WALTER
Engineering Kompetenz

Turning, drilling,
threading, milling

Product Innovations catalogue
Edition 2021-1

_ MOVING AHEAD WITH INNOVATIONS

Product Innovations catalogue



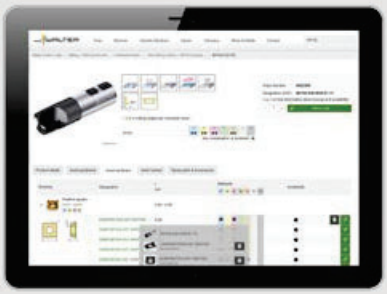
How to find and order your tool solution:

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



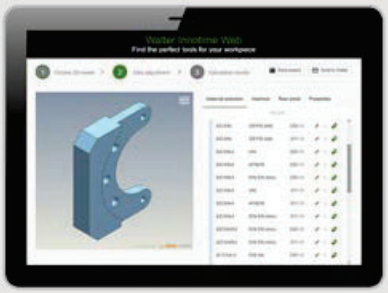
Tool-specific search
You can find products in the Walter online catalogue using the familiar structure of our product catalogue as well as filter and search functions. Other features: A shopping function and links to drawings and models.

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 Innotime®



Feature-based search
With Walter Innotime®, you can find the most cost-effective machining solution for your component, including all the tools, machining steps and machining parameters required for this. Simply by uploading your 3D model.

Digital ordering methods

TOOL:SHOP

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.

Walter product innovations

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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.

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 CO_2 emissions with environmental conservation projects.

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.

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.

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.

Xill·tec™

With Xill·tec™, the solid carbide milling cutters from the MC230 Advance product range, Walter offers a uniquely wide range, with different dimensions, numbers of teeth and shank versions. This means that users are well-equipped for all conceivable milling operations and ISO materials. Universal use – with excellent quality.

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.

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 CO_2 emissions through Walter Green.

X·treme Evo

The X·treme Evo solid carbide drills from the DC160 Advance product range and DC260 Advance step drills embody "the next generation of drilling": Can be used universally for all ISO material groups, machine concepts and applications. With outstanding tool life, productivity and process reliability.

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

Indexable inserts	Product range overview – ISO indexable inserts	6
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Product range overview of indexable inserts and cutting tool materials: ISO turning – Carbide



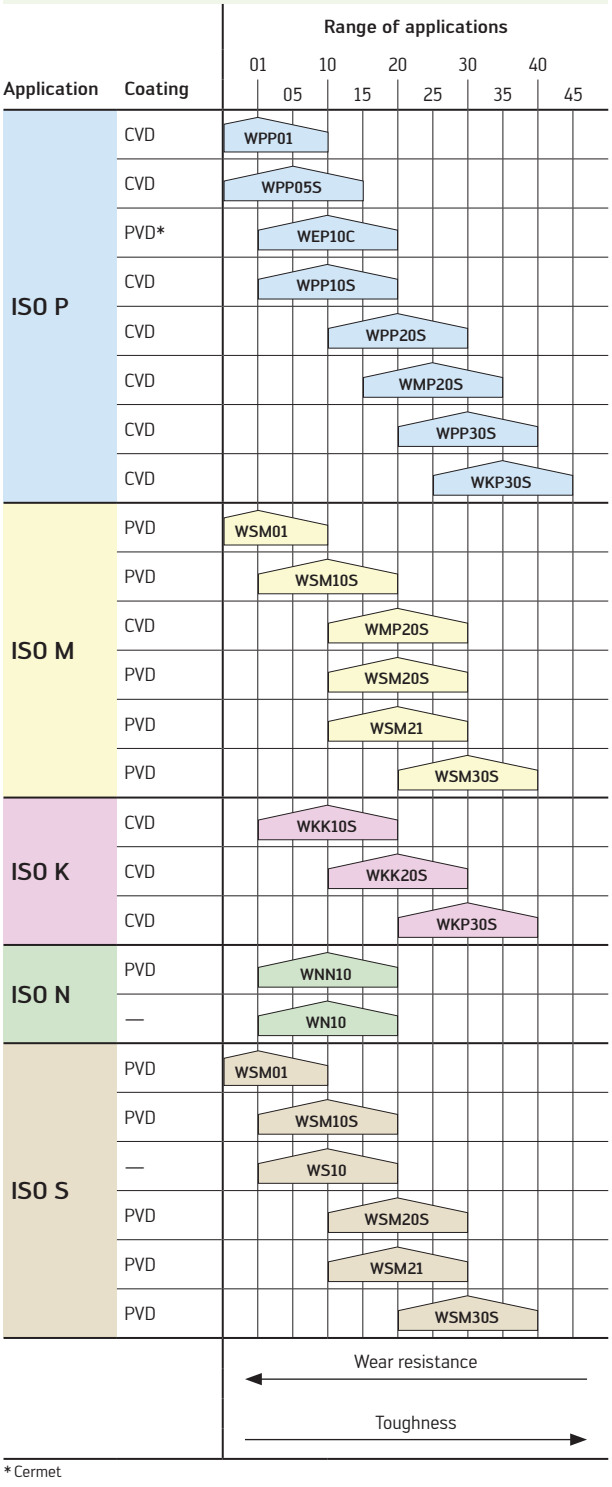
ISO indexable inserts

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

System inserts

Insert shape		Description	Page
	WL	WL copy turning inserts, three-edge	20

Cutting tool materials: Carbide

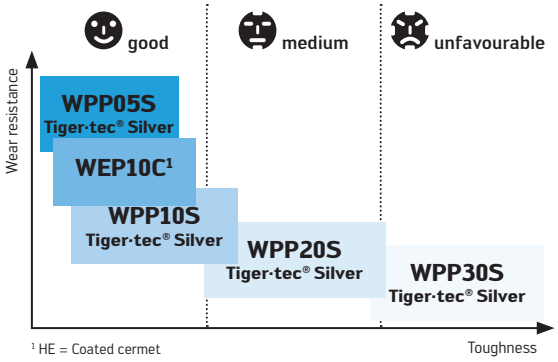


* Cermet

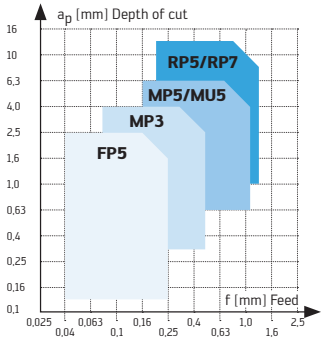
Product range overview of indexable inserts for ISO turning: Tiger·tec® Silver grades and geometries

Negative basic shape Positive basic shape

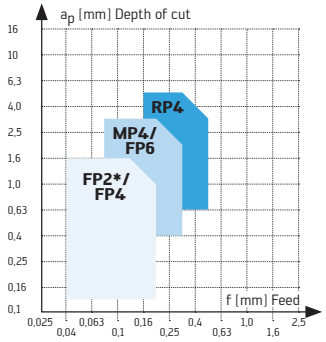
Machining steel ISO P



¹ HE = Coated cermet

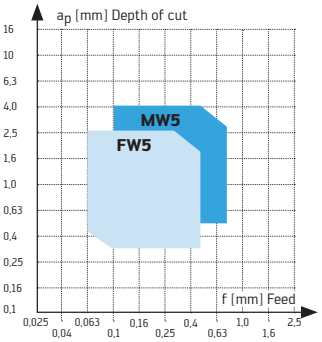


MP5: For universal machining
MU5: Easy-cutting – for ISO P and ISO M
RP5: For universal machining
RP7: For interrupted cuts, cast skin/forged skin

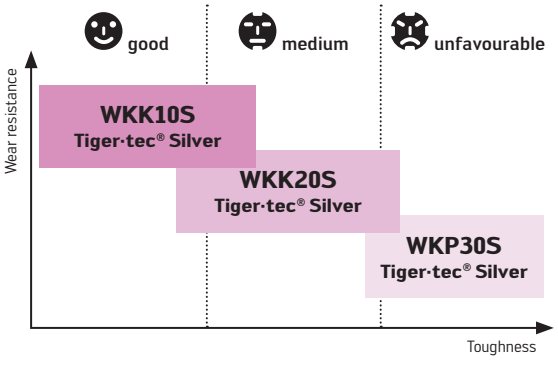


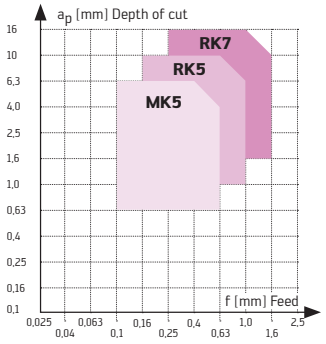
MP4: For universal machining, copy turning
FP6: For semi-finishing operations
* Fully ground circumference

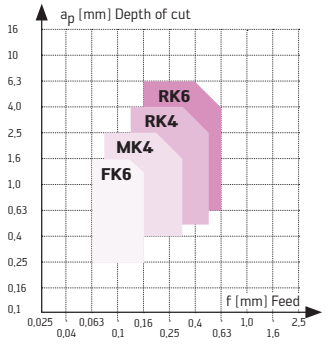
Wiper



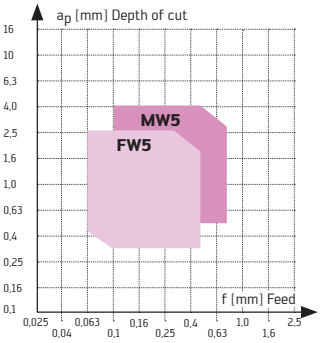
Cast iron machining ISO K



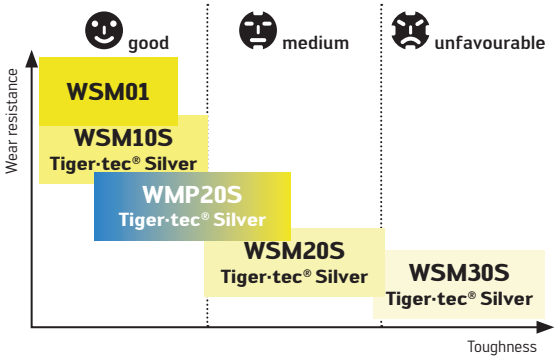




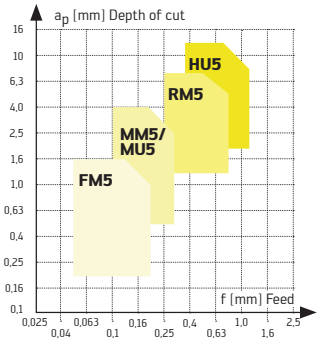
Wiper



Stainless steel ISO M

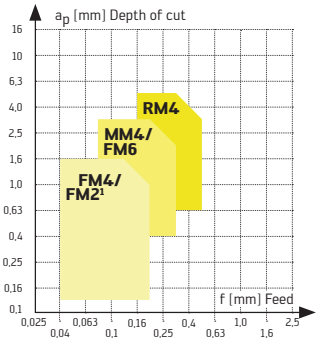


Negative basic shape



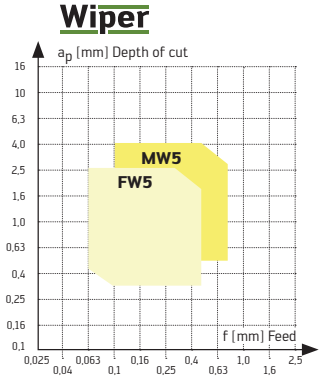
MM5: For universal machining
MU5: Easy-cutting – for ISO P and ISO M
HU5: Stable, single-sided indexable insert

Positive basic shape

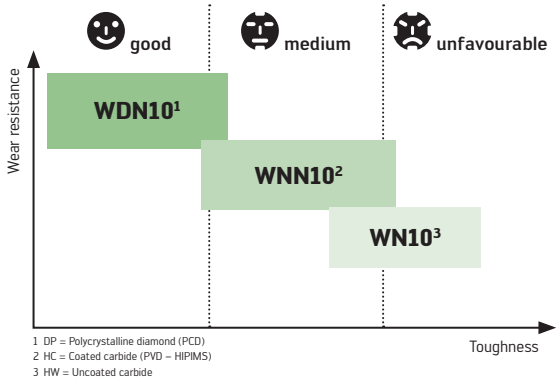


MM4: For universal machining, copy turning
FM6: For semi-finishing operations
¹ Fully ground circumference

Wiper

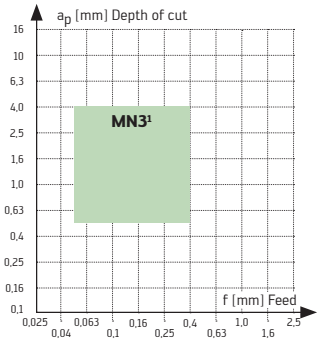


NF metals ISO N



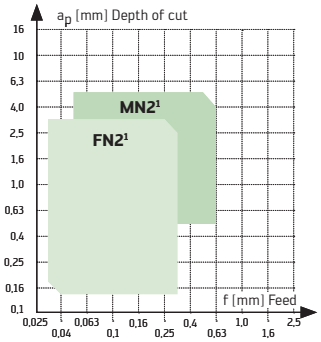
1 DP = Polycrystalline diamond (PCD)
2 HC = Coated carbide (PVD – HIPIMS)
3 HW = Uncoated carbide

Carbide



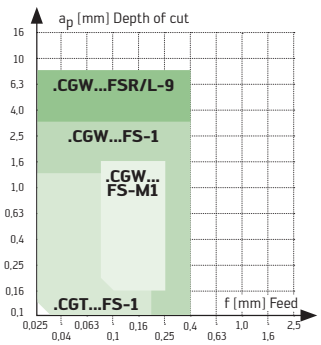
¹ Fully ground circumference, polished

Carbide

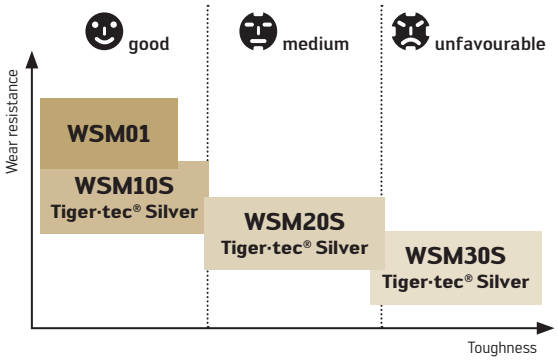


¹ Fully ground circumference, polished

PCD



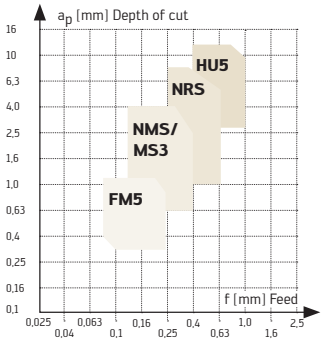
ISO S high-temperature alloys and titanium alloys



