5-22	140									≥ 125								2204	

Example: With the T2713-29-W32-3-09 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902...), an M36 or M39 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 or 4 mm, when the nominal diameter is ≥ 36 mm.

UN threads		UNC								UNF				UN						
Body designation	l ₃ [mm]													TPI						
		7/8-9	1-8	1 1/4- 7	1 1/2- 6	2 1/4- 4,5	2 3/4- 4	≥ 3-4	≥ 3 1/2- 4	7/8-14	1-12	≥ 1 1/8- 12	≥ 1 3/8-12	D _N	18-9	8	6	5	4,5	4
T2713-17-W16-3-06	63	0601								0601	0601	0601	0601	≥ 0,87"	0601					
T2713-19-W20-3-06	75		0602								0601	0601	0601	≥ 1,00"	0601	0602				
T2713-24-W25-3-09	94,5			0902								0901	0901	≥ 1,25"	0901	0902				
T2713-29-W32-3-09	112,5				0902								0901	≥ 1,50"	0901	0902				
T2713-35-W32-3-11	131,5													≥ 1,75"	1101	1102				
T2713-40-W40-3-14	151													≥ 2,00"	1401	1402				
T2713-44-W40-3-14	175					1404								≥ 2,25"	1401	1402		1404		
T2713-52-W40-4-14	199						1404	1404	1404					≥ 2,75"	1401	1402		1404		
T2713-60-C5-4-14	115							1404	1404					≥ 3,00"	1401	1402		1404		
T2713-73-C6-5-14	125								1404					≥ 3,50"	1401	1402		1404		
T2713-94-C8-5-22	140													≥ 5,00"					2204	

Example: With the T2713-29-W32-3-09 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902...), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 to 6 TPI, when the nominal diameter is ≥ 1.5".

Cutting data

Thread forming

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

Material group	 = Coolant recommended E = Emulsion O = Oil v_c = Cutting speed		Overview of the main material groups and code letters		Brinell hardness HB	Tensile strength R _m N/mm ²	Machining group ¹	HSS-E-(PM) thread formers			
								Coated			
								v _c [m/min]			
									1,5 × D _N	2 × D _N	2,5 × D _N
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	E	46	37	32	
		C > 0.25% to ≤ 0.55%	Annealed	190	640	P2	E	47	38	33	
		C > 0.25% to ≤ 0.55%	Heat-treated	210	710	P3	E	29	23	20	
		C > 0.55%	Annealed	190	640	P4	E	29	23	20	
		C > 0.55%	Heat-treated	300	1010	P5	E	17	14	12	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	E	29	23	20	
	Low-alloy steel	Annealed		175	590	P7	E	47	38	33	
		Heat-treated		285	960	P8	E	15	12	11	
		Heat-treated		380	1280	P9					
		Heat-treated		430	1480	P10					
	High-alloy steel and high-alloy tool steel	Annealed		200	680	P11	E	29	23	20	
		Hardened and tempered		300	1010	P12	E	17	14	12	
		Hardened and tempered		380	1280	P13					
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	E O	13	10	9	
		Martensitic, heat-treated		330	1110	P15	O	5	4	3	
M	Stainless steel	Austenitic, quench hardened		200	680	M1	E O	15	12	11	
		Austenitic, precipitation hardened (PH)		300	1010	M2	O	5	4	4	
		Austenitic/ferritic, duplex		230	780	M3	E O	5	4	4	
K	Malleable cast iron	Ferritic		200	400	K1					
		Pearlitic		260	700	K2					
	Grey cast iron	Low tensile strength		180	200	K3					
		High tensile strength/austenitic		245	350	K4					
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	E	29	23	20	
		Pearlitic		265	700	K6	E	14	12	10	
	GGV (CGI)			230	400	K7					
N	Wrought aluminium alloys	Not hardenable		30	–	N1	E	56	45	39	
		Hardenable, hardened		100	340	N2	E	52	43	37	
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	E	48	39	34	
		≤ 12% Si, hardenable, hardened		90	310	N4	E	48	39	34	
		> 12% Si, not hardenable		130	450	N5					
	Magnesium-based alloys			70	250	N6					
				100	340	N7	E	21	17	15	
				90	310	N8					
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	E	8	6	5	
			Hardened	280	940	S2					
		Ni- or Co-based	Annealed	250	840	S3	O	8	6	5	
			Hardened	350	1180	S4					
			Cast	320	1080	S5					
	Titanium alloys	Pure titanium		200	680	S6					
		α and β alloys, hardened		375	1260	S7					
		β alloys		410	1400	S8					
	Tungsten alloys			300	1010	S9					
	Molybdenum alloys			300	1010	S10					
H	Hardened steel	Hardened and tempered		50 HRC	–	H1					
		Hardened and tempered		55 HRC	–	H2					
		Hardened and tempered		60 HRC	–	H3					
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4					
O	Thermoplastics	Without abrasive fillers				O1					
	Thermosets	Without abrasive fillers				O2					
	Plastic, glass-fibre-reinforced	GFRP				O3					
	Plastic, carbon-fibre-reinforced	CFRP				O4					
	Plastic, aramid-fibre-reinforced	AFRP				O5					
	Graphite (technical)			80 Shore		O6					

¹ The classification of the machining groups can be found from page B 1174 onwards in the Walter General Catalogue 2017.

³ Water-miscible coolants must not be used when machining magnesium-based alloys.

*For materials with a hardness of more than 63 HRC, reduce the cutting speed by 50–75%.

Cutting data

Indexable insert thread milling

Material group	 = Coolant recommended E = Emulsion M = MQL A = Compressed air v_c = Cutting speed [m/min] f_z = Feed per tooth [mm]		Overview of the main material groups and code letters		Brinell hardness HB	Tensile strength R _m N/mm ²	Machining group ¹		T2710 / T2711 / T2712 / T2713		
									f _z [mm]		
									v _c [m/min]	Insert size	
										06	09/11/14/22
P	Non-alloyed steel	C ≤ 0.25%	Annealed		125	430	P1	E M	200	0,3	0,4
		C > 0.25% to ≤ 0.55%	Annealed		190	640	P2	E M	200	0,3	0,4
		C > 0.25% to ≤ 0.55%	Heat-treated		210	710	P3	E M	200	0,3	0,4
		C > 0.55%	Annealed		190	640	P4	E M	200	0,3	0,4
		C > 0.55%	Heat-treated		300	1010	P5	E M	200	0,3	0,4
		Free-machining steel (short-chipping)	Annealed		220	750	P6	E M	200	0,3	0,4
	Low-alloy steel	Annealed			175	590	P7	E M	200	0,3	0,4
		Heat-treated			285	960	P8	E M	200	0,3	0,4
		Heat-treated			380	1280	P9	E M	150	0,25	0,35
		Heat-treated			430	1480	P10	E M	100	0,2	0,3
	High-alloy steel and high-alloy tool steel	Annealed			200	680	P11	E M	200	0,3	0,4
		Hardened and tempered			300	1010	P12	E M	200	0,3	0,4
		Hardened and tempered			380	1280	P13	E M	150	0,3	0,4
	Stainless steel	Ferritic/martensitic, annealed			200	680	P14	E M	200	0,25	0,35
		Martensitic, heat-treated			330	1110	P15	E M	150	0,25	0,35
M	Stainless steel	Austenitic, quench hardened			200	680	M1	E	200	0,2	0,3
		Austenitic, precipitation hardened (PH)			300	1010	M2	E	150	0,2	0,3
		Austenitic/ferritic, duplex			230	780	M3	E	80	0,2	0,3
K	Malleable cast iron	Ferritic			200	400	K1	E M	200	0,3	0,4
		Pearlitic			260	700	K2	E M	200	0,3	0,4
	Grey cast iron	Low tensile strength			180	200	K3	E M	250	0,3	0,4
		High tensile strength/austenitic			245	350	K4	E M	200	0,3	0,4
	Cast iron with spheroidal graphite	Ferritic			155	400	K5	E M	200	0,3	0,4
		Pearlitic			265	700	K6	E M	200	0,3	0,4
	GGV (CGI)				230	400	K7	E M	200	0,3	0,4
N	Wrought aluminium alloys	Not hardenable			30	–	N1	E M	200	0,3	0,4
		Hardenable, hardened			100	340	N2	E M	200	0,3	0,4
	Cast aluminium alloys	≤ 12% Si, not hardenable			75	260	N3	E M	200	0,3	0,4
		≤ 12% Si, hardenable, hardened			90	310	N4	E M	200	0,3	0,4
		> 12% Si, not hardenable			130	450	N5	E M	200	0,3	0,4
	Magnesium-based alloys ³				70	250	N6	A	250	0,3	0,4
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper			100	340	N7	E M	200	0,3	0,4
		Brass, bronze, red brass			90	310	N8	E M	200	0,3	0,4
		Cu alloys, short-chipping			110	380	N9	E M	200	0,3	0,4
		High tensile, Ampco			300	1010	N10	E M	50	0,3	0,4
S	Heat-resistant alloys	Fe-based	Annealed		200	680	S1	E	40	0,25	0,25
			Hardened		280	940	S2	E	25	0,15	0,15
		Ni- or Co-based	Annealed		250	840	S3	E	40	0,25	0,25
			Hardened		350	1180	S4	E	25	0,15	0,15
			Cast		320	1080	S5	E	30	0,2	0,2
	Titanium alloys	Pure titanium			200	680	S6	E	40	0,25	0,25
		α and β alloys, hardened			375	1260	S7	E	40	0,25	0,25
		β alloys			410	1400	S8	E	30	0,2	0,2
	Tungsten alloys				300	1010	S9	E	40	0,25	0,25
	Molybdenum alloys				300	1010	S10	E	40	0,25	0,25
H	Hardened steel	Hardened and tempered			50 HRC	–	H1	M A	45	0,2	0,3
		Hardened and tempered			55 HRC	–	H2	M	–	–	–
		Hardened and tempered			60 HRC	–	H3	M	–	–	–
	Hardened cast iron	Hardened and tempered			55 HRC	–	H4	M A	45	0,2	0,3
O	Thermoplastics	Without abrasive fillers					O1	E M	200	0,3	0,4
	Thermosets	Without abrasive fillers					O2	E M	150	0,3	0,4
	Plastic, glass-fibre-reinforced	GFRP					O3	E M	50	0,3	0,4
	Plastic, carbon-fibre-reinforced	CFRP					O4	E M	50	0,3	0,4
	Plastic, aramid-fibre-reinforced	AFRP					O5	E M	50	0,3	0,4
	Graphite (technical)				80 Shore		O6	E M	200	0,3	0,4

¹ The classification of the machining groups can be found from page B 1174 onwards in the Walter General Catalogue 2017.

³ Water-miscible coolants must not be used when machining magnesium-based alloys.

Machining must be performed synchronously. The specified cutting data are target values under good machining conditions.

Remedy for vibration:

- Use indexable inserts with D61 geometry
- Reduce v_c by 25–50% and/or increase f_z by 25–50%
- Radial cutting pass

T2710/T2711/T2712: One radial cut is recommended

T2713: Radial cutting pass may be required.

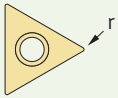
B3

B4

B5

Radius correction values for thread milling Walter T2710/T2711/T2712/T2713

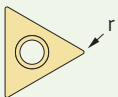
Metric thread in accordance with DIN 13

Thread nominal diameter D_N			Radius correction		
			Minimum dimension for H tolerances	Middle of the tolerance range for a 6H tolerance	Middle of the tolerance range for a 6G tolerance
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
≥ 20	1,5	0,1	-0,05	-0,10	-0,12
	2	0,1	-0,10	-0,15	-0,17
	2,5	0,1	-0,15	-0,20	-0,22
	3	0,2	-0,10	-0,16	-0,19
	3,5	0,2	-0,15	-0,22	-0,24
	4	0,2	-0,20	-0,27	-0,30
	4,5	0,2	-0,25	-0,33	-0,36
	5*	0,2	-0,30	-0,38	-0,42
		0,4	-0,10	-0,18	-0,22
	5,5	0,4	-0,15	-0,24	-0,27
	6	0,4	-0,20	-0,29	-0,33
	8	0,4	-0,40	-0,51	-0,56
	10	0,4	-0,59	-0,71	-

Based on the pitch diameter tolerances in accordance with DIN ISO 965-1. Valid from M20.

* IMPORTANT: For P = 5 mm, we recommend an insert radius $r = 0.2$ mm. Please take this into account when selecting the radius correction values.

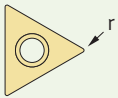
UN/UNC/UNF/UNEF thread in accordance with ASME B1.1

Thread nominal diameter D_N			Radius correction		
			Minimum dimension	Middle of the tolerance range for a 2B tolerance	Middle of the tolerance range for a 3B tolerance
[inches]	[TPI]	[mm]	[mm]	[mm]	[mm]
≥ 7/8"	18	0,1	-0,04	-0,08	-0,07
	16	0,1	-0,06	-0,10	-0,09
	14	0,1	-0,08	-0,12	-0,11
	12	0,1	-0,11	-0,16	-0,15
	9	0,1	-0,18	-0,23	-0,22
	8	0,2	-0,12	-0,17	-0,16
	7	0,2	-0,16	-0,22	-0,21
	6	0,2	-0,22	-0,29	-0,27
	5*	0,2	-0,31	-0,38	-0,36
		0,4	-0,11	-0,18	-0,16
	4,5	0,4	-0,16	-0,24	-0,22
	4	0,4	-0,23	-0,32	-0,30

Based on the pitch diameter tolerances in accordance with ASME B1.1. Valid from UNC 7/8.

* IMPORTANT: For P = 5 TPI, we recommend an insert radius $r = 0.2$ mm. Please take this into account when selecting the radius correction values.

Pipe thread G (BSP) in accordance with DIN EN ISO 228

Thread nominal diameter D_N			Radius correction	
			Minimum dimension	Middle of the tolerance range
[inches]	[TPI]	[mm]	[mm]	[mm]
≥ 1" and < 2 1/4"	11	0,2	-0,11	-0,16
≥ 2 1/4"	11	0,2	-0,11	-0,17

Based on the pitch diameter tolerances in accordance with DIN ISO 228. Valid from D_N 1".

If the measured tool radius is reduced by the value stated in the "Minimum dimension" column, the thread is still in the lower tolerance range after machining and is usually too narrow. If the thread has to be milled to bring it to the middle of the tolerance range, the measured tool radius must be reduced by the value stated in the "Middle of the tolerance range" column. The thread is generally true to gauge after machining. Radius correction values can also be determined in Walter GPS.

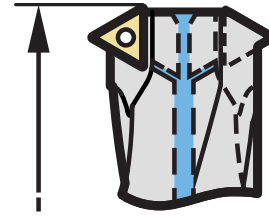
Example of an M36 - 6H thread	P	4 mm
	r	0,2 mm
Measured tool radius		14,53 mm
Radius correction in the middle of the 6H tolerance range		- 0,27 mm
Tool radius to be used		= 14,26 mm

Tool application

Walter T2710/T2711/T2712/T2713

TOOL GAUGING

If the CNC program is created using Walter GPS, the tool must be gauged as shown in the diagram on the right. The thread depth that was entered is then reached.

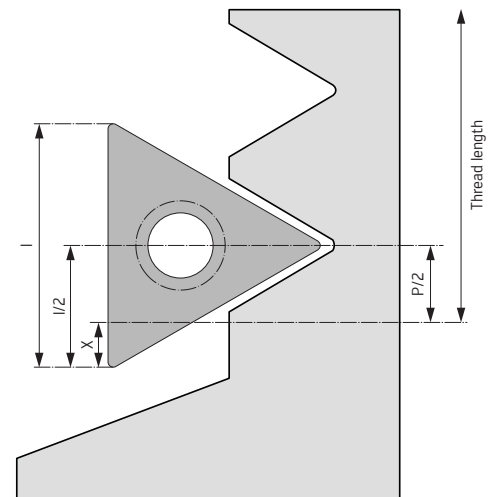


UNUSABLE LENGTH

The thread length includes the last thread ridge plus half a pitch. Since $l/2$ is greater than $P/2$, this results in an "unusable length" (X), which must be taken into consideration during programming. This is calculated as half of the insert length ($l/2$) minus half of the thread pitch ($P/2$). When creating CNC programs, Walter GPS takes the "unusable length" into account.

Example: M36 with P26300-0902.. thread milling cutter insert.

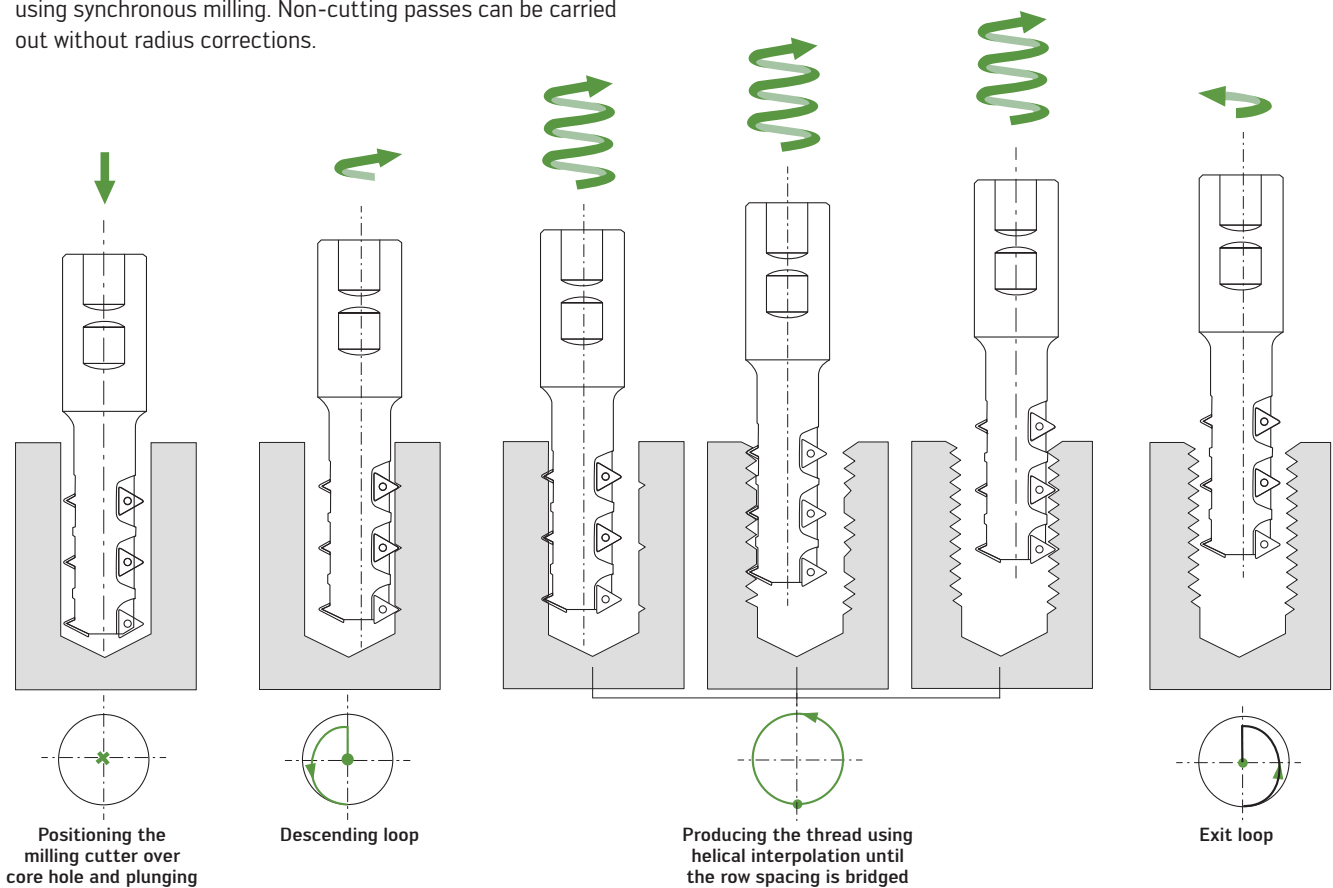
$$\text{Unusable length } X = l/2 - P/2 = \frac{9.34 \text{ mm}}{2} - \frac{4 \text{ mm}}{2} = 2.67 \text{ mm}$$



The unusable length of the T271.. families is less than the chamfer length of a tap.

THE STRATEGY

It is recommended that the thread be produced with a radial cut using synchronous milling. Non-cutting passes can be carried out without radius corrections.



B 3

B 4

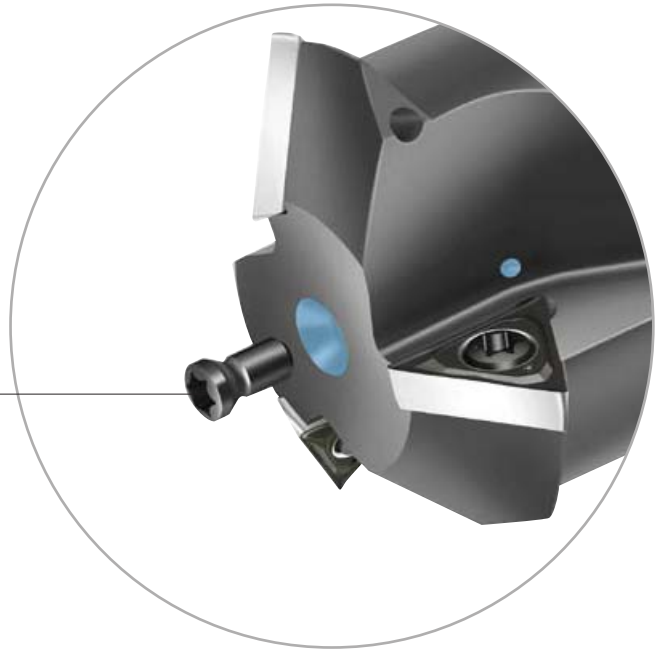
B 5

Application information

Adjustable coolant supply

In order to ensure optimal chip evacuation during blind-hole machining, the coolant screw should be removed. If through-hole threads are being produced, the axial coolant outlet can be closed. This ensures that all the coolant exits through the radial outlets and the chips are flushed downwards, out of the bore.

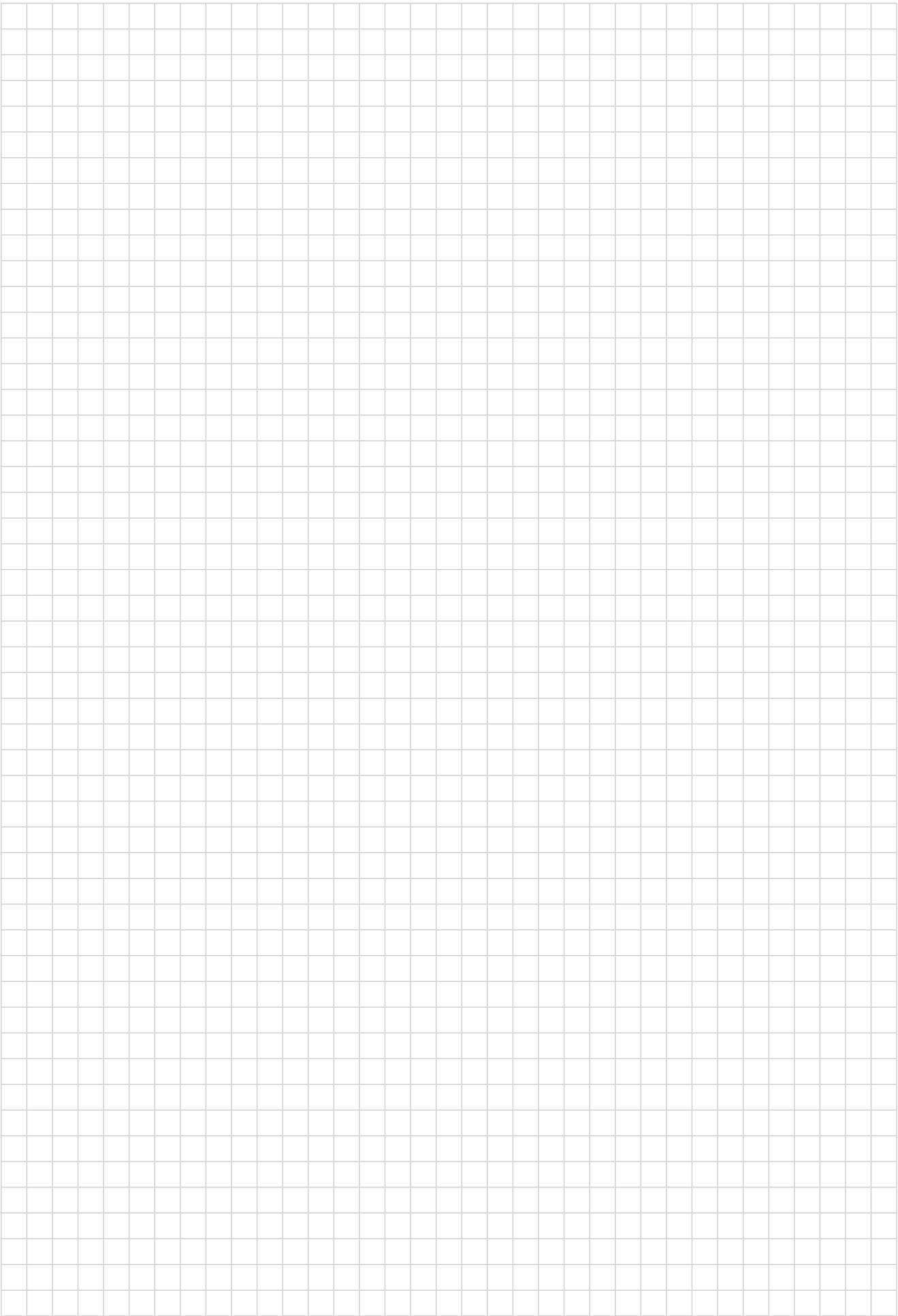
Coolant screw



B3

B4

B5



B 3

B 4

B 5



Solid carbide milling tools – C1

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Product range overview of solid carbide milling tools

Shoulder milling cutters

Machining		
Helix angle	50°	
Designation	MD128 Supreme	MC128 Advance
Diameter range [mm]/[inch]	6–25	2–25 / 1/4–3/4
Z	6–8	4–8
Corner radius [mm]/[inch]	0–4	0–4 / 0–0,25
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Shoulder/slot milling cutters

Machining		
Helix angle	40°	
Designation	MD377 Supreme	MC377 Advance
Dia. range [mm]	6–25	2–25
Z	5	3–4
Corner radius [mm]	0,5–6,35	0,2–4
Page	168	169
		

Circle segment milling cutters

Machining		
Helix angle	30°	
Designation	MD838 Supreme	MD839 Supreme
Dia. range [mm]	6–16	6–16
Z	4–8	4
Corner radius [mm]	0,5–4	1–4
Page	170	171
		

Designation key – Solid carbide milling tools

Example:

M	C	3	26	–	12.0	A	4	B	200	A	–	W	K	40	TF
1	2	3	4	5	6	7	8	9	10	11		Grade			

1	2	3	4
Tool group	Generation	Tool type	Tool type
M Milling		0 Face milling cutter, high-feed milling cutter 1 Shoulder milling cutter 2 Shoulder/slot/helical milling cutter Helix angle $\leq 39^\circ$ 3 Shoulder/slot/helical milling cutter Helix angle $\geq 40^\circ$ 4 Ball nose mill/copy milling cutter 5 Profiling cutter 7 Routing cutter/circular interpolation mill 8 Conical / circle segment milling cutter	00 Universal 0° helix angle, 60° chamfer milling cutter 01 Universal 0° helix angle, 90° chamfer milling cutter 02 Universal 0° helix angle, 120° chamfer milling cutter 03 Universal 0° helix angle, quadrant profiling cutter 04 Universal 0° helix angle, front/back deburrer 11 Universal 30° helix angle, type N 12 Universal 30° helix angle, type HSC 13 Universal 30° helix angle, type HSC, long version 16 Universal 30° helix angle, type 30 19 Universal 40° helix angle, knurled profile with internal coolant 20 Universal 40° helix angle, knurled profile 21 Universal 45° helix angle, short version 22 Universal 45° helix angle, type N 24 Universal 45° helix angle, type 45 25 Universal 50° helix angle, high-feed 26 Universal 50° helix angle, unequal groove depth, differential pitch 28 Universal 50° helix angle, type N, multipurpose cutter 29 Universal 60° helix angle, type N, multipurpose cutter 32 Universal 35° helix angle 33 Universal 35° helix angle + chip breaker 38 Universal 30° helix angle, conical circle segment milling cutter 39 Universal 30° helix angle, tangential circle segment milling cutter 41 ISO P 50° helix angle, HPC, differential pitch 51 ISO M 35°/38° helix angle, without internal coolant 65 ISO N 30° helix angle, AI geometry, RAPAX G30 roughing profile, axial internal coolant 66 ISO N 30° helix angle, AI geometry, axial internal coolant 77 ISO S 40° helix angle, titanium 80 ISO H 30° helix angle, HSC, type H = 30° helix angle, HSC, type H 81 ISO H 30° helix angle, mini HSC T, type H = 30° helix angle, mini HSC T, type H 82 ISO H 30° helix angle, mini HSC R, type H = 30° helix angle, mini HSC R, type H 83 ISO H 30° helix angle, multi-flute, type H = 30° helix angle, multi-flute, type H 87 ISO H 50° helix angle, multi-flute, type H = 50° helix angle, multi-flute, type H 88 ISO H 50° helix angle, HPC, type H = 50° helix angle, HPC, type H 89 ISO H 50° helix angle, high-feed, type H = 50° helix angle, high-feed, type H
5	6	7	
Delimiters	Cutting diameter	Shank type	
– Metric · Inch		A Parallel shank E ConeFit W Weldon shank	
8	9	10	11
Number of teeth	Design standard	Corner radius	Variant
	A DIN 6527 K B DIN 6527 L C ANSI stub D ANSI standard L P standard L M P standard mini P P standard S P standard S X P standard XL		A I3 XS B I3 S / $2 \times D_C^*$ C I3 M / $3 \times D_C^*$ D I3 L / $4 \times D_C^*$ E I3 XL / $5 \times D_C^*$ F I3 XXL / $6 \times D_C^*$ G I3 XXXL / $8 \times D_C^*$ H I3 XXXL / $10 \times D_C^*$ J Lc S / $3 \times D_C^*$ K Lc M / $4 \times D_C^*$ L Lc L / $5 \times D_C^*$ V Conical neck $\alpha \leq 3^\circ$ W Conical neck $\alpha \leq 6^\circ$ X Conical neck $\alpha \leq 12^\circ$