Negative basic shape

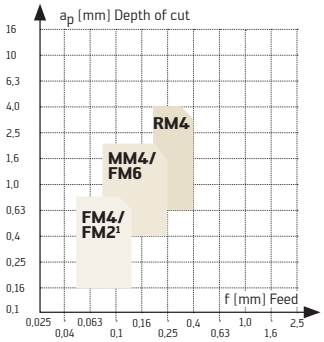
Positive basic shape

Ni, Co and Fe-based alloys



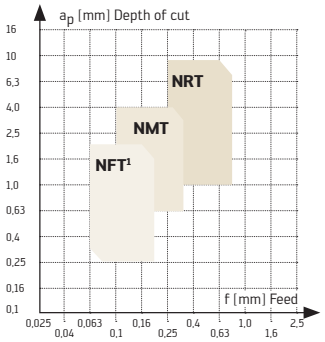
NMS: For universal machining
MS3: For low cutting pressure

Ni, Co, Fe and titanium-based alloys



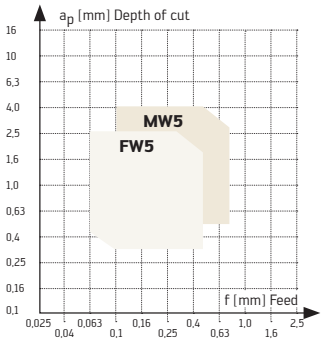
MM4: For universal machining, copy turning
FM6: For semi-finishing operations
¹ Fully ground circumference

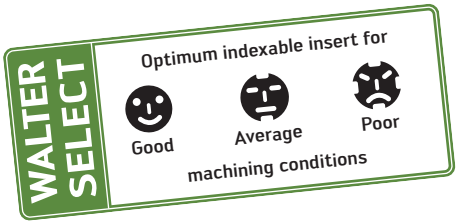
Titanium-based alloys



¹ Fully ground circumference

Wiper



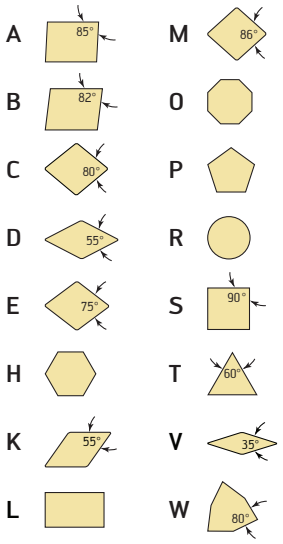


Designation key in accordance with ISO 1832 for indexable inserts for turning

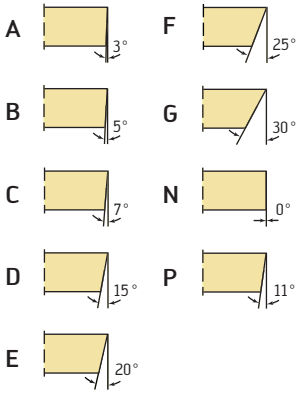
Example 1:

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

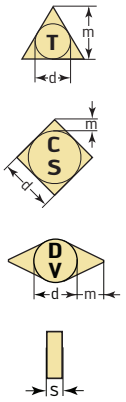
1 Insert shape



2 Clearance angle



3 Tolerances



Permissible deviation in mm for

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

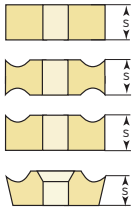
[1] Inserts with ground planar cutting edges
[2] Depending on the insert size (see ISO standard 1832)

5 Cutting edge length l [mm]

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

[1] Inch version (00)

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	β = 70–90°	R	
B	β = 70–90°	J	β = 70–90°	T	β = 40–60°
C	β = 70–90°	M		U	β = 40–60°
F		N		W	β = 40–60°
G		Q	β = 40–60°		

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		
R	24 r = 2,4		

M0 Metric version (diameter in [mm])

00 Inch version (diameter with inch units in [mm])

8

Edge formation

F T

E 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

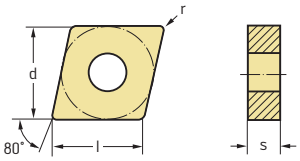
11

Chamfer angle

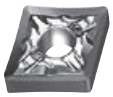
15 = 15°

20 = 20°

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



Indexable inserts

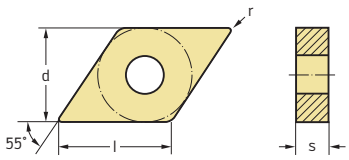
	Designation	r mm	f mm	a_p mm	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WMP20S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WN10	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S	HW WS10
 Wiper	CNMG120404-FW5	0,4	0,10–0,40	0,3–3,0		☻	😐				☻	😐							☻	😐		
	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	☻	☻	😐	😐	😐					☻	😐							
	CNGG120402M-MN3	0,17	0,05–0,12	0,5–3,0												😐	😐					
	CNGG120404M-MN3	0,37	0,08–0,30	0,8–4,0												😐	😐					
	CNGG120408M-MN3	0,77	0,10–0,40	1,0–4,0												😐	😐					
	CNMG120404-MS3	0,4	0,12–0,25	0,6–3,0						☻	☻	😐	☠					☻	☻	😐	☠	😐
	CNMG120408-MS3	0,8	0,15–0,30	0,8–3,0		☻	😐			☻	☻	😐	☠					☻	☻	😐	☠	
	CNMG120412-MS3	1,2	0,15–0,40	1,0–3,5			😐			☻	☻	😐						☻	☻	😐		
	CNMG190612-MS3	1,2	0,18–0,50	1,2–5,0						☻		😐						☻		😐		
	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

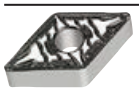
HC = Coated carbide
HW = Uncoated carbide

☻ 😐 ☠ / ★ New addition to the product range

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



Indexable inserts

	Designation	r mm	f mm	a_p mm	P HC				M HC					K HC		N HC		S HC			
					WPP05S	WPP10S	WPP20S	WMP20S	WMP20S	WSM01	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WN10	WNN10	WSM01	WSM10S	WSM20S	WSM30S
 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	☺	☺	😐							☺	😐						
	DNGG110402M-MN3	0,17	0,05–0,12	0,5–2,0												😠	😠				
	DNGG110404M-MN3	0,37	0,08–0,30	0,6–3,0												😠	😠				
	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			😐			☺	☺		☹					☺	☺		☹
	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

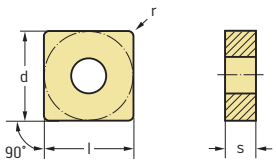
WALTER SELECT

Optimum indexable insert for

☺ Good 😐 Average ☹ Poor

machining conditions

Negative square
SNMG
Tiger·tec® Silver



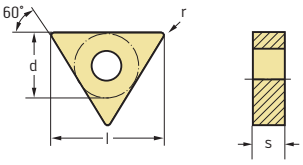
Indexable inserts

	Designation	r mm	f mm	a_p mm	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WN10	N HC WNN10	S HC WSM10S	S HC WSM20S	S HC WSM30S
	SNMG120404-FM5	0,4	0,05–0,15	0,2–1,5						☻	😐						☻	😐	
	SNMG120408-FM5	0,8	0,07–0,20	0,4–1,5						☻	😐						☻	😐	
	SNMG120412-FM5	1,2	0,10–0,25	0,5–2,0				😐	😐	☻	😐						☻	😐	
	SNMG120408-MU5	0,8	0,18–0,45	0,6–5,0		☻	😐	😐	😐		😐							😐	

See the ISO 1832 designation key for dimensions

HC = Coated carbide

Negative triangular 60°
TNMG
Tiger·tec® Silver

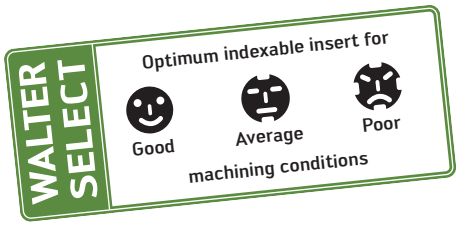


Indexable inserts

	Designation	r mm	f mm	a_p mm	P HC WPP05S	P HC WPP10S	P HC WPP20S	P HC WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	N HC WN10	N HC WNN10	S HC WSM10S	S HC WSM20S	S HC WSM30S
 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		☻	😐	😐	😐		😐							😐	

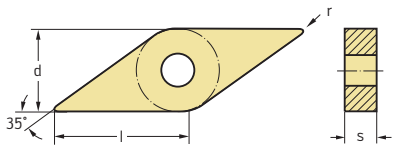
See the ISO 1832 designation key for dimensions

HC = Coated carbide



☻ 😐 ☹ / ★ New addition to the product range

Negative rhombic 35°
VNGG



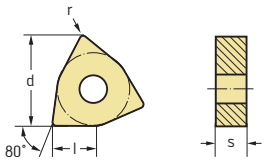
Indexable inserts

	Designation	r mm	f mm	a_p mm	P HC				M HC				K HC		N HC		S HC		
					WPP05S	WPP10S	WPP20S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WN10	WNN10	WSM10S	WSM20S	WSM30S
	VNGG160402M-MN3	0,17	0,05–0,12	0,5–2,0											●	●			
	VNGG160404M-MN3	0,37	0,08–0,30	0,6–3,0											●	●			

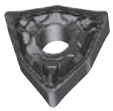
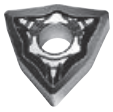
See the ISO 1832 designation key for dimensions

HC = Coated carbide

Negative Trigon 80°
WNMG / WNGG
Tiger·tec® Silver



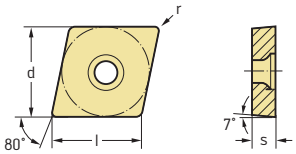
Indexable inserts

	Designation	r mm	f mm	a_p mm	P HC				M HC					K HC		N HC		S HC		
					WPP05S	WPP10S	WPP20S	WMP20S	WMP20S	WSM01	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WN10	WNN10	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	●	●	●	●	●					●	●						
	WNGG080404M-MN3	0,37	0,08–0,30	0,8–4,0												●	●				
	WNGG080408M-MN3	0,77	0,10–0,40	1,0–4,0												●	●				
	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



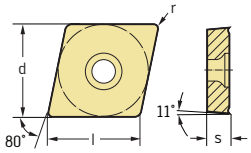
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HE	P HC	P HC	P HC	P HC	M HC	M HC	M HC	M HC	K HC	K HC	S HC	S HC	S HC
						WEP10C	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WSM10S	WSM20S	WSM30S
	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

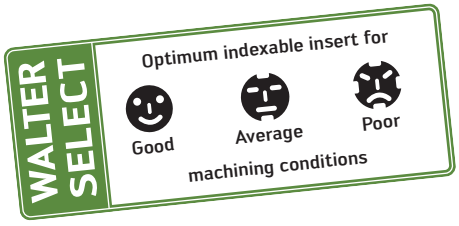


Indexable inserts

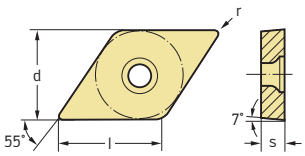
	Designation	l mm	r mm	f mm	a_p mm	P HE	P HC	P HC	P HC	P HC	M HC	M HC	M HC	M HC	K HC	K HC	S HC	S HC	S HC
						WEP10C	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WSM10S	WSM20S	WSM30S
	CPGT050202M-FP2	5,64	0,17	0,05–0,12	0,2–2,0	☺													
	CPGT050204M-FP2	5,64	0,37	0,08–0,20	0,2–2,0	☺													

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide



Positive rhombic 55°
DCGT



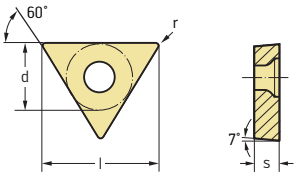
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HE WEP10C	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM10S	S HC WSM20S	S HC 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



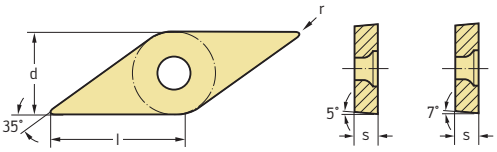
Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HE WEP10C	P HC WPP10S	P HC WPP20S	P HC WPP30S	P HC WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM10S	S HC WSM20S	S HC WSM30S
	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 / VCMT
Tiger·tec® Silver

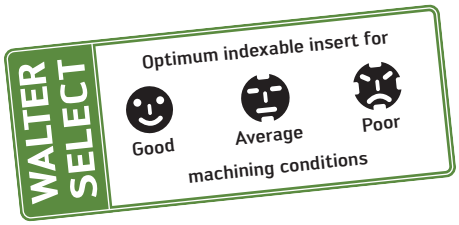


Indexable inserts

	Designation	l mm	r mm	f mm	a_p mm	P HE	P HC	P HC	P HC	P HC	M HC	M HC	M HC	M HC	K HC	K HC	S HC	S HC	S HC
						WEP10C	WPP10S	WPP20S	WPP30S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WSM10S	WSM20S	WSM30S
	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	☺													
	VCMT160404-MM4	16,61	0,4	0,08–0,20	0,4–2,0					😐	😐	☺	😐				☺	😐	
	VCMT160408-MM4	16,61	0,8	0,12–0,30	0,5–2,0					😐	😐	☺	😐				☺	😐	
	VCMT160404-MP4	16,61	0,4	0,08–0,20	0,4–2,0		☺	😐											
	VCMT160408-MP4	16,61	0,8	0,12–0,30	0,5–2,0		☺	😐											

See the ISO 1832 designation key for dimensions

HE = Coated cermet
HC = Coated carbide



☺ 😐 ☹ / ★ New addition to the product range

Designation key for system inserts for turning

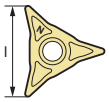
Example:

W	L	2	5	–	V	C	0	7	0	4	R	–	M	P	4	WPP20S
1		2			3	4	5		6		7		8			9

1 Type of indexable insert

WL Walter Lock

2 Indexable insert size



25 25 mm

3 Basic shape



V 35°



R Round

4 Clearance angle



C 7°

5 Cutting edge length



04 4 mm



05 5 mm

07 7 mm

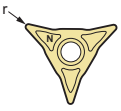
6 Corner radius

04 0,4 mm

08 0,8 mm

12 1,2 mm

16 1,6 mm



7 Direction of cut



N Neutral



R Right-hand



L Left-hand

8 Geometry

MP4 Medium machining, ISO P, 4

See geometry designation key for indexable inserts for turning, General Catalogue 2017, page A 11

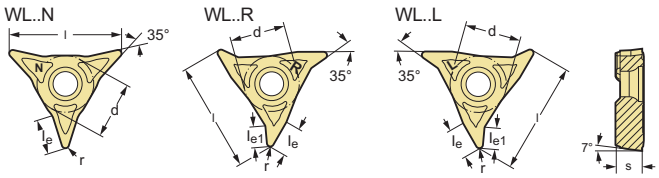
9 Grade

WPP20S ISO P20 Tiger·tec® Silver

See geometry designation key for indexable inserts for turning, General Catalogue 2017, page A 11

Indexable inserts for copy turning system WL

Tiger·tec® Silver



Indexable inserts

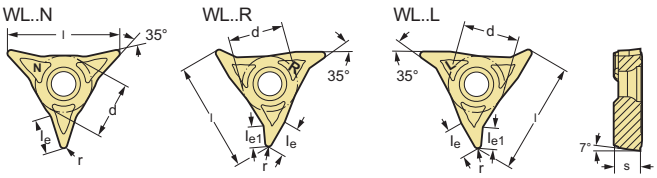
	Designation	r mm	l mm	l_e mm	l_{e1} mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM10S	S HC WSM20S	S HC WSM30S
	WL25-VC0704N-FM4	0,4	25	6,3		0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708N-FM4	0,8	25	7,1		0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704R-FM4	0,4	25	6,2	3,9	0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708R-FM4	0,8	25	6,6	4,6	0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704L-FM4	0,4	25	6,2	3,9	0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708L-FM4	0,8	25	6,6	4,6	0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704N-FP4	0,4	25	6,3		0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708N-FP4	0,8	25	7,1		0,08–0,25	0,2–2,0	●	●										
	WL25-VC0704R-FP4	0,4	25	6,2	3,9	0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708R-FP4	0,8	25	6,6	4,6	0,08–0,25	0,2–2,0	●	●										
	WL25-VC0704L-FP4	0,4	25	6,2	3,9	0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708L-FP4	0,8	25	6,6	4,6	0,08–0,25	0,2–2,0	●	●										
	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-VC0712N-MM4	1,2	25	7,4		0,12–0,35	0,5–2,5					●	●				●	●	
	WL25-VC0716N-MM4	1,6	25	8,7		0,12–0,40	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			●	●		●					●	
	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-VC0712N-MP4	1,2	25	7,4		0,12–0,35	0,5–2,5	●	●										
	WL25-VC0716N-MP4	1,6	25	8,7		0,12–0,40	0,5–2,5	●	●										

HC = Coated carbide

● ● ● / ★ New addition to the product range

Indexable inserts for copy turning system WL

Tiger·tec® Silver



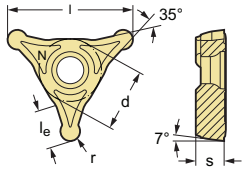
Indexable inserts

	Designation	r mm	l mm	l_e mm	l_{e1} mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM10S	S HC WSM20S	S HC WSM30S
	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	☺	😐										

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 HC WPP10S	P HC WPP20S	P HC WMP20S	M HC WMP20S	M HC WSM20S	M HC WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM20S	S HC WSM30S
	WL25-RC0420N-MU6	2	25	7,2	0,12–0,40	0,5–2,0		😐			😐	😣			😐	😣
	WL25-RC0525N-MU6	2,5	25	6,9	0,12–0,45	0,5–2,5		😐			😐	😣			😐	😣

HC = Coated carbide

WALTER SELECT

Optimum indexable insert for

Good ☺ Average 😐 Poor ☹

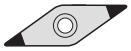
machining conditions

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

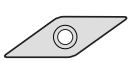




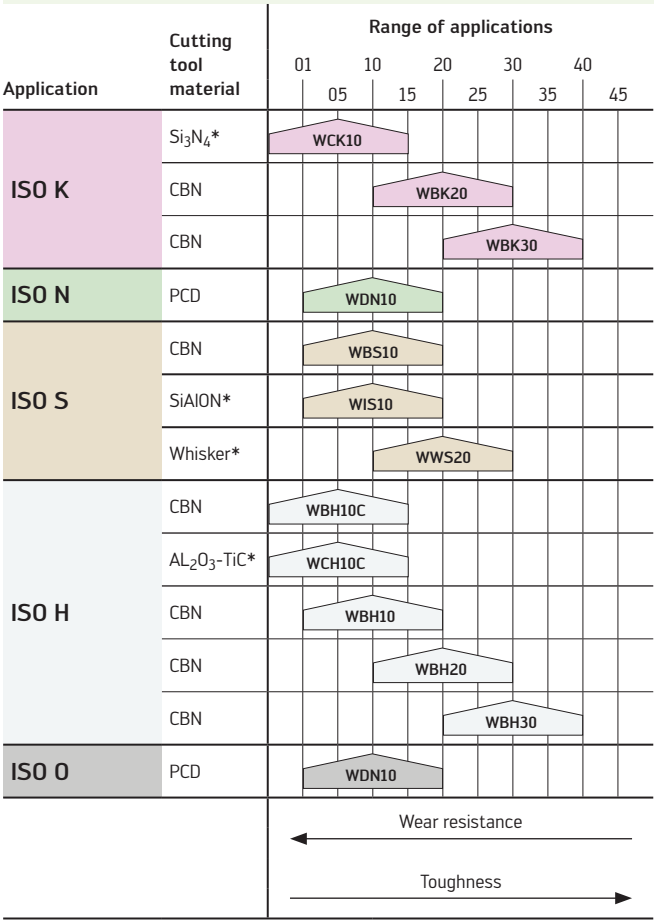
CBN indexable inserts

Insert shape		Description	Page
 Wiper	C	Negative basic shape Positive basic shape 7°	23 27
	D	Negative basic shape Positive basic shape 7°	24 27
	S	Negative basic shape	24
	T	Negative basic shape Positive basic shape 7°	25 28
	V	Negative basic shape Positive basic shape 5°	25 29
	W	Negative basic shape	26

Ceramic indexable inserts

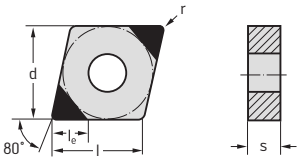
Insert shape		Description	Page
 Wiper	C	Negative basic shape	30
	D	Negative basic shape	30
	R	Positive basic shape 11°	33
	S	Negative basic shape	31
	T	Negative basic shape	31
	V	Negative basic shape	32
 Wiper	W	Negative basic shape	32

Cutting tool materials: CBN, PCD, ceramic



* Ceramic

CBN – Negative rhombic 80°
CNGA



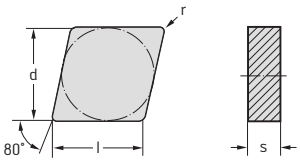
Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
 Wiper	CNGA120404TM-MW2	2	2,8	0,4	0,05–0,35	0,1–1,0						☻	☻				
	CNGA120408TM-MW2	2	2,7	0,8	0,05–0,50	0,1–1,0						☻	☻		☹		
	CNGA120412TM-MW2	2	2,8	1,2	0,05–0,50	0,1–1,0						☻	☻		☹		
	CNGA120404TM-2	2	2,8	0,4	0,05–0,20	0,1–1,0						☻	☻	😐	☹		
	CNGA120408TM-2	2	2,7	0,8	0,05–0,25	0,1–1,0						☻	☻	😐	☹		
	CNGA120412TM-2	2	2,8	1,2	0,05–0,30	0,1–1,0						☻	☻	😐	☹		

See the ISO 1832 designation key for dimensions

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

CBN – Negative rhombic 80°
CNGN

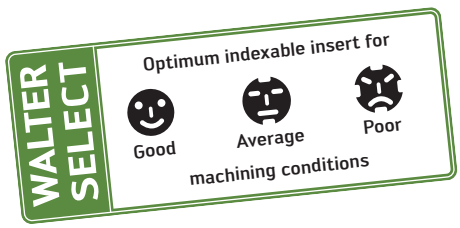


Indexable inserts

	Designation	Number of cutting edges	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	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			☹								

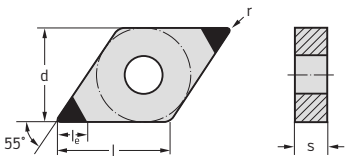
See the ISO 1832 designation key for dimensions

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



☻ 😐 ☹ / ★ New addition to the product range

CBN – Negative rhombic 55°
DNGA



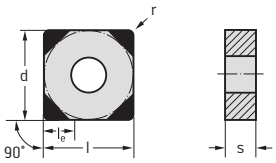
Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	DNGA150404TM-2	2	2,9	0,4	0,05–0,20	0,1–0,5						☺	☺	😐			
	DNGA150604TM-2	2	2,9	0,4	0,05–0,20	0,1–0,5						☺	☺	😐	☹		
	DNGA150408TM-2	2	2,8	0,8	0,05–0,25	0,1–1,0						☺	☺	😐			
	DNGA150608TM-2	2	2,8	0,8	0,05–0,25	0,1–1,0						☺	☺	😐	☹		
	DNGA150612TM-2	2	2,8	1,2	0,05–0,30	0,1–1,0						☺	☺	😐	☹		

See the ISO 1832 designation key for dimensions

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

CBN – Negative square
SNGA

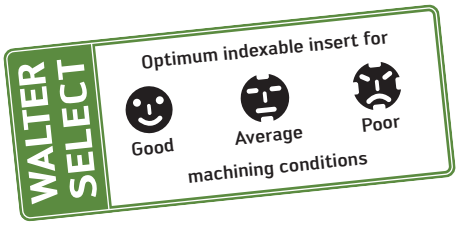


Indexable inserts

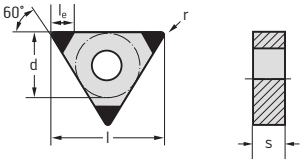
	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	SNGA120408TM-4	4	2,8	0,8	0,05–0,30	0,1–1,0								😐	☹		
	SNGA120412TM-4	4	2,8	1,2	0,05–0,30	0,1–1,0								😐	☹		

See the ISO 1832 designation key for dimensions

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



CBN – Negative triangular 60°
TNGA



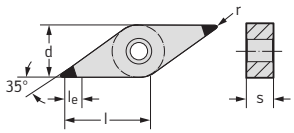
Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	CC WCH10C	O DP WDN10
	TNGA160404TM-3	3	3	0,4	0,05–0,20	0,1–0,5						☻	☻	😐			
	TNGA160408TM-3	3	2,8	0,8	0,05–0,25	0,1–1,0						☻	☻	😐	☹		

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
CC = Coated ceramic

CBN – Negative rhombic 35°
VNGA



Indexable inserts

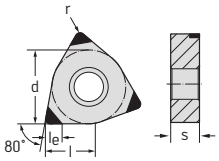
	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	CC WCH10C	O DP WDN10
	VNGA160404TM-2	2	3	0,4	0,05–0,20	0,1–0,5						☻	☻	😐	☹		
	VNGA160408TM-2	2	3	0,8	0,05–0,20	0,1–0,5						☻	☻	😐			

See the ISO 1832 designation key for dimensions

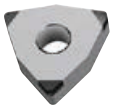
CN = Silicon nitride Si_3N_4
BH = CBN with high CBN content
DP = Polycrystalline diamond
BL = CBN with low CBN content
CC = Coated ceramic

☻😐☹ / ★ New addition to the product range

CBN – Negative Trigon 80°
WNGA



Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	WNGA080408TM-3	3	2,8	0,8	0,05–0,25	0,1–1,0							☺	😐	☹		

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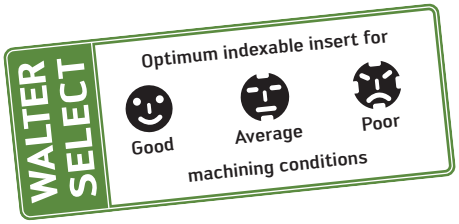
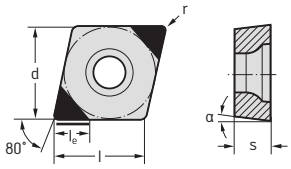
DP = Polycrystalline diamond
BL = CBN with low CBN content
CC = Coated ceramic



CBN – Positive rhombic 80°
CCGW



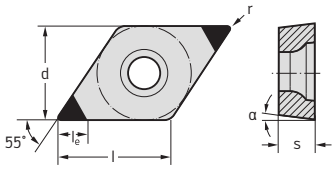
Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	α	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	CCGW060204TM-2	2	2,8	0,4	7°	0,05–0,20	0,1–0,3						☻	☻	😐	☹		
	CCGW060208TM-2	2	2,7	0,8	7°	0,05–0,25	0,1–0,5						☻	☻	😐	☹		
	CCGW09T304TM-2	2	2,8	0,4	7°	0,05–0,20	0,1–0,5						☻	☻	😐	☹		
	CCGW09T308TM-2	2	2,7	0,8	7°	0,05–0,25	0,1–0,5						☻	☻	😐	☹		

See the ISO 1832 designation key for dimensions

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

CBN – Positive rhombic 55°
DCGW



Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	α	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	DCGW070202TM-2	2	3	0,2	7°	0,05–0,15	0,1–0,3								😐			
	DCGW070204TM-2	2	2,9	0,4	7°	0,05–0,20	0,1–0,3						☻	☻	😐			
	DCGW070208TM-2	2	2,8	0,8	7°	0,05–0,25	0,1–0,5						☻	☻	😐			
	DCGW11T302TM-2	2	3	0,2	7°	0,05–0,15	0,1–0,5								😐	☹		
	DCGW11T304TM-2	2	2,9	0,4	7°	0,05–0,20	0,1–0,5						☻	☻	😐	☹		
	DCGW11T308TM-2	2	2,8	0,8	7°	0,05–0,25	0,1–0,5						☻	☻	😐	☹		

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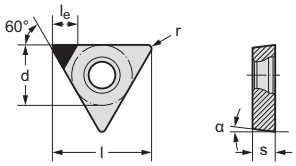
BL = CBN with low CBN content
CC = Coated ceramic

☻ 😐 ☹ / ★ New addition to the product range

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				CC		DP
								WCK10	WBK20	WBK30	WDN10	WBS10	WBH10C	WBH10	WBH20	WBH30	WCH10C	WDN10	
	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							☺	☹				

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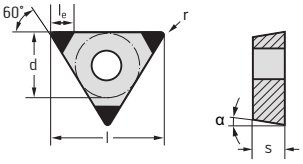
DP = Polycrystalline diamond
BL = CBN with low CBN content
CC = Coated ceramic

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				CC		DP
								WCK10	WBK20	WBK30	WDN10	WBS10	WBH10C	WBH10	WBH20	WBH30	WCH10C	WDN10	
	TCGW110202TS-3	3	2,8	0,2	7°	0,05–0,15	0,1–0,3		☹										
	TCGW110204TS-3	3	3,1	0,4	7°	0,05–0,20	0,1–0,3		☹										
	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 Si_3N_4
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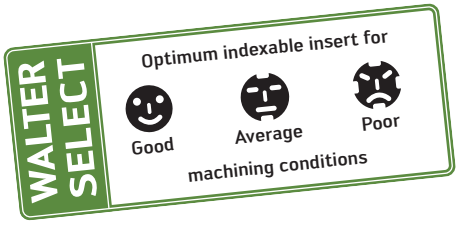
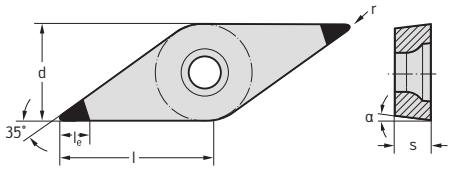
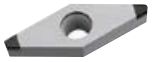
CC = Coated ceramic



CBN – Positive rhombic 35°
VBGW



Indexable inserts

	Designation	Number of cutting edges	l_e mm	r mm	α	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	VBGW160404TS-2	2	3	0,4	5°	0,05–0,20	0,1–0,5							☻				
	VBGW160408TS-2	2	3	0,8	5°	0,05–0,25	0,1–0,5							☻				
	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 Si_3N_4
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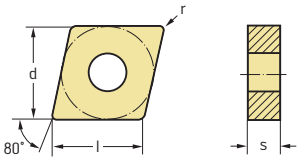
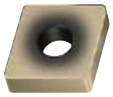
BL = CBN with low CBN content
CC = Coated ceramic

☻ 😐 ☹ / ★ New addition to the product range

Ceramic – Negative rhombic 80°
CNGA



Indexable inserts

	Designation	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
 Wiper	CNGA120404SM-MWS	0,4	0,05–0,25	0,1–0,5										☺	
	CNGA120408SM-MWS	0,8	0,05–0,30	0,1–1,0										☺	
	CNGA120412SM-MWS	1,2	0,05–0,35	0,1–1,0										☺	
	CNGA120404SM-S	0,4	0,05–0,20	0,1–0,5										☺	
	CNGA120408SM-S	0,8	0,05–0,25	0,1–1,0										☺	
	CNGA120412SM-S	1,2	0,05–0,30	0,1–1,0										☺	

See the ISO 1832 designation key for dimensions

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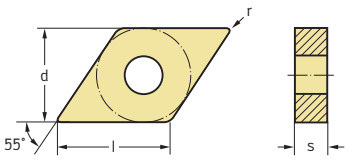
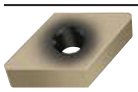
DP = Polycrystalline diamond
BL = CBN with low CBN content
CC = Coated ceramic

Ceramic – Negative rhombic 55°
DNGA



Indexable inserts

	Designation	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	DNGA150404SM-S	0,4	0,05–0,20	0,1–0,5										☺	
	DNGA150408SM-S	0,8	0,05–0,25	0,1–1,0										☺	
	DNGA150412SM-S	1,2	0,05–0,30	0,1–1,0										☺	
	DNGA150604SM-S	0,4	0,05–0,20	0,1–0,5										☺	
	DNGA150608SM-S	0,8	0,05–0,25	0,1–1,0										☺	
	DNGA150612SM-S	1,2	0,05–0,30	0,1–1,0										☺	

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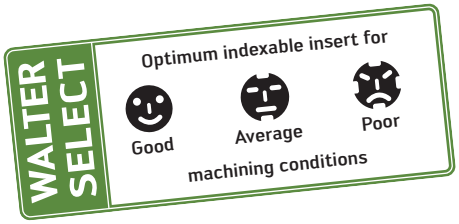
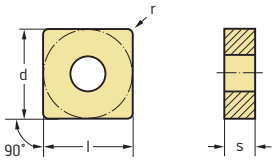


Ceramic – Negative square
SNGA



Indexable inserts

	Designation	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	SNGA120408SM-S	0,8	0,05–0,30	0,1–1,0										☻	
	SNGA120412SM-S	1,2	0,05–0,30	0,1–1,0										☻	

See the ISO 1832 designation key for dimensions

CN = Silicon nitride Si_3N_4
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DP = Polycrystalline diamond
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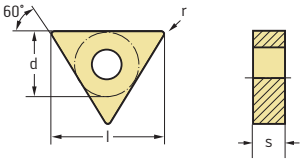
CC = Coated ceramic

Ceramic – Negative triangular 60°
TNGA



Indexable inserts

	Designation	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	TNGA160404SM-S	0,4	0,05–0,20	0,1–0,5										☻	
	TNGA160408SM-S	0,8	0,05–0,25	0,1–1,0										☻	
	TNGA160412SM-S	1,2	0,05–0,30	0,1–1,0										☻	

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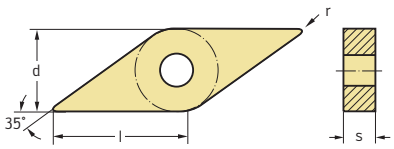
BL = CBN with low CBN content
CC = Coated ceramic

☻☻☻ / ★ New addition to the product range

Ceramic – Negative rhombic 35°
VNGA



Indexable inserts

	Designation	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	VNGA160404SM-S	0,4	0,05–0,20	0,1–0,5										☻	
	VNGA160408SM-S	0,8	0,05–0,23	0,1–0,5										☻	
	VNGA160412SM-S	1,2	0,05–0,25	0,1–0,7										☻	

See the ISO 1832 designation key for dimensions

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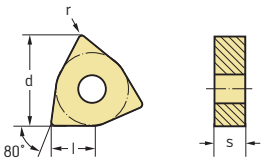
DP = Polycrystalline diamond
BL = CBN with low CBN content
CC = Coated ceramic

Ceramic – Negative Trigon 80°
WNGA



Indexable inserts

	Designation	r mm	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
 Wiper	WNGA080404SM-MWS	0,4	0,05–0,25	0,1–0,5										☻	
	WNGA080408SM-MWS	0,8	0,05–0,30	0,1–1,0										☻	
	WNGA080404SM-S	0,4	0,05–0,20	0,1–0,5										☻	
	WNGA080408SM-S	0,8	0,05–0,25	0,1–1,0										☻	

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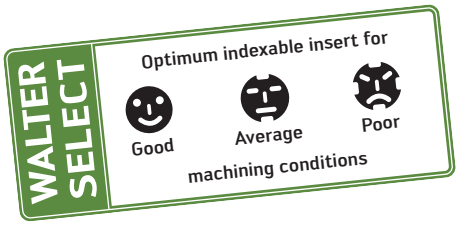
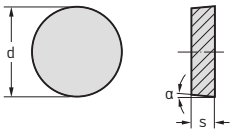
CC = Coated ceramic



Ceramic – Positive round
RPGN



Indexable inserts

	Designation	d mm	α	f mm	a_p mm	K CN WCK10	K BH WBK20	K BH WBK30	N DP WDN10	S BH WBS10	S CN WIS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	H CC WCH10C	O DP WDN10
	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						☻						

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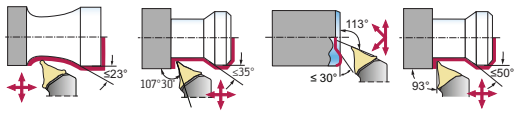
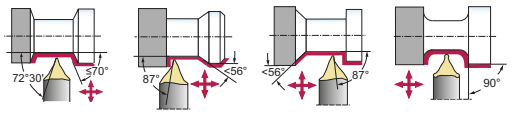
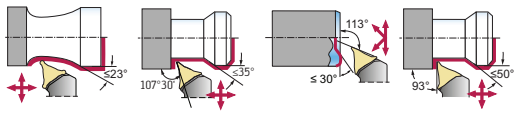
CC = Coated ceramic

☻☻☻ / ★ New addition to the product range

Walter Turn turning tools product range overview – External machining
Square shank turning toolholders – WL copy turning system

Machining			
Type			
Designation	**W1011**	**W1011...-P**	**W1010...-P**
Clamping system	Screw	Screw	Screw
Coolant supply	External	Precision cooling	Precision cooling
Shank size h [mm]	16–25	19–25	19–25
Shank size h [inch]	—	0,750–1,000	0,750–1,000
Insert size l [mm]	25	25	25
Page	36	38	42
			

Walter Turn turning tools product range overview – External machining
Walter Capto™ turning toolholders – WL copy turning system

Machining	
Type	
Designation	**W1011-C...-P**
Lead angle κ	107,5°
Clamping system	Screw
Coolant supply	Precision cooling
Walter Capto™ size	C4–C6
Insert size l [mm]	25
Page	46
	

Designation key for Walter Turn system tools – External machining

Example:

W	1	0	1	1	–	2	5	2	5	R	–	W	L	2	5	–	P
1	2	3	4			5				6		7					8

1 – Tool group

W	Walter Turning

2 – Generation

1	Walter Lock

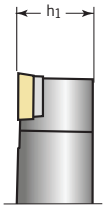
3 – Application

0	External machining

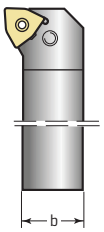
4 – Tool type

10	0° angle (72.5°)
11	35° angle (107°)

5 – Shank size

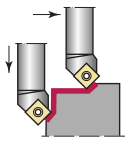


25 Height 25 mm

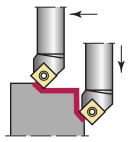


25 Width 25 mm

6 – Version



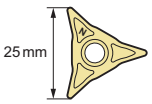
R Right-hand



L Left-hand

7 – Type of indexable insert

WL25



8 – Cooling

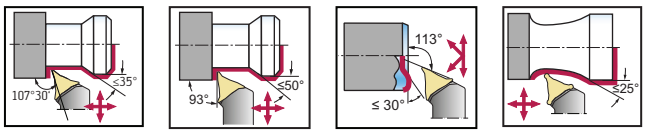
– P	Precision cooling



Shank tool – copy turning system
W1011 mm
Walter Turn



Left-hand Right-hand





Tool

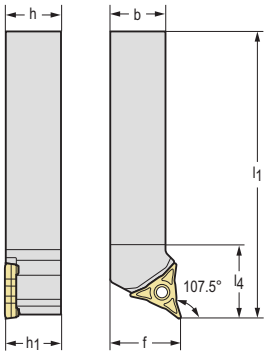


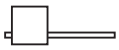
Fig. shows right-hand version

Designation		h = h_1 mm	b mm	f mm	l_1 mm	l_4 mm	γ	λ_s	Type
★ W1011-1616R-WL25	25	16	16	20	100	33,5	0°	0°	WL25..
★ W1011-2020R-WL25	25	20	20	25	125	33,5	0°	0°	
★ W1011-2525R-WL25	25	25	25	32	150	33,5	0°	0°	
★ W1011-1616L-WL25	25	16	16	20	100	33,5	0°	0°	
★ W1011-2020L-WL25	25	20	20	25	125	33,5	0°	0°	
★ W1011-2525L-WL25	25	25	25	32	150	33,5	0°	0°	

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

★ New addition to the product range

Assembly parts

	Type	WL25..
	Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm
	Torx key	FS1464 (Torx 20IP)

Indexable inserts

	Designation	r mm	l_{e1} mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P WMP20S	M HC WMP20S	M HC WSM10S	M HC WSM20S	M WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM10S	S HC WSM20S	S WSM30S
	WL25-RC0420N-MU6	2		0,12–0,40	0,5–2,0		●				●	●				●	●
	WL25-RC0525N-MU6	2,5		0,12–0,45	0,5–2,5		●				●	●				●	●
	WL25-VC0704L-FM4	0,4	3,9	0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708L-FM4	0,8	4,6	0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704L-FP4	0,4	3,9	0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708L-FP4	0,8	4,6	0,08–0,25	0,2–2,0	●	●										
	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-VC0704N-FM4	0,4		0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708N-FM4	0,8		0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704N-FP4	0,4		0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708N-FP4	0,8		0,08–0,25	0,2–2,0	●	●										
	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-VC0712N-MM4	1,2		0,12–0,35	0,5–2,5					●	●				●	●	
	WL25-VC0716N-MM4	1,6		0,12–0,40	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-VC0712N-MP4	1,2		0,12–0,35	0,5–2,5	●	●										
	WL25-VC0716N-MP4	1,6		0,12–0,40	0,5–2,5	●	●										
	WL25-VC0704R-FM4	0,4	3,9	0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708R-FM4	0,8	4,6	0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704R-FP4	0,4	3,9	0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708R-FP4	0,8	4,6	0,08–0,25	0,2–2,0	●	●										
	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	●	●										

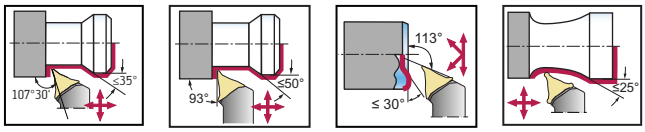
HC = Coated carbide

Shank tool – copy turning system
W1011...-P mm
Walter Turn

– Precision cooling



Left-hand Right-hand





Tool

Designation		h = h_1 mm	b mm	f mm	l_1 mm	l_4 mm	γ	λ_s	Type
W1011-2020R-WL25-P	25	20	20	25	115	33,5	0°	0°	WL25..
W1011-2525R-WL25-P	25	25	25	32	130	33,5	0°	0°	
W1011-2020L-WL25-P	25	20	20	25	115	33,5	0°	0°	
W1011-2525L-WL25-P	25	25	25	32	130	33,5	0°	0°	