* Standard values

Grade designation key for solid carbide cutting tool materials

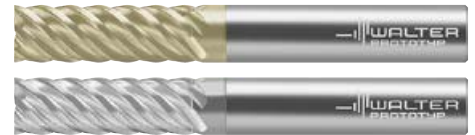
Example:

W K 40 TF			
Walter	1	2	3

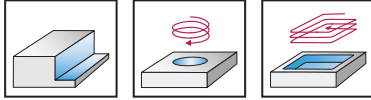
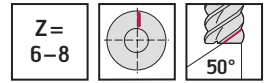
1	2	3
Substrate	Range of applications	Coating
Solid carbide B J K	Wear resistance 5 10 15 20 25 30 35 40 45 50 Toughness	TF TiAlN UU Uncoated CA CrN RC TiAlN + AlTi TZ AlTiN + ZrN ED AlCRN TG TiAlSiN RD AlTiN + ZrN RA TiAlN + TiAl EA AlCN

Solid carbide shoulder milling cutters

MD128 Supreme



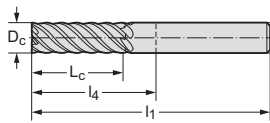
– Type N 50



	P	M	K	N	S	H	O
WJ30RA		●●			●●		
WJ30RD	●●		●				

PROTOTYP TOOLS STANDARD

Shank DIN 6535 HA

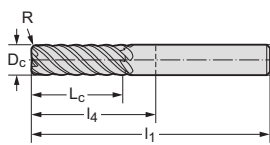


Designation	D _c h10 mm	L _c mm	l ₁ mm	l ₄ mm	d ₁ h6 mm	Z	WJ30RA	WJ30RD
MD128-06.0A6LJ-	6	18	65	29	6	6	☺	☺
MD128-08.0A6LJ-	8	24	68	32	8	6	☺	☺
MD128-10.0A6LJ-	10	30	80	40	10	6	☺	☺
MD128-12.0A6LJ-	12	36	93	48	12	6	☺	☺
MD128-16.0A6LJ-	16	48	115	67	16	6	☺	☺
MD128-20.0A8LJ-	20	60	125	75	20	8	☺	☺
MD128-25.0A8LJ-	25	75	150	94	25	8	☺	☺

Ordering example for the WJ30RA grade: MD128-06.0A6LJ-WJ30RA

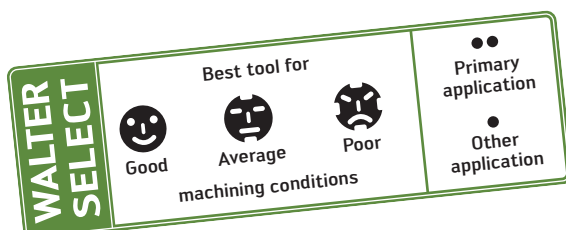
PROTOTYP TOOLS STANDARD

Shank DIN 6535 HA



Designation	D _c h9 mm	R mm	L _c mm	l ₁ mm	l ₄ mm	d ₁ h6 mm	Z	WJ30RA	WJ30RD
MD128-06.0A6L050J-	6	0,5	18	65	29	6	6	☺	☺
MD128-08.0A6L050J-	8	0,5	24	68	32	8	6	☺	☺
MD128-10.0A6L050J-	10	0,5	30	80	40	10	6	☺	☺
MD128-10.0A6L100J-	10	1	30	80	40	10	6	☺	☺
MD128-12.0A6L050J-	12	0,5	36	93	48	12	6	☺	☺
MD128-12.0A6L100J-	12	1	36	93	48	12	6	☺	☺
MD128-12.0A6L200J-	12	2	36	93	48	12	6	☺	☺
MD128-16.0A6L050J-	16	0,5	48	115	67	16	6	☺	☺
MD128-16.0A6L100J-	16	1	48	115	67	16	6	☺	☺
MD128-16.0A6L200J-	16	2	48	115	67	16	6	☺	☺
MD128-20.0A8L100J-	20	1	60	125	75	20	8	☺	☺
MD128-20.0A8L400J-	20	4	60	125	75	20	8	☺	☺
MD128-25.0A8L100J-	25	1	75	150	94	25	8	☺	☺
MD128-25.0A8L400J-	25	4	75	150	94	25	8	☺	☺

Ordering example for the WJ30RA grade: MD128-06.0A6L050J-WJ30RA



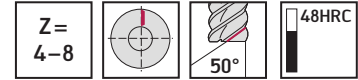
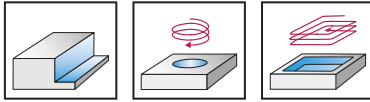
☺☺☺ / ★ New addition to the product range

Solid carbide shoulder milling cutters

MC128 Advance /
MC128 Advance



– Type N 50



	P	M	K	N	S	H	O
WJ30TF	●	●	●	●	●	●	●

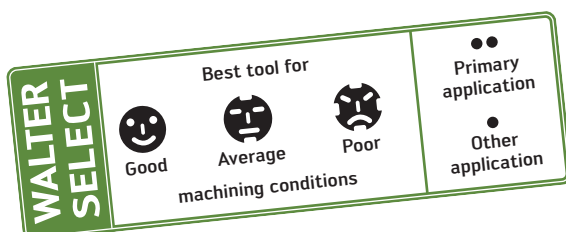
DIN 6527 L		D _c h10 mm	L _c mm	l ₁ mm	l ₄ mm	d ₁ h6 mm	Z	WJ30TF
Shank DIN 6535 HA								
	MC128-02.0A4B-	2	7	57	21	6	4	●
	MC128-03.0A4B-	3	8	57	21	6	4	●
	MC128-04.0A4B-	4	11	57	21	6	4	●
	MC128-05.0A5B-	5	13	57	21	6	5	●
	MC128-06.0A6B-	6	13	57	21	6	6	●
	MC128-08.0A6B-	8	19	63	27	8	6	●
	MC128-10.0A6B-	10	22	72	32	10	6	●
	MC128-12.0A6B-	12	26	83	38	12	6	●
	MC128-16.0A6B-	16	32	92	44	16	6	●
	MC128-20.0A8B-	20	38	104	54	20	8	●
	MC128-25.0A8B-	25	45	121	65	25	8	●

Ordering example for the WJ30TF grade: MC128-02.0A4B-WJ30TF

DIN 6527 L		D _c h9 mm	R mm	L _c mm	l ₁ mm	l ₄ mm	d ₁ h6 mm	Z	WJ30TF
Shank DIN 6535 HA									
	MC128-06.0A6B050-	6	0,5	13	57	21	6	6	●
	MC128-08.0A6B050-	8	0,5	19	63	27	8	6	●
	MC128-08.0A6B100-	8	1	19	63	27	8	6	●
	MC128-10.0A6B050-	10	0,5	22	72	32	10	6	●
	MC128-10.0A6B100-	10	1	22	72	32	10	6	●
	MC128-10.0A6B200-	10	2	22	72	32	10	6	●
	MC128-12.0A6B050-	12	0,5	26	83	38	12	6	●
	MC128-12.0A6B100-	12	1	26	83	38	12	6	●
	MC128-12.0A6B200-	12	2	26	83	38	12	6	●
	MC128-12.0A6B300-	12	3	26	83	38	12	6	●
	MC128-16.0A6B050-	16	0,5	32	92	44	16	6	●
	MC128-16.0A6B100-	16	1	32	92	44	16	6	●
	MC128-16.0A6B200-	16	2	32	92	44	16	6	●
	MC128-16.0A6B300-	16	3	32	92	44	16	6	●
	MC128-20.0A8B100-	20	1	38	104	54	20	8	●
	MC128-20.0A8B200-	20	2	38	104	54	20	8	●
	MC128-20.0A8B300-	20	3	38	104	54	20	8	●
	MC128-20.0A8B400-	20	4	38	104	54	20	8	●

Ordering example for the WJ30TF grade: MC128-06.0A6B050-WJ30TF

Continued



Continued

STANDARD		D _c h10 Inch/No.	L _c inch	l ₁ inch	l ₄ inch	d ₁ h6 inch	Z	WJ30TF
Shank DIN 6535 HA	MC128.6.35A6C-	1/4"	0,500	2,500	1,083	0,250	6	
	MC128.9.53A6C-	3/8"	0,500	2,500	0,937	0,375	6	
Shank DIN 6535 HA	MC128.9.53A6D-	3/8"	1,000	3,000	1,437	0,375	6	
	MC128.12.7A6DI-	1/2"	1,000	3,500	1,717	0,500	6	
	MC128.12.7A6D-	1/2"	1,250	3,500	1,717	0,500	6	
	MC128.15.9A6DI-	5/8"	1,250	4,000	2,094	0,625	6	
	MC128.15.9A6D-	5/8"	1,625	4,000	2,094	0,625	6	
	MC128.19.1A8D-	3/4"	1,625	4,500	2,469	0,750	8	
Shank DIN 6535 HA	MC128.6.35A6L-	1/4"	1,000	3,000	1,583	0,250	6	
	MC128.19.1A8L-	3/4"	2,250	5,000	2,969	0,750	8	

Ordering example for the WJ30TF grade: MC128.6.35A6C-WJ30TF

STANDARD		D _c h9 Inch/No.	R inch	L _c inch	l ₁ inch	l ₄ inch	d ₁ h6 inch	Z	WJ30TF
Shank DIN 6535 HA	MC128.6.35A6D038-	1/4"	0,015	0,625	2,500	1,083	0,250	6	
	MC128.6.35A6D076-	1/4"	0,030	0,625	2,500	1,083	0,250	6	
	MC128.9.53A6D038-	3/8"	0,015	1,000	3,000	1,437	0,375	6	
	MC128.9.53A6D076-	3/8"	0,030	1,000	3,000	1,437	0,375	6	
	MC128.12.7A6D076-	1/2"	0,030	1,250	3,500	1,717	0,500	6	
	MC128.12.7A6D152-	1/2"	0,060	1,250	3,500	1,717	0,500	6	
	MC128.12.7A6D228-	1/2"	0,090	1,250	3,500	1,717	0,500	6	
	MC128.12.7A6D318-	1/2"	0,125	1,250	3,500	1,717	0,500	6	
	MC128.15.9A6D076-	5/8"	0,030	1,625	4,000	2,094	0,625	6	
	MC128.15.9A6D152-	5/8"	0,060	1,625	4,000	2,094	0,625	6	
	MC128.19.1A8D076-	3/4"	0,030	1,750	4,500	2,469	0,750	8	
	MC128.19.1A8D318-	3/4"	0,125	1,750	4,500	2,469	0,750	8	
	MC128.19.1A8D635-	3/4"	0,250	1,750	4,500	2,469	0,750	8	

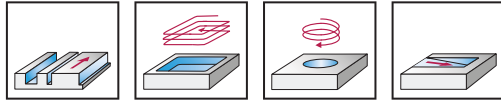
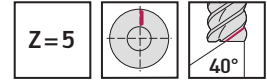
Ordering example for the WJ30TF grade: MC128.6.35A6D038-WJ30TF

Solid carbide shoulder/slot milling cutters

MD377 Supreme



- Long reach
- Type HPC Ti40

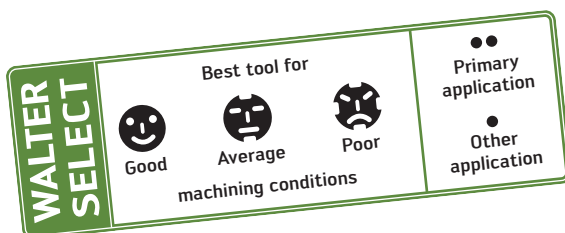


	P	M	K	N	S	H	O
WK40TZ		●			●●		

DIN 6527 L		D _c h9 mm	R mm	L _c mm	l ₃ mm	d ₂ mm	l ₁ mm	l ₄ mm	d ₁ h5 mm	Z	WK40TZ
Shank DIN 6535 HA	Designation										
	MD377-06.0A5B050C-	6	0,5	13	19	5,7	57	21	6	5	●
	MD377-06.0A5B100C-	6	1	13	19	5,7	57	21	6	5	●
	MD377-08.0A5B050C-	8	0,5	19	25	7,6	63	27	8	5	●
	MD377-08.0A5B100C-	8	1	19	25	7,6	63	27	8	5	●
	MD377-10.0A5B050C-	10	0,5	22	30	9,5	72	32	10	5	●
	MD377-10.0A5B100C-	10	1	22	30	9,5	72	32	10	5	●
	MD377-12.0A5B050C-	12	0,5	26	36	11,4	83	38	12	5	●
	MD377-12.0A5B100C-	12	1	26	36	11,4	83	38	12	5	●
	MD377-12.0A5B200C-	12	2	26	36	11,4	83	38	12	5	●
	MD377-12.0A5B300C-	12	3	26	36	11,4	83	38	12	5	●
	MD377-16.0A5B300C-	16	3	32	42	15,2	92	44	16	5	●
	MD377-16.0A5B400C-	16	4	32	42	15,2	92	44	16	5	●
	MD377-20.0A5B300C-	20	3	38	52	19	104	54	20	5	●
Shank DIN 6535 HB	MD377-20.0A5B400C-	20	4	38	52	19	104	54	20	5	●
	MD377-25.0A5B300C-	25	3	45	63	23,75	121	65	25	5	●
	MD377-25.0A5B400C-	25	4	45	63	23,75	121	65	25	5	●
	MD377-25.0A5B635C-	25	6,35	45	63	23,75	121	65	25	5	●
	MD377-16.0W5B300C-	16	3	32	42	15,2	92	44	16	5	●
	MD377-16.0W5B400C-	16	4	32	42	15,2	92	44	16	5	●
	MD377-20.0W5B300C-	20	3	38	52	19	104	54	20	5	●
	MD377-20.0W5B400C-	20	4	38	52	19	104	54	20	5	●
	MD377-25.0W5B300C-	25	3	45	63	23,75	121	65	25	5	●
	MD377-25.0W5B400C-	25	4	45	63	23,75	121	65	25	5	●

Ordering example for the WK40TZ grade: MD377-06.0A5B050C-WK40TZ

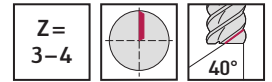
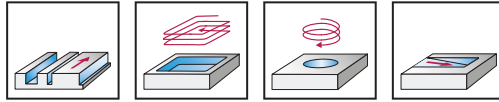
C 1



Solid carbide shoulder/slot milling cutters

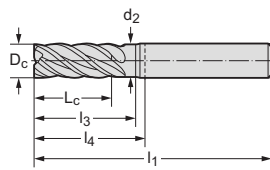
MC377 Advance 

- Long reach
- Type Ti 40



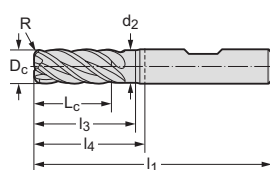
	P	M	K	N	S	H	O
WK40EA	●	●			●●		

DIN 6527 L		D _c h9 mm	L _c mm	l ₃ mm	d ₂ mm	l ₁ mm	l ₄ mm	d ₁ h5 mm	Z	WK40EA
Shank DIN 6535 HA	Designation									
	MC377-02.0A3BC-	2	6	10	1,9	57	21	6	3	
	MC377-03.0A4BC-	3	8	10	2,9	57	21	6	4	
	MC377-04.0A4BC-	4	11	15	3,8	57	21	6	4	
	MC377-05.0A4BC-	5	13	16	4,8	57	21	6	4	
	MC377-06.0A4BC-	6	13	19	5,7	57	21	6	4	
	MC377-08.0A4BC-	8	19	25	7,6	63	27	8	4	
	MC377-10.0A4BC-	10	22	30	9,5	72	32	10	4	
	MC377-12.0A4BC-	12	26	36	11,4	83	38	12	4	



Ordering example for the WK40EA grade: MC377-02.0A3BC-WK40EA

DIN 6527 L		D _c h9 mm	R mm	L _c mm	l ₃ mm	d ₂ mm	l ₁ mm	l ₄ mm	d ₁ h5 mm	Z	WK40EA
Shank DIN 6535 HA	Designation										
	MC377-02.0A3B020C-	2	0,2	6	10	1,92	57	21	6	3	
	MC377-03.0A4B030C-	3	0,3	8	10	2,9	57	21	6	4	
	MC377-04.0A4B050C-	4	0,5	11	15	3,8	57	21	6	4	
	MC377-05.0A4B050C-	5	0,5	13	16	4,75	57	21	6	4	
	MC377-06.0A4B050C-	6	0,5	13	19	5,7	57	21	6	4	
	MC377-06.0A4B080C-	6	0,8	13	19	5,7	57	21	6	4	
	MC377-06.0A4B100C-	6	1	13	19	5,7	57	21	6	4	
	MC377-08.0A4B050C-	8	0,5	19	25	7,6	63	27	8	4	
	MC377-08.0A4B100C-	8	1	19	25	7,6	63	27	8	4	
	MC377-10.0A4B050C-	10	0,5	22	30	9,5	72	32	10	4	
	MC377-10.0A4B100C-	10	1	22	30	9,5	72	32	10	4	
	MC377-12.0A4B050C-	12	0,5	26	36	11,4	83	38	12	4	
	MC377-12.0A4B100C-	12	1	26	36	11,4	83	38	12	4	
	MC377-12.0A4B200C-	12	2	26	36	11,4	83	38	12	4	
	MC377-12.0A4B300C-	12	3	26	36	11,4	83	38	12	4	
	MC377-16.0A4B100C-	16	1	32	42	15,2	92	44	16	4	
	MC377-16.0A4B300C-	16	3	32	42	15,2	92	44	16	4	
	MC377-16.0A4B400C-	16	4	32	42	15,2	92	44	16	4	
Shank DIN 6535 HB	MC377-20.0A4B300C-	20	3	38	52	19	104	54	20	4	
	MC377-20.0A4B400C-	20	4	38	52	19	104	54	20	4	
	MC377-25.0A4B300C-	25	3	45	63	23,75	121	65	25	4	
	MC377-25.0A4B400C-	25	4	45	63	23,75	121	65	25	4	
	MC377-16.0W4B300C-	16	3	32	42	15,2	92	44	16	4	
	MC377-16.0W4B400C-	16	4	32	42	15,2	92	44	16	4	
	MC377-20.0W4B300C-	20	3	38	52	19	104	54	20	4	
	MC377-20.0W4B400C-	20	4	38	52	19	104	54	20	4	
	MC377-25.0W4B300C-	25	3	45	63	23,75	121	65	25	4	
	MC377-25.0W4B400C-	25	4	45	63	23,75	121	65	25	4	



Ordering example for the WK40EA grade: MC377-02.0A3B020C-WK40EA

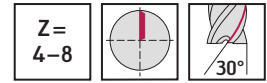
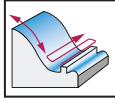
C 1

Solid carbide circle segment milling cutters

MD838 Supreme



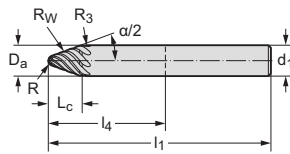
– Conical



	P	M	K	N	S	H	O
WJ30RA		●●		●	●●		
WJ30RD	●●		●				

PROTOTYP TOOLS STANDARD

Shank DIN 6535 HA



Designation	$\alpha/2$	D_a mm	R mm	R_w mm	R_3 mm	L_c mm	l_1 mm	d_1 h5 mm	Z	WJ30RA	WJ30RD
MD838-06A4P050250-	20°	6	0,5	250	3	7,79	65	6	4	☺	☺
MD838-06A4P100250-	20°	6	1	250	3	6,83	65	6	4	☺	☺
MD838-08A4P050300-	20°	8	0,5	300	3	10,55	80	8	4	☺	☺
MD838-08A4P100300-	20°	8	1	300	3	9,57	80	8	4	☺	☺
MD838-10A4P200400-	20°	10	2	400	3	10,42	90	10	4	☺	☺
MD838-10A8P200400-	20°	10	2	400	3	10,42	90	10	8	☺	☺
MD838-12A4P200500-	20°	12	2	500	3	13,15	100	12	4	☺	☺
MD838-12A8P200500-	20°	12	2	500	3	13,15	100	12	8	☺	☺
MD838-12A4P300500-	20°	12	3	500	3	11,23	100	12	4	☺	☺
MD838-12A8P300500-	20°	12	3	500	3	11,23	100	12	8	☺	☺
MD838-16A4P301000-	20°	16	3	1000	5	17,07	115	16	4	☺	☺
MD838-16A4P401000-	20°	16	4	1000	5	15,17	115	16	4	☺	☺

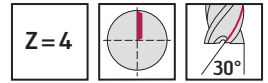
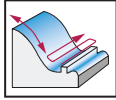
Ordering example for the WJ30RD grade: MD838-06A4P050250-WJ30RD

Solid carbide circle segment milling cutters

MD839 Supreme



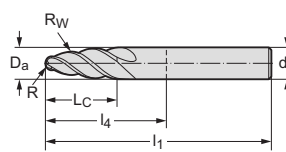
– Tangential



	P	M	K	N	S	H	O
WJ30RA		●●		●	●●		
WJ30RD	●●		●				

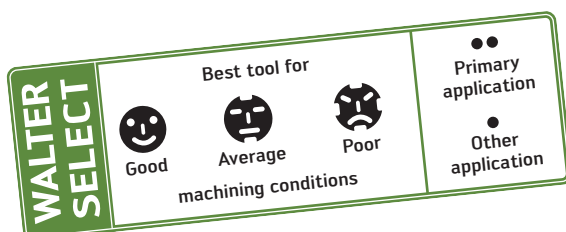
PROTOTYP TOOLS STANDARD

Shank DIN 6535 HA



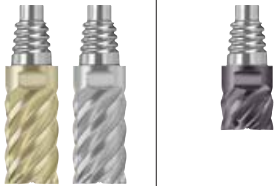
Designation	D _a mm	R mm	R _w mm	L _c mm	l ₁ mm	d ₁ h5 mm	Z	WJ30RA	WJ30RD
MD839-06A4P10100-	6	1	100	20,8	65	6	4	☺	☹
MD839-08A4P15100-	8	1,5	100	23,55	80	8	4	☺	☹
MD839-10A4P20100-	10	2	100	26,06	90	10	4	☺	☹
MD839-12A4P20100-	12	2	100	29,71	100	12	4	☺	☹
MD839-12A4P30100-	12	3	100	26,94	100	12	4	☺	☹
MD839-16A4P30100-	16	3	100	33,74	115	16	4	☺	☹
MD839-16A4P40100-	16	4	100	31,42	115	16	4	☺	☹

Ordering example for the WJ30RD grade: MD839-06A4P10100-WJ30RD



Solid carbide milling tools with ConeFit interface product range overview

Shoulder milling cutters

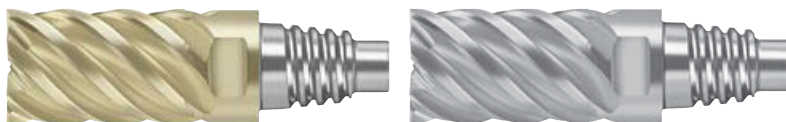
Machining		
Helix angle	50°	
Designation	MD128	MC128
Dia. range [mm]	10–25	10–25
Z	6–8	6–8
Corner radius [mm]	0–4	0–4
Page	173	174
		

Solid carbide milling tools with ConeFit interface product range overview

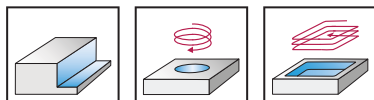
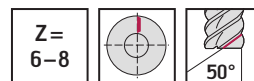
Circle segment milling cutters

Machining	
Helix angle	30°
Designation	MD838
Dia. range [mm]	16
Z	8
Corner radius [mm]	2–4
Page	175
	

Solid carbide shoulder milling cutters

MD128 mm

– Type N 50



	P	M	K	N	S	H	O
WJ30RA		●●			●●		
WJ30RD	●●		●				

PROTOTYP TOOLS STANDARD

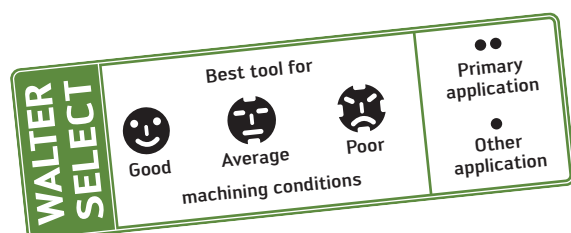
	Designation	D _c h10 mm	L _c mm	d ₂ mm	l ₁ mm	l ₄ mm	SW mm	d ₁ mm	Z	WJ30RA	WJ30RD
ConeFit	MD128-10.0E6X-	10	15	9,7	33,1	21,9	8	E10	6	☺	☺
	MD128-12.0E6X-	12	18	11,7	39,8	26	10	E12	6	☺	☺
	MD128-16.0E6X-	16	24	15,5	51,2	34,2	12	E16	6	☺	☺
	MD128-20.0E8X-	20	30	19,3	59,8	40,3	16	E20	8	☺	☺
	MD128-25.0E8X-	25	37,5	24,2	73,6	49,8	20	E25	8	☺	☺

Ordering example for the WJ30RA grade: MD128-10.0E6X-WJ30RA

PROTOTYP TOOLS STANDARD

	Designation	D _c h9 mm	R mm	L _c mm	d ₂ mm	l ₁ mm	l ₄ mm	SW mm	d ₁ mm	Z	WJ30RA	WJ30RD
ConeFit	MD128-10.0E6X050-	10	0,5	15	9,7	33,1	21,9	8	E10	6	☺	☺
	MD128-10.0E6X100-	10	1	15	9,7	33,1	21,9	8	E10	6	☺	☺
	MD128-12.0E6X050-	12	0,5	18	11,7	39,8	26	10	E12	6	☺	☺
	MD128-12.0E6X100-	12	1	18	11,7	39,8	26	10	E12	6	☺	☺
	MD128-12.0E6X200-	12	2	18	11,7	39,8	26	10	E12	6	☺	☺
	MD128-16.0E6X050-	16	0,5	24	15,5	51,2	34,2	12	E16	6	☺	☺
	MD128-16.0E6X100-	16	1	24	15,5	51,2	34,2	12	E16	6	☺	☺
	MD128-16.0E6X200-	16	2	24	15,5	51,2	34,2	12	E16	6	☺	☺
	MD128-20.0E8X100-	20	1	30	19,3	59,8	40,3	16	E20	8	☺	☺
	MD128-20.0E8X400-	20	4	30	19,3	59,8	40,3	16	E20	8	☺	☺
	MD128-25.0E8X100-	25	1	37,5	24,2	73,6	49,8	20	E25	8	☺	☺
	MD128-25.0E8X400-	25	4	37,5	24,2	73,6	49,8	20	E25	8	☺	☺

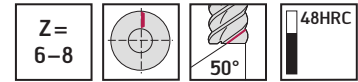
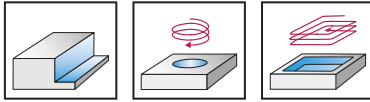
Ordering example for the WJ30RA grade: MD128-10.0E6X050-WJ30RA



Solid carbide shoulder milling cutters

MC128

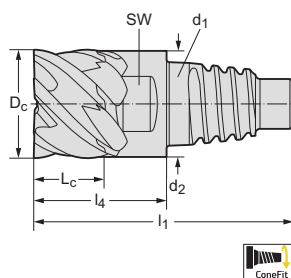

– Type N 50



	P	M	K	N	S	H	O
WJ30TF	●	●	●	●	●	●	●

PROTOTYP TOOLS STANDARD

ConeFit

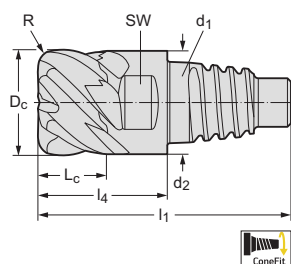


Designation	D _c h10 mm	L _c mm	d ₂ mm	l ₁ mm	l ₄ mm	SW mm	d ₁ mm	Z	WJ30TF
MC128-10.0E6P-	10	5,5	9,7	23,6	12,4	8	E10	6	●
MC128-12.0E6P-	12	6,5	11,7	28,3	14,5	10	E12	6	●
MC128-16.0E6P-	16	8,5	15,5	35,7	18,7	12	E16	6	●
MC128-20.0E8P-	20	11	19,3	40,8	21,3	16	E20	8	●
MC128-25.0E8P-	25	13,5	24,2	49,6	25,6	20	E25	8	●