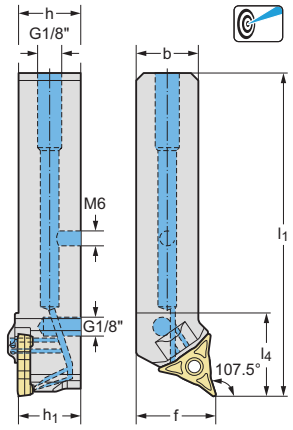
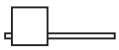


Fig. shows right-hand version

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

/ ★ New addition to the product range

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 HC			M HC				K HC		S HC		
						WPP10S	WPP20S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WSM10S	WSM20S	WSM30S
	WL25-RC0420N-MU6	2		0,12–0,40	0,5–2,0		○				○	○				○	○
	WL25-RC0525N-MU6	2,5		0,12–0,45	0,5–2,5		○				○	○				○	○
	WL25-VC0704L-FM4	0,4	3,9	0,05–0,20	0,1–2,0					○	○				○	○	
	WL25-VC0708L-FM4	0,8	4,6	0,08–0,25	0,2–2,0					○	○				○	○	
	WL25-VC0704L-FP4	0,4	3,9	0,05–0,20	0,1–2,0	○	○										
	WL25-VC0708L-FP4	0,8	4,6	0,08–0,25	0,2–2,0	○	○										
	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-VC0704N-FM4	0,4		0,05–0,20	0,1–2,0					○	○				○	○	
	WL25-VC0708N-FM4	0,8		0,08–0,25	0,2–2,0					○	○				○	○	
	WL25-VC0704N-FP4	0,4		0,05–0,20	0,1–2,0	○	○										
	WL25-VC0708N-FP4	0,8		0,08–0,25	0,2–2,0	○	○										
	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-VC0712N-MM4	1,2		0,12–0,35	0,5–2,5					○	○				○	○	
	WL25-VC0716N-MM4	1,6		0,12–0,40	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-VC0712N-MP4	1,2		0,12–0,35	0,5–2,5	○	○										
	WL25-VC0716N-MP4	1,6		0,12–0,40	0,5–2,5	○	○										
	WL25-VC0704R-FM4	0,4	3,9	0,05–0,20	0,1–2,0					○	○				○	○	
	WL25-VC0708R-FM4	0,8	4,6	0,08–0,25	0,2–2,0					○	○				○	○	
	WL25-VC0704R-FP4	0,4	3,9	0,05–0,20	0,1–2,0	○	○										
	WL25-VC0708R-FP4	0,8	4,6	0,08–0,25	0,2–2,0	○	○										
	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	●	●										

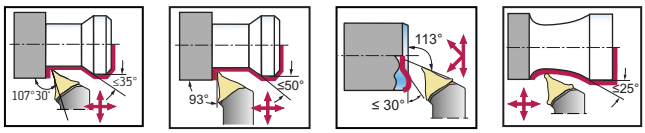
HC = Coated carbide

Shank tool – copy turning system
W1011...-P inch
Walter Turn

– Precision cooling



Left-hand Right-hand





Tool

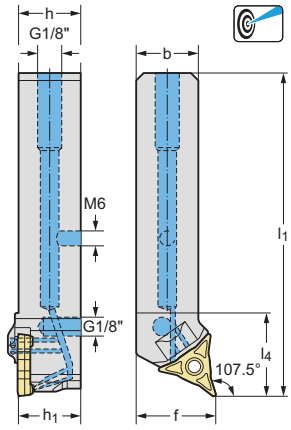


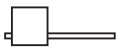
Fig. shows right-hand version

Designation	T (in)	h = h1 inch	b inch	f inch	l1 inch	l4 inch	γ	λs	Type
W1011.12R-WL25-P	0,500	0,750	0,750	1,000	4,500	1,319	0°	0°	WL25..
W1011.16R-WL25-P	0,500	1,000	1,000	1,250	6,000	1,319	0°	0°	
W1011.12L-WL25-P	0,500	0,750	0,750	1,000	4,500	1,319	0°	0°	
W1011.16L-WL25-P	0,500	1,000	1,000	1,250	6,000	1,319	0°	0°	

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

/ ★ New addition to the product range

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 HC			M HC				K HC		S HC		
						WPP10S	WPP20S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WSM10S	WSM20S	WSM30S
	WL25-RC0420N-MU6	2		0,12–0,40	0,5–2,0		●				●	●				●	●
	WL25-RC0525N-MU6	2,5		0,12–0,45	0,5–2,5		●				●	●				●	●
	WL25-VC0704L-FM4	0,4	3,9	0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708L-FM4	0,8	4,6	0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704L-FP4	0,4	3,9	0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708L-FP4	0,8	4,6	0,08–0,25	0,2–2,0	●	●										
	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-VC0704N-FM4	0,4		0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708N-FM4	0,8		0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704N-FP4	0,4		0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708N-FP4	0,8		0,08–0,25	0,2–2,0	●	●										
	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-VC0712N-MM4	1,2		0,12–0,35	0,5–2,5					●	●				●	●	
	WL25-VC0716N-MM4	1,6		0,12–0,40	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-VC0712N-MP4	1,2		0,12–0,35	0,5–2,5	●	●										
	WL25-VC0716N-MP4	1,6		0,12–0,40	0,5–2,5	●	●										
	WL25-VC0704R-FM4	0,4	3,9	0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708R-FM4	0,8	4,6	0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704R-FP4	0,4	3,9	0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708R-FP4	0,8	4,6	0,08–0,25	0,2–2,0	●	●										
	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	●	●										

HC = Coated carbide

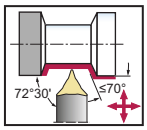
Shank tool – copy turning system

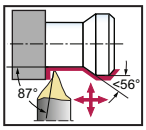
W1010...-P mm

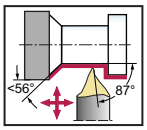
Walter Turn

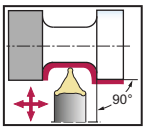


– Precision cooling



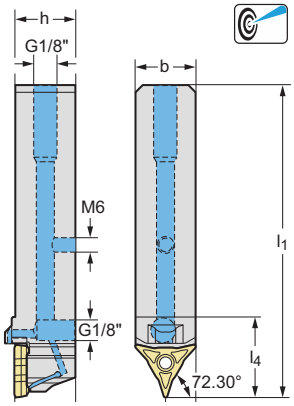








Tool

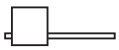


Designation		$h = h_1$ mm	b mm	f mm	l_1 mm	l_4 mm	γ	λ_s	Type
★ W1010-2020N-WL25-P	25	20	20	10	115	33,5	0°	0°	WL25..
★ W1010-2525N-WL25-P	25	25	25	13	130	33,5	0°	0°	

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

/ ★ New addition to the product range

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

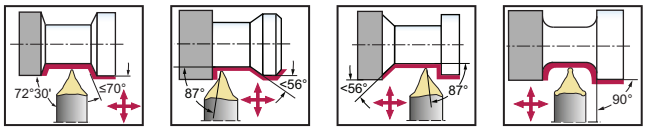
	Designation	r mm	l_{e1} mm	f mm	a_p mm	P HC			M HC				K HC		S HC		
						WPP10S	WPP20S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WSM10S	WSM20S	WSM30S
	WL25-RC0420N-MU6	2		0,12–0,40	0,5–2,0		☻				☻	☠				☻	☠
	WL25-RC0525N-MU6	2,5		0,12–0,45	0,5–2,5		☻				☻	☠				☻	☠
	WL25-VC0704L-FM4	0,4	3,9	0,05–0,20	0,1–2,0					☻	☻				☻	☻	
	WL25-VC0708L-FM4	0,8	4,6	0,08–0,25	0,2–2,0					☻	☻				☻	☻	
	WL25-VC0704L-FP4	0,4	3,9	0,05–0,20	0,1–2,0	☻	☻										
	WL25-VC0708L-FP4	0,8	4,6	0,08–0,25	0,2–2,0	☻	☻										
	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-VC0704N-FM4	0,4		0,05–0,20	0,1–2,0					☻	☻				☻	☻	
	WL25-VC0708N-FM4	0,8		0,08–0,25	0,2–2,0					☻	☻				☻	☻	
	WL25-VC0704N-FP4	0,4		0,05–0,20	0,1–2,0	☻	☻										
	WL25-VC0708N-FP4	0,8		0,08–0,25	0,2–2,0	☻	☻										
	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-VC0712N-MM4	1,2		0,12–0,35	0,5–2,5					☻	☻				☻	☻	
	WL25-VC0716N-MM4	1,6		0,12–0,40	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-VC0712N-MP4	1,2		0,12–0,35	0,5–2,5	☻	☻										
	WL25-VC0716N-MP4	1,6		0,12–0,40	0,5–2,5	☻	☻										
	WL25-VC0704R-FM4	0,4	3,9	0,05–0,20	0,1–2,0					☻	☻				☻	☻	
	WL25-VC0708R-FM4	0,8	4,6	0,08–0,25	0,2–2,0					☻	☻				☻	☻	
	WL25-VC0704R-FP4	0,4	3,9	0,05–0,20	0,1–2,0	☻	☻										
	WL25-VC0708R-FP4	0,8	4,6	0,08–0,25	0,2–2,0	☻	☻										
	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	☹	☹										

HC = Coated carbide

Shank tool – copy turning system
W1010...-P inch
Walter Turn

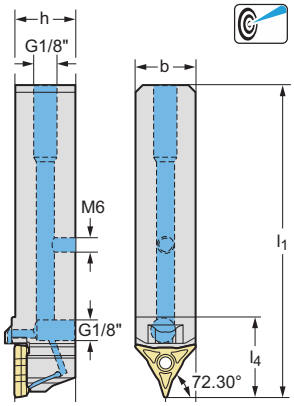


– Precision cooling





Tool

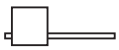


Designation	T (in)	h = h1 inch	b inch	f inch	l1 inch	l4 inch	γ	λs	Type
★ W1010.12N-WL25-P	0,500	0,750	0,750	0,375	4,500	1,319	0°	0°	WL25..
★ W1010.16N-WL25-P	0,500	1,000	1,000	0,500	6,000	1,319	0°	0°	

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

/ ★ New addition to the product range

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 HC			M HC				K HC		S HC		
						WPP10S	WPP20S	WMP20S	WMP20S	WSM10S	WSM20S	WSM30S	WKK10S	WKK20S	WSM10S	WSM20S	WSM30S
	WL25-RC0420N-MU6	2		0,12–0,40	0,5–2,0		●				●	✕				●	✕
	WL25-RC0525N-MU6	2,5		0,12–0,45	0,5–2,5		●				●	✕				●	✕
	WL25-VC0704L-FM4	0,4	3,9	0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708L-FM4	0,8	4,6	0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704L-FP4	0,4	3,9	0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708L-FP4	0,8	4,6	0,08–0,25	0,2–2,0	●	●										
	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-VC0704N-FM4	0,4		0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708N-FM4	0,8		0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704N-FP4	0,4		0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708N-FP4	0,8		0,08–0,25	0,2–2,0	●	●										
	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-VC0712N-MM4	1,2		0,12–0,35	0,5–2,5					●	●				●	●	
	WL25-VC0716N-MM4	1,6		0,12–0,40	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-VC0712N-MP4	1,2		0,12–0,35	0,5–2,5	●	●										
	WL25-VC0716N-MP4	1,6		0,12–0,40	0,5–2,5	●	●										
	WL25-VC0704R-FM4	0,4	3,9	0,05–0,20	0,1–2,0					●	●				●	●	
	WL25-VC0708R-FM4	0,8	4,6	0,08–0,25	0,2–2,0					●	●				●	●	
	WL25-VC0704R-FP4	0,4	3,9	0,05–0,20	0,1–2,0	●	●										
	WL25-VC0708R-FP4	0,8	4,6	0,08–0,25	0,2–2,0	●	●										
	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	●	●										

HC = Coated carbide

Turning toolholders – copy turning system

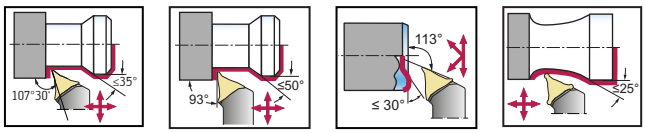
W1011-C...-P mm

Walter Turn

– Precision cooling
– Walter Capto™



Left-hand Right-hand





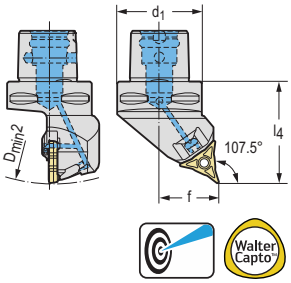
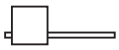
Tool										
Walter Capto™ in acc. with ISO 26623	Designation		d_1	f mm	l_4 mm	D_{min} mm	D_{min2} mm	γ	λ_s	Type
	★ W1011-C4R-WL25-P	25	C4	27	50	200	200	0°	0°	WL25..
	★ W1011-C5R-WL25-P	25	C5	35	60	200	200	0°	0°	
	★ W1011-C6R-WL25-P	25	C6	45	65	200	200	0°	0°	
	★ W1011-C4L-WL25-P	25	C4	27	50	200	200	0°	0°	
	★ W1011-C5L-WL25-P	25	C5	35	60	200	200	0°	0°	
	★ W1011-C6L-WL25-P	25	C6	45	65	200	200	0°	0°	

Fig. shows right-hand version

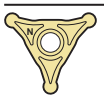
Measured with master insert: WL25-VC0708N
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
For information on D_{min} and D_{min2}, see "Technical information – ISO turning"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

Assembly parts

	Type	WL25..
	Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm
	Torx key	FS1464 (Torx 20IP)