Ordering example for the WJ30TF grade: MC128-10.0E6P-WJ30TF

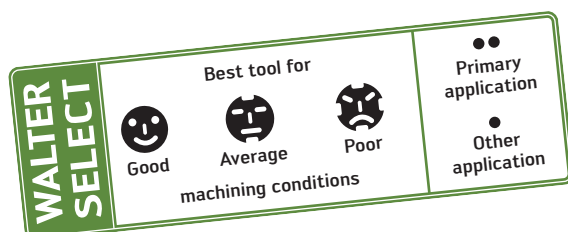
PROTOTYP TOOLS STANDARD

ConeFit



Designation	D _c h9 mm	R mm	L _c mm	d ₂ mm	l ₁ mm	l ₄ mm	SW mm	d ₁ mm	Z	WJ30TF
MC128-10.0E6P050-	10	0,5	5,5	9,7	23,6	12,4	8	E10	6	●
MC128-10.0E6P100-	10	1	5,5	9,7	23,6	12,4	8	E10	6	●
MC128-12.0E6P050-	12	0,5	6,5	11,7	28,3	14,5	10	E12	6	●
MC128-12.0E6P100-	12	1	6,5	11,7	28,3	14,5	10	E12	6	●
MC128-12.0E6P150-	12	1,5	6,5	11,7	28,3	14,5	10	E12	6	●
MC128-12.0E6P200-	12	2	6,5	11,7	28,3	14,5	10	E12	6	●
MC128-16.0E6P050-	16	0,5	8,5	15,5	35,7	18,7	12	E16	6	●
MC128-16.0E6P100-	16	1	8,5	15,5	35,7	18,7	12	E16	6	●
MC128-16.0E6P150-	16	1,5	8,5	15,5	35,7	18,7	12	E16	6	●
MC128-16.0E6P200-	16	2	8,5	15,5	35,7	18,7	12	E16	6	●
MC128-20.0E8P100-	20	1	11	19,3	40,8	21,3	16	E20	8	●
MC128-20.0E8P200-	20	2	11	19,3	40,8	21,3	16	E20	8	●
MC128-20.0E8P400-	20	4	11	19,3	40,8	21,3	16	E20	8	●
MC128-25.0E8P100-	25	1	13,5	24,2	49,6	25,6	20	E25	8	●
MC128-25.0E8P200-	25	2	13,5	24,2	49,6	25,6	20	E25	8	●
MC128-25.0E8P400-	25	4	13,5	24,2	49,6	25,6	20	E25	8	●

Ordering example for the WJ30TF grade: MC128-10.0E6P050-WJ30TF

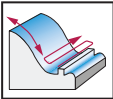


Solid carbide circle segment milling cutters

MD838 mm



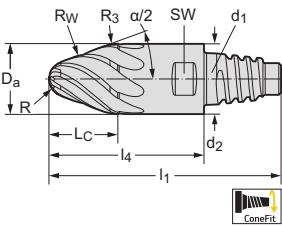
– Conical



	P	M	K	N	S	H	O
WJ30RA		●●		●	●●		
WJ30RD	●●		●				

PROTOTYP TOOLS STANDARD

ConeFit



Designation	$\alpha/2$	D_a mm	R mm	R_w mm	R_3 mm	L_c mm	l_4 mm	l_1 mm	SW mm	d_1 mm	Z	WJ30RA	WJ30RD
MD838-16E8P201000-	20°	16	2	1000	5	18,99	34,2	51,2	12	E16	8	☹	☹
MD838-16E8P301000-	20°	16	3	1000	5	17,07	34,2	51,2	12	E16	8	☹	☹
MD838-16E8P401000-	20°	16	4	1000	5	15,17	34,2	51,2	12	E16	8	☹	☹

Ordering example for the WJ30RD grade: MD838-16E8P201000-WJ30RD

Cutting data for solid carbide shoulder/slot milling

							Product family		λ	
							MD128 Supreme MD128 ConeFit		50°	
Material group	Overview of the main material groups and code letters				Brinell hardness HB	Tensile strength R _m N/mm²	Machining group ¹	Ø 6–25 mm		
								Z = 6–8		
								WJ30RD		
								Starting values for cutting speed v _c [m/min]		
		3 × D _c		f _z 3 × D _c						
		PHIS [°]	VC	[mm] per tooth						
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1	40	225	0,10	
		C > 0.25% to ≤ 0.55%	Annealed	190	639	P2	40	355	0,10	
		C > 0.25% to ≤ 0.55%	Heat-treated	210	708	P3	40	355	0,10	
		C > 0.55%	Annealed	190	639	P4	40	300	0,10	
		C > 0.55%	Heat-treated	300	1013	P5	40	215	0,09	
		Free-machining steel (short-chipping)	Annealed	220	745	P6	40	300	0,10	
	Low-alloy steel	Annealed		175	591	P7	40	300	0,10	
		Heat-treated		300	1013	P8	35	220	0,10	
		Heat-treated		380	1282	P9	40	180	0,08	
		Heat-treated		430	1477	P10	35	160	0,12	
	High-alloy steel and high-alloy tool steel	Annealed		200	675	P11	35	310	0,09	
		Hardened and tempered		300	1013	P12	30	240	0,11	
		Hardened and tempered		400	1361	P13	30	195	0,10	
	Stainless steel	Ferritic/martensitic, annealed		200	675	P14				
		Martensitic, heat-treated		330	1114	P15				
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	40	260	0,11	
		Pearlitic		260	867	K2	35	210	0,10	
	Grey cast iron	Low tensile strength		180	602	K3	40	260	0,11	
		High tensile strength/austenitic		245	825	K4	35	225	0,10	
	Cast iron with spheroidal graphite	Ferritic		155	518	K5	40	260	0,11	
		Pearlitic		265	885	K6	30	220	0,11	
	GGV (CGI)			200	675	K7	40	175	0,10	
N	Wrought aluminium alloys	Not hardenable		30	–	N1				
		Hardenable, hardened		100	343	N2				
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3				
		≤ 12% Si, hardenable, hardened		90	314	N4				
		> 12% Si, not hardenable		130	447	N5				
	Magnesium-based alloys			70	250	N6				
		Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	343	N7			
	Brass, bronze, red brass		90	314	N8					
Cu alloys, short-chipping			110	382	N9					
High tensile, Ampco			300	1013	N10					
S	Heat-resistant alloys	Fe-based	Annealed	200	675	S1				
			Hardened	280	943	S2				
		Ni- or Co-based	Annealed	250	839	S3				
			Hardened	350	1177	S4				
			Cast	320	1076	S5				
	Titanium alloys	Pure titanium		200	675	S6				
		α and β alloys, hardened		375	1262	S7				
		β alloys		410	1396	S8				
	Tungsten alloys			300	1013	S9				
	Molybdenum alloys			300	1013	S10				
H	Hardened steel	Hardened and tempered		50 HRC	–	H1				
		Hardened and tempered		55 HRC	–	H2				
		Hardened and tempered		60 HRC	–	H3				
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4				
O	Thermoplastics	Without abrasive fillers				O1				
	Thermosets	Without abrasive fillers				O2				
	Plastic, glass-fibre-reinforced	GFRP				O3				
	Plastic, carbon-fibre-reinforced	CFRP				O4				
	Plastic, aramid-fibre-reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

¹ The classification of the machining groups can be found in the General Catalogue from page C671 onwards.

C 1

Cutting data for solid carbide circle segment milling cutters

						Product family			λ			
						MD838 Supreme MD838 ConeFit			30°			
Material group	Overview of the main material groups and code letters				Brinell hardness HB	Tensile strength R _m N/mm²	Machining group ¹	Ø 6–16 mm				
								Z = 4–8				
								WJ30RD				
								Starting values for cutting speed v _c [m/min]			VT	
								1/5	1/20	1/50		
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1	230	330	390	A		
		C > 0.25% to ≤ 0.55%	Annealed	190	639	P2	230	310	380	A		
		C > 0.25% to ≤ 0.55%	Heat-treated	210	708	P3	210	280	310	A		
		C > 0.55%	Annealed	190	639	P4	210	280	310	A		
		C > 0.55%	Heat-treated	300	1013	P5	170	200	220	A		
		Free-machining steel (short-chipping)	Annealed	220	745	P6	210	280	330	A		
	Low-alloy steel	Annealed		175	591	P7	210	280	330	A		
		Heat-treated		300	1013	P8	170	200	240	A		
		Heat-treated		380	1282	P9	140	170	200	A		
		Heat-treated		430	1477	P10	120	150	170	A		
	High-alloy steel and high-alloy tool steel	Annealed		200	675	P11	210	280	330	A		
		Hardened and tempered		300	1013	P12	170	200	240	A		
		Hardened and tempered		400	1361	P13	120	150	170	A		
	Stainless steel	Ferritic/martensitic, annealed		200	675	P14	90	110	120	A		
		Martensitic, heat-treated		330	1114	P15	70	80	100	A		
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	180	240	290	A		
		Pearlitic		260	867	K2	150	190	220	A		
	Grey cast iron	Low tensile strength		180	602	K3	180	240	290	A		
		High tensile strength/austenitic		245	825	K4	150	200	240	A		
	Cast iron with spheroidal graphite	Ferritic		155	518	K5	180	240	290	A		
		Pearlitic		265	885	K6	150	190	220	A		
	GGV (CGI)		200	675	K7	130	160	190	A			
N	Wrought aluminium alloys	Not hardenable		30	–	N1						
		Hardenable, hardened		100	343	N2						
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3						
		≤ 12% Si, hardenable, hardened		90	314	N4						
		> 12% Si, not hardenable		130	447	N5						
	Magnesium-based alloys		70	250	N6							
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	343	N7						
		Brass, bronze, red brass		90	314	N8						
Cu alloys, short-chipping		110	382	N9								
High tensile, Ampco		300	1013	N10								
S	Heat-resistant alloys	Fe-based	Annealed	200	675	S1						
			Hardened	280	943	S2						
		Ni- or Co-based	Annealed	250	839	S3						
			Hardened	350	1177	S4						
			Cast	320	1076	S5						
	Titanium alloys	Pure titanium		200	675	S6						
		α and β alloys, hardened		375	1262	S7						
		β alloys		410	1396	S8						
	Tungsten alloys			300	1013	S9						
Molybdenum alloys			300	1013	S10							
H	Hardened steel	Hardened and tempered		50 HRC	–	H1						
		Hardened and tempered		55 HRC	–	H2						
		Hardened and tempered		60 HRC	–	H3						
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4						
O	Thermoplastics	Without abrasive fillers				O1						
	Thermosets	Without abrasive fillers				O2						
	Plastic, glass-fibre-reinforced	GFRP				O3						
	Plastic, carbon-fibre-reinforced	CFRP				O4						
	Plastic, aramid-fibre-reinforced	AFRP				O5						
	Graphite (technical)			80 Shore		O6						

¹ The classification of the machining groups can be found in the General Catalogue from page C671 onwards.

C 1

Feed determination

The specified feed rates are average standard values.
For specific applications, adjustment is recommended.

A

Material groups ISO P, ISO K and titanium alloys

a _e [mm]*	Feed per tooth f _z [mm]									
	Ø 0,3 mm	Ø 0,5 mm	Ø 1 mm	Ø 2 mm	Ø 3 mm	Ø 4 mm	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 12 mm
0,01	0,02	0,02	0,03	0,06	0,09	0,12	0,15	0,15	0,20	
0,05	0,01	0,01	0,02	0,04	0,07	0,10	0,12	0,15	0,20	
0,1	0,01	0,01	0,02	0,03	0,05	0,08	0,10	0,15	0,20	0,20
0,2	0,01	0,01	0,01	0,03	0,04	0,06	0,08	0,15	0,18	0,20
0,5		0,01	0,01	0,02	0,03	0,05	0,07	0,12	0,15	0,15
1			0,01	0,02	0,03	0,04	0,06	0,09	0,12	0,12
2				0,02	0,03	0,03	0,05	0,08	0,11	0,12
3					0,02	0,02	0,04	0,07	0,10	0,12
5						0,02	0,04	0,07	0,10	0,12
6							0,03	0,06	0,08	0,10
8								0,05	0,07	0,09
10									0,06	0,08
12										0,07
14										
16										
18										
20										
25										
32										
40										
50										
63										
80										
100										
160										
200										

A

Material groups ISO P, ISO K and titanium alloys (continued)

a _e [mm]*	Feed per tooth f _z [mm]									
	Ø 14 mm	Ø 16 mm	Ø 18 mm	Ø 20 mm	Ø 25 mm	Ø 32 mm	Ø 40 mm	Ø 50 mm	Ø 63 mm	Ø 80 mm
0,01										
0,05										
0,1	0,20	0,20								
0,2	0,20	0,20	0,20	0,25						
0,5	0,15	0,15	0,20	0,25	0,25					
1	0,12	0,12	0,15	0,20	0,25	0,25	0,30	0,30	0,30	0,40
2	0,12	0,12	0,15	0,20	0,20	0,25	0,25	0,25	0,30	0,30
3	0,12	0,12	0,14	0,18	0,20	0,20	0,25	0,25	0,25	0,30
5	0,12	0,12	0,12	0,15	0,20	0,20	0,20	0,25	0,25	0,25
6	0,10	0,12	0,12	0,15	0,20	0,20	0,20	0,20	0,25	0,25
8	0,10	0,12	0,12	0,15	0,20	0,20	0,20	0,20	0,20	0,25
10	0,10	0,12	0,12	0,14	0,16	0,20	0,20	0,20	0,20	0,20
12	0,09	0,11	0,12	0,14	0,16	0,16	0,20	0,20	0,20	0,20
14	0,08	0,10	0,12	0,13	0,15	0,16	0,16	0,20	0,20	0,20
16		0,09	0,10	0,12	0,15	0,15	0,16	0,16	0,20	0,20
18			0,10	0,11	0,13	0,15	0,15	0,16	0,16	0,20
20				0,10	0,12	0,13	0,15	0,15	0,16	0,16
25					0,10	0,12	0,13	0,15	0,15	0,16
32						0,10	0,12	0,13	0,15	0,15
40							0,10	0,12	0,13	0,15
50								0,10	0,12	0,13
63									0,10	0,12
80										0,10
100										
160										
200										

* Radial feed in mm

The specified feed rates are average standard values.
For specific applications, adjustment is recommended.

B Material groups ISO M, ISO H, heat-resistant alloys, tungsten alloys and molybdenum alloys

a _e [mm]*	Feed per tooth f _z [mm]									
	Ø 0,3 mm	Ø 0,5 mm	Ø 1 mm	Ø 2 mm	Ø 3 mm	Ø 4 mm	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 12 mm
0,01	0,02	0,02	0,02	0,05	0,07	0,10	0,12	0,12	0,16	
0,05	0,01	0,01	0,02	0,03	0,06	0,08	0,10	0,12	0,16	
0,1	0,01	0,01	0,02	0,03	0,04	0,06	0,08	0,12	0,16	0,16
0,2	0,01	0,01	0,01	0,02	0,03	0,05	0,06	0,12	0,14	0,16
0,5		0,01	0,01	0,02	0,02	0,04	0,06	0,10	0,12	0,12
1			0,01	0,02	0,02	0,03	0,05	0,07	0,10	0,10
2				0,02	0,02	0,02	0,04	0,06	0,09	0,10
3					0,02	0,02	0,04	0,06	0,08	0,10
5						0,02	0,03	0,06	0,08	0,10
6							0,02	0,05	0,06	0,08
8								0,04	0,06	0,07
10									0,05	0,06
12										0,06
14										
16										
18										
20										
25										
32										
40										
50										
63										
80										
100										
160										
200										

B Material groups ISO M, ISO H, heat-resistant alloys, tungsten alloys and molybdenum alloys (continued)

a _e [mm]*	Feed per tooth f _z [mm]									
	Ø 14 mm	Ø 16 mm	Ø 18 mm	Ø 20 mm	Ø 25 mm	Ø 32 mm	Ø 40 mm	Ø 50 mm	Ø 63 mm	Ø 80 mm
0,01										
0,05										
0,1	0,16	0,16								
0,2	0,16	0,16	0,16	0,20						
0,5	0,12	0,12	0,16	0,20	0,20					
1	0,10	0,10	0,12	0,16	0,20	0,20	0,24	0,24	0,24	0,32
2	0,10	0,10	0,12	0,16	0,16	0,20	0,20	0,20	0,24	0,24
3	0,10	0,10	0,11	0,14	0,16	0,16	0,20	0,20	0,20	0,24
5	0,10	0,10	0,10	0,12	0,16	0,16	0,16	0,20	0,20	0,20
6	0,08	0,10	0,10	0,12	0,16	0,16	0,16	0,16	0,20	0,20
8	0,08	0,10	0,10	0,12	0,16	0,16	0,16	0,16	0,16	0,20
10	0,08	0,10	0,10	0,11	0,13	0,16	0,16	0,16	0,16	0,16
12	0,07	0,09	0,10	0,11	0,13	0,13	0,16	0,16	0,16	0,16
14	0,06	0,08	0,10	0,10	0,12	0,13	0,13	0,16	0,16	0,16
16		0,07	0,08	0,10	0,12	0,12	0,13	0,13	0,16	0,16
18			0,08	0,09	0,10	0,12	0,12	0,13	0,13	0,16
20				0,08	0,10	0,10	0,12	0,12	0,13	0,13
25					0,08	0,10	0,10	0,12	0,12	0,13
32						0,08	0,10	0,10	0,12	0,12
40							0,08	0,10	0,10	0,12
50								0,08	0,10	0,10
63									0,08	0,10
80										0,08
100										
160										
200										

* Radial feed in mm

Feed determination

(continued)

The specified feed rates are average standard values.
For specific applications, adjustment is recommended.

C

Material groups ISO N and ISO O

a _e [mm]*	Feed per tooth f _z [mm]									
	Ø 0,3 mm	Ø 0,5 mm	Ø 1 mm	Ø 2 mm	Ø 3 mm	Ø 4 mm	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 12 mm
0,01	0,04	0,04	0,07	0,13	0,20	0,26	0,33	0,33	0,44	
0,05	0,03	0,03	0,06	0,09	0,15	0,22	0,26	0,33	0,44	
0,1	0,02	0,03	0,04	0,08	0,11	0,18	0,22	0,33	0,44	0,44
0,2	0,02	0,02	0,03	0,07	0,09	0,13	0,18	0,33	0,40	0,44
0,5		0,02	0,03	0,06	0,07	0,11	0,15	0,26	0,33	0,33
1			0,02	0,06	0,07	0,09	0,13	0,20	0,26	0,26
2				0,04	0,07	0,07	0,11	0,18	0,24	0,26
3					0,04	0,06	0,10	0,17	0,23	0,26
5						0,04	0,09	0,15	0,22	0,26
6							0,07	0,13	0,18	0,22
8								0,11	0,15	0,20
10									0,13	0,18
12										0,15
14										
16										
18										
20										
25										
32										
40										
50										
63										
80										
100										
160										
200										

C

Material groups ISO N and ISO O (continued)

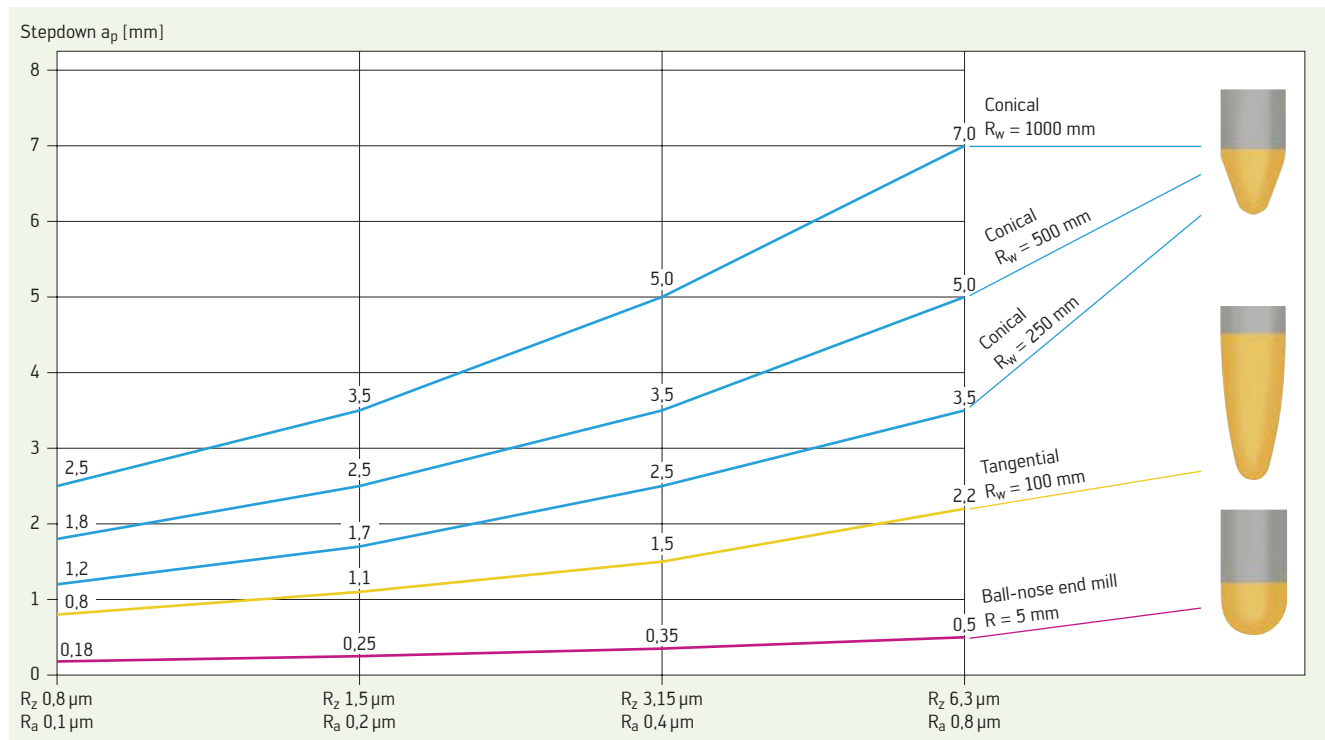
a _e [mm]*	Feed per tooth f _z [mm]									
	Ø 14 mm	Ø 16 mm	Ø 18 mm	Ø 20 mm	Ø 25 mm	Ø 32 mm	Ø 40 mm	Ø 50 mm	Ø 63 mm	Ø 80 mm
0,01										
0,05										
0,1	0,44	0,44								
0,2	0,44	0,44	0,44	0,50						
0,5	0,33	0,33	0,44	0,50	0,50					
1	0,26	0,26	0,33	0,44	0,50	0,50	0,50	0,50	0,50	0,50
2	0,26	0,26	0,33	0,44	0,44	0,50	0,50	0,50	0,50	0,50
3	0,26	0,26	0,30	0,39	0,44	0,44	0,50	0,50	0,50	0,50
5	0,26	0,26	0,26	0,33	0,44	0,44	0,44	0,50	0,50	0,50
6	0,22	0,26	0,26	0,33	0,44	0,44	0,44	0,44	0,50	0,50
8	0,22	0,26	0,26	0,33	0,44	0,44	0,44	0,44	0,44	0,55
10	0,22	0,26	0,26	0,31	0,35	0,44	0,44	0,44	0,44	0,44
12	0,20	0,24	0,26	0,31	0,35	0,35	0,44	0,44	0,44	0,44
14	0,18	0,22	0,26	0,29	0,33	0,35	0,35	0,44	0,44	0,44
16		0,20	0,22	0,26	0,33	0,33	0,35	0,35	0,44	0,44
18			0,22	0,24	0,29	0,33	0,33	0,35	0,35	0,44
20				0,22	0,26	0,29	0,33	0,33	0,35	0,35
25					0,22	0,26	0,29	0,33	0,33	0,35
32						0,22	0,26	0,29	0,33	0,33
40							0,22	0,26	0,29	0,33
50								0,22	0,26	0,29
63									0,22	0,26
80										0,22
100										
160										
200										

* Radial feed in mm

C 1

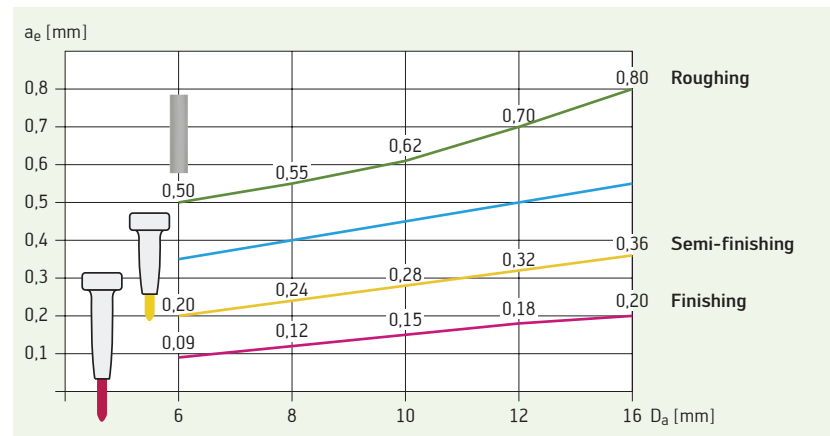
Recommendations for the use of circle segment milling cutters

Standard values for axial depth of cut a_p [mm] depending on the tool type and depth of surface roughness



Example using feed b_f/a_p of 5 mm
With lower a_p , higher a_e is possible
due to the effect of force.

Standard values a_e [mm] depending on the outer diameter D_a [mm] and projection length



Standard values for cutting speed and feed per tooth

	Material designation	Tensile strength/hardness	v_c [m/min]	f_z [mm]
ISO P	S2335	800 N/mm ²	300	0,07
	42CrMo4	1000 N/mm ²	220	0,06
		1400 N/mm ²	180	0,05
ISO M	1.4301		200	0,07
	1.4571		180	0,05
ISO K			350	0,15
ISO S	TiAl6V4		110	0,08
	Inconel 718		50	0,035
ISO N			400	0,2
ISO H	1.2344	Up to 54 HRC	150	0,03

Indexable inserts for milling product range overview

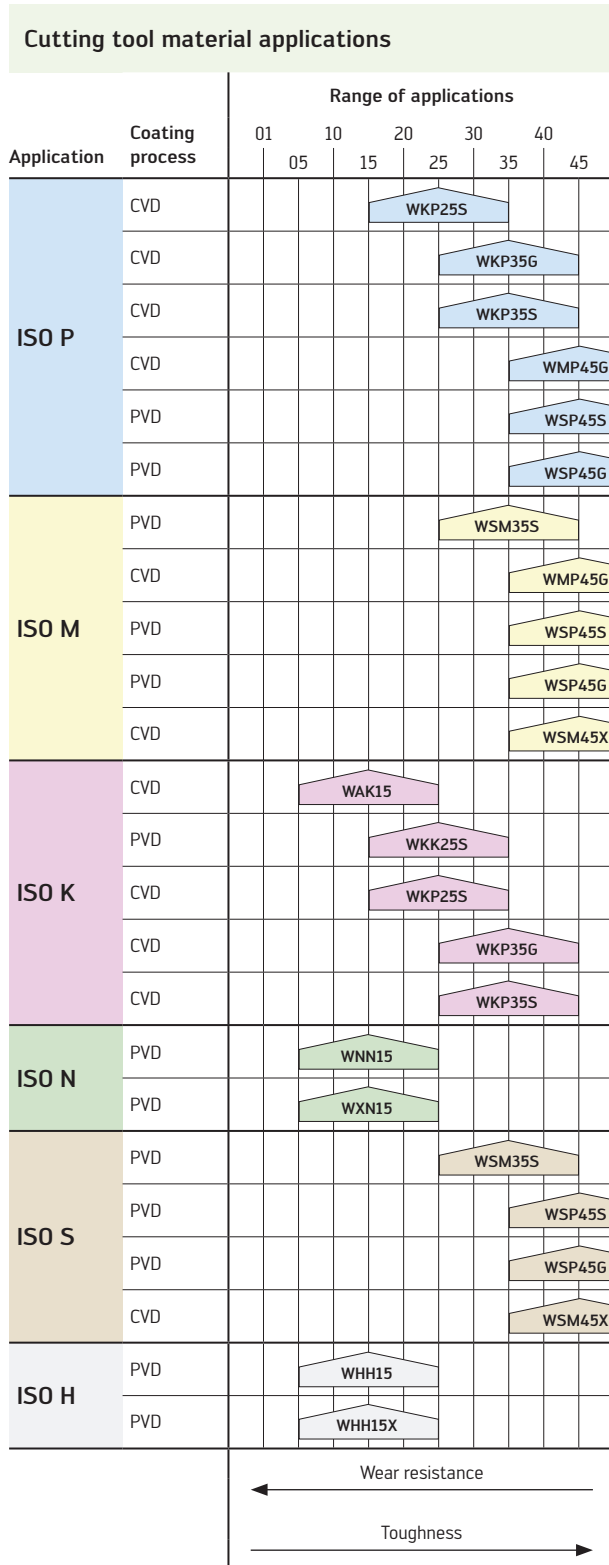


Insert shape		Description	Page
	A	Positive rhombic for Xtra-tec® XT	186
	B	Positive rhombic for Xtra-tec® XT	188
	E	Double-sided rhombic for Xtra-tec® XT	201
	L	Double-sided rhombic for Xtra-tec®	201
		Tangential rhombic for Walter BLAXX	210
	M	Positive rhombic	190
	O	Positive octagonal for Xtra-tec®	190
		Finishing inserts	199
		Double-sided octagonal	202
	R	Positive round	193
	S	Positive square	195
		Double-sided square for Xtra-tec®/Xtra-tec® XT	203
	T	Double-sided triangular for Xtra-tec® XT	205

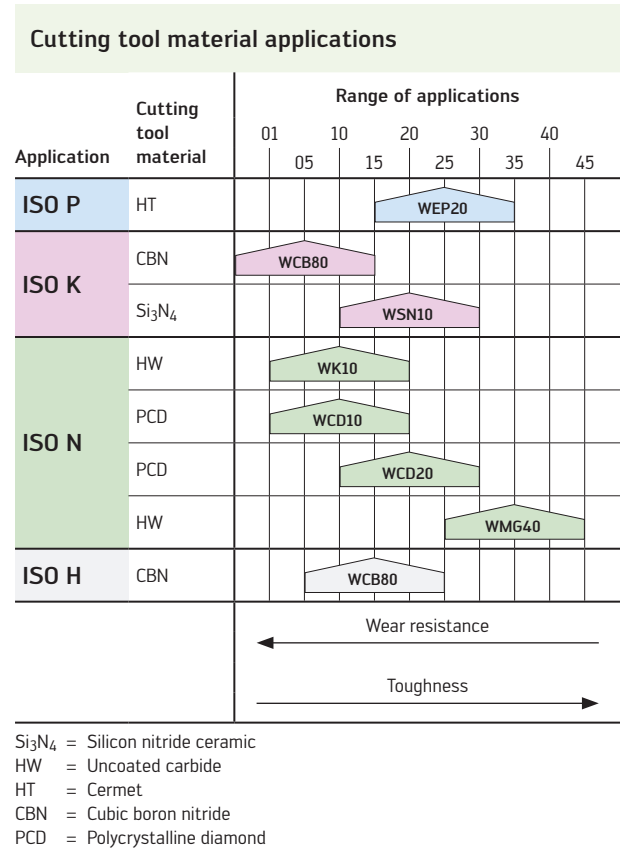
Insert shape		Description	Page
	X	Double-sided heptagon for Walter BLAXX	206
	X	Tangential for Walter BLAXX	211
	X	Positive form inserts for copy milling cutters	198
	P 236 . .	Double-sided triangular for Xtra-tec® high-feed milling cutters	202
	P 263 . .	Positive triangular for high-feed milling cutters for copy milling cutters	191
	P 32 . .	Indexable inserts for profile milling cutters	192
		Positive finishing inserts	199
		Double-sided finishing inserts	

Cutting tool materials for milling product range overview

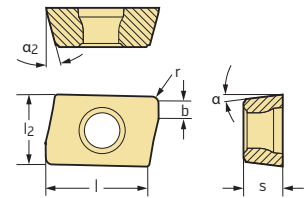
Cutting tool materials:
Coated carbide



Cutting tool materials:
Uncoated carbide, cermet, ceramic, CBN and PCD



Positive rhombic ACMT Tiger-tec® Gold

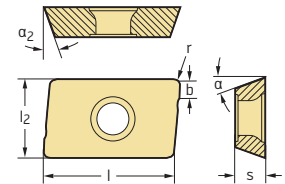


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	α	α ₂	r mm	b mm	P HC				M HC			K HC				S HC						
											WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WSP45G		
	ACMT060202R-G55	M	2	4,4	6,7	2,38	7°	15°	0,2	1																		
	ACMT060204R-G55	M	2	4,4	6,7	2,38	7°	15°	0,4	0,9																		
	ACMT060208R-G55	M	2	4,4	6,7	2,38	7°	15°	0,8	0,8																		
	ACMT060212R-G55	M	2	4,4	6,7	2,38	7°	15°	1,2	0,6																		
	ACMT060216R-G55	M	2	4,4	6,7	2,38	7°	15°	1,6	0,1																		

HC = Coated carbide

Positive rhombic ADMT Tiger-tec® Gold



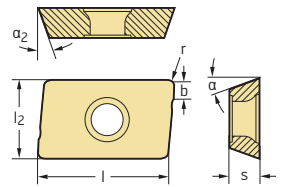
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	α	α ₂	r mm	b mm	P					M					K					S			
											HC					HC					HC					HC			
											WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSM45X	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WSM35S	WSM45X	WSP45S	WSP45G	
ADMT080302R-F56	M	2	6,75	9,52	3,35	15°	20°	0,2	1,2																				
ADMT080304R-F56	M	2	6,75	9,52	3,35	15°	20°	0,4	1,2																				
ADMT080304L-F56	M	2	6,75	9,52	3,35	15°	20°	0,4	1,2																				
ADMT080308R-F56	M	2	6,75	9,52	3,35	15°	20°	0,8	1,2																				
ADMT080308L-F56	M	2	6,75	9,52	3,35	15°	20°	0,8	1,2																				
ADMT080312R-F56	M	2	6,75	9,52	3,35	15°	20°	1,2	1																				
ADMT080316R-F56	M	2	6,75	9,52	3,35	15°	20°	1,6	1																				
ADMT080320R-F56	M	2	6,75	9,52	3,35	15°	20°	2	1																				
ADMT10T304R-F56	M	2	7,25	11,3	3,8	15°	15°	0,4	1,2																				
ADMT10T308R-F56	M	2	7,25	11,3	3,8	15°	15°	0,8	1,2																				
ADMT10T312R-F56	M	2	7,25	11,3	3,8	15°	15°	1,2	1,2																				
ADMT10T316R-F56	M	2	7,25	11,3	3,8	15°	15°	1,6	1,2																				
ADMT10T320R-F56	M	2	7,25	11,3	3,8	15°	15°	2	1																				
ADMT10T325R-F56	M	2	7,25	11,3	3,8	15°	15°	2,5	1																				
ADMT10T330R-F56	M	2	7,25	11,3	3,8	15°	15°	3	0,8																				
ADMT10T332R-F56	M	2	7,25	11,3	3,8	15°	15°	3,2	0,8																				
ADMT120404R-F56	M	2	8,4	13,6	4,76	15°	20°	0,4	1,2																				
ADMT120408R-F56	M	2	8,4	13,6	4,76	15°	20°	0,8	1,2																				
ADMT120408L-F56	M	2	8,4	13,6	4,76	15°	20°	0,8	1,2																				
ADMT120412R-F56	M	2	8,4	13,6	4,76	15°	20°	1,2	1,2																				

HC = Coated carbide

Positive rhombic ADMT

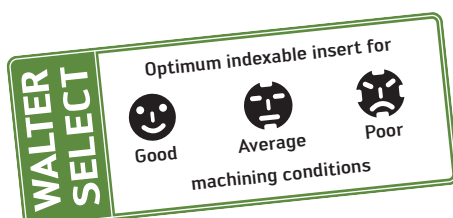
Tiger-tec® Gold



Indexable inserts

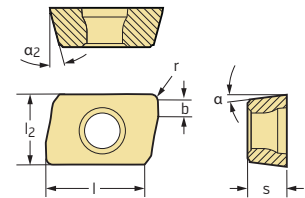
Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	α	α ₂	r mm	b mm	P					M				K					S			
										HC					HC				HC					HC			
										WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSM45X	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WSM35S	WSM45X	WSP45S	WSP45G
 ADMT120416R-F56	M	2	8,4	13,6	4,76	15°	20°	1,6	1																		
ADMT120416L-F56	M	2	8,4	13,6	4,76	15°	20°	1,6	1																		
ADMT120420R-F56	M	2	8,4	13,6	4,76	15°	20°	2	1																		
ADMT120425R-F56	M	2	8,4	13,6	4,76	15°	20°	2,5	0,8																		
ADMT120425L-F56	M	2	8,4	13,6	4,76	15°	20°	2,5	0,8																		
ADMT120430R-F56	M	2	8,4	13,6	4,76	15°	20°	3	0,8																		
ADMT120430L-F56	M	2	8,4	13,6	4,76	15°	20°	3	0,8																		
ADMT120432R-F56	M	2	8,4	13,6	4,76	15°	20°	3,2	0,8																		
ADMT120440R-F56	M	2	8,4	13,6	4,76	15°	20°	4	0,4																		
ADMT120440L-F56	M	2	8,4	13,6	4,76	15°	20°	4	0,4																		
ADMT160608R-F56	M	2	10,8	17,5	6,15	15°	20°	0,8	1,6																		
ADMT160608L-F56	M	2	10,8	17,5	6,15	15°	20°	0,8	1,6																		
ADMT160612R-F56	M	2	10,8	17,5	6,15	15°	20°	1,2	1,6																		
ADMT160616R-F56	M	2	10,8	17,5	6,15	15°	20°	1,6	1,4																		
ADMT160616L-F56	M	2	10,8	17,5	6,15	15°	20°	1,6	1,4																		
ADMT160620R-F56	M	2	10,8	17,5	6,15	15°	20°	2	1,4																		
ADMT160625R-F56	M	2	10,8	17,5	6,15	15°	20°	2,5	1,2																		
ADMT160625L-F56	M	2	10,8	17,5	6,15	15°	20°	2,5	1,2																		
ADMT160630R-F56	M	2	10,8	17,5	6,15	15°	20°	3	1,2																		
ADMT160630L-F56	M	2	10,8	17,5	6,15	15°	20°	3	1,2																		
ADMT160632R-F56	M	2	10,8	17,5	6,15	15°	20°	3,2	1,2																		
ADMT160640R-F56	M	2	10,8	17,5	6,15	15°	20°	4	1																		
ADMT160640L-F56	M	2	10,8	17,5	6,15	15°	20°	4	1																		
ADMT160650R-F56	M	2	10,8	17,5	6,15	15°	20°	5																			
ADMT160660R-F56	M	2	10,8	17,5	6,15	15°	20°	6																			
ADMT180712R-F56	M	2	14,5	19	7,04	15°	17°	1,2	1,8																		

HC = Coated carbide



Positive rhombic BCGT / BCHT / BCMT

Tiger-tec® Gold



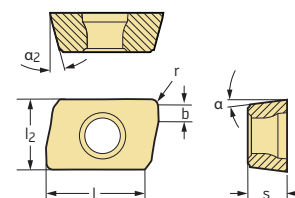
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	α	α ₂	r mm	b mm	P					M			K				N		S		
											HC					HC			HC				HC	HW	HC		
											WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S
	BCGT090304R-G55	G	2	6,3	10,3	3,21	7°	15°	0,4	1,2	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹				☹
	BCGT120408R-G55	G	2	7,6	13,8	4,8	7°	15°	0,8	1,3	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹				☹
	BCGT160508R-G55	G	2	9,9	17,3	5,75	7°	15°	0,8	2	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹				☹
	BCGT090304R-K85	G	2	6,3	10,3	3,21	7°	15°	0,4	1,2														☹	☹		
	BCHT120408R-K85	H	2	7,6	13,8	4,8	7°	15°	0,8	1,3														☹	☹		
	BCHT120412R-K85	H	2	7,6	13,8	4,8	7°	15°	1,2	1,2														☹	☹		
	BCHT120416R-K85	H	2	7,6	13,8	4,8	7°	15°	1,6	1,1														☹	☹		
	BCHT120420R-K85	H	2	7,6	13,8	4,8	7°	15°	2	1,2														☹	☹		
	BCHT120425R-K85	H	2	7,6	13,8	4,8	7°	15°	2,5	1														☹	☹		
	BCHT120430R-K85	H	2	7,6	13,8	4,8	7°	15°	3	0,7														☹	☹		
	BCHT120440R-K85	H	2	7,6	13,8	4,8	7°	15°	4	0,4														☹	☹		
	BCHT160508R-K85	H	2	9,9	17,3	5,75	7°	15°	0,8	2														☹	☹		
	BCHT160512R-K85	H	2	9,9	17,3	5,75	7°	15°	1,2	1,7														☹	☹		
	BCHT160516R-K85	H	2	9,9	17,3	5,75	7°	15°	1,6	1,7														☹	☹		
	BCHT160520R-K85	H	2	9,9	17,3	5,75	7°	15°	2	1,5														☹	☹		
	BCHT160525R-K85	H	2	9,9	17,3	5,75	7°	15°	2,5	1,4														☹	☹		
	BCHT160530R-K85	H	2	9,9	17,3	5,75	7°	15°	3	1,2														☹	☹		
	BCHT160540R-K85	H	2	9,9	17,3	5,75	7°	15°	4	1,1														☹	☹		
	BCMT090304R-F55	M	2	6,3	10,3	3,21	7°	15°	0,4	1,2	☹	☹	☹	☹	☹			☹	☹	☹	☹	☹	☹				☹
	BCMT120408R-F55	M	2	7,6	13,8	4,8	7°	15°	0,8	1,3	☹	☹	☹	☹	☹		☹	☹	☹	☹	☹	☹	☹				☹
	BCMT160508R-F55	M	2	9,9	17,3	5,75	7°	15°	0,8	2	☹	☹	☹	☹	☹		☹	☹	☹	☹	☹	☹	☹				☹

HC = Coated carbide
HW = Uncoated carbide

Positive rhombic BCGT / BCHT / BCMT

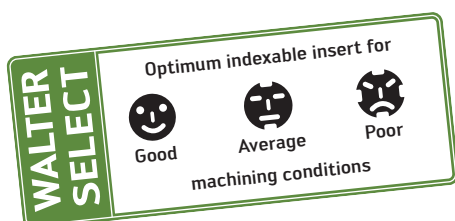
Tiger-tec® Gold



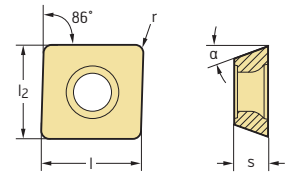
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	α	α ₂	r mm	b mm	P					M		K					N		S	
											HC					HC		HC		HC		HC	HW	HC		
											WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S
	BCMT090302R-G55	M	2	6,3	10,3	3,21	7°	15°	0,2	1,4																
	BCMT090304R-G55	M	2	6,3	10,3	3,21	7°	15°	0,4	1,2																
	BCMT090308R-G55	M	2	6,3	10,3	3,21	7°	15°	0,8	0,8																
	BCMT090312R-G55	M	2	6,3	10,3	3,21	7°	15°	1,2	0,4																
	BCMT090316R-G55	M	2	6,3	10,3	3,21	7°	15°	1,6	0,4																
	BCMT090320R-G55	M	2	6,3	10,3	3,21	7°	15°	2	0,4																
	BCMT120404R-G55	M	2	7,6	13,8	4,8	7°	15°	0,4	1,3																
	BCMT120408R-G55	M	2	7,6	13,8	4,8	7°	15°	0,8	1,3																
	BCMT120412R-G55	M	2	7,6	13,8	4,8	7°	15°	1,2	1,2																
	BCMT120416R-G55	M	2	7,6	13,8	4,8	7°	15°	1,6	1,1																
	BCMT120420R-G55	M	2	7,6	13,8	4,8	7°	15°	2	1,2																
	BCMT120425R-G55	M	2	7,6	13,8	4,8	7°	15°	2,5	1																
	BCMT120430R-G55	M	2	7,6	13,8	4,8	7°	15°	3	0,7																
	BCMT120432R-G55	M	2	7,6	13,8	4,8	7°	15°	3,2	0,5																
	BCMT120440R-G55	M	2	7,6	13,8	4,8	7°	15°	4	0,4																
	BCMT160508R-G55	M	2	9,9	17,3	5,75	7°	15°	0,8	2																
	BCMT160512R-G55	M	2	9,9	17,3	5,75	7°	15°	1,2	1,7																
	BCMT160516R-G55	M	2	9,9	17,3	5,75	7°	15°	1,6	1,5																
	BCMT160520R-G55	M	2	9,9	17,3	5,75	7°	15°	2	1,5																
	BCMT160525R-G55	M	2	9,9	17,3	5,75	7°	15°	2,5	1,4																
	BCMT160530R-G55	M	2	9,9	17,3	5,75	7°	15°	3	1,2																
	BCMT160532R-G55	M	2	9,9	17,3	5,75	7°	15°	3,2	1,1																
	BCMT160540R-G55	M	2	9,9	17,3	5,75	7°	15°	4	1,1																
	BCMT160550R-G55	M	2	9,9	17,3	5,75	7°	15°	5	0,7																
	BCMT160560R-G55	M	2	9,9	17,3	5,75	7°	15°	6	0,1																
	BCMT090304R-K55	M	2	6,3	10,3	3,21	7°	15°	0,4	1,2																
	BCMT120408R-K55	M	2	7,6	13,8	4,8	7°	15°	0,8	1,3																
	BCMT160508R-K55	M	2	9,9	17,3	5,75	7°	15°	0,8	2																

HC = Coated carbide
HW = Uncoated carbide



Positive rhombic MPMX / MPMT Tiger-tec® Gold

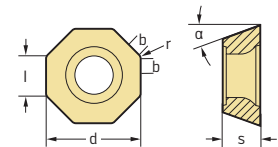


Indexable inserts

		Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	α	r mm	P HC					M HC		K HC			S HC			
									WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WSP45G
Designation																						
	MPMX060304-F57	M	2	6,35	6,35	3,18	11°	0,4														
	MPMX080305-F57	M	2	8,3	8,3	3,18	11°	0,5														
	MPMT120408-F57	M	2	12,7	12,7	4,76	11°	0,8														

HC = Coated carbide

Positive octagonal ODHT / ODMT Tiger-tec® Gold



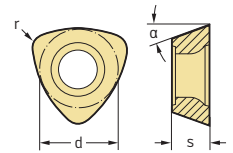
Indexable inserts

		Tolerance class	Number of cutting edges	l mm	d mm	s mm	α	r mm	b mm	P HC					M HC			K HC				S HC						
Designation										WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSM45X	WSP45S	WSP45G	WKP25S	WKP25S	WKP35G	WKP35S	WSM35S	WSM45X	WSP45S	WSP45G		
	ODHT050408-F57	H	8	5,26	12,7	4,76	15°	0,8																				
	ODHT060512-F57	H	8	6,58	15,88	5,56	15°	1,2																				
	ODHT0504ZZN-F57	H	8	5,26	12,7	4,76	15°	0,8	1,2																			
	ODHT0605ZZN-F57	H	8	6,58	15,88	5,56	15°	0,8	1,6																			
	ODMT050408-D57	M	8	5,26	12,7	4,76	15°	0,8																				
	ODMT060512-D57	M	8	6,58	15,88	5,56	15°	1,2																				
	ODMT0504ZZN-D57	M	8	5,26	12,7	4,76	15°	0,8	1,2																			
	ODMT0605ZZN-D57	M	8	6,58	15,88	5,56	15°	0,8	1,6																			

HC = Coated carbide

Positive triangular P26335 / P26339

Tiger-tec® Gold



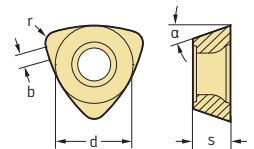
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	r mm	P HC				M HC			K HC			S HC			
								WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WSP45G
	P26335R10	M	3	6,75	3,18	14°	0,8		✖	✖	✖	✖	✖	✖	✖		✖	✖	✖	✖	✖
	P26335R14	M	3	9,52	3,97	14°	1,2		✖	✖	✖	✖	✖	✖	✖		✖	✖	✖	✖	✖
	P26335R25	M	3	13	5,56	14°	2		✖	✖	✖	✖	✖	✖	✖		✖	✖	✖	✖	✖
	P26339R10	M	3	6,75	3,18	14°	0,8		✖	✖	✖	✖	✖	✖	✖		✖	✖	✖	✖	✖
	P26339R14	M	3	9,52	3,97	14°	1,2		✖	✖	✖	✖	✖	✖	✖		✖	✖	✖	✖	✖
	P26339R25	M	3	13	5,56	14°	2		✖	✖	✖	✖	✖	✖	✖		✖	✖	✖	✖	✖

HC = Coated carbide

Positive triangular P26379

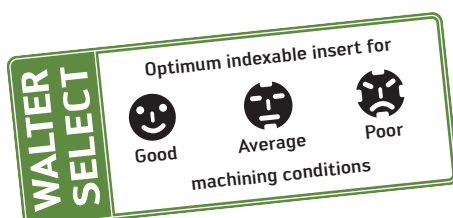
Tiger-tec® Gold



Indexable inserts

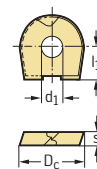
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	r mm	b mm	P					M			K			S					
									HC								HC			HC			HC		
									WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WSP45G			
	P26379-R10	M	3	6,75	3,18	14°	0,8	0,9		✖	✖	✖	✖	✖		✖	✖		✖	✖	✖		✖	✖	
	P26379-R14	M	3	9,52	3,97	14°	1,2	1		✖	✖	✖	✖	✖		✖	✖		✖	✖	✖		✖	✖	
	P26379-R25	M	3	13	5,56	14°	2	1,1		✖	✖	✖	✖	✖		✖	✖		✖	✖	✖		✖	✖	

HC = Coated carbide



Profile milling inserts P3204 / P3201

Tiger-tec®



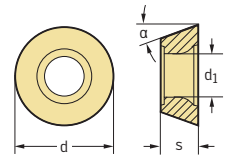
Indexable inserts

Designation	Tolerance class	Number of cutting edges	D _c ^{-0.03} mm	s mm	l ₁ mm	d ₁ mm	P						M				K				S				H	
							HC						HC				HC				HC				HC	
							WKP25S	WKP25	WKP35S	WKP35	WSP45S	WSP46	WSM35S	WSM36	WSP45S	WSP46	WKP25	WKP25S	WKP35S	WKP35	WSM35S	WSM36	WSP45S	WSP46	WHH15	WHH15X
 P3204-D07.94	H	2	7,94	2	4	3																				☹
P3204-D08	H	2	8	2	4	3						☹		☹	☹							☹		☹	☹	☹
P3204-D09.52	H	2	9,53	2,5	5	4						☹			☹								☹	☹	☹	☹
P3204-D10	H	2	10	2,5	5	4						☹		☹	☹								☹	☹	☹	☹
P3204-D12	H	2	12	2,5	6	5						☹		☹	☹								☹	☹	☹	☹
P3204-D12.7	H	2	12,7	2,5	6	5						☹			☹								☹	☹	☹	☹
P3204-D15.87	H	2	15,88	3	6	5						☹			☹								☹	☹	☹	☹
P3204-D16	H	2	16	3	6	5						☹		☹	☹								☹	☹	☹	☹
P3204-D19.05	H	2	19,05	3	6	5						☹			☹								☹	☹	☹	☹
P3204-D20	H	2	20	3	6	5						☹		☹	☹								☹	☹	☹	☹
P3204-D25	H	2	25	4	9	6						☹		☹	☹								☹	☹	☹	☹
P3204-D25.4	H	2	25,4	4	9	6						☹			☹								☹	☹	☹	☹
P3204-D30	H	2	30	5	10	8						☹		☹	☹								☹	☹	☹	☹
P3204-D31.75	H	2	31,75	5	10	8						☹			☹								☹	☹	☹	☹
P3204-D32	H	2	32	5	10	8						☹		☹	☹								☹	☹	☹	☹
 P3201-D07.94	H	2	7,94	2	4	3																				☹
P3201-D08	H	2	8	2	4	3																			☹	☹
P3201-D09.52	H	2	9,53	2,5	5	4																				☹
P3201-D10	H	2	10	2,5	5	4		☹		☹							☹		☹						☹	☹
P3201-D12	H	2	12	2,5	6	5		☹		☹							☹		☹						☹	☹
P3201-D12.7	H	2	12,7	2,5	6	5																				☹
P3201-D15.87	H	2	15,88	3	6	5																				☹
P3201-D16	H	2	16	3	6	5		☹		☹							☹		☹						☹	☹
P3201-D19.05	H	2	19,05	3	6	5																				☹
P3201-D20	H	2	20	3	6	5		☹		☹							☹		☹						☹	☹
P3201-D25	H	2	25	4	9	6																			☹	☹
P3201-D25.4	H	2	25,4	4	9	6																				☹
P3201-D30	H	2	30	5	10	8																			☹	☹
P3201-D31.75	H	2	31,75	5	10	8																				☹
P3201-D32	H	2	32	5	10	8																			☹	☹

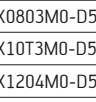
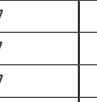
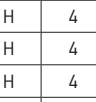
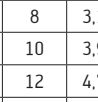
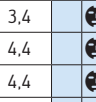
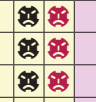
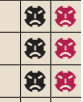
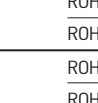
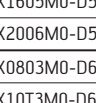
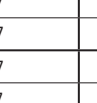
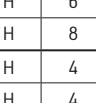
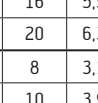
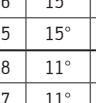
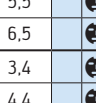
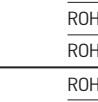
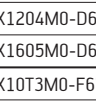
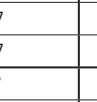
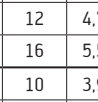
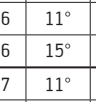
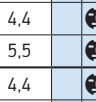
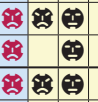
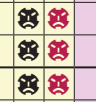
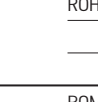
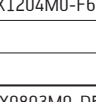
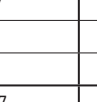
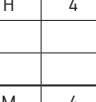
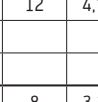
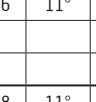
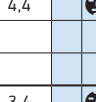
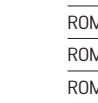
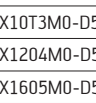
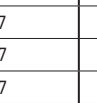
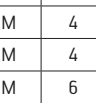
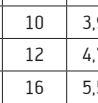
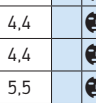
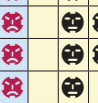
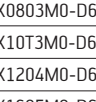
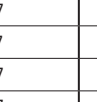
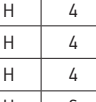
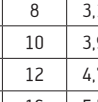
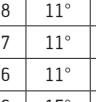
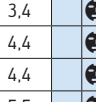
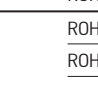
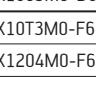
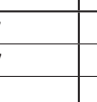
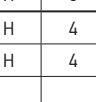
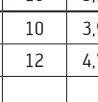
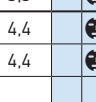
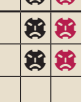
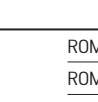
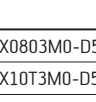
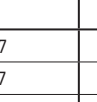
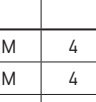
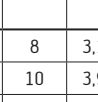
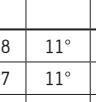
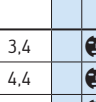
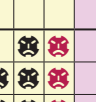
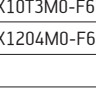
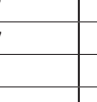
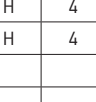
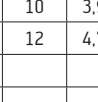
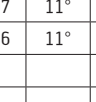
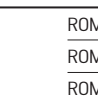
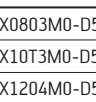
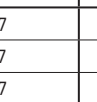
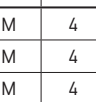
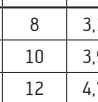
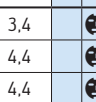
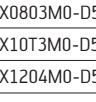
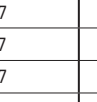
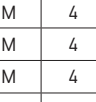
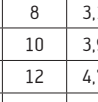
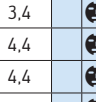
HC = Coated carbide

Positive round ROHX / ROMX

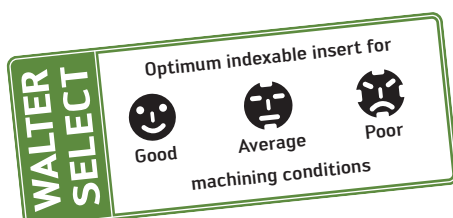
Tiger-tec® Gold



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	d ₁ mm	P					M					K			S			
								HC					HC					HC			HC			
								WKP25S	WKP35G	WKP35S	WMP45G	WSP45S	WSP45G	WMP45G	WSM35S	WSM45X	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S	WSM45X	WSP45S
	ROHX0803M0-D57	H	4	8	3,18	11°	3,4																	
	ROHX10T3M0-D57	H	4	10	3,97	11°	4,4																	
	ROHX1204M0-D57	H	4	12	4,76	11°	4,4																	
	ROHX1605M0-D57	H	6	16	5,56	15°	5,5																	
	ROHX2006M0-D57	H	8	20	6,35	15°	6,5																	
	ROHX0803M0-D67	H	4	8	3,18	11°	3,4																	
	ROHX10T3M0-D67	H	4	10	3,97	11°	4,4																	
	ROHX1204M0-D67	H	4	12	4,76	11°	4,4																	
	ROHX1605M0-D67	H	6	16	5,56	15°	5,5																	
	ROHX10T3M0-F67	H	4	10	3,97	11°	4,4																	
	ROHX1204M0-F67	H	4	12	4,76	11°	4,4																	
																								
	ROMX0803M0-D57	M	4	8	3,18	11°	3,4																	
	ROMX10T3M0-D57	M	4	10	3,97	11°	4,4																	
	ROMX1204M0-D57	M	4	12	4,76	11°	4,4																	
	ROMX1605M0-D57	M	6	16	5,56	15°	5,5																	
	ROMX2006M0-D57	M	8	20	6,35	15°	6,5																	

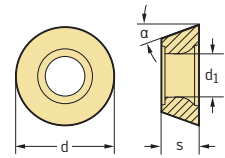
HC = Coated carbide



Positive round

RDMT

Tiger-tec® Gold



Indexable inserts

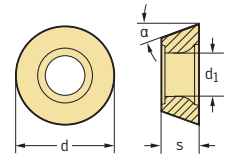
	Designation	Tolerance class	d mm	s mm	α	d ₁ mm	P					M		K			S			
							HC					HC		HC			HC			
							WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WSP45G
	RDMT0803M0-D57	M	8	3,18	15°	3,4			🔒	🔒	🔒	🔒	🔒	🔒			🔒	🔒	🔒	🔒
	RDMT10T3M0-D57	M	10	3,97	15°	4,4	🔒	🔒	🔒	🔒	🔒	🔒	🔒	🔒	🔒			🔒	🔒	🔒
	RDMT1204M0-D57	M	12	4,76	15°	4,4	🔒	🔒	🔒	🔒	🔒	🔒	🔒	🔒	🔒			🔒	🔒	🔒
	RDMT1605M0-D57	M	16	5,56	15°	5,5	🔒	🔒	🔒	🔒	🔒	🔒	🔒	🔒	🔒	🔒			🔒	🔒
	RDMT2006M0-D57	M	20	6,35	15°	6,5	🔒	🔒	🔒	🔒	🔒	🔒	🔒	🔒	🔒	🔒			🔒	🔒

HC = Coated carbide

Positive round

RDHX / RDGX / RDMX

Tiger-tec® Gold



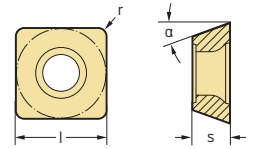
Indexable inserts

Designation	Tolerance class	d mm	s mm	α	d ₁ mm	P					M		K		N	S		H				
						HC					HC		HC		HC	HC		HC				
						WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X
	RDHX0501M0-A57	H	5	1,5	15°	2,2																
	RDHX07T1M0-A57	H	7	1,98	15°	2,8																
	RDHX0702M0-A57	H	7	2,35	15°	2,8																
	RDHX1003M0-A57	H	10	3,18	15°	4,4																
	RDHX12T3M0-A57	H	12	3,97	15°	4,4																
	RDHX1604M0-A57	H	16	4,76	15°	5,5																
RDHX2006M0-A57	H	20	6	15°	5,5																	
	RDGX0501M0-G88	G	5	1,5	15°	2,2																
	RDGX07T1M0-G88	G	7	1,98	15°	2,8																
	RDGX1003M0-G88	G	10	3,18	15°	4,4																
	RDGX12T3M0-G88	G	12	3,97	15°	4,4																
	RDGX1604M0-G88	G	16	4,76	15°	5,5																
	RDGX2006M0-G88	G	20	6	15°	5,5																
	RDMX0501M0-D57	M	5	1,5	15°	2,2																
	RDMX07T1M0-D57	M	7	1,98	15°	2,8																
	RDMX1003M0-D57	M	10	3,18	15°	4,4																
	RDMX12T3M0-D57	M	12	3,97	15°	4,4																
	RDMX1604M0-D57	M	16	4,76	15°	5,5																
	RDMX2006M0-D57	M	20	6	15°	5,5																