Indexable inserts

	Designation	r mm	l_{e1} mm	f mm	a_p mm	P HC WPP10S	P HC WPP20S	P HC WMP20S	M WMP20S	M HC WSM10S	M HC WSM20S	M WSM30S	K HC WKK10S	K HC WKK20S	S HC WSM10S	S HC WSM20S	S WSM30S
	WL25-VC0704N-FM4	0,4		0,05–0,20	0,1–2,0					☻	☻				☻	☻	
	WL25-VC0708N-FM4	0,8		0,08–0,25	0,2–2,0					☻	☻				☻	☻	
	WL25-VC0704N-FP4	0,4		0,05–0,20	0,1–2,0	☻	☻										
	WL25-VC0708N-FP4	0,8		0,08–0,25	0,2–2,0	☻	☻										
	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-VC0712N-MM4	1,2		0,12–0,35	0,5–2,5					☻	☻				☻	☻	
	WL25-VC0716N-MM4	1,6		0,12–0,40	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-VC0712N-MP4	1,2		0,12–0,35	0,5–2,5	☻	☻										
	WL25-VC0716N-MP4	1,6		0,12–0,40	0,5–2,5	☻	☻										
	WL25-VC0704R-FM4	0,4	3,9	0,05–0,20	0,1–2,0					☻	☻				☻	☻	
	WL25-VC0708R-FM4	0,8	4,6	0,08–0,25	0,2–2,0					☻	☻				☻	☻	
	WL25-VC0704R-FP4	0,4	3,9	0,05–0,20	0,1–2,0	☻	☻										
	WL25-VC0708R-FP4	0,8	4,6	0,08–0,25	0,2–2,0	☻	☻										
	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-FM4	0,4	3,9	0,05–0,20	0,1–2,0					☻	☻				☻	☻	
	WL25-VC0708L-FM4	0,8	4,6	0,08–0,25	0,2–2,0					☻	☻				☻	☻	
	WL25-VC0704L-FP4	0,4	3,9	0,05–0,20	0,1–2,0	☻	☻										
	WL25-VC0708L-FP4	0,8	4,6	0,08–0,25	0,2–2,0	☻	☻										
	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		☻				☻	☹				☻	☹
	WL25-RC0525N-MU6	2,5		0,12–0,45	0,5–2,5		☻				☻	☹				☻	☹

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	51
	

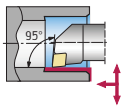
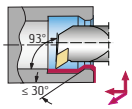
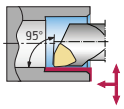
Walter Turn turning tools product range overview – Internal machining
Accure·tec vibration-damped boring bar/adaptor

Designation	A3000	A3001	A3000-C	A3001-C	A3000-HSK-T	A3001-HSK-T
Tool type	Accure·tec boring bars/adaptors					
Machine-side	Parallel shank	Parallel shank	Walter Capto™ in acc. with ISO 26623	Walter Capto™ in acc. with ISO 26623	HSK-T DIN 69893-7	HSK-T DIN 69893-7
Tool-side	Q25 / Q32 / Q40 / Q50	QL60 / QL64 / QL74 / QL80 / QL100	Q25 / Q32 / Q40 / Q50	QL60 / QL80	Q25 / Q32 / Q40 / Q50	QL60 / QL80
Boring bar diameter d_2 [mm]	25–50	60–100	25–50	60–80	25–50	60–80
Boring bar length l_4 [mm]	130–470	301–953	130–468	301–581	130–468	301–581
Page	52	54	56	57	58	59
						

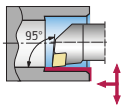
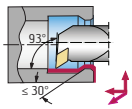
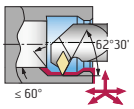
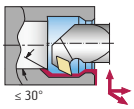
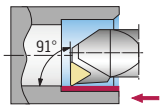
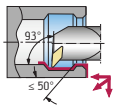
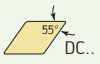
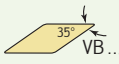
Walter Turn turning tools product range overview – Internal machining
Intermediate adaptor – QuadFit Large

Designation	A2201
Machine-side	QuadFit Large
Tool-side	QuadFit
Page	60
	

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	62	63	64
			

Walter Turn turning tools product range overview – Internal machining
QuadFit exchangeable head – Positive basic shape

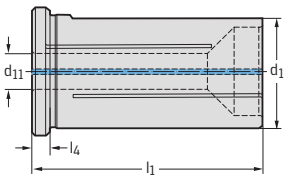
Machining						
Type						
Designation	**Q...-SCLC**	**Q...-SDUC**	**Q...-SDXC**	**Q...-SDUC...-X**	**Q...-STFC**	**Q...-SVUB**
Lead angle κ	95°	93°	62,5°	32°	91°	93°
Clamping system	Screw	Screw	Screw	Screw	Screw	Screw
Coolant supply	Internal	Internal	Internal	Internal	Internal	Internal
QuadFit size	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	65	66	68	67	69	70
						

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	0,0
	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-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

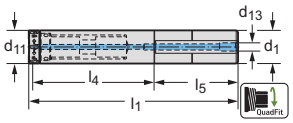
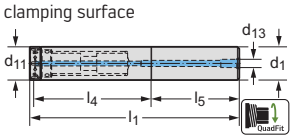
A3000 mm

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 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

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

Plain cylindrical adaptor – vibration-damped

A3001 mm

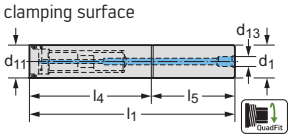
Accure·tec



– For A2201 intermediate adaptor with QuadFit interface
– With preset vibration damping

Tool

Parallel shank without clamping surface



Designation	d_1 mm	d_{11}	l_4 mm	l_5 mm	l_1 mm	d_{13}	kg
★ A3001-60-QL60-301	60	QL60	301	240	541	G 3/4	12,5
★ A3001-60-QL60-541	60	QL60	541	240	781	G 3/4	18,1
★ A3001-80-QL80-421	80	QL80	421	320	741	G 3/4	30,2
★ A3001-80-QL80-741	80	QL80	741	320	1061	G 3/4	43,4
★ A3001-100-QL100-939	100	QL100	939	500	1439	G 3/4	84,7

QuadFit exchangeable heads – see the "Turning" section
A2201 intermediate adaptor – see the "Boring bars/adaptors" section
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	d_{11}	QL60	QL80	QL100
	Threaded plug Tightening torque	FS2609 11 Nm	FS2610 16 Nm	FS2611 23 Nm
	Allen key	ISO2936-4 (SW 4)	ISO2936-5 (SW 5)	ISO2936-6 (SW 6)

/ ★ New addition to the product range

Plain cylindrical adaptor – vibration-damped

A3001 inch

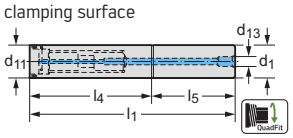
Accure·tec



– For A2201 intermediate adaptor with QuadFit interface
– With preset vibration damping

Tool

Parallel shank without clamping surface



Designation	d_1 inch	d_{11}	l_4 inch	l_5 inch	l_1 inch	d_{13}	lbs
★ A3001.40-QL64-318	2,500	QL64	12,500	10,000	22,500	G 3/4	32,41
★ A3001.40-QL64-572	2,500	QL64	22,500	10,000	32,500	G 3/4	46,74
★ A3001.48-QL76-394	3,000	QL74	15,500	12,000	27,500	G 3/4	57,32
★ A3001.48-QL76-699	3,000	QL74	27,500	12,000	39,500	G 3/4	83,11
★ A3001.64-QL100-953	4,000	QL100	37,500	20,000	57,500	G 3/4	195,55

QuadFit exchangeable heads – see the "Turning" section
A2201 intermediate adaptor – see the "Boring bars/adaptors" section
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

d_{11}	QL64	QL74	QL100
 Threaded plug Tightening torque	FS2609 11 Nm	FS2610 16 Nm	FS2611 23 Nm
 Allen key	ISO2936-4 (SW 4)	ISO2936-5 (SW 5)	ISO2936-6 (SW 6)

Walter Capto™ boring bar/adaptor – vibration-damped

A3000-C mm

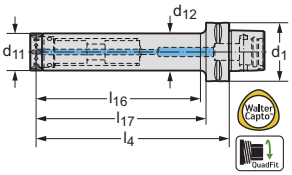
Accure·tec



– For QuadFit exchangeable heads
– With preset vibration damping

Tool

Walter Capto™ in acc. with ISO 26623



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

Walter Capto™ boring bar/adaptor – vibration-damped

A3001-C mm

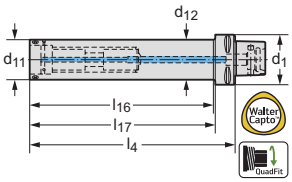
Accure·tec



– For A2201 intermediate adaptor with QuadFit interface
– With preset vibration damping

Tool

Walter Capto™ in acc. with ISO 26623



Designation	d_1	d_{11}	d_{12} mm	l_4 mm	l_{16} mm	l_{17} mm	n_{max}	kg
★ A3001-C6-QL60-301	C6	QL60	60	301	273	276	4000	7,8
★ A3001-C6-QL60-421	C6	QL60	60	421	393	396	3000	10,6
★ A3001-C8-QL60-301	C8	QL60	60	301	263	268	4000	8,6
★ A3001-C8-QL60-421	C8	QL60	60	421	383	388	3000	11,4
★ A3001-C8-QL60-541	C8	QL60	60	541	503	508	2000	14
★ A3001-C8-QL80-421	C8	QL80	80	421	383	388	3000	18,8
★ A3001-C8-QL80-581	C8	QL80	80	581	543	548	2000	25,1

QuadFit exchangeable heads – see the "Turning" section
A2201 intermediate adaptor – see the "Boring bars/adaptors" section
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	d_{11}	QL60	QL80
	Threaded plug Tightening torque	FS2609 11 Nm	FS2610 16 Nm
	Allen key	ISO2936-4 (SW 4)	ISO2936-5 (SW 5)

★ New addition to the product range

HSK-T boring bar/adaptor – vibration-damped

A3000-HSK-T mm

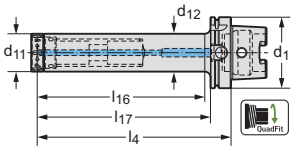
Accure·tec



– For QuadFit exchangeable heads
– With preset vibration damping

Tool

HSK-T DIN 69893-7



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

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

HSK-T boring bar/adaptor – vibration-damped

A3001-HSK-T mm

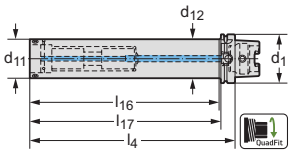
Accure·tec



– For A2201 intermediate adaptor with QuadFit interface
– With preset vibration damping

Tool

HSK-T DIN 69893-7



Designation	d_1 mm	d_{11}	d_{12} mm	l_4 mm	l_{16} mm	l_{17} mm	n_{max}	kg
★ A3001-H100T-QL60-301	100	QL60	60	301	267	272	4000	8,9
★ A3001-H100T-QL60-421	100	QL60	60	421	387	392	3000	11,8
★ A3001-H100T-QL60-541	100	QL60	60	541	507	512	2000	14,5
★ A3001-H100T-QL80-421	100	QL80	80	421	387	392	3000	19,4
★ A3001-H100T-QL80-581	100	QL80	80	581	547	552	2000	26,2

QuadFit exchangeable heads – see the "Turning" section
A2201 intermediate adaptor – see the "Boring bars/adaptors" section
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	d_{11}	QL60	QL80
	Threaded plug Tightening torque	FS2609 11 Nm	FS2610 16 Nm
	Allen key	ISO2936-4 (SW 4)	ISO2936-5 (SW 5)

★ New addition to the product range

QuadFit Large intermediate adaptor

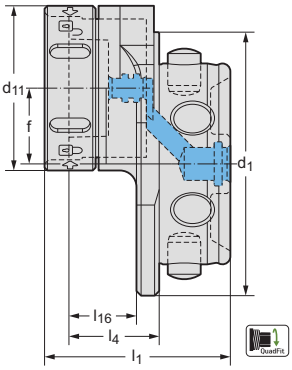
A2201 mm

Accure·tec



– QuadFit
– For A3001 Accure·tec boring bars

Tool



Designation	d_{11}	d_1	f mm	l_1 mm	l_4 mm	l_{16} mm	kg
★ A2201-QL60-05-27-Q50	Q50	QL60	5	50,4	27	21,5	0,6
★ A2201-QL60-10-27-Q50	Q50	QL60	10	50,4	27	21,5	0,6
★ A2201-QL80-15-27-Q50	Q50	QL80	15	56,4	27	21,5	0,9
★ A2201-QL80-23-27-Q50	Q50	QL80	23	56,4	27	21,5	0,9
★ A2201-QL100-28-29-Q50	Q50	QL100	28	61,4	29	21,5	1,5
★ A2201-QL100-38-29-Q50	Q50	QL100	38	61,4	29	21,5	1,5

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

Assembly parts



	d_{11}	Q50
	Hook wrench Tightening torque	SD9000-Q50 55 Nm

Accessories





	d_{11}	Q50
	Torque wrench with hook Tightening torque	SD4000-Q50-55 55 Nm
	Hook for torque wrench	SD6000-Q50

/ ★ New addition to the product range

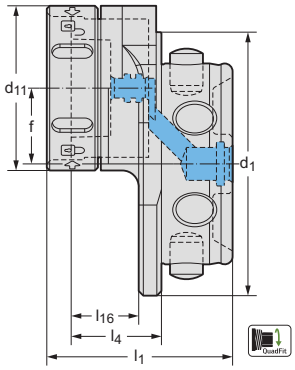
QuadFit Large intermediate adaptor
A2201 inch

Accure·tec



– QuadFit
– For A3001 Accure·tec boring bars

Tool



Designation	d_{11}	d_1	f inch	l_1 inch	l_4 inch	l_{16} inch	lbs
★ A2201.QL64-07-27-Q50	Q50	QL64	0,266	1,988	1,063	0,846	2,2
★ A2201.QL64-12-27-Q50	Q50	QL64	0,463	1,988	1,063	0,846	2,2
★ A2201.QL76-13-27-Q50	Q50	QL76	0,516	2,228	1,063	0,846	2,2
★ A2201.QL76-21-27-Q50	Q50	QL76	0,831	2,228	1,063	0,846	2,2

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

Assembly parts

	d_{11}	Q50
	Hook wrench Tightening torque	SD9000-Q50 55 Nm

Accessories

	d_{11}	Q50
	Torque wrench with hook Tightening torque	SD4000-Q50-55 55 Nm
	Hook for torque wrench	SD6000-Q50

Exchangeable head – rigid clamping

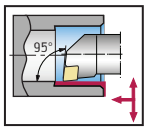
Q...-DCLN mm

Walter Turn

– QuadFit
– For Accure·tec boring bars



Left-hand Right-hand



CN . . CN . .

Tool

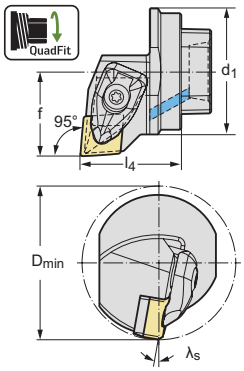


Fig. shows right-hand version

Designation		d_1	D_{min} mm	f mm	l_4 mm	γ	λ_s	Type
Q32-DCLNR-22032-12	12	Q32	40	22	32	-6°	-10°	
Q40-DCLNR-27032-12	12	Q40	50	27	32	-6°	-10°	CN .. 1204 ..
Q50-DCLNR-32032-12	12	Q50	63	32	32	-6°	-8°	
Q50-DCLNR-32037-16	16	Q50	63	32	37	-5°	-14°	CN .. 1606 ..
Q32-DCLNL-22032-12	12	Q32	40	22	32	-6°	-10°	
Q40-DCLNL-27032-12	12	Q40	50	27	32	-6°	-10°	CN .. 1204 ..
Q50-DCLNL-32032-12	12	Q50	63	32	32	-6°	-8°	
Q50-DCLNL-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"
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

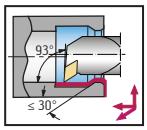
Q...-DDUN mm

Walter Turn

– QuadFit
– For Accure·tec boring bars



Left-hand Right-hand



DN . . DN . .

Tool

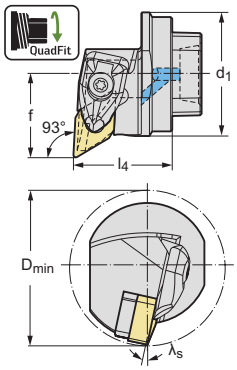


Fig. shows right-hand version

Designation		d_1	D_{min} mm	f mm	l_4 mm	γ	λ_s	Type
Q32-DDUNR-22032-11	11	Q32	40	22	32	-6°	-10°	DN .. 1104 ..
Q40-DDUNR-27032-11	11	Q40	50	27	32	-5°	-10°	
Q32-DDUNR-22032-15	15	Q32	40	21,9	32	-6°	-14°	DN .. 1506 ..
Q40-DDUNR-27032-15	15	Q40	50	27	32	-6°	-12°	
Q50-DDUNR-32032-15	15	Q50	63	32	32	-6°	-12°	
Q32-DDUNL-22032-11	11	Q32	40	22	32	-6°	-10°	DN .. 1104 ..
Q40-DDUNL-27032-11	11	Q40	50	27	32	-5°	-10°	
Q32-DDUNL-22032-15	15	Q32	40	21,9	32	-6°	-14°	DN .. 1506 ..
Q40-DDUNL-27032-15	15	Q40	50	27	32	-6°	-12°	
Q50-DDUNL-32032-15	15	Q50	63	32	32	-6°	-12°	

Measured with master insert: DN .. 150608/DN .. 110408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type	DN .. 1104 ..	DN .. 1506 ..
Shim	AP305-DN11	AP304-DN15
Screw for shim Tightening torque	FS1462 (Torx 9IP) 1,5 Nm	FS1461 (Torx 15IP) 2,5 Nm
Clamp	PK240	PK241
Clamp screw Tightening torque	FS1472 (Torx 9IP) 1,7 Nm	FS1473 (Torx 15IP) 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 Insert with bore		PK245 SET
Clamp set (standard assembly parts)	PK240 SET	PK241 SET
Carbide clamp set Insert without bore		PK254 SET
Shim for DN .. 1504 ..		AP304-DN1504

Exchangeable head – rigid clamping

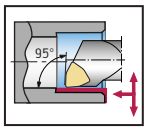
Q...-DWLN mm

Walter Turn

– QuadFit
– For Accure·tec boring bars



Left-hand Right-hand





Tool

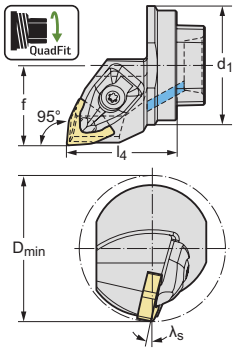


Fig. shows right-hand version

Designation		d_1	D_{min} mm	f mm	l_4 mm	γ	λ_s	Type
Q32-DWLNR-22032-06	6	Q32	40	22	32	-5°	-12°	WN .. 0604 ..
Q32-DWLNR-22035-08	8	Q32	40	22	35	-5°	-14°	
Q40-DWLNR-27037-08	8	Q40	50	27	37	-5°	-12°	WN .. 0804 ..
Q50-DWLNR-32038-08	8	Q50	63	32	38	-5°	-12°	
Q32-DWLNL-22032-06	6	Q32	40	22	32	-5°	-12°	WN .. 0604 ..
Q32-DWLNL-22035-08	8	Q32	40	22	35	-5°	-14°	
Q40-DWLNL-27037-08	8	Q40	50	27	37	-5°	-12°	WN .. 0804 ..
Q50-DWLNL-32038-08	8	Q50	63	32	38	-5°	-12°	

Measured with master insert: WN .. 080408/WN .. 060408
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

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

Accessories

Type	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

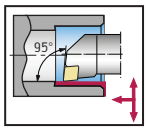
Q...-SCLC mm

Walter Turn

– QuadFit
– For Accure·tec boring bars

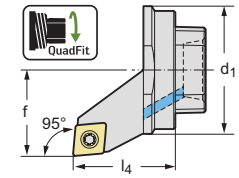


Left-hand Right-hand





Tool



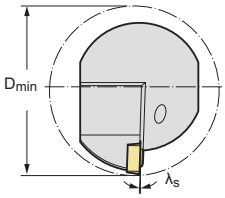


Fig. shows right-hand version

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

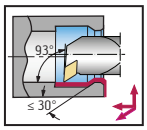
Q...-SDUC mm

Walter Turn

– QuadFit
– For Accure·tec boring bars



Left-hand Right-hand





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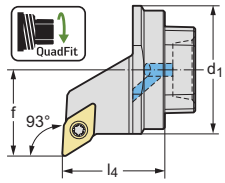


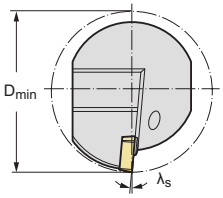


Fig. shows right-hand version

Designation		d_1	D_{min} mm	f mm	l_4 mm	γ	λ_s	Type
Q25-SDUCR-17020-11	11	Q25	32	17	20	0°	-6°	DC .. 11T3 ..
Q32-SDUCR-22032-11	11	Q32	40	22	32	0°	-5°	
Q40-SDUCR-27032-11	11	Q40	50	27	32	0°	-5°	
Q50-SDUCR-32032-11	11	Q50	63	32	32	0°	-5°	
Q25-SDUCL-17020-11	11	Q25	32	17	20	0°	-6°	
Q32-SDUCL-22032-11	11	Q32	40	22	32	0°	-5°	
Q40-SDUCL-27032-11	11	Q40	50	27	32	0°	-5°	
Q50-SDUCL-32032-11	11	Q50	63	32	32	0°	-5°	

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"
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

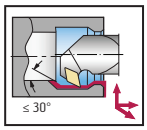
Q...-SDUC...-X mm

Walter Turn



Left-hand Right-hand

– QuadFit
– For Accure·tec boring bars





Tool

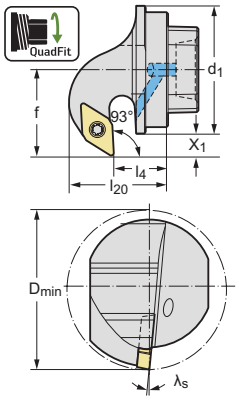
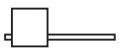


Fig. shows right-hand version

Designation		d1	Dmin mm	f mm	l4 mm	l20 mm	X1 mm	γ	λs	Type
Q25-SDUCR-17012-11X	11	Q25	32	17	12	24,5	4,5	0°	-6°	DC .. 11T3 ..
Q32-SDUCR-22018-11X	11	Q32	40	21,9	18	37,5	5,9	0°	-5°	
Q40-SDUCR-27017-11X	11	Q40	50	26,9	17	40,5	6,9	0°	-5°	
Q50-SDUCR-32017-11X	11	Q50	63	32	17	42,5	6,9	0°	-5°	
Q25-SDUCL-17012-11X	11	Q25	32	17	12	24,5	4,5	0°	-6°	
Q32-SDUCL-22018-11X	11	Q32	40	21,9	18	37,5	5,9	0°	-5°	
Q40-SDUCL-27017-11X	11	Q40	50	26,9	17	40,5	6,9	0°	-5°	
Q50-SDUCL-32017-11X	11	Q50	63	32	17	42,5	6,9	0°	-5°	

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"
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

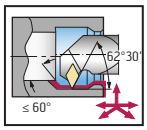
Q...-SDXC mm

Walter Turn

– QuadFit
– For Accure·tec boring bars

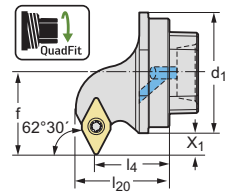


Left-hand Right-hand





Tool



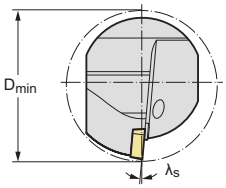


Fig. shows right-hand version

Designation		d_1	D_{min} mm	f mm	l_4 mm	l_{20} mm	X_1 mm	γ	λ_s	Type
Q25-SDXCR-17018-11	11	Q25	32	17	18	24,3	4,5	0°	-6°	DC .. 11T3 ..
Q32-SDXCR-22025-11	11	Q32	40	21,9	25	37,5	5,9	0°	-5°	
Q40-SDXCR-27025-11	11	Q40	50	26,9	25	40,5	6,9	0°	-5°	
Q50-SDXCR-32025-11	11	Q50	63	31,9	25	42,5	6,9	0°	-5°	
Q25-SDXCL-17018-11	11	Q25	32	17	18	24,3	4,5	0°	-6°	
Q32-SDXCL-22025-11	11	Q32	40	21,9	25	37,5	5,9	0°	-5°	
Q40-SDXCL-27025-11	11	Q40	50	26,9	25	40,5	6,9	0°	-5°	
Q50-SDXCL-32025-11	11	Q50	63	31,9	25	42,5	6,9	0°	-5°	

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"
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

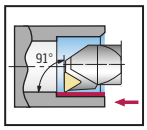
Q...-STFC mm

Walter Turn

– QuadFit
– For Accure·tec boring bars



Left-hand Right-hand





Tool

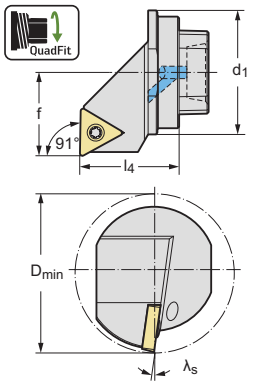


Fig. shows right-hand version

Designation		d_1	D_{min} mm	f mm	l_4 mm	γ	λ_s	Type
Q25-STFCR-17020-11	11	Q25	32	17	25,5	0°	-3°	TC .. 1102 ..
Q32-STFCR-22032-16	16	Q32	40	22	32	0°	-10°	TC .. 16T3 ..
Q40-STFCR-27032-16	16	Q40	50	27	32	0°	-8°	
Q50-STFCR-32032-16	16	Q50	63	32	32	0°	-8°	
Q25-STFCL-17020-11	11	Q25	32	17	25,5	0°	-3°	TC .. 1102 ..
Q32-STFCL-22032-16	16	Q32	40	22	32	0°	-10°	TC .. 16T3 ..
Q40-STFCL-27032-16	16	Q40	50	27	32	0°	-8°	
Q50-STFCL-32032-16	16	Q50	63	32	32	0°	-8°	

Measured with master insert: TC .. 16T308/TC .. 110200
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

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

Exchangeable head – screw clamping

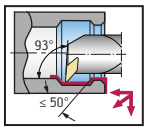
Q...-SVUB mm

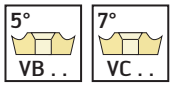
Walter Turn

– QuadFit
– For Accure·tec boring bars

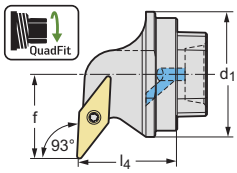


Left-hand Right-hand





Tool



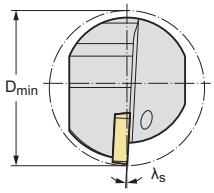
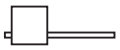


Fig. shows right-hand version

Designation		d_1	D_{min} mm	f mm	l_4 mm	γ	λ_s	Type
Q25-SVUBR-17020-11	11	Q25	32	17	20	0°	-4°	VB .. 1103 .. VC .. 1103 ..
Q32-SVUBR-22032-16	16	Q32	40	22	32	0°	-3°	VB .. 1604 .. VC .. 1604 ..
Q40-SVUBR-27032-16	16	Q40	50	26,9	32	0°	-3°	
Q50-SVUBR-32032-16	16	Q50	63	31,9	32	0°	-3°	
Q25-SVUBL-17020-11	11	Q25	32	17	20	0°	-4°	VB .. 1103 .. VC .. 1103 ..
Q32-SVUBL-22032-16	16	Q32	40	22	32	0°	-3°	VB .. 1604 .. VC .. 1604 ..
Q40-SVUBL-27032-16	16	Q40	50	6,9	32	0°	-3°	
Q50-SVUBL-32032-16	16	Q50	63	31,9	32	0°	-3°	

Measured with master insert: VB .. 160408/VB .. 110304
For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	VB .. 1103 .. VC .. 1103 ..	VB .. 1604 .. VC .. 1604 ..
	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 ≤ 0,8 mm
	Screw for shim		FS2068 (SW 3,5)
	Torx key	FS1490 (Torx 7IP)	FS1465 (Torx 15IP /SW 3,5)