HC = Coated carbide
HW = Uncoated carbide

Positive square SDMW / SDMT

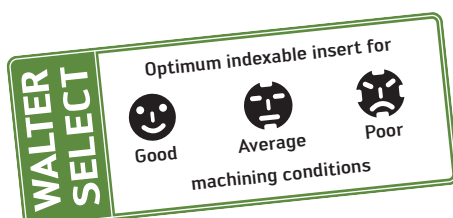
Tiger-tec® Gold



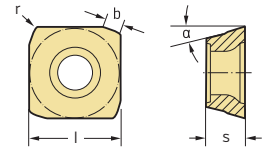
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	P					M				K					S			
								HC					HC				HC					HC			
								WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSM45X	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WSM35S	WSM45X	WSP45S	WSP45G
	SDMW06T204-A57	M	4	6,35	2,78	15°	0,4	☺	☺	☺								☺	☺	☺	☺				
	SDMW09T308-A57	M	4	9,52	3,97	15°	0,8	☺	☺	☺								☺	☺	☺	☺				
	SDMW09T320-A57	M	4	9,52	3,97	15°	2		☺	☺	☺	☺	☺		☺			☺	☺	☺	☺	☺		☺	☺
	SDMW120408-A57	M	4	12,7	4,76	15°	0,8	☺	☺	☺								☺	☺	☺	☺				
	SDMW120425-A57	M	4	12,7	4,76	15°	2,5		☺	☺	☺	☺	☺		☺			☺	☺	☺	☺	☺		☺	☺
	SDMT06T204-D51	M	4	6,35	2,78	15°	0,4	☺	☺	☺	☺	☺			☺			☺	☺	☺	☺			☺	☺
	SDMT09T308-D51	M	4	9,52	3,97	15°	0,8	☺	☺	☺	☺	☺			☺			☺	☺	☺	☺			☺	☺
	SDMT120408-D51	M	4	12,7	4,76	15°	0,8	☺	☺	☺	☺	☺			☺			☺	☺	☺	☺			☺	☺
	SDMT06T204-D57	M	4	6,35	2,78	15°	0,4	☺	☺	☺	☺	☺			☺			☺	☺	☺	☺			☺	☺
	SDMT09T308-D57	M	4	9,52	3,97	15°	0,8	☺	☺	☺	☺	☺			☺			☺	☺	☺	☺			☺	☺
	SDMT120408-D57	M	4	12,7	4,76	15°	0,8	☺	☺	☺	☺	☺			☺			☺	☺	☺	☺			☺	☺
	SDMT06T204-F57	M	4	6,35	2,78	15°	0,4	☺	☺	☺	☺	☺			☺			☺	☺	☺	☺			☺	☺
	SDMT06T208-F57	M	4	6,35	2,78	15°	0,8		☺	☺	☺	☺			☺				☺	☺	☺			☺	☺
	SDMT06T212-F57	M	4	6,35	2,78	15°	1,2		☺	☺	☺	☺			☺				☺	☺	☺			☺	☺
	SDMT09T304-F57	M	4	9,52	3,97	15°	0,4		☺	☺	☺	☺			☺				☺	☺	☺			☺	☺
	SDMT09T308-F57	M	4	9,52	3,97	15°	0,8	☺	☺	☺	☺	☺			☺			☺	☺	☺	☺			☺	☺
	SDMT09T312-F57	M	4	9,52	3,97	15°	1,2		☺	☺	☺	☺			☺				☺	☺	☺			☺	☺
	SDMT09T316-F57	M	4	9,52	3,97	15°	1,6		☺	☺	☺	☺			☺				☺	☺	☺			☺	☺
	SDMT09T320-F57	M	4	9,52	3,97	15°	2		☺	☺	☺	☺			☺				☺	☺	☺			☺	☺
	SDMT120408-F57	M	4	12,7	4,76	15°	0,8	☺	☺	☺	☺	☺			☺			☺	☺	☺	☺			☺	☺
	SDMT120412-F57	M	4	12,7	4,76	15°	1,2		☺	☺	☺	☺			☺				☺	☺	☺			☺	☺
	SDMT120416-F57	M	4	12,7	4,76	15°	1,6		☺	☺	☺	☺			☺				☺	☺	☺			☺	☺
	SDMT120420-F57	M	4	12,7	4,76	15°	2		☺	☺	☺	☺			☺				☺	☺	☺			☺	☺
	SDMT120425-F57	M	4	12,7	4,76	15°	2,5		☺	☺	☺	☺			☺				☺	☺	☺			☺	☺

HC = Coated carbide



Positive square SDMT Tiger-tec® Gold

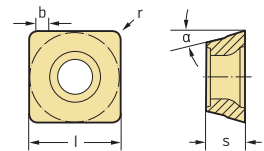


Indexable inserts

Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P					M			K			S		
								HC					HC			HC			HC		
								WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WSP45G
 SDMT06T2ZDR-D57	M	4	6,4	2,78	15°	0,4	1,2														
SDMT09T3ZDR-D57	M	4	9,5	3,97	15°	0,8	1,2														
SDMT1204ZDR-D57	M	4	12,7	4,76	15°	0,8	1,8														

HC = Coated carbide

Positive square SDGT Tiger-tec® Gold



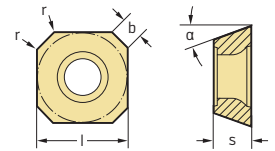
Indexable inserts

Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P					M			K			S		
								HC					HC			HC			HC		
								WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WSP45G
 SDGT06T2PDR-D57	G	4	6,4	2,78	15°	0,4	1,2														
SDGT09T3PDR-D57	G	4	9,5	3,97	15°	0,8	1,2														
SDGT1204PDR-D57	G	4	12,7	4,76	15°	0,8	1,6														

HC = Coated carbide

Positive square SDMT / SDGT

Tiger-tec® Gold



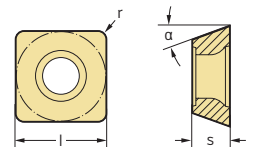
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC				M HC				K HC				S HC			
									WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSM45X	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WSM35S	WSM45X
	SDMT09T3AZN-D57	M	4	9,5	3,97	15°	0,3	1,2	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
	SDMT1204AZN-D57	M	4	12,7	4,76	15°	0,3	1,4	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
	SDMT09T3AZN-F57	M	4	9,5	3,97	15°	0,3	1,4	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
	SDMT1204AZN-F57	M	4	12,7	4,76	15°	0,3	1,8	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
	SDGT09T3AZN-F57	G	4	9,5	3,97	15°	0,3	1,4	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
	SDGT1204AZN-F57	G	4	12,7	4,76	15°	0,3	1,8	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
	SDGT09T3AZN-G77	G	4	9,5	3,97	15°	0,3	1,2				☺	☺		☺	☺							☺	☺
	SDGT1204AZN-G77	G	4	12,7	4,76	15°	0,3	1,4				☺	☺		☺	☺							☺	☺

HC = Coated carbide

Positive square SPMT

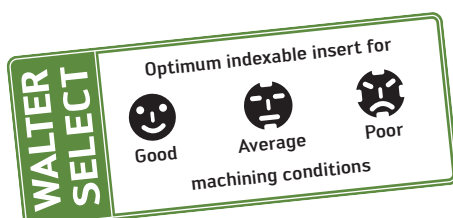
Tiger-tec® Gold



Indexable inserts

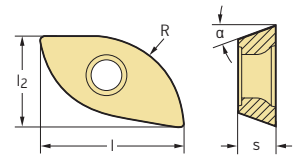
		Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	P HC					M HC			K HC				S HC		
								WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WSP45G
Designation																						
	SPMT060304-F55	M	4	6,35	3,18	11°	0,4	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	
	SPMT09T308-F55	M	4	9,52	3,97	11°	0,8	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	
	SPMT120408-F55	M	4	12,7	4,76	11°	0,8	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	

HC = Coated carbide



Positive form inserts XDMT

Tiger-tec® Gold



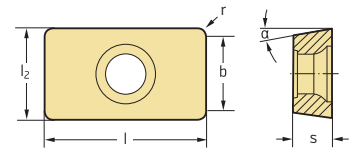
Indexable inserts

Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	α	R mm	P HC				M HC		K HC			S HC		
								WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S
								WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S
 XDMT1303080R-F55	M	2	8,5	13,12	3	15°	8	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
XDMT16T3100R-F55	M	2	9	15,93	3,74	15°	10	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
XDMT2004125R-F55	M	2	11,3	19,94	4,68	15°	12,5	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
XDMT2405150R-F55	M	2	13,5	23,94	5,62	15°	15	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
XDMT2506160R-F55	M	2	14,4	25,54	6	15°	16	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
XDMT3207200R-F55	M	2	18	31,95	7,5	15°	20	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
XDMT4009250R-F55	M	2	22,5	39,95	9,39	15°	25	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺

HC = Coated carbide

Positive rhombic BCGX

Tiger-tec®



Indexable inserts

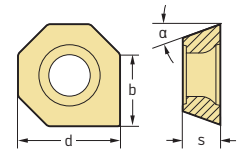
	Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	α	r mm	b mm	P HC			M HC		K HC			S HC		H HC		O HC
										WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKP25S	WKP35S	WSM35S	WSP45S	WHH15	WHH15X	WXM15
BCGX0903PDR-G55	G	2	6,3	10,3	3,21	7°	0,4	5														
BCGX1605PDR-G55	G	2	9,9	17,3	5,81	7°	0,8	8														

HC = Coated carbide

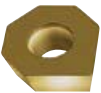
Finishing inserts

ODHX

Tiger-tec® Gold



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P				M		K				S		H		O	
								HC				HC		HC				HC		HC		HC	HC
								WKP25S	WKP35G	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WHH15	WHH15X	WXM15	
	ODHX0504ZZR-A57	H	1	12,7	4,76	15°	7,2		☹	☹				☹		☹	☹			☹	☹		
	ODHX0605ZZR-A57	H	1	15,88	5,56	15°	9,4		☹	☹				☹		☹	☹			☹	☹		
	ODHX0605ZZN-A57	H	8	15,88	5,56	15°	6							☹						☹	☹		
	ODHX0605ZZN-A88	H	8	15,88	5,56	15°	6							☹						☹	☹	☹	

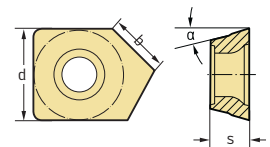
* ZZN for κ = 45° only

HC = Coated carbide

Positive square

SDHX

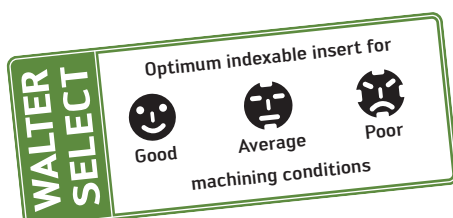
Tiger-tec®



Indexable inserts

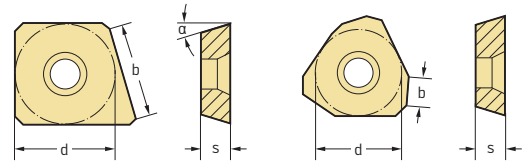
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P			M		K			S		H		O
								HC			HC		HC			HC		HC		HC
								WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKP25S	WKP35S	WSM35S	WSP45S	WHH15	WHH15X	WXM15
	SDHX09T3AZR-A88	H	1	9,52	3,97	15°	5,6						☹					☹	☹	☹
	SDHX1204AZR-A88	H	1	12,7	4,76	15°	7,5						☹					☹	☹	☹

HC = Coated carbide



Finishing inserts P2901 / P2903 / P2905

Tiger-tec®



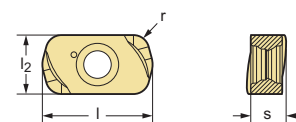
Indexable inserts

Designation		Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P			M		K		N	S	H	O
								HC			HC		HC		HW	HC	HC	HC
								WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKP25S	WKP35S	WK10	WSM35S	WSP45S
	P2901-1R	H	1	12,7	4,76	11°	11											
	P2903-2R	A	3	9,52	4,76	11°	3,5											
	P2905-1	F	4	12,7	4,76	11°	10											

HC = Coated carbide
HW = Uncoated carbide

Negative rhombic ENMX

Tiger-tec® Gold



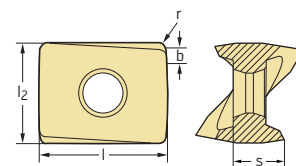
Indexable inserts

		Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	r mm	P					M			K				N		S			H		
								HC					HC			HC				HC HW		HC			HC		
Designation								WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X
	ENMX08T316R-D27	M	4	6	11	3,60	1,6	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺	☺	☺
	ENMX08T316R-F47	M	4	6	11	3,60	1,6	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺	☺	☺

HC = Coated carbide
HW = Uncoated carbide

Negative rhombic LNGX

Tiger-tec® Gold

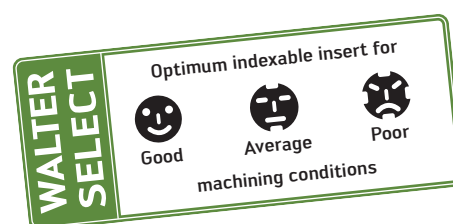


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	r mm	b mm	P					M			K					N		S		
									HC					HC			HC				HC		HC	HW	HC	
									WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G
	LNGX130708R-L55	G	4	11	13,7	7,74	0,8	1,2	☺	☺	☺	☺	☹	☺	☺	☹	☺	☺	☺	☺	☺			☺	☺	☹
	LNGX130712R-L55	G	4	11	13,7	7,74	1,2	1	☺	☺	☺	☺	☺	☺	☺				☺	☺	☺			☺	☺	
	LNGX130716R-L55	G	4	11	13,7	7,74	1,6	0,9	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺			☺	☺	
	LNGX130720R-L55	G	4	11	13,7	7,74	2	0,7	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺			☺	☺	
	LNGX130725R-L55	G	4	11	13,7	7,74	2,5	0,6	☺	☺	☺			☺					☺	☺	☺			☺		
	LNGX130730R-L55	G	4	11	13,7	7,74	3	0,7	☺	☺	☺				☺				☺	☺	☺					

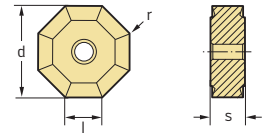
HC = Coated carbide
HW = Uncoated carbide

C 2



Negative octagonal ONHF

Tiger-tec® Silver



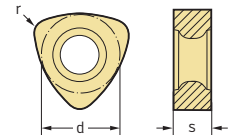
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	P				M			K			N		S		H	
								HC				HC			HC			HC		HC		HC	
								WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G
	ONHF050408-F67	H	16	12,7	5,26	4,76	0,8																

HC = Coated carbide
HW = Uncoated carbide

Negative triangular P23696

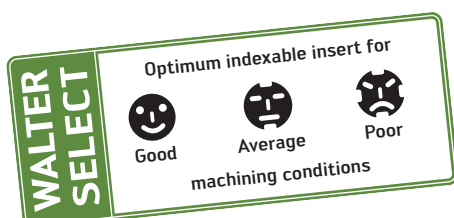
Tiger-tec® Gold



Indexable inserts

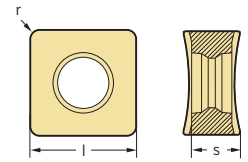
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	r mm	P					M			K				N		S					
							HC					HC			HC				HC		HW		HC			
							WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G		
	P23696-1.0	M	6	9	5,31	1,2																				
	P23696-2.0	M	6	13,5	7,41	1,6																				

HC = Coated carbide
HW = Uncoated carbide



Negative square SNGX / SNMX

Tiger-tec® Gold



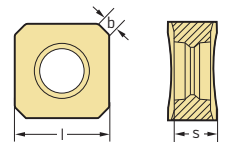
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	P				M				K				N		S		
							HC				HC				HC				HC	HW	HC		
							WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S
	SNGX120512-F57	G	8	12,7	5,60	1,2	☺	☺	☺	☺	☺	☺	☺							☺	☺	☺	
	SNMX090408-F57	M	8	9,52	4,85	0,8	☺	☺	☺	☺	☺	☺	☺							☺	☺	☺	
	SNMX120512-F57	M	8	12,7	5,50	1,2	☺	☺	☺	☺	☺	☺	☺							☺	☺	☺	
	SNMX120520-F57	M	8	12,7	5,50	2	☺	☺	☺	☺	☺	☺	☺							☺	☺	☺	
	SNMX160620-F57	M	8	16	6,38	2	☺	☺	☺	☺		☺								☺			
	SNMX160640-F57	M	8	16	6,38	4		☺															
	SNMX090408-F67	M	8	9,52	4,87	0,8	☺	☺	☺	☺	☺	☺	☺							☺	☺	☺	
	SNMX120512-F67	M	8	12,7	5,63	1,2	☺	☺	☺	☺	☺	☺	☺	☺	☺					☺	☺		

HC = Coated carbide
HW = Uncoated carbide

Negative square SNGX / SNMX

Tiger-tec® Gold



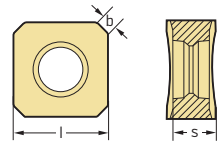
Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	b mm	P					M			K				N		S			
						HC					HC			HC				HC	HW	HC			
						WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G
	SNGX0904ANN-F57	8	9,52	4,69	1,2	☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺			☺	☺	☺
	SNGX1205ANN-F57	8	12,7	5,54	1,5	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺	☺			☺	☺	☺
	SNGX1606ANN-F57	8	16	6,3	1,8		☺	☺	☺		☺	☺				☺	☺	☺			☺		
	SNGX0904ANN-F67	8	9,52	4,72	1,2	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺
	SNGX1205ANN-F67	8	12,7	5,54	1,5	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺

HC = Coated carbide
HW = Uncoated carbide

Negative square SNGX / SNMX

Tiger-tec® Gold



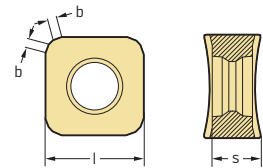
Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	b mm	P					M		K				N		S		
						HC					HC		HC				HC	HW	HC		
						WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S
	SNMX0904ANN-F57	8	9,52	4,69	1,2	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺			☺	☺
	SNMX1205ANN-F57	8	12,7	5,54	1,5	☺	☺	☺						☺	☺	☺	☺				
	SNMX0904ANN-F67	8	9,52	4,72	1,2	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺
	SNMX1205ANN-F67	8	12,7	5,54	1,5	☺	☺	☺					☺	☺	☺	☺					

HC = Coated carbide
HW = Uncoated carbide

Negative square SNGX

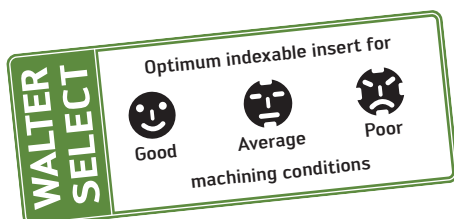
Tiger-tec® Gold



Indexable inserts

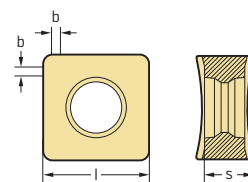
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						HC					HC			HC				HC	HW	HC		
						WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S
	SNGX1205ENN-F57	8	12,7	5,61	1,2																	

HC = Coated carbide
HW = Uncoated carbide



Negative square SNGX / SNMX

Tiger-tec® Gold



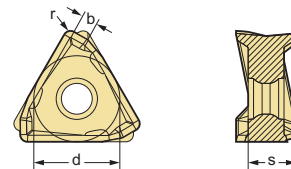
Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	b mm	P					M			K				N		S		
						HC					HC			HC				HC HW		HC		
						WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKP25S	WKP35G	WKP35S	WKN15	WK10	WSM35S	WSP45S	WSP45G
	SNGX0904ZNN-F57	8	9,52	4,9	1	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺
	SNGX1205ZNN-F57	8	12,7	5,77	1,2	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺
	SNGX0904ZNN-F67	8	9,52	4,93	1	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺
	SNGX1205ZNN-F67	8	12,7	5,80	1,2	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺
	SNMX0904ZNN-F57	8	9,52	4,91	1	☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺			☺	☺	☺
	SNMX0904ZNN-F67	8	9,52	4,93	1	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺

HC = Coated carbide
HW = Uncoated carbide

Negative triangular TNMU

Tiger-tec® Gold



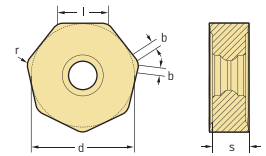
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	r mm	P					M			K				N		S		
								HC					HC			HC				HC HW		HC		
								WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKP25S	WKP35G	WKP35S	WKN15	WK10	WSM35S	WSP45S	WSP45G
	TNMT160508R-G57	M	6	9,6	5,35	1,6	0,8	☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺				☺	☺

HC = Coated carbide
HW = Uncoated carbide

Negative heptagonal XNMU

Tiger-tec® Gold



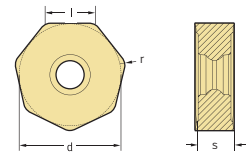
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	b mm	P HC					M HC			K HC				N HC HW		S HC			
									WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G
									☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺	☺	☺	☺	☺	☺
									☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺	☺	☺	☺	☺	☺
									☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺	☺	☺	☺	☺	☺
	XNMU0705ANN-F57	M	14	14,5	6,98	5	0,8	1,1	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺			☺	☺		
	XNMU0906ANN-F57	M	14	19,05	9,18	5,88	0,8	1,4	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺			☺	☺		
									☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺			☺	☺		
									☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺			☺	☺		

HC = Coated carbide
HW = Uncoated carbide

Negative heptagonal XNMU

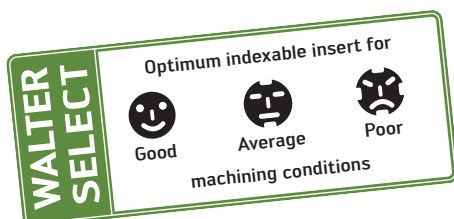
Tiger-tec® Gold



Indexable inserts

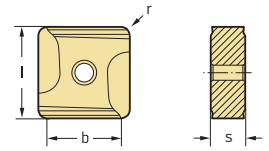
	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	P HC					M HC			K HC				N HC HW		S HC			
								WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G
								☺	☺	☺	☺	☺	☺	☺	☺		☺	☺	☺	☺			☺	☺	
	XNMU070508-F57	M	14	14,5	6,98	5	0,8	☺	☺	☺	☺	☺	☺			☺	☺	☺	☺			☺	☺		
	XNMU090612-F57	M	14	19,05	9,18	5,88	1,2	☺	☺	☺	☺		☺				☺	☺	☺				☺		

HC = Coated carbide
HW = Uncoated carbide



Finishing inserts SNEX

Tiger-tec®



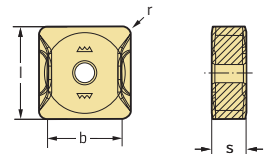
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	b mm	P				M			K			N		S			H	
								HC				HC			HC			HC	HW	HC		HC	HC	
								WKP25S	WKP35S	WKP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15
	SNEX1204PNR-B67	E	4	12,7	4,76	0,8	10,8							☺									☺	☹

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts SNEX

Tiger-tec®



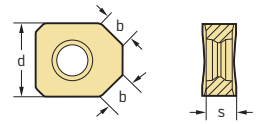
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	b mm	P				M			K			N		S		H	
								HC				HC			HC			HC	HW	HC		HC	
								WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G
	SNEX1204PNN-A27	E	4	12,7	4,76	1,2	10,3							☺								☹	☺

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts XNGX

Tiger-tec®



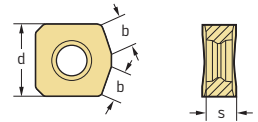
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P				M		K			N		S			H		O		
							HC				HC		HC			HC	HW	HC				HC	HC	HC	
							WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X	WXM15
	XNGX0904ANN-F67	G	2	9,52	4,68	5							☺								☺	☺	☺		
	XNGX1205ANN-F67	G	2	12,7	5,39	4,7							☺								☺	☺	☺		

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts XNGX

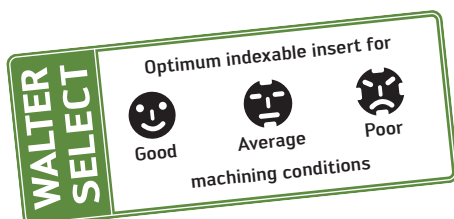
Tiger-tec®



Indexable inserts

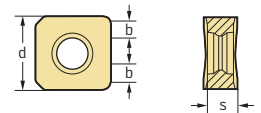
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P			M			K			N		S			H		O		
							HC			HC			HC			HC		HC	HW	HC		HC		HC	HC
							WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X	WXM15
	XNGX1205ENN-F67	G	2	12,7	5,42	4,5							☺								☺	☺	☺		

HC = Coated carbide
HW = Uncoated carbide



Finishing inserts XNGX

Tiger-tec®



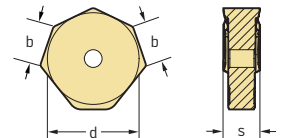
Indexable inserts

Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P				M				K				N				S				H				O
						HC				HC				HC				HC HW				HC				HC				HC
						WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X	WXM15						
XNGX0904ZNN-F67	G	2	9,52	4,83	3,5								☺									☺	☹	☹						☹
XNGX1205ZNN-F67	G	2	12,7	5,62	4								☺									☺	☹	☹						☹

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts XNHX

Tiger-tec®



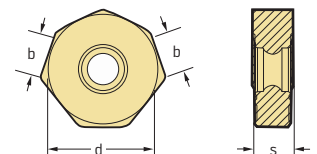
Indexable inserts

Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P				M				K				N				S				H				
						HC				HC				HC				HC HW				HC				HC				
						WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X							
XNHX0705ANN-D67	H	2	14,5	4,97	5,8								☺									☺	☹	☹						☹
XNHX0906ANN-D67	H	2	19,05	5,57	7,5								☺									☺	☹	☹						☹

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts XNGX

Tiger-tec®



Indexable inserts

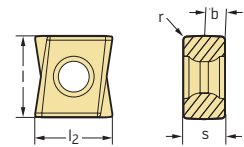
Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P				M				K				N				S				H				O
						HC				HC				HC				HC HW				HC				HC				HC
						WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X	WXM15						
XNGX0705ANN-F67	G	2	14,5	5	5,7								☺									☺	☹	☹						☹

HC = Coated carbide
HW = Uncoated carbide

☹ ☹ ☹ / ★ New addition to the product range

Tangential rhombic LNHU / LNMU

Tiger-tec® Gold



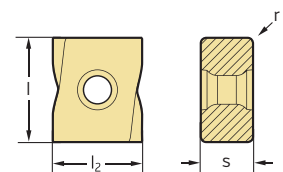
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	r mm	b mm	P				M		K					N		S		
									HC				HC		HC					HC	HW	HC		
									WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S
	LNHU090404R-L55T	H	4	8,5	9	4,5	0,4	1,5	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺
	LNHU090408R-L55T	H	4	8,5	9	4,5	0,8	1,1	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺
	LNHU090412R-L55T	H	4	8,5	9	4,5	1,2	0,8		☺	☺	☺	☺	☺	☺		☺	☺	☺			☺	☺	
	LNHU090416R-L55T	H	4	8,5	9	4,5	1,6			☺	☺	☺	☺	☺	☺		☺	☺	☺			☺	☺	
	LNHU090420R-L55T	H	4	8,5	9	4,5	2			☺	☺	☺	☺	☺	☺		☺	☺	☺			☺	☺	
	LNHU130608R-L55T	H	4	12	13	6,8	0,8	2,2	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺
	LNHU130612R-L55T	H	4	12	13	6,8	1,2	1,9		☺	☺	☺	☺	☺	☺			☺	☺			☺	☺	☺
	LNHU130616R-L55T	H	4	12	13	6,8	1,6	1,5		☺	☺	☺	☺	☺	☺			☺	☺			☺	☺	☺
	LNHU130620R-L55T	H	4	12	13	6,8	2	1,2		☺	☺	☺	☺	☺	☺			☺	☺			☺	☺	☺
	LNHU130625R-L55T	H	4	12	13	6,8	2,5	0,7		☺	☺	☺	☺	☺	☺			☺	☺			☺	☺	
	LNHU130630R-L55T	H	4	12	13	6,8	3	2,3		☺	☺	☺	☺	☺	☺			☺	☺			☺	☺	☺
	LNHU130632R-L55T	H	4	12	13	6,8	3,2			☺	☺	☺	☺	☺	☺			☺	☺			☺	☺	
	LNHU160708R-L55T	H	4	15,5	16	7,2	0,8	2,3	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺			☺	☺	☺
	LNMU090404R-L55T	M	4	8,5	9	4,5	0,4	1,5	☺	☺	☺	☺	☺		☺	☺	☺	☺	☺				☺	☺
	LNMU130608R-L55T	M	4	12	13	6,8	0,8	2,2	☺	☺	☺	☺	☺		☺	☺	☺	☺	☺				☺	☺
	LNHU090404R-L65T	H	4	8,5	9	4,5	0,4	1,5				☺	☺	☺	☺	☺							☺	☺
	LNHU130608R-L65T	H	4	12	13	6,8	0,8	2,2				☺	☺		☺	☺							☺	☺
	LNHU160708R-L65T	H	4	15,5	16	7,2	0,8	2,3				☺	☺		☺	☺							☺	☺

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic LNMX

Tiger-tec® Gold



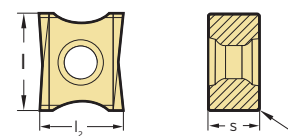
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	r mm	P					M		K				N		S					
								HC					HC		HC		HC		HC	HW	HC					
								WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	
	LNMX201012R-F57T	M	4	17,05	20	10	1,2																			

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic LNHX

Tiger-tec® Gold



Indexable inserts

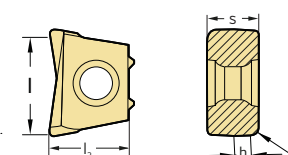
Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	r mm	P				M				K				N		S			
							HC				HC				HC				HC HW		HC			
							WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSM45X	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM45X	WSP45S	WSP45G
LNHX120604R-L65T	H	4	11	12,7	6,8	0,4																		

HC = Coated carbide

HW = Uncoated carbide

Tangential rhombic XNHX

Tiger-tec® Gold

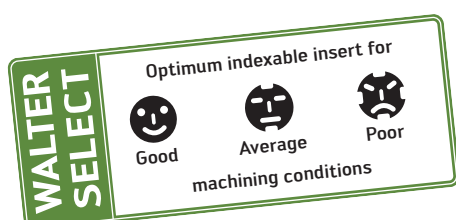


Indexable inserts

Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	r mm	b mm	P				M				K				N		S			
								HC				HC				HC				HC HW		HC			
								WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSM45X	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM45X	WSP45S	WSP45G
XNHX130608R-L65T	H	2	10,5	14	6,8	0,8	2																		
XNHX130612R-L65T	H	2	10,5	14	6,8	1,2	2																		
XNHX130616R-L65T	H	2	10,5	14	6,8	1,6	2																		
XNHX130620R-L65T	H	2	10,5	14	6,8	2	2																		
XNHX130624R-L65T	H	2	10,5	14	6,8	2,4	2																		
XNHX130630R-L65T	H	2	10,5	14	6,8	3	1,4																		
XNHX130632R-L65T	H	2	10,5	14	6,8	3,2	1,3																		
XNHX130640R-L65T	H	2	10,5	14	6,8	4	0,5																		

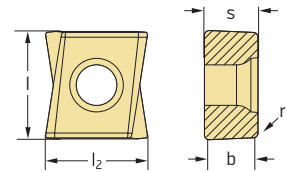
HC = Coated carbide

HW = Uncoated carbide



Finishing inserts LNHX

Tiger-tec®



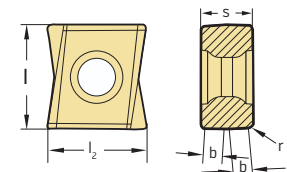
Indexable inserts

Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	r mm	b mm	P				M				K				N		S		H		O
								HC				HC				HC				HC		HC		HC		HC
								WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X	WXM15
	LNHX0904PDR-L55T	H	2	8,5	9	4,5	0,4	3,5							☹									☹	☹	☹
	LNHX1306PDR-L55T	H	2	12	13	6,8	0,6	5							☹									☹	☹	☹

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts LNHX

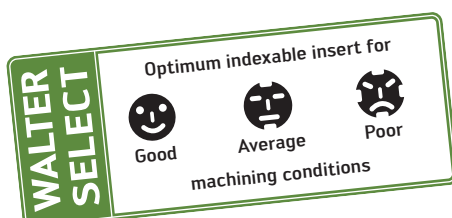
Tiger-tec®



Indexable inserts

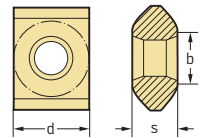
Designation	Tolerance class	Number of cutting edges	l ₂ mm	l mm	s mm	r mm	b mm	P				M				K				N		S		H		O		
								HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	HC
									WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G		WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X	WXM15
 LNHX130608R-L55T	H	4	12	13	6,8	0,8	2,2									☺										☺	☺	☺

HC = Coated carbide
HW = Uncoated carbide



Finishing inserts P45420

Tiger-tec®



Indexable inserts

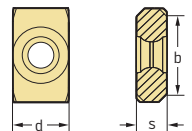
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P				M				K				N		S			H	O		
							HC				HC				HC				HC		HW		HC			HC	HC
							WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X	WXM15		
	P45420-G67	H	4	9,52	4,76	7								☺								☺	☺	☺			

HC = Coated carbide

HW = Uncoated carbide

Finishing inserts P45424

Tiger-tec®



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P				M			K			N		S			H		
							HC				HC			HC			HC		HC		HC		HC	
							WKP25S	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X
	P45424-1-G67	G	4	12	5	8								☺								☺	☹	
	P45424-2-G67	G	4	20	6,5	15								☺								☺	☹	

HC = Coated carbide

HW = Uncoated carbide

Indexable insert milling cutters product range overview

Shoulder milling cutters

Machining		
Lead angle κ	90°	
Designation	M5130 Xtra-tec® XT	M5137
D _c [mm]	16–63	
D _c [inch]	0,625–2,480	2,000–4,000
Page	216	222
		

Slot milling cutters

Machining	
Lead angle κ	90°
Designation	M4791
D _c [mm]	
D _c [inch]	0,750–1,750
Page	224
	

Copy milling cutters

Machining			
Lead angle κ			
Designation	F2239	F2239B	F2339
D _c [mm]	20–32	20–40	16–32
D _c [inch]	0,787–1,260	0,787–1,575	0,625–1,260
Page	226	226	228
			

Profiling cutters

Machining	
Lead angle κ	30° + 60°
Designation	M4574
D _c [mm]	8–20
D _c [inch]	0,750
Page	232
	

Designation key for Walter milling tools

Example:

M	4	1	32	–	063	–	B	22	–	07	–	09	–	
1	2	3	4	5	6		7	8		9		10		11

1	2	3	4	
Tool group	Generation	Tool type	Type	
M Milling	2 3 Walter BLAXX 4 M4000 5 Xtra-tec® XT	0 Face milling cutter 1 Shoulder milling cutter 2 Shoulder/slot/helical milling cutter 3 Other milling cutters 4 Copy milling cutter 5 Profiling cutter 7 Routing cutter	02 High-feed face milling cutter κ = 15°, radial, positive, four cutting edges per indexable insert 03 Face milling cutter κ = 45°, radial, positive, four cutting edges per indexable insert 08 High-feed milling cutter κ = 17°, radial, double-sided, four cutting edges per indexable insert 09 Face milling cutter κ = 45°, radial, double-sided, eight cutting edges per indexable insert 12 Face milling cutter κ = 88°, radial, double-sided, eight cutting edges per indexable insert 16 Heavy-duty cutter κ = 60°, tangential, double-sided, four cutting edges per indexable insert 24 Heptagon face milling cutter κ = 45°, radial, double-sided, 14 cutting edges per indexable insert, screw clamping 25 Octagon face milling cutter for finishing κ = 42°, radial, double-sided, 16 cutting edges per indexable insert, finish- ing face milling cutter 26 Octagon face milling cutter for finishing κ = 42°, radial, double-sided, 16 cutting edges per indexable insert 30 Shoulder milling cutter κ = 90°, radial, positive, two cutting edges per indexable insert 31 Ramping milling cutter κ = 90°, radial, positive, two cutting edges per indexable insert	32 Shoulder milling cutter κ = 89°45', radial, positive, four cutting edges per indexable insert 37 Shoulder milling cutter κ = 90°, radial double-sided, six cutting edges per indexable insert 55 Helical milling cutter κ = 90°, tangential, double-sided, two or four cutting edges per indexable insert 56 Helical milling cutter κ = 90°, radial, positive, two or four cutting edges per indexable insert 57 Helical milling cutter κ = 90°, radial, positive, two or four cutting edges per indexable insert 58 Helical milling cutter κ = 90°, radial, positive, two or four cutting edges per indexable insert 74 Chamfer milling cutter κ = 30°, 45°, 60°, radial, positive, four cutting edges per indexable insert 75 T-slot milling cutter κ = 90°, radial, positive, four cutting edges per indexable insert 91 Routing cutter κ = 90°, radial, positive, four cutting edges per indexable insert 92 Routing cutter κ = 90°, radial, positive, two or four cutting edges per indexable insert

5	6	7
1. Delimiters	Cutting diameter	Adaptor type
– Metric · Inch		A Parallel shank B Bore adaption T ScrewFit TC Cylindrical-modular interface W Weldon shank H HSK

8	9	10
Adaptor size	Number of teeth	Depth of cut

11
Version acc. to length or manufacturer-specific adaptors
S Short version L Long version D Dörries Scharmann machines M Makino machines

Shoulder milling cutters

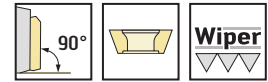
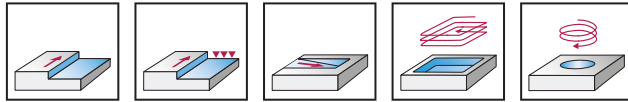
M5130 mm

BC .. 0903 .. R

Xtra-tec® XT



– Two cutting edges per indexable insert



	P	M	K	N	S	H	O
M5130	●	●	●	●	●	●	●

Tool	Designation	D _c mm	d ₁ mm	l ₄ mm	L _c mm	l ₁ mm	Z	kg	No. of indexable inserts	Type
ScrewFit 	★ M5130-016-T14-02-09	16	T14	25	9		2	0,03	2	BC .. 0903 .. R
	★ M5130-020-T18-02-09	20	T18	30	9		2	0,05	2	
	★ M5130-020-T18-03-09	20	T18	30	9		3	0,05	3	
	★ M5130-025-T22-03-09	25	T22	35	9		3	0,09	3	
	★ M5130-025-T22-04-09	25	T22	35	9		4	0,09	4	
	★ M5130-032-T28-04-09	32	T28	40	9		4	0,18	4	
	★ M5130-032-T28-05-09	32	T28	40	9		5	0,19	5	
Cylindrical, modular 	★ M5130-016-TC08-02-09	16	M8	25	9		2	0,03	2	BC .. 0903 .. R
	★ M5130-020-TC10-02-09	20	M10	30	9		2	0,05	2	
	★ M5130-020-TC10-03-09	20	M10	30	9		3	0,05	3	
	★ M5130-025-TC12-03-09	25	M12	35	9		3	0,09	3	
	★ M5130-025-TC12-04-09	25	M12	35	9		4	0,09	4	
	★ M5130-032-TC16-04-09	32	M16	40	9		4	0,17	4	
	★ M5130-032-TC16-05-09	32	M16	40	9		5	0,18	5	
Shank DIN 1835 B 	★ M5130-016-W16-02-09	16	16	41	9	90	2	0,12	2	BC .. 0903 .. R
	★ M5130-020-W20-03-09	20	20	39	9	90	3	0,18	3	
	★ M5130-025-W25-04-09	25	25	43	9	100	4	0,31	4	
	★ M5130-032-W32-05-09	32	32	49	9	110	5	0,57	5	
Parallel shank 	★ M5130-016-A16-02-09	16	16	41	9	180	2	0,25	2	BC .. 0903 .. R
	★ M5130-018-A16-02-09	18	16	41	9	180	2	0,26	2	
	★ M5130-020-A20-02-09	20	20	39	9	200	2	0,44	2	
	★ M5130-020-A20-03-09	20	20	39	9	200	3	0,44	3	
	★ M5130-022-A20-03-09	22	20	39	9	200	3	0,44	3	
	★ M5130-025-A25-03-09	25	25	43	9	200	3	0,68	3	
	★ M5130-025-A25-04-09	25	25	43	9	200	4	0,68	4	

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

Assembly parts

	D _c [mm]	16–32
	Clamping screw for indexable insert Tightening torque	FS2576 (Torx 8IP) 1,2 Nm

Accessories

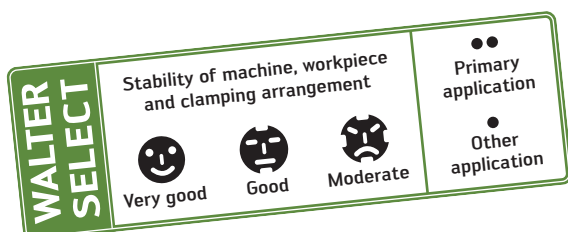
	D _c [mm]	16–32
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2012 (Torx 8IP)
	Screwdriver	FS1483 (Torx 8IP)

Indexable inserts

	Designation	r mm	b mm	P					M		K				N		S		H		O	
				HC					HC		HC				HC	HW	HC		HC	HC	HC	
				WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15
	BCGT090304R-G55	0,4	1,2	⊕	⊕	⊕		⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕							
	BCGT090304R-K85	0,4	1,2												⊕	⊕						
	BCMT090302R-G55	0,2	1,4		⊕	⊕		⊕				⊕							⊕			
	BCMT090304R-F55	0,4	1,2	⊕	⊕	⊕		⊕			⊕	⊕	⊕	⊕					⊕			
	BCMT090304R-G55	0,4	1,2	⊕	⊕	⊕		⊕			⊕	⊕	⊕	⊕					⊕			
	BCMT090304R-K55	0,4	1,2		⊕	⊕		⊕	⊕			⊕	⊕	⊕			⊕		⊕			
	BCMT090308R-G55	0,8	0,8		⊕	⊕		⊕			⊕			⊕					⊕			
	BCMT090312R-G55	1,2	0,4		⊕	⊕		⊕			⊕			⊕					⊕			
	BCMT090316R-G55	1,6	0,4		⊕	⊕		⊕			⊕			⊕					⊕			
	BCMT090320R-G55	2	0,4		⊕	⊕		⊕			⊕			⊕					⊕			
	BCGX0903PDR-G55	0,4	5								⊕									⊕	⊕	⊕

HC = Coated carbide

HW = Uncoated carbide



Shoulder milling cutters

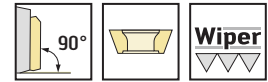
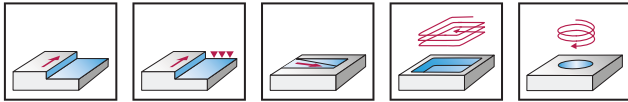
M5130

BC .. 0903 .. R

Xtra-tec® XT



– Two cutting edges per indexable insert



	P	M	K	N	S	H	O
M5130	●	●	●	●	●	●	●

Tool	Designation	D _c mm	d ₁ mm	l ₄ mm	L _c mm	l ₁ mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5130-032-B16-03-09	32	16	40	9		3	0,12	3	BC .. 0903 .. R
	★ M5130-032-B16-06-09	32	16	40	9		6	0,12	6	
	★ M5130-040-B16-04-09	40	16	40	9		4	0,19	4	
	★ M5130-040-B16-07-09	40	16	40	9		7	0,21	7	
	★ M5130-050-B22-05-09	50	22	40	9		5	0,32	5	
	★ M5130-050-B22-08-09	50	22	40	9		8	0,34	8	
	★ M5130-063-B22-07-09	63	22	40	9		7	0,50	7	
	★ M5130-063-B22-11-09	63	22	40	9		11	0,51	11	

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

Assembly parts

	D _c [mm]	32–63
	Clamping screw for indexable insert Tightening torque	FS2576 (Torx 8IP) 1,2 Nm

Accessories

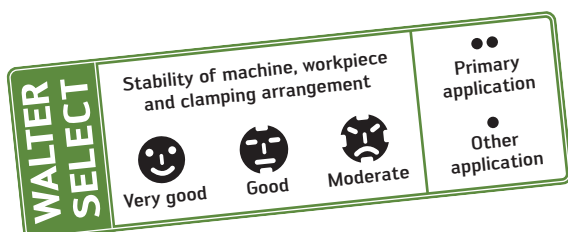
	D _c [mm]	32–63
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2012 (Torx 8IP)
	Screwdriver	FS1483 (Torx 8IP)

Indexable inserts

	Designation	r mm	b mm	P					M		K				N		S		H		O
				HC					HC		HC				HC	HW	HC		HC	HC	HC
				WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G
	BCGT090304R-G55	0,4	1,2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕						
	BCGT090304R-K85	0,4	1,2												⊕	⊕					
	BCMT090302R-G55	0,2	1,4		⊕	⊕		⊕				⊕									
	BCMT090304R-F55	0,4	1,2	⊕	⊕	⊕		⊕			⊕	⊕	⊕	⊕					⊕		
	BCMT090304R-G55	0,4	1,2	⊕	⊕	⊕		⊕		⊕	⊕	⊕	⊕	⊕					⊕		
	BCMT090304R-K55	0,4	1,2		⊕	⊕		⊕	⊕		⊕	⊕	⊕	⊕			⊕		⊕		
	BCMT090308R-G55	0,8	0,8		⊕	⊕		⊕			⊕		⊕	⊕					⊕		
	BCMT090312R-G55	1,2	0,4		⊕	⊕		⊕			⊕		⊕	⊕					⊕		
	BCMT090316R-G55	1,6	0,4		⊕	⊕		⊕			⊕		⊕	⊕					⊕		
	BCMT090320R-G55	2	0,4		⊕	⊕		⊕			⊕		⊕	⊕					⊕		
	BCGX0903PDR-G55	0,4	5							⊕									⊕	⊕	⊕

HC = Coated carbide

HW = Uncoated carbide



Shoulder milling cutters

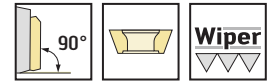
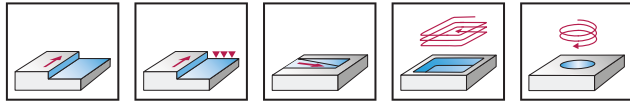
M5130 inch

BC .. 0903 .. R

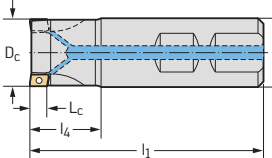
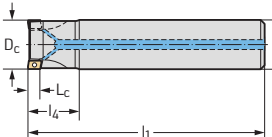
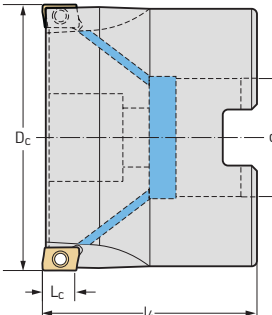
Xtra-tec® XT



– Two cutting edges per indexable insert



	P	M	K	N	S	H	O
M5130	●	●	●	●	●	●	●

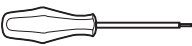
Tool	Designation	D _c inch	d ₁ inch	l ₄ inch	l ₁ inch	L _c inch	Z	lbs	No. of indexable inserts	Type
Shank DIN 1835 B 	★ M5130.015-W15-02-09	0,625	0,625	0,945	2,851	0,354	2	0,2	2	BC .. 0903 .. R
	★ M5130.019-W19-03-09	0,750	0,750	1,535	3,567	0,354	3	0,4	3	
	★ M5130.026-W26-04-09	1,000	1,000	1,181	3,462	0,354	4	0,6	4	
	★ M5130.026-W26-03-09	1,000	1,000	1,181	3,462	0,354	3	0,6	3	
Parallel shank 	★ M5130.015-A15-02-09	0,625	0,625	1,630		0,354	2	0,5	2	BC .. 0903 .. R
	★ M5130.019-A19-02-09	0,750	0,750	1,630		0,354	2	0,9	2	
	★ M5130.026-A26-03-09	1,000	1,000	1,750		0,354	3	1,6	3	
Parallel bore DIN 138 transverse keyway 	★ M5130.051-B19-05-09	2,000	0,750	1,575		0,354	5	0,8	5	BC .. 0903 .. R
	★ M5130.051-B19-08-09	2,000	0,750	1,575		0,354	8	0,8	8	

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

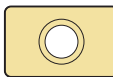
Assembly parts

	D _c [inch]	0,625–1,000	2,000
	Clamping screw for indexable insert Tightening torque	FS2576 (Torx 8IP) 1,2 Nm	FS2576 (Torx 8IP) 1,2 Nm
	Clamping screw for arbour-mounted tools		FS1523

Accessories

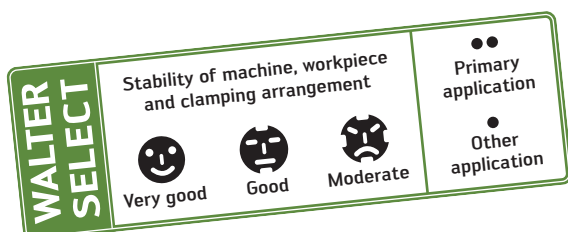
	D _c [inch]	0,625–2,000
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2012 (Torx 8IP)
	Screwdriver	FS1483 (Torx 8IP)

Indexable inserts

	Designation	r mm	b mm	P					M		K					N		S		H		O		
				HC					HC		HC			HC	HW	HC		HC	HC					
				WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G	WHH15	WHH15X	WXM15
	BCGT090304R-G55	0,4	1,2	⊕	⊕	⊕		⊕	⊕		⊕	⊕		⊕	⊕	⊕					⊕			
	BCGT090304R-K85	0,4	1,2														⊕	⊕						
	BCMT090302R-G55	0,2	1,4		⊕	⊕		⊕			⊕				⊕	⊕					⊕			
	BCMT090304R-F55	0,4	1,2	⊕	⊕	⊕		⊕		⊕		⊕	⊕	⊕	⊕	⊕					⊕			
	BCMT090304R-G55	0,4	1,2	⊕	⊕	⊕		⊕	⊕		⊕	⊕	⊕	⊕	⊕	⊕					⊕			
	BCMT090304R-K55	0,4	1,2		⊕	⊕		⊕	⊕		⊕		⊕	⊕	⊕	⊕			⊕		⊕			
	BCMT090308R-G55	0,8	0,8		⊕	⊕		⊕			⊕				⊕	⊕					⊕			
	BCMT090312R-G55	1,2	0,4		⊕	⊕		⊕			⊕				⊕	⊕					⊕			
	BCMT090316R-G55	1,6	0,4		⊕	⊕		⊕			⊕				⊕	⊕					⊕			
	BCMT090320R-G55	2	0,4		⊕	⊕		⊕			⊕				⊕	⊕					⊕			
	BCGX0903PDR-G55	0,4	5									⊕										⊕	⊕	⊕

HC = Coated carbide

HW = Uncoated carbide



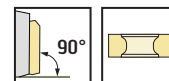
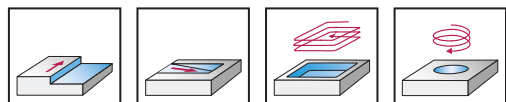
Shoulder milling cutters

M5137 inch

TNMMU160508R

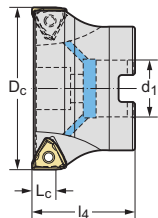


– Six cutting edges per indexable insert



	P	M	K	N	S	H	O
M5137	●●	●●	●●	●●	●●		

Tool	Designation	D _c inch	d ₁ inch	l ₄ inch	L _c inch	Z		No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5137.051-B19-04-08	2,000	0,750	1,500	0,315	4	0,64	4	TNMMU160508R
	★ M5137.064-B26-05-08	2,500	1,000	1,500	0,315	5	1,06	5	
	★ M5137.076-B26-07-08	3,000	1,000	2,000	0,315	7	1,81	7	
	★ M5137.102-B38-08-08	4,000	1,500	2,500	0,315	8	5,47	8	



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

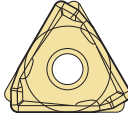
Assembly parts

	D _c [inch]	2,000–4,000
	Clamping screw for indexable insert Tightening torque	FS2079 (Torx 9IP) 2,0 Nm

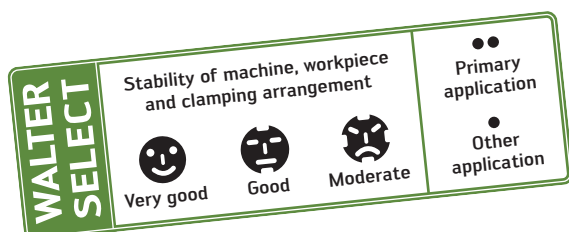
Accessories

	D _c [inch]	2,000–4,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2013 (Torx 9IP)
	Screwdriver	FS1484 (Torx 9IP)

Indexable inserts

	Designation	b mm	r mm	P					M		K				N		S				
				HC					HC		HC				HC	HW	HC				
				WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45G
																					
	TNMU160508R-G57	1,6	0,8																		

HC = Coated carbide
HW = Uncoated carbide

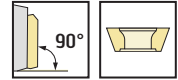
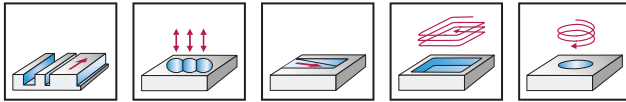


Routing cutters

M4791 inch



– Four cutting edges per indexable insert



	P	M	K	N	S	H	O
M4791	●	●	●	●	●	●	●

Tool	Designation	D _c inch	d ₁ inch	l ₄ inch	l ₁ inch	L _c inch	Z	lbs	No. of indexable inserts	Type
Shank DIN 1835 B	M4791.019-W19-01-06	0,750	0,750	1,529	3,560	0,220	1	0,3	2	SD .. 06T204
	M4791.026-W26-01-09	1,000	1,000	2,844	5,125	0,331	1	0,9	2	SD .. 09T30 ..
	★ M4791.028-W19-01-09	1,125	0,750	1,250	3,310	0,331	1	0,3	2	
	M4791.031-W31-01-12	1,250	1,250	3,219	5,500	0,457	1	1,4	2	
	★ M4791.035-W31-01-12	1,375	1,250	1,500	3,820	0,457	1	1,0	2	SD .. 120408
	M4791.038-W31-01-12	1,500	1,250	3,219	5,500	0,457	1	1,5	2	
	★ M4791.044-W31-01-12	1,750	1,250	2,000	5,500	0,457	1	1,6	2	

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

Assembly parts

Type	SD .. 06T204	SD .. 09T30 ..	SD .. 120408
 Clamping screw for indexable insert Tightening torque	FS2084 (Torx 7IP) 0,9 Nm	FS2266 (Torx 10IP) 2,0 Nm	FS1453 (Torx 15IP) 3,5 Nm

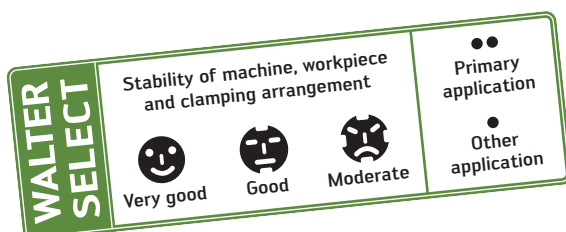
Accessories

Type	SD .. 06T204	SD .. 09T30 ..	SD .. 120408
 Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
 Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
 Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)	FS2014 (Torx 15IP)
 Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	P					M				K					N		S				
			HC					HC				HC					HC	HW	HC				
			WKP25S	WKP35G	WKP35S	WSPA45S	WSPA45G	WSM35S	WSM45X	WSPA45S	WSPA45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSM45X	WSPA45S	WSPA45G	
	SDHT06T204-G88	0,4																					
	SDMT06T204-D51	0,4																					
	SDMT06T204-D57	0,4																					
	SDMT06T204-F57	0,4																					
	SDMW06T204-A57	0,4																					
	SDHT09T304-G88	0,4																					
	SDHT09T308-G88	0,8																					
	SDMT09T308-D51	0,8																					
	SDMT09T308-D57	0,8																					
	SDMT09T308-F57	0,8																					
	SDMW09T308-A57	0,8																					
	SDHT120408-G88	0,8																					
	SDMT120408-D51	0,8																					
	SDMT120408-D57	0,8																					
	SDMT120408-F57	0,8																					
	SDMW120408-A57	0,8																					

HC = Coated carbide
HW = Uncoated carbide

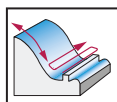


Copy milling cutters

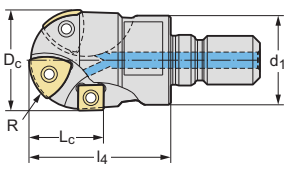
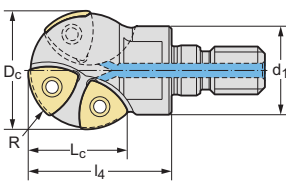
F2239 / F2239B mm



- With peripheral cutting edges
- Three or four cutting edges per indexable insert



	P	M	K	N	S	H	O
F2239	●	●	●	●	●		
F2239B	●	●	●	●	●		

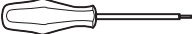
Tool	Designation	D _c mm	R mm	d ₁ mm	l ₄ mm	L _c mm	Z	kg	No. of indexable inserts	Type
Cylindrical, modular 	★ F2239.TC10.020.Z01.15	20	10	M10	30	15	1	0,0	1 2	SP .. 060304 P26315R10
	★ F2239.TC12.025.Z01.18	25	12,5	M12	35	18	1	0,1	1 2	SP .. 060304 P26315R12
	★ F2239.TC16.030.Z01.23	30	15	M16	40	23	1	0,1	1 2	SP .. 09T308 P26315R15
	★ F2239.TC16.032.Z01.24	32	16	M16	40	24	1	0,1	1 2	SP .. 09T308 P26315R16
Cylindrical, modular 	★ F2239B.TC08.020.Z01.10	20	10	M8	25	15	1	0,0	3	P26315R10
	★ F2239B.TC10.025.Z01.12	25	12,5	M10	30	20	1	0,1	3	P26315R12
	★ F2239B.TC12.030.Z01.15	30	15	M12	40	24	1	0,1	3	P26315R15
	★ F2239B.TC12.032.Z01.16	32	16	M12	40	26	1	0,1	3	P26315R16
	★ F2239B.TC16.040.Z01.20	40	20	M16	45	32	1	0,2	3	P26315R20

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

Assembly parts

D _c [mm]	20	25	30-32	40
 Clamping screw for indexable insert Tightening torque	FS1129 (Torx 8) 0,8 Nm	FS923 (Torx 8) 1,2 Nm	FS359 (Torx 15) 2,5 Nm	FS1030 (Torx 20) 5,0 Nm

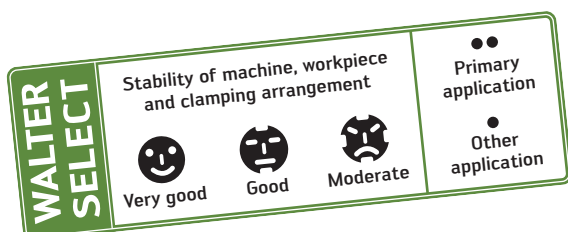
Accessories

D _c [mm]	20-25	30-32	40
 Screwdriver for indexable insert	FS230 (Torx 8)	FS229 (Torx 15)	FS228 (Torx 20)

Indexable inserts

	Designation	R mm	r mm	P						M				K			N		S				
				HC						HC				HC			HC	HW	HC				
				WKP25S	WKP35G	WKP35S	WSP45S	WSP45	WSP45G	WSM35S	WSM35	WSP45S	WSP45	WSP45G	WAK15	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSM35	WSP45S
	P26315R10	10		⊕		⊗	⊗					⊗			⊗	⊗					⊗		
	P26315R12	12,5		⊕		⊗	⊗					⊗			⊗	⊗					⊗		
	P26315R15	15		⊕		⊗	⊗					⊗			⊗	⊗					⊗		
	P26315R16	16		⊕		⊗	⊗					⊗			⊗	⊗					⊗		
	P26315R20	20		⊕		⊗	⊗					⊗			⊗	⊗					⊗		
	SPHT060304-G88		0,4														⊕	⊗					
	SPMT060304-D51		0,4	⊕		⊗	⊗	⊗		⊗	⊗	⊗	⊗		⊗	⊗			⊗	⊗	⊗	⊗	
	SPMT060304-F55		0,4	⊕	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊕	⊗	⊗	⊗			⊗	⊗	⊗	⊗
	SPMW060304-A57		0,4	⊗		⊗								⊕	⊗	⊗							
	SPMW060304T-A27		0,4	⊗		⊗								⊗	⊗	⊗							
	SPHT09T308-G88		0,8														⊕	⊗					
	SPMT09T308-D51		0,8	⊕		⊗	⊗	⊗		⊗	⊗	⊗	⊗		⊗	⊗			⊗	⊗	⊗	⊗	
	SPMT09T308-F55		0,8	⊕	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊕	⊗	⊗	⊗			⊗	⊗	⊗	⊗
	SPMW09T308-A57		0,8	⊗		⊗								⊕	⊗	⊗							
	SPMW09T308T-A27		0,8	⊗		⊗								⊗	⊗	⊗							

HC = Coated carbide
HW = Uncoated carbide

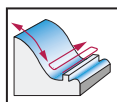


Copy milling cutters

F2339 mm



- With anti-twist protection
- Two cutting edges per indexable insert



	P	M	K	N	S	H	O
F2339	●	●	●	●	●	●	●

Tool	Designation	D _c mm	R mm	d ₁ mm	l ₄ mm	L _c mm	Z	 kg	No. of indexable inserts	Type
Cylindrical, modular	★ F2339.TC08.016.Z02.11	16	8	M8	25	11	2	0,0	2	XD . T1303080R
	★ F2339.TC10.020.Z02.15	20	10	M10	30	15	2	0,0	2	XD . T16T3100R
	★ F2339.TC12.025.Z02.20	25	12,5	M12	35	20	2	0,1	2	XD . T2004125R
	★ F2339.TC16.030.Z02.24	30	15	M16	40	24	2	0,1	2	XD . T2405150R
	★ F2339.TC16.032.Z02.25	32	16	M16	40	25	2	0,1	2	XD . T2506160R

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

Assembly parts

D _c [mm]	16	20	25	30-32
 Clamping screw for indexable insert Tightening torque	FS1454 (Torx 8IP) 1,2 Nm	FS1013 (Torx 8) 1,0 Nm	FS378 (Torx 15) 3,0 Nm	FS1165 (Torx 20) 6,0 Nm

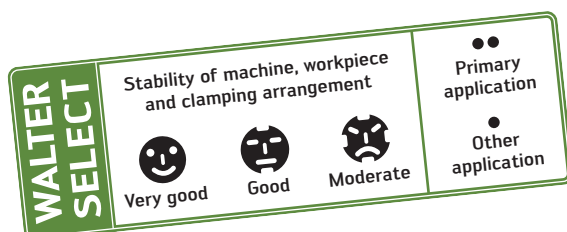
Accessories

D _c [mm]	16	20	25	30-32
 Handle key				FS1173 (Torx 20)
 Screwdriver for indexable insert	FS1483 (Torx 8IP)	FS230 (Torx 8)	FS229 (Torx 15)	

Indexable inserts

	Designation	R mm	P HC					M HC				K HC			S HC				
			WKP25S	WKP35G	WKP35S	WSP45S	WSP45	WSP45G	WSM35S	WSP45S	WSP45	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WSP45	WSP45G
	XDGT1303080R-D57	8			☑	☑			☑					☑		☑			
	XDMT1303080R-F55	8	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☑	☑	☑		☑	
	XDGT16T3100R-D57	10			☑	☑			☑					☑		☑			
	XDMT16T3100R-F55	10	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☑	☑	☑		☑	
	XDGT2004125R-D57	12,5			☑	☑			☑					☑		☑			
	XDMT2004125R-F55	12,5	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☑	☑	☑		☑	
	XDGT2405150R-D57	15			☑	☑			☑					☑		☑			
	XDMT2405150R-F55	15	☑	☑	☑	☑	☑		☑	☑		☑	☑	☑	☑	☑			
	XDGT2506160R-D57	16			☑	☑			☑					☑		☑			
	XDMT2506160R-F55	16	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	

HC = Coated carbide

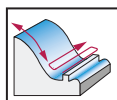


Copy milling cutters

F2339 inch



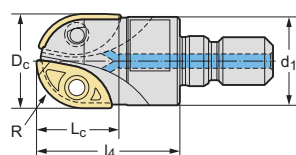
- With anti-twist protection
- Two cutting edges per indexable insert



	P	M	K	N	S	H	O
F2339	●	●	●	●	●	●	●

Tool	Designation	D _c inch	R inch	d ₁ inch	l ₄ inch	L _c inch	Z	 lbs	No. of indexable inserts	Type
Cylindrical, modular	★ F2339.UTC08.015.Z02.11	0,625	0,313	M8	0,984	0,433	2	0,1	2	XDMT1303079R
	★ F2339.UTC10.019.Z02.15	0,750	0,375	M10	1,181	0,591	2	0,1	2	XD . T16T3095R
	★ F2339.UTC12.026.Z02.20	1,000	0,500	M12	1,378	0,787	2	0,2	2	XD . T2004127R
	★ F2339.UTC16.031.Z02.25	1,250	0,625	M16	1,575	0,984	2	0,3	2	XD . T2506159R

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



Assembly parts

D _c [inch]	0,625	0,750	1,000	1,250
 Clamping screw for indexable insert Tightening torque	FS1454 (Torx 8IP) 1,2 Nm	FS1013 (Torx 8) 1,0 Nm	FS378 (Torx 15) 3,0 Nm	FS1165 (Torx 20) 6,0 Nm

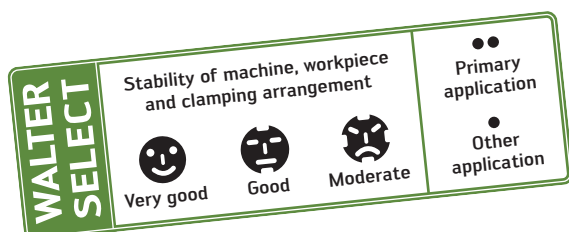
Accessories

D _c [inch]	0,625	0,750	1,000	1,250
 Handle key for indexable insert				FS1173 (Torx 20)
 Screwdriver for indexable insert	FS1483 (Torx 8IP)	FS230 (Torx 8)	FS229 (Torx 15)	

Indexable inserts

Designation	R mm	P				M		K			S	
		HC				HC		HC			HC	
		WKP25S	WKP35G	WKP35S	WSP45S	WSM35S	WSP45S	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S
 XDMT1303079R-F55	7,92											
XDGT16T3095R-D57	9,53											
XDMT16T3095R-F55	9,53											
XDGT2004127R-D57	12,7											
XDMT2004127R-F55	12,7											
XDGT2506159R-D57	15,88											
XDMT2506159R-F55	15,88											

HC = Coated carbide

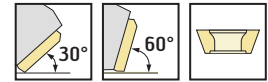
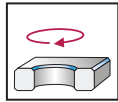


Chamfer milling cutters

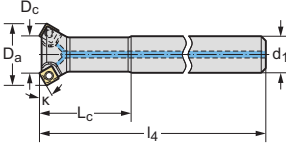
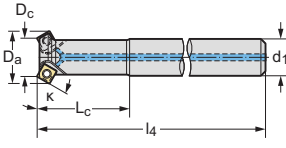
M4574 mm



– Four cutting edges per indexable insert



	P	M	K	N	S	H	O
M4574	●	●	●	●	●		

Tool	Designation	D _c mm	D _a mm	d ₁ mm	l ₄ mm	l ₁ mm	L _c mm	κ	Z	kg	No. of indexable inserts	Type
Parallel shank 	★ M4574-008-A12-01-03-30	8	18,4	12	30	120	2,7	30°	1	0,10	1	
	★ M4574-012-A16-02-03-30	12	22,4	16	40	160	2,7	30°	2	0,23	2	SD .. 06T204
	★ M4574-016-A16-03-03-30	16	26,4	16	40	160	2,7	30°	3	0,24	3	
	★ M4574-020-A20-02-05-30*	20	35,3	20	40	200	4	30°	2	0,48	2	SD .. 09T308
Parallel shank 	★ M4574-008-A12-01-03-60	8	14,3	12	30	120	4,8	60°	1	0,09	1	
	★ M4574-012-A16-02-03-60	12	18,3	16	40	160	4,8	60°	2	0,22	2	SD .. 06T204
	★ M4574-016-A16-03-03-60	16	22,3	16	40	160	4,8	60°	3	0,23	3	
	★ M4574-020-A20-02-05-60*	20	29,5	20	40	200	6,8	60°	2	0,46	2	SD .. 09T308

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

* Without internal coolant supply

Assembly parts

Type	SD .. 06T204	SD .. 09T308
 Clamping screw for indexable insert Tightening torque	FS2084 (Torx 7IP) 0,9 Nm	FS2266 (Torx 10IP) 2,0 Nm

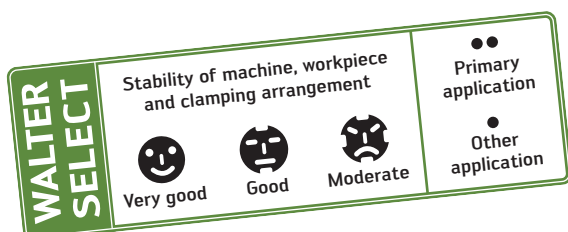
Accessories

Type	SD .. 06T204	SD .. 09T308
 Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
 Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm
 Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)
 Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)

Indexable inserts

	Designation	r mm	P					M				K					N		S			
			HC					HC				HC					HC	HW	HC			
			WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSM45X	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSM45X	WSP45S	WSP45G
	SDHT06T204-G88	0,4																				
	SDMT06T204-D51	0,4																				
	SDMT06T204-D57	0,4																				
	SDMT06T204-F57	0,4																				
	SDMW06T204-A57	0,4																				
	SDHT09T308-G88	0,8																				
	SDMT09T308-D51	0,8																				
	SDMT09T308-D57	0,8																				
	SDMT09T308-F57	0,8																				
	SDMW09T308-A57	0,8																				

HC = Coated carbide
HW = Uncoated carbide



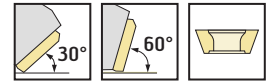
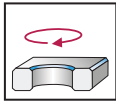
Chamfer milling cutters

M4574 inch

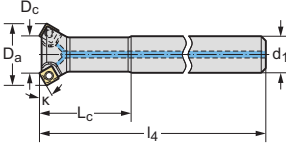
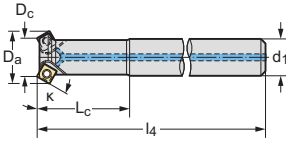
SD .. 09T308



– Four cutting edges per indexable insert



	P	M	K	N	S	H	O
M4574	●	●	●	●	●		

Tool	Designation	D _c inch	D _a inch	d ₁ inch	l ₄ inch	l ₁ inch	L _c inch	κ	Z	 lbs	No. of indexable inserts	Type
Parallel shank	★ M4574.019-A19-02-05-30	0,750	1,353	0,750	1,575	7,874	0,157	30°	2	0,97	2	SD .. 09T308
												
Parallel shank	★ M4574.019-A19-02-05-60	0,750	1,124	0,750	1,575	7,874	0,268	60°	2	0,93	2	SD .. 09T308
												

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

Assembly parts

	D _c [inch]	0,750
	Clamping screw for indexable insert Tightening torque	FS2266 (Torx 10IP) 2,0 Nm

Accessories

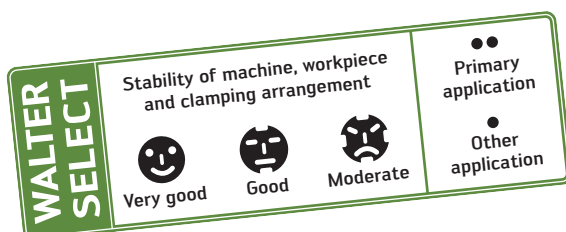
	D _c [inch]	0,750
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2268 (Torx 10IP)
	Screwdriver	FS2267 (Torx 10IP)

Indexable inserts

	Designation	r mm	P					M				K				N		S				
			HC					HC				HC				HC	HW	HC				
			WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSM45X	WSP45S	WSP45G	WAK15	WKK25S	WKP25S	WKP35G	WKP35S	WXN15	WK10	WSM35S	WSM45X	WSP45S	WSP45G
	SDHT09T308-G88	0.8														☺	☺					
	SDMT09T308-D51	0.8	☹	☹	☹	☹	☹			☹	☹			☹	☹	☹					☹	☹
	SDMT09T308-D57	0.8	☹	☹	☹	☹	☹	☹		☹	☹		☹	☹	☹	☹			☹		☹	☹
	SDMT09T308-F57	0.8	☹	☹	☹	☹	☹	☹	☹	☹	☹		☹	☹	☹	☹			☹	☹	☹	☹
	SDMW09T308-A57	0.8	☹	☹	☹								☹	☹	☹	☹						

HC = Coated carbide

HW = Uncoated carbide



Cutting data for roughing WSP45G/WHH15X

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm ²	Machining group ¹			Cutting material grades		
									Starting values for cutting speed v_c [m/min]		
									HC Face/shoulder milling		
									WSP45G a_g / D_c^*		
									1/1 1/2	1/5	
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1	●	●●	230	290	
		C > 0.25% to ≤ 0.55%	Annealed	190	639	P2	●	●●	190	250	
		C > 0.25% to ≤ 0.55%	Heat-treated	210	708	P3	●	●●	180	230	
		C > 0.55%	Annealed	190	639	P4	●	●●	190	250	
		C > 0.55%	Heat-treated	300	1013	P5	●	●●	130	125	
		Free-machining steel (short-chipping)	Annealed	220	745	P6	●	●●	175	225	
	Low-alloy steel	Annealed		175	591	P7	●	●●	190	240	
		Heat-treated		300	1013	P8	●	●●	130	145	
		Heat-treated		380	1282	P9	●	●●	100	110	
		Heat-treated		430	1477	P10	●	●●	80	90	
	High-alloy steel and high-alloy tool steel	Annealed		200	675	P11	●	●●	115	140	
		Hardened and tempered		300	1013	P12	●	●●	75	90	
		Hardened and tempered		400	1361	P13	●	●●	65	80	
	Stainless steel	Ferritic/martensitic, annealed		200	675	P14	●	●●	115	140	
		Martensitic, heat-treated		330	1114	P15	●	●●	80	100	
M	Stainless steel	Austenitic, quench hardened		200	675	M1	●●	●	110	130	
		Austenitic, precipitation hardened (PH)		300	1013	M2	●●	●	90	100	
		Austenitic/ferritic, duplex		230	778	M3	●●	●	100	120	
K	Malleable cast iron	Ferritic		200	675	K1	●	●●			
		Pearlitic		260	867	K2	●	●●			
	Grey cast iron	Low tensile strength		180	602	K3	●	●●			
		High tensile strength/austenitic		245	825	K4	●	●●			
	Cast iron with spheroidal graphite	Ferritic		155	518	K5	●	●●			
		Pearlitic		265	885	K6	●	●●			
	GGV (CGI)			200	675	K7	●	●●			
N	Wrought aluminium alloys	Not hardenable		30	–	N1	●●				
		Hardenable, hardened		100	343	N2	●●				
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●				
		≤ 12% Si, hardenable, hardened		90	314	N4	●●				
		> 12% Si, not hardenable		130	447	N5	●●				
	Magnesium-based alloys ³			70	250	N6	●●				
		Unalloyed, electrolytic copper		100	343	N7	●●				
		Brass, bronze, red brass		90	314	N8	●●				
		Cu alloys, short-chipping		110	382	N9	●●				
		High tensile, Ampco		300	1013	N10	●●				
S	Heat-resistant alloys	Fe-based	Annealed	200	675	S1	●●		65	70	
			Hardened	280	943	S2	●●		45	50	
		Ni- or Co-based	Annealed	250	839	S3	●●		50	55	
			Hardened	350	1177	S4	●●		30	35	
			Cast	320	1076	S5	●●		40	45	
	Titanium alloys	Pure titanium		200	675	S6	●●		65	70	
		α and β alloys, hardened		375	1262	S7	●●		30	35	
		β alloys		410	1396	S8	●●		30	35	
	Tungsten alloys			300	1013	S9	●●		70	80	
	Molybdenum alloys			300	1013	S10	●●		70	80	
H	Hardened steel	Hardened and tempered		50 HRC	–	H1		●●			
		Hardened and tempered		55 HRC	–	H2		●●			
		Hardened and tempered		60 HRC	–	H3		●●			
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4		●●			
O	Thermoplastics	Without abrasive fillers				O1	●●	●	400	400	
	Thermosets	Without abrasive fillers				O2	●●	●	300	300	
	Plastic, glass-fibre-reinforced	GFRP				O3					
	Plastic, carbon-fibre-reinforced	CFRP				O4					
	Plastic, aramid-fibre-reinforced	AFRP				O5					
	Graphite (technical)			80 Shore		O6		●●			

- Recommended application (the specified cutting data is regarded as starting values for the recommended application)
- Possible application, reduce cutting data by 30–50% (increase by approx. 70–80% for ISO M)

¹ The classification of the machining groups can be found from page C 671 onwards in the Walter General Catalogue 2017.

² Cutting data can also be used without coolant.

^{*} $a_g/D_c = 1/10$, $v_c = 10\%$ higher than 1/5

³ Water-miscible coolants must not be used when machining magnesium-based alloys.

Cutting material grades

[illegible]

Cutting data for semi-finishing and finishing

WSP45G/WHH15X

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R _m N/mm ²	Machining group ¹			Cutting material grades								
									Starting values for cutting speed v _c [m/min]								
									HC								
									Copy milling								
									WSP45G			WHH15X					
									a _e / D _c * 1/1 1/5			a _e / D _c * 1/1 1/2 1/5 1/20					
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●	●●	345	435	545	210	280	380			
		C > 0.25% to ≤ 0.55%	Annealed	190	640	P2	●	●●	285	375	470	190	250	340			
		C > 0.25% to ≤ 0.55%	Heat-treated	210	710	P3	●	●●	235	300	375	150	200	270			
		C > 0.55%	Annealed	190	640	P4	●	●●	220	255	320	130	170	235			
		C > 0.55%	Heat-treated	300	1010	P5	●	●●	195	220	270	100	130	180			
		Free-machining steel (short-chipping)	Annealed	220	750	P6	●	●●	290	380	470	180	240	330			
	Low-alloy steel	Annealed		175	590	P7	●	●●	285	360	450	170	230	310			
		Heat-treated		285	960	P8	●	●●	220	255	320	150	200	270			
		Heat-treated		380	1280	P9	●	●●	195	220	270	140	190	250			
		Heat-treated		430	1480	P10	●	●●	150	165	205	130	170	235			
	High-alloy steel and high-alloy tool steel	Annealed		200	680	P11	●	●●	175	210	265	130	170	235			
		Hardened and tempered		300	1010	P12	●	●●	115	135	170	120	160	220			
		Hardened and tempered		380	1280	P13	●	●●	110	130	150	110	150	210			
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●	●●	175	210	260	150	200	270			
		Martensitic, heat-treated		330	1110	P15	●	●●	135	160	205	120	160	220			
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●	●	165	195	245						
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●	●	130	160	210						
		Austenitic/ferritic, duplex		230	780	M3	●●	●	150	180	230						
K	Malleable cast iron	Ferritic		200	400	K1	●	●●				130	170	235			
		Pearlitic		260	700	K2	●	●●				110	150	200			
	Grey cast iron	Low tensile strength		180	200	K3	●	●●				140	190	250			
		High tensile strength/austenitic		245	350	K4	●	●●				110	150	200			
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●	●●				140	190	250			
		Pearlitic		265	700	K6	●	●●				120	160	220			
	GGV (CGI)			230	400	K7	●	●●				110	150	200			
N	Wrought aluminium alloys	Not hardenable		30	–	N1	●●										
		Hardenable, hardened		100	340	N2	●●										
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●										
		≤ 12% Si, hardenable, hardened		90	310	N4	●●										
		> 12% Si, not hardenable		130	450	N5	●●										
	Magnesium-based alloys ²			70	250	N6	●● ²										
		Unalloyed, electrolytic copper		100	340	N7	●●										
		Brass, bronze, red brass		90	310	N8	●●										
		Cu alloys, short-chipping		110	380	N9	●●										
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●		100	105	130						
			Hardened	280	940	S2	●●		70	75	95						
		Ni- or Co-based	Annealed	250	840	S3	●●		75	85	105						
			Hardened	350	1180	S4	●●		45	55	70						
			Cast	320	1080	S5	●●		60	70	90						
	Titanium alloys	Pure titanium		200	680	S6	●●		100	120	150						
		α and β alloys, hardened		375	1260	S7	●●		60	70	90						
		β alloys		410	1400	S8	●●		50	60	80						
	Tungsten alloys			300	1010	S9	●●		70	80	100						
H	Hardened steel	Hardened and tempered	50 HRC	–	–	H1		●●				60	80	110			
			55 HRC	–	–	H2		●●				40	50	70			
		Hardened and tempered	60 HRC	–	–	H3		●●				40	45	60			
			55 HRC	–	–	H4		●●				50	70	90			
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4		●●									
	Thermoplastics	Without abrasive fillers				O1	●●	●	550	650	750	800	900	1000			
	Thermosets	Without abrasive fillers				O2	●●	●	450	550	650	700	800	900			
	Plastic, glass-fibre-reinforced	GFRP				O3											
	Plastic, carbon-fibre-reinforced	CFRP				O4											
	Plastic, aramid-fibre-reinforced	AFRP				O5											
O	Graphite (technical)			80 Shore		O6		●●				700	800	1000			

- Recommended application (the specified cutting data is regarded as starting values for the recommended application)
- Possible application, reduce cutting data by 30–50% (increase by approx. 70–80% for ISO M)

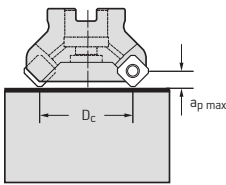
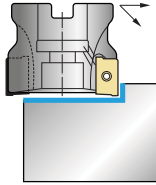
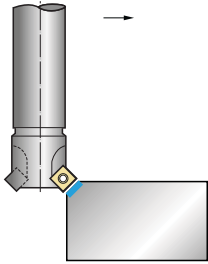
¹ The classification of the machining groups can be found from page C 671 onwards in the Walter General Catalogue 2017.

² Water-miscible coolants must not be used when machining magnesium-based alloys.

* a_e/D_c = 1/50, v_c = 40% higher than 1/20

Feed determination (starting values)

The specified feed rates are average standard values.
For specific applications, adjustment is recommended.

Material group	Cutter type	M5130	M4574		
	 Feed per tooth f_{z0} for $a_e = D_c$ $a_p = a_{p \max} = L_c$	 For shoulder milling operations			
	Lead angle κ	90°	30° / 45° / 60°		
	Tool diameter or diameter range [mm]	f_{z0} [mm]	f_{z0} [mm]		
	Maximum depth of cut $a_{p \max} = L_c$ [mm]	16-50	12-16	20-40	32-40
		9,0	3	5	7
P	Non-alloyed steel ¹	0,16	0,15	0,20	0,25
	Low-alloy steel	0,11	0,12	0,15	0,20
	High-alloy steel and tool steel	0,11	0,12	0,15	0,20
	Stainless steel	0,08	0,10	0,12	0,15
M	Stainless steel ²	0,08	0,08	0,10	0,12
K	Malleable cast iron	0,13	0,15	0,20	0,25
	Grey cast iron	0,16	0,20	0,25	0,30
	Cast iron with spheroidal graphite	0,13	0,15	0,20	0,25
	GGV (CGI)	0,11	0,15	0,20	0,25
N	Wrought aluminium alloys	0,11	0,10	0,12	0,15
	Cast aluminium alloys	0,13	0,10	0,12	0,15
	Magnesium-based alloys	0,11	0,08	0,10	0,12
	Copper and copper alloys (bronze/brass)	0,08	0,08	0,10	0,12
S	Heat-resistant alloys	0,08	0,08	0,10	0,12
	Titanium alloys	0,08	0,08	0,10	0,12
	Tungsten alloys	0,08	0,08	0,10	0,12
	Molybdenum alloys	0,08	0,08	0,10	0,12
H	Hardened steel	0,08			
	Hardened cast iron	0,11			
O	Thermoplastics	0,13	0,10	0,12	0,15
	Plastic, carbon-fibre-reinforced				0,15
	Graphite (technical)	0,11	0,10	0,12	0,15
Indexable insert types		BC..0903..	SD..06T2	SD..09T3..	SD..1204..
Correction factor K_{a_e}		1,0	1,0	1,0	1,0
For the feed per tooth depending on the ratio of width of cut a_e to milling cutter diameter D_c		$a_e / D_c = 1/1-1/2$			
		1/5	1,1	1,1	1,1
		1/10	1,2	1,2	1,2
		1/20	1,3	1,3	1,3
		1/50		1,5	1,5

¹ and cast steel

² and austenitic/ferritic

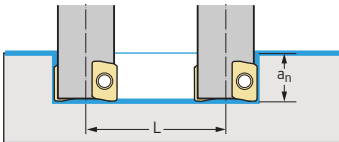
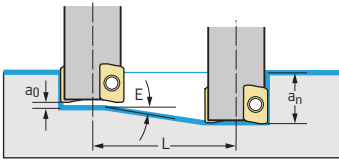
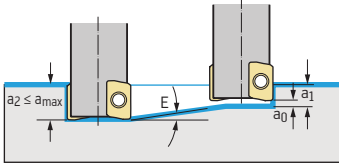
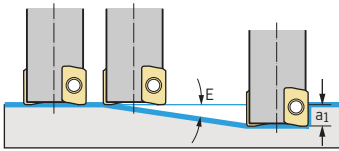
* only possible if $a_p < 0.75 \times D_c$

** only with $a_e/D_c < 1/5$

Application information for the Xtra-tec® XT M5130 shoulder milling cutter

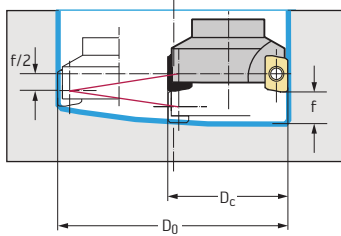
Ramping and circular plunging into solid material

Plunging with the Xtra-tec® XT M5130 shoulder milling cutter/plunging angle $E_{\max}$ [°]



Milling cutter dia.	BC..0903.. $a_{p \max} = 9 \text{ mm}$							
	$E_{\max}$ [°]	$D_{0 \min}$ [mm]	$D_{0 \max}$ [mm]	a_0 [mm]				
16	8,4	20,2	32	1,2				
18	6,7	24,2	36	1,2				
20	5,4	28,2	40	1,1				
22	4,6	32,2	44	1,1				
25	3,8	38,2	50	1,1				
32	2,6	52,2	64	1,1				
40	2,0	68,2	80	1,1				
50	1,6	88,2	100	1,1				
63	1,2	114,2	126	1,1				
D _c [inch]	$a_{p \max} = 0,354 \text{ inch}$							
	$E_{\max}$ [°]	$D_{0 \min}$ [inch]	$D_{0 \max}$ [inch]	a_0 [inch]				
0,625	8,5	0,785	1,250	0,047				
0,750	6,1	1,035	1,500	0,047				
1,000	3,7	1,535	2,000	0,043				
2,000	1,5	3,535	4,000	0,043				

Circular interpolation of a hole into solid material



Max. axial feed per tool revolution ("thread pitch") f [mm]

Machined bore diameter D_0 [mm]	BC..0903.. D_c [mm]										
	16	18	20	25	32	40	50	63			
25	3,0	1,5									
30	6,1	4,0	1,5								
40	8,8	8,2	5,5	1,7							
50	8,8	8,8	8,2	5,0							
60	8,8	8,8	8,8	6,5	3,5						
70	8,8	8,8	8,8	8,8	5,5	1,5					
80	8,8	8,8	8,8	8,8	7,5	4,0					
90	8,8	8,8	8,8	8,8	8,8	5,5	1,5				
100	8,8	8,8	8,8	8,8	8,8	6,7	3,8				
120	8,8	8,8	8,8	8,8	8,8	8,8	6,0	3,0			
150	8,8	8,8	8,8	8,8	8,8	8,8	8,8	5,5			
180	8,8	8,8	8,8	8,8	8,8	8,8	8,8	7,5			
200	8,8	8,8	8,8	8,8	8,8	8,8	8,8	8,8			
250	8,8	8,8	8,8	8,8	8,8	8,8	8,8	8,8			

Max. axial feed per tool revolution ("thread pitch") f [inch]

Machined bore diameter D_0 [inch]	BC..0903.. D_c [inch]										
	0,625	0,750	1,000	1,250	1,500	2,000					
0,984	0,110										
1,181	0,240	0,590									
1,575	0,346	0,215	0,066								
1,969	0,346	0,322	0,190								
2,362	0,346	0,346	0,255	0,135							
2,756	0,346	0,346	0,346	0,215	0,055						
3,150	0,346	0,346	0,346	0,295	0,155						
3,543	0,346	0,346	0,346	0,346	0,215	0,055					
3,937	0,346	0,346	0,346	0,346	0,261	0,145					
4,724	0,346	0,346	0,346	0,346	0,346	0,235					
5,906	0,346	0,346	0,346	0,346	0,346	0,346					
7,087	0,346	0,346	0,346	0,346	0,346	0,346					
7,874	0,346	0,346	0,346	0,346	0,346	0,346					
9,843	0,346	0,346	0,346	0,346	0,346	0,346					

Notes on high-speed cutting

- Maximum permissible speeds:
The limit values specified in the tables should not be exceeded. Otherwise correct operation and/or reliability are no longer guaranteed.
- Only use original Walter indexable inserts and assembly parts (screws, etc.). New screws should be used after having replaced the indexable inserts five times at the most.
- Observe the tightening torques specified in the catalogue.
- Balancing:
Balancing in two steps is required when milling at fast speeds (> 6000 rpm) or at circumferential speeds of > 1000 m/min:
a. Basic balancing of the tool body including indexable inserts (can be carried out by Walter if required). In this case, tool adaptors that have been balanced separately beforehand must be used.
b. Fine balancing of the tool when fully mounted on the adaptor. The fine balancing operation is strongly recommended, as even the smallest concentricity fault can seriously affect the balance status.
- Short projection lengths reduce concentricity faults or an imbalance, and increase spindle service life. The specified speeds only apply to the use of tools without additional extensions and for tools with a neck length of $\leq 2.2 \times D_c$. For tools with longer neck lengths, the speeds must be reduced upon consultation with Walter.

Part 1: Metric

$n_{\max}$ [rpm] with D													
Tool	Safety-related parts	In relation to	Ø 10	Ø 12	Ø 14	Ø 16	Ø 18	Ø 20	Ø 22	Ø 25	Ø 28	Ø 32	Ø 35
M5130	AC.T0602..	D_c	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000		36.600	
	BC..0903..	D_c				40.000	40.000	40.000	38.700	36.000		31.300	
	BC.T1204..	D_c								28.100		24.400	
	BC.T1605..	D_c								22.300	20.900	19.300	18.300

Part 2: Inch

$n_{\max}$ [rpm] with D										
Tool	Safety-related parts	In relation to	Ø 0,375	Ø 0,5	Ø 0,625	Ø 0,750	Ø 1,000	Ø 1,250	Ø 1,500	
M5130	AC.T0602..	D_c		40,000	40,000	40,000	40,000	36,800	33,400	
	BC..0903..	D_c			40,000	40,000	35,700			
	BC.T1204..	D_c				33,100	27,900	24,500	22,100	
	BC.T1605..	D_c					22,100	19,300	17,400	

6. Safety guard:

Appropriate safety guards or machine encapsulations must be used to safely collect particles which spin off, such as chips or cutting edge parts that are broken as a result of collisions.

7. Damaged tools:

The operating speed must be specified for the repair of an HSC tool. The table values only apply to tools with a condition equivalent to new condition following repair.

8. Application of standards:

Walter recommends using the balancing standard DIN 69888, which describes the balancing of tools and the requirements in the cutting area. DIN 69888 is tailored to the needs of the cutting area, and describes the tool balancing requirements in a practical way. DIN ISO 1940, which was previously often used, describes balancing for all areas of mechanical engineering.

The requirements when working at circumferential speeds of >1000 m/min are described in DIN ISO 15641.

 $n_{\max}$ [rpm] with D

	Ø 40	Ø 42	Ø 50	Ø 52	Ø 63	Ø 66	Ø 80	Ø 85	Ø 100	Ø 125	Ø 160	Ø 200	Ø 250	Ø 315
	32.500		28.900		25.700									
	27.700		24.600		21.800									
	21.500		19.100		16.900		14.800							
	16.900	16.500	14.900	14.600	13.200	12.800	11.600	11.200	10.300	9.100	8.000			

 $n_{\max}$ [rpm] with D

	Ø 2,000	Ø 2,500	Ø 3,000	Ø 4,000	Ø 5,000	Ø 6,000	Ø 8,000	Ø 10,000	Ø 12,000
	28,700	25,500							
	24,400								
	18,900	16,800	15,200						
	14,800	13,100	11,900	10,200	9,100	8,200			



Stationary boring bars/adaptors – D1

Clamping units	Product range overview	246
	Accure-tec vibration-damped boring bars/adaptors	247
Boring bar/adaptor accessories	Product range overview	252
	Boring bar/adaptor	253

Rotating boring bars/adaptors – D2

Tool body adaptors	Product range overview	254
	Accure-tec vibration-damped boring bars/adaptors	255

Product range overview of Accure-tec vibration-damped boring bars/adaptors

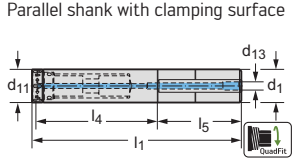
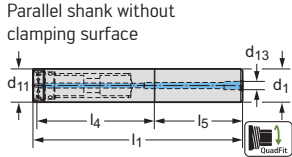
Tool adaptors

Designation	A3000	A3000-C	A3000-HSK-T
Tool type	Accure-tec boring bar/adaptor		
Machine-side	Parallel shank	Walter Capto™ in acc. with ISO 26623	HSK-T DIN 69893-7
Tool-side	QuadFit	QuadFit	QuadFit
Alignment	Straight	Straight	Straight
Page	247	249	250
			

Plain cylindrical adaptor – vibration-damped

A3000 mm
Accure-tec


- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁ mm	d ₁₁	l ₄ mm	l ₅ mm	l ₁ mm	d ₁₃	kg
 Parallel shank with clamping surface	★ A3000-25-Q25-130	25	Q25	130	100	235	G 1/4	0,9
	★ A3000-25-Q25-180	25	Q25	180	100	285	G 1/4	1,1
	A3000-32-Q32-160	32	Q32	160	128	293	G 1/4	1,8
	A3000-32-Q32-224	32	Q32	224	128	357	G 1/4	2,3
	A3000-40-Q40-208	40	Q40	208	160	374	G 1/4	3,8
	A3000-40-Q40-288	40	Q40	288	160	454	G 1/4	4,6
	A3000-50-Q50-268	50	Q50	268	200	475	G 1/4	7,5
	A3000-50-Q50-368	50	Q50	368	200	575	G 1/4	9,1
 Parallel shank without clamping surface	★ A3000-25-Q25-230-CS	25	Q25	230	75	310	M8X1	1,7
	★ A3000-32-Q32-288-CS	32	Q32	288	98	389	M8X1	2,7
	A3000-40-Q40-368	40	Q40	368	160	534	G 1/4	5,5
	A3000-50-Q50-468	50	Q50	468	200	675	G 1/4	11

QuadFit exchangeable heads – see the “Turning” section

A3000...-CS = Carbide-reinforced version

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

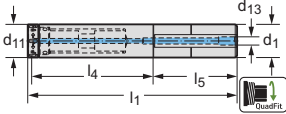
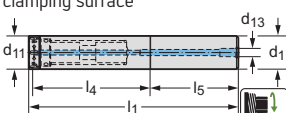
Assembly parts		d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench		SD9000-Q25	SD9000-Q32	SD9000-Q40	SD9000-Q50
	Tightening torque		25 Nm	25 Nm	35 Nm	55 Nm
	Coolant adaptor for CS variant		CN3001-M8-G1/4	CN3001-M8-G1/4		

Accessories		d ₁₁	Q32	Q40	Q50
	Torque wrench with hook		SD4000-Q32-25	SD4000-Q40-35	SD4000-Q50-55
	Tightening torque		25 Nm	35 Nm	55 Nm
	Hook for torque wrench		SD6000-Q32	SD6000-Q40	SD6000-Q50

Plain cylindrical adaptor – vibration-damped

A3000 inch
Accure-tec


- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁ inch	d ₁₁	l ₄ inch	l ₅ inch	l ₁ inch	d ₁₃	lbs
 Parallel shank with clamping surface	★ A3000.16-Q25-133	1,000	Q25	5,250	4,000	9,430	G 1/4	4,37
	★ A3000.16-Q25-184	1,000	Q25	7,250	4,000	11,430	G 1/4	5,36
	A3000.20-Q32-165	1,250	Q32	6,500	5,000	11,713	G 1/4	3,97
	A3000.20-Q32-229	1,250	Q32	9,000	5,000	14,213	G 1/4	5,07
	A3000.24-Q40-203	1,500	Q40	8,000	6,000	14,252	G 1/4	7,72
	A3000.24-Q40-279	1,500	Q40	11,000	6,000	17,252	G 1/4	9,48
	A3000.32-Q50-267	2,000	Q50	10,500	8,000	18,791	G 1/4	16,76
	A3000.32-Q50-368	2,000	Q50	14,496	8,000	22,791	G 1/4	20,28
 Parallel shank without clamping surface	★ A3000.16-Q25-235-CS	1,000	Q25	9,250	3,000	12,430	M8X1	8,75
	★ A3000.20-Q32-292-CS	1,250	Q32	11,500	3,750	15,463	M8X1	13,12
	A3000.24-Q40-356	1,500	Q40	14,000	6,000	20,252	G 1/4	11,46
	A3000.32-Q50-470	2,000	Q50	18,500	8,000	26,791	G 1/4	24,69

QuadFit exchangeable heads – see the “Turning” section

A3000...-CS = Carbide-reinforced version

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

Assembly parts		d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench		SD9000-Q25	SD9000-Q32	SD9000-Q40	SD9000-Q50
	Tightening torque		25 Nm	25 Nm	35 Nm	55 Nm
	Coolant adaptor for CS variant		CN3001-M8-G1/4	CN3001-M8-G1/4		

Accessories		d ₁₁	Q32	Q40	Q50
	Torque wrench with hook		SD4000-Q32-25	SD4000-Q40-35	SD4000-Q50-55
	Tightening torque		25 Nm	35 Nm	55 Nm
	Hook for torque wrench		SD6000-Q32	SD6000-Q40	SD6000-Q50

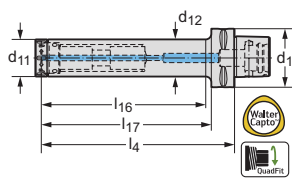
Walter Capto™ boring bar/adaptor – vibration-damped

A3000-C mm

Accuretec



- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁	d ₁₁	d ₁₂ mm	l ₄ mm	l ₁₆ mm	l ₁₇ mm	n _{max}	kg
	★ A3000-C4-Q25-130	C4	Q25	25	130	107	110	10000	0,8
	★ A3000-C4-Q25-180	C4	Q25	25	180	157	160	8000	1
	★ A3000-C4-Q32-160	C4	Q32	32	160	137	140	10000	1,2
	★ A3000-C4-Q32-224	C4	Q32	32	224	201	204	8000	1,7
	★ A3000-C5-Q25-130	C5	Q25	25	130	107	110	10000	0,9
	★ A3000-C5-Q25-180	C5	Q25	25	180	157	160	8000	1,1
	★ A3000-C5-Q25-230	C5	Q25	25	230	207	210	6000	1,3
	★ A3000-C5-Q32-160	C5	Q32	32	160	136	140	10000	1,4
	★ A3000-C5-Q32-224	C5	Q32	32	224	200	204	8000	1,8
	★ A3000-C5-Q32-288	C5	Q32	32	288	264	268	6000	2,2
	★ A3000-C5-Q40-208	C5	Q40	40	208	184	188	8000	2,5
	★ A3000-C5-Q40-288	C5	Q40	40	288	264	268	6000	3,3
	★ A3000-C5-Q40-368	C5	Q40	40	368	344	348	5000	4,3
	★ A3000-C6-Q25-130	C6	Q25	25	130	102	105	10000	1,3
	★ A3000-C6-Q25-180	C6	Q25	25	180	152	155	8000	1,5
	★ A3000-C6-Q25-230	C6	Q25	25	230	202	205	6000	1,7
	A3000-C6-Q32-160	C6	Q32	32	160	129	135	10000	1,8
	A3000-C6-Q32-224	C6	Q32	32	224	193	199	8000	2,1
	A3000-C6-Q32-288	C6	Q32	32	288	257	263	6000	2,6
	A3000-C6-Q40-208	C6	Q40	40	208	177	183	8000	2,9
	A3000-C6-Q40-288	C6	Q40	40	288	257	263	6000	3,7
	A3000-C6-Q40-368	C6	Q40	40	368	337	343	5000	4,5
	A3000-C6-Q50-268	C6	Q50	50	268	238	243	6000	5
	A3000-C6-Q50-368	C6	Q50	50	368	338	343	4000	6,6
	A3000-C6-Q50-468	C6	Q50	50	468	438	443	2500	8,5
	A3000-C8-Q32-224	C8	Q32	32	224	181	191	8000	3,2
	A3000-C8-Q32-288	C8	Q32	32	288	245	255	6000	3,6
	A3000-C8-Q40-288	C8	Q40	40	288	245	255	6000	4,7
	A3000-C8-Q40-368	C8	Q40	40	368	325	335	5000	5,6
	A3000-C8-Q50-268	C8	Q50	50	268	225	235	6000	5,9
	A3000-C8-Q50-368	C8	Q50	50	368	325	335	4000	7,5
	A3000-C8-Q50-468	C8	Q50	50	468	425	435	2500	9,4

QuadFit exchangeable heads – see the “Turning” section
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench Tightening torque	SD9000-Q25 25 Nm	SD9000-Q32 25 Nm	SD9000-Q40 35 Nm	SD9000-Q50 55 Nm

Accessories

	d ₁₁	Q32	Q40	Q50
	Torque wrench with hook Tightening torque	SD4000-Q32-25 25 Nm	SD4000-Q40-35 35 Nm	SD4000-Q50-55 55 Nm
	Hook for torque wrench	SD6000-Q32	SD6000-Q40	SD6000-Q50

 ★ New addition to the product range

HSK-T boring bar/adaptor – vibration-damped

A3000-HSK-T mm
Accure-tec

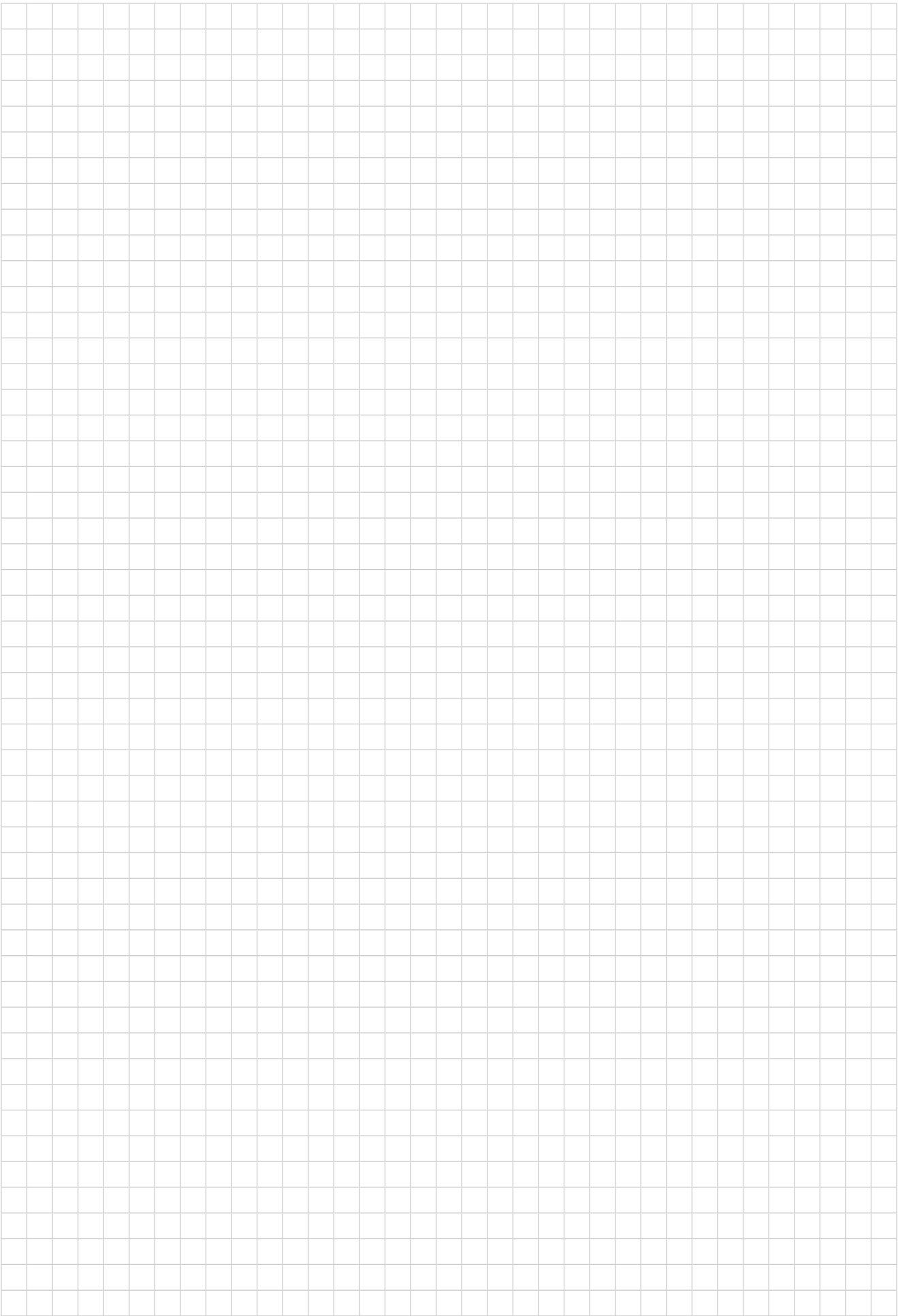

- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁ mm	d ₁₁	d ₁₂ mm	l ₄ mm	l ₁₆ mm	l ₁₇ mm	n _{max}	kg
	★ A3000-H63T-Q25-130	63	Q25	25	130	101	104	10000	1,1
	★ A3000-H63T-Q25-180	63	Q25	25	180	151	154	8000	1,3
	★ A3000-H63T-Q25-230	63	Q25	25	230	201	204	6000	1,5
	★ A3000-H63T-Q32-160	63	Q32	32	160	128	134	10000	1,6
	★ A3000-H63T-Q32-224	63	Q32	32	224	192	198	8000	2
	★ A3000-H63T-Q40-208	63	Q40	40	208	176	182	8000	2,7
	★ A3000-H63T-Q40-288	63	Q40	40	288	256	262	6000	3,5
	★ A3000-H63T-Q50-268	63	Q50	50	268	241	242	6000	4,8
	★ A3000-H63T-Q50-368	63	Q50	50	368	341	342	4000	6,4
	A3000-H100T-Q32-224	100	Q32	32	224	189	195	8000	3,4
	A3000-H100T-Q32-288	100	Q32	32	288	253	259	6000	3,8
	A3000-H100T-Q40-288	100	Q40	40	288	253	259	6000	4,9
	A3000-H100T-Q40-368	100	Q40	40	368	333	339	5000	5,8
	A3000-H100T-Q50-268	100	Q50	50	268	234	239	6000	6,2
	A3000-H100T-Q50-368	100	Q50	50	368	334	339	4000	7,8
	A3000-H100T-Q50-468	100	Q50	50	468	434	439	2500	9,7

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

Assembly parts		d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench Tightening torque		SD9000-Q25 25 Nm	SD9000-Q32 25 Nm	SD9000-Q40 35 Nm	SD9000-Q50 55 Nm

Accessories		d ₁₁	Q32	Q40	Q50
	Torque wrench with hook Tightening torque		SD4000-Q32-25 25 Nm	SD4000-Q40-35 35 Nm	SD4000-Q50-55 55 Nm
	Hook for torque wrench		SD6000-Q32	SD6000-Q40	SD6000-Q50



Product range overview of assembly parts and accessories

Boring bar/adaptor

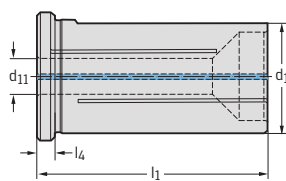
Designation	A2140-W
Tool type	Boring bars/adaptors
Machine-side	Parallel shank with flat
Tool-side [mm]	6–25
Page	253
	

Boring bar/adaptor

A2140-W



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

Tool	Designation	d ₁ mm	d ₁₁ mm	l ₁ mm	l ₄ mm	kg
Parallel shank with flat in acc. with ISO 9766 	★ A2140-W16-R06-048	16	6	48	5	0,1
	★ A2140-W16-R08-048	16	8	48	5	0,1
	★ A2140-W16-R10-048	16	10	48	5	0,1
	★ A2140-W16-R12-048	16	12	48	5	0,1
	★ A2140-W20-R06-055	20	6	55	5	0,1
	★ A2140-W20-R08-055	20	8	55	5	0,1
	★ A2140-W20-R10-055	20	10	55	5	0,1
	★ A2140-W20-R12-055	20	12	55	5	0,1
	★ A2140-W20-R16-055	20	16	55	5	0,1
	A2140-W25-R06-061	25	6	61	5	0,2
	A2140-W25-R08-061	25	8	61	5	0,2
	A2140-W25-R10-061	25	10	61	5	0,2
	A2140-W25-R12-061	25	12	61	5	0,2
	A2140-W25-R16-061	25	16	61	5	0,1
	A2140-W32-R06-065	32	6	65	5	0,3
	A2140-W32-R08-065	32	8	65	5	0,3
	A2140-W32-R10-065	32	10	65	5	0,3
	A2140-W32-R12-065	32	12	65	5	0,3
	A2140-W32-R16-065	32	16	65	5	0,3
	A2140-W32-R20-065	32	20	65	5	0,2
	A2140-W40-R06-075	40	6	75	5	0,6
	A2140-W40-R08-075	40	8	75	5	0,6
	A2140-W40-R10-075	40	10	75	5	0,6
	A2140-W40-R12-075	40	12	75	5	0,6
	A2140-W40-R16-075	40	16	75	5	0,6
	A2140-W40-R20-075	40	20	75	5	0,6
	A2140-W40-R25-075	40	25	75	5	0,5

Note: Groove for self-centring is present on all Walter Turn boring bars with fully rounded shank (-R) dia. 6–25 mm.
The maximum recommended coolant pressure is 80 bar (1160 psi)

Product range overview of Accure-tec vibration-damped milling cutter adaptors

Tool adaptors

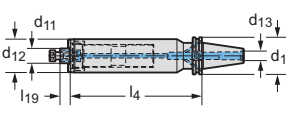
Designation	AC001.K	AC001.K
Tool type	Accure-tec boring bars/adaptors	
Machine-side	ASME B 5.50	ASME B 5.50
Tool-side	B19 / B26 / B38	B19 / B26
Page	255	255
		

CAT-V boring bar/adaptor – vibration-damped

AC001.K inch



- For milling tools with parallel bore according to DIN 138
- With preset vibration damping

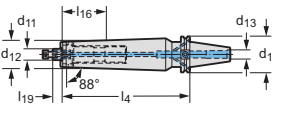
Tool	Designation	d ₁	d ₁₁ inch	d ₁₂ inch	l ₄ inch	l ₁₉ inch	d ₁₃	lbs
ASME B 5.50 	★ AC001.K40-B19-191	CAT40	0,750	1,750	7,500	0,690	5/8"-11	6,83
	★ AC001.K40-B26-229	CAT40	1,000	2,250	9,000	0,690	5/8"-11	13,01
	★ AC001.K50-B19-191	CAT50	0,750	1,750	7,500	0,690	1"-8	11,02
	★ AC001.K50-B26-229	CAT50	1,000	2,250	9,000	0,690	1"-8	17,64
	★ AC001.K50-B38-349	CAT50	1,500	3,500	13,750	0,940	1"-8	44,09

CAT-V boring bar/adaptor, conical – vibration-damped

AC001.K inch

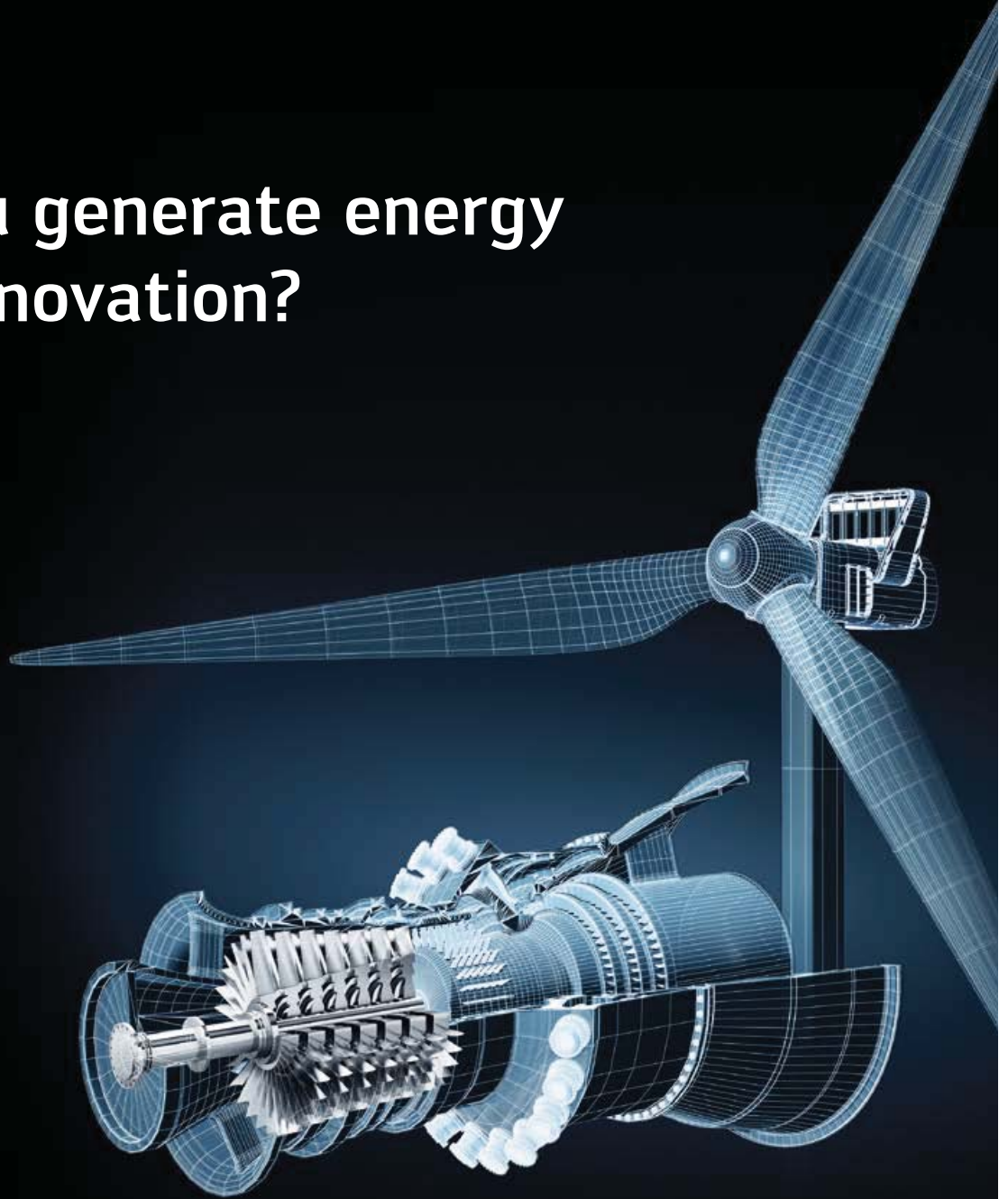


- For milling tools with parallel bore according to DIN 138
- With preset vibration damping

Tool	Designation	d ₁	d ₁₁ inch	d ₁₂ inch	l ₄ inch	l ₁₆ inch	l ₁₉ inch	d ₁₃	lbs
ASME B 5.50 	★ AC001.K40-B19-229	CAT40	0,750	1,750	9,000	3,125	0,690	5/8"-11	10,10
	★ AC001.K50-B19-229	CAT50	0,750	1,750	9,000	3,125	0,690	1"-8	13,89
	★ AC001.K50-B26-305	CAT50	1,000	2,250	12,000	3,096	0,690	1"-8	24,03

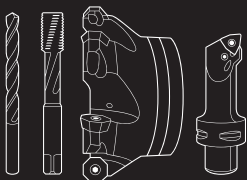
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Can you generate energy from innovation?



The world's population will reach over 8 billion by 2025, leading to the energy demand rising accordingly. Achieving optimum efficiency in energy generation has therefore never been more important. Components for the energy industry need to be optimised to fulfil their maximum potential, which requires the use of new machining techniques and technologies. Having a partner that provides reliable tool solutions and a dependable service is therefore crucial.

Harnessing energy for the future: Engineering Kompetenz from Walter.



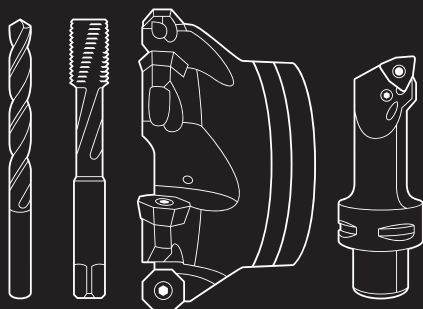
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Engineering Kompetenz

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