Cutting data for turning inserts

1. Cermet and carbide grades

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

= Cutting data for wet machining
= Dry machining is possible

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]			Positive basic shape: Starting values for cutting speed v_c [m/min] HE WEP10C f [mm/rev] 0,10	0,20	0,30
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●	●	300	250	200
		C > 0.25% to ≤ 0.55%	Annealed	190	640	P2	●●	●	230	200	180
		C > 0.25% to ≤ 0.55%	Heat-treated	210	710	P3	●●	●	210	180	150
		C > 0.55%	Annealed	190	640	P4	●●	●	220	200	180
		C > 0.55%	Heat-treated	300	1010	P5	●●	●	180	150	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	●●	●	230	200	180
	Low-alloy steel	Annealed		175	590	P7	●●	●	210	180	150
		Heat-treated		285	960	P8	●●	●	150	130	110
		Heat-treated		380	1280	P9	●●	●			
		Heat-treated		430	1480	P10	●●	●			
	High-alloy steel and high-alloy tool steel	Annealed		200	680	P11	●●	●	160	140	130
		Hardened and tempered		300	1010	P12	●●	●			
		Hardened and tempered		380	1280	P13	●●	●			
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●●	●			
		Martensitic, heat-treated		330	1110	P15	●●	●			
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●	●	210	190	160
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●	●	150	130	110
		Austenitic/ferritic, duplex		230	780	M3	●●	●	160	140	110
K	Malleable cast iron	Ferritic		200	400	K1	●●	●	220	200	180
		Pearlitic		260	700	K2	●●	●	190	170	150
	Grey cast iron	Low tensile strength		180	200	K3	●●	●	420	390	360
		High tensile strength/austenitic		245	350	K4	●●	●	220	200	180
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●	●	240	220	200
		Pearlitic		265	700	K6	●●	●	170	140	130
	GGV (CGI)			230	400	K7	●●	●	220	180	170
N	Wrought aluminium alloys	Not hardenable		30	–	N1	●●	●			
		Hardenable, hardened		100	340	N2	●●	●			
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●	●			
		≤ 12% Si, hardenable, hardened		90	310	N4	●●	●			
		> 12% Si, not hardenable		130	450	N5					
	Magnesium-based alloys [3]			70	250	N6					
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7	●●	●			
		Brass, bronze, red brass		90	310	N8	●●	●			
		Cu alloys, short-chipping		110	380	N9	●●	●			
		High tensile, Ampco		300	1010	N10					
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●	●			
			Hardened	280	940	S2	●●	●			
		Ni- or Co-based	Annealed	250	840	S3	●●	●			
			Hardened	350	1180	S4	●●	●			
			Cast	320	1080	S5	●●	●			
	Titanium alloys	Pure titanium		200	680	S6	●●	●			
		α and β alloys, hardened		375	1260	S7	●●	●			
		β alloys		410	1400	S8	●●	●			
	Tungsten alloys			300	1010	S9					
	Molybdenum alloys			300	1010	S10					
H	Hardened steel	Hardened and tempered		45 HRC	–						
		Hardened and tempered		50 HRC	–						
		Hardened and tempered		55 HRC	–	H1					
		Hardened and tempered		60 HRC	–	H2					
		Hardened and tempered		65 HRC	–	H3					
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4					
O	Thermoplastics	Without abrasive fillers				O1					
	Thermosets	Without abrasive fillers				O2					
	Plastic, glass-fibre-reinforced	GFRP				O3					
	Plastic, carbon-fibre-reinforced	CFRP				O4					
	Plastic, aramid-fibre-reinforced	AFRP				O5					
	Graphite (technical)			80 Shore		O6					

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

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

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

2. CBN and ceramic

Negative basic shape						Negative and positive basic shape										
Starting values for cutting speed v_c [m/min]						Starting values for cutting speed v_c [m/min]										
HC			HW			CBN						Ceramic				
WNN10			WN10			BH WBH30						CC WCH10C				
f [mm/rev]			f [mm/rev]			f [mm/rev]						f [mm/rev]				
0,10	0,20	0,40	0,10	0,20	0,40			0,05	0,15	0,20			0,05	0,15	0,20
230	210														
170	150														
130	120														
140	120														
180	160														
120	100														
130	100														
200	180														
140	120														
150	130														
250	220														
210	180														
480	450														
210	180														
230	200														
160	130														
3000	2400	1800	2400	1800	1300										
900	720	360	750	600	300										
960	540	360	800	450	300										
600	360	240	500	300	200										
720	480	320	600	400	270										
480	360	300	400	300	250										
340	240	160	280	200	130										
80	60		70	50											
60	50		50	50											
60	50		50	50											
50	40		50	40											
40	30		40	30											
220	200	160	200	180	140										
70	50		60	50											
40	30		40	30											
							●●				●●	●	290	240	190
							●●				●●	●	240	200	180
							●●	200	185	170	●●	●	200	185	170
							●●	180	170	160	●●	●	180	170	160
							●●	150	130	110	●●	●	140	120	90
400	400														
300	300														
600	600														

HC = Coated carbide
HE = Coated cermet
HW = Uncoated carbide

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

Cutting tool material application charts – Turning

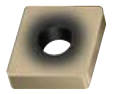
Carbide

Walter grade designation	Standard designation	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Range of applications 01 05 10 15 20 25 30 35 40 45	Coating process	Coating composition	Indexable insert example
WN10	HW – N 10				●●					–	–	
	HW – S 10					●						

HC = Coated carbide
HW = Uncoated carbide

●● Primary application
● Additional application

CBN/cermet/PCD/ceramic

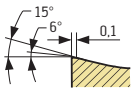
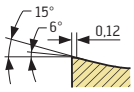
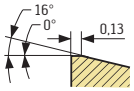
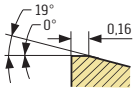
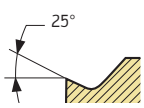
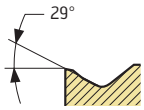
Walter grade designation	Standard designation	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Range of applications 01 05 10 15 20 25 30 35 40 45	Coating process	Cutting tool material	Indexable insert example
WBH10C	BL – H 05						●●			PVD	CBN + TiAlSiN	
WBH10	BL – H 10						●●			–	CBN	
WBH20	BL – H 20						●●			–	CBN	
WBH30	BL – H 30						●●			–	CBN	
WCH10C	CC – H 10						●●			PVD	Al_2O_3-TiC + TiN	
WIS10	CN – S 10					●●				–	SiAlON ceramic	
WWS20	CR – S 20					●●				–	Whisker ceramic	
	CR – H 20						●					

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

●● Primary application
● Additional application

Geometry overview of turning inserts – Negative basic shape

Finishing operation

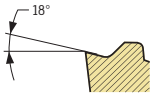
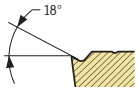
Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
 Wiper	**FW5** – Finishing with wiper technology – Double the 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												
 Wiper	**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
	**MN3** – Universal indexable insert for non-ferrous metallic materials – Fully ground circumference – Polished rake face – Precision finishing on steel and stainless materials or high-temperature alloys	•	•		••	•					0,5–4,0	0,05–0,40

•• Primary application
• Additional application

Note: Sectional views show CNMG120408 . .

Geometry overview of turning inserts – Positive basic shape

Finishing operation

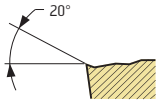
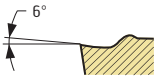
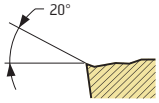
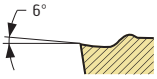
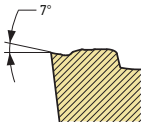
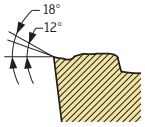
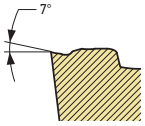
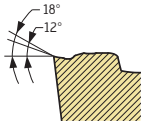
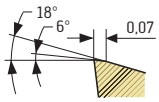
Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
	**FP2** – Finishing insert with fully ground circumference – 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 . . and CCGT09T308 . .

Geometry overview of system inserts – WL

Medium machining

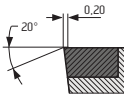
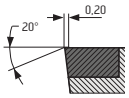
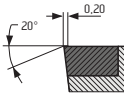
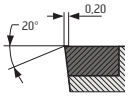
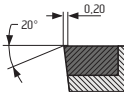
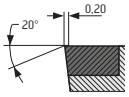
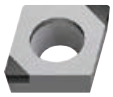
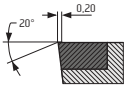
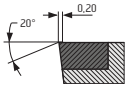
Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
	**FM4** – Finishing geometries for minimal depths of cut – Excellent chip control – Specially developed for copy turning	•	••			••					0,1–2,0	0,05–0,25
	**FP4** – Finishing geometries for minimal depths of cut – Excellent chip control – Specially developed for copy turning	••	•			•					0,1–2,0	0,05–0,25
	**MM4** – Medium machining – with a large range of applications – Machining for long-chipping materials – Specially developed for copy 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	••	•	•		•					0,4–2,5	0,08–0,35
	**MU6** – Full-radius geometry for copy turning – Soft cutting action with excellent chip breaking – Chip breaking in all feed directions	••	••	••		••	•				0,4–2,5	0,1–0,40

•• Primary application
• Additional application

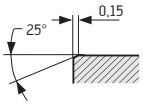
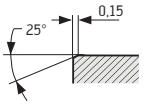
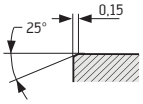
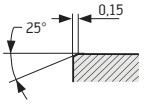
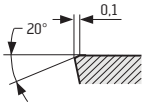
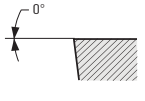
Note: Sectional views show WL25-VC0708 . . and WL25-RC0420 . .

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

CBN

Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
	**. NGA. . TM-MW2** – CBN indexable insert with fully ground circumference to G tolerance – CBN indexable insert with chamfered cutting edge – Effective wiper geometry for the best surfaces						••				0,1–0,5	0,05–0,30
	**. NGN. . TM-S** – Solid CBN indexable insert with fully ground circumference to G tolerance – Universal CBN indexable insert with chamfered cutting edge – Roughing operations in hardened steel, cast iron and sintered steel			••			•				Up to 8 mm in cast material	0,05–0,4
	**. NGA. . TM-2** – CBN indexable insert with fully ground circumference to G tolerance – Universal CBN indexable insert with chamfered cutting edge – Machining operations in hardened steel, cast iron and sintered steel						••				0,1–0,5	0,05–0,25
	**. CGW. . TM-2** – CBN indexable insert with fully ground circumference to G tolerance – Universal CBN indexable insert with chamfered cutting edge – Machining of hardened steel						••				0,1–0,5	0,05–0,25

Ceramic

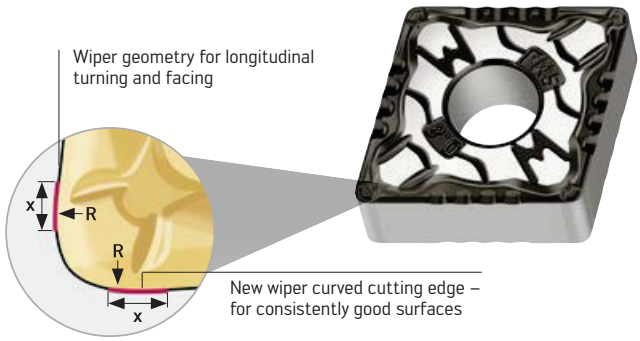
Geometry	Remarks/field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
	**. NGA. . SM-S** – Ceramic indexable insert with fully ground circumference to G tolerance – Universal ceramic indexable insert with chamfered and rounded cutting edge – Machining of hardened steel and hard/ soft areas						••				0,1–1,0	0,05–0,30
	**. NGA. . SM-MWS** – Ceramic indexable insert with fully ground circumference to G tolerance – Hard machining with wiper technology – High feeds and best surface quality – Excellent stability thanks to wiper geometry						••				0,1–1,0	0,05–0,35
	**. . . E** – Ceramic indexable insert with fully ground circumference – Rounded cutting edge for minimum cutting forces – Machining high-temperature alloys					••					0,1–3,6	0,1–0,32

•• Primary application
• Additional application

Note: Sectional views show CNMG120408 . .

Application information for wiper indexable inserts

Wiper



Application area:

– Double the surface quality with the same feed compared to the standard corner radius

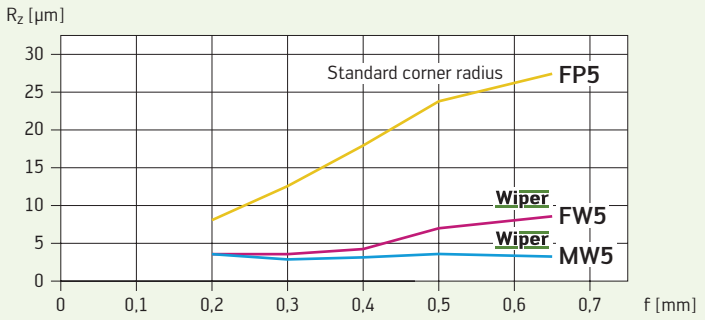
– Same surface quality with double the feed rate compared to the standard corner radius

– 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

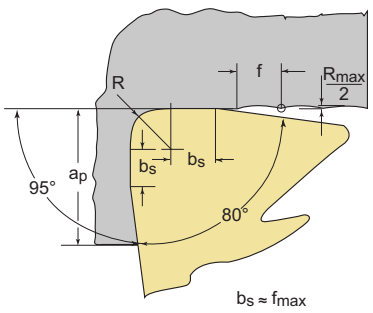
2. Edge formation: Comparison of wiper indexable inserts and standard indexable inserts

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

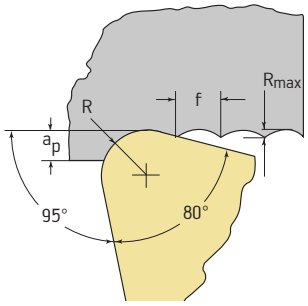
Corner radius

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



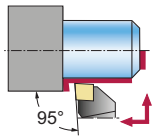
Standard geometry with corner radius:
Example of CNMG120408-FP5



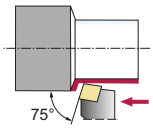
3. Turning toolholder for using wiper geometries

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

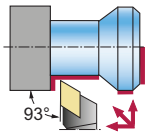
CNMG / CCMT – 80° corner



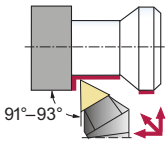
CNMG / CCMT – 100° corner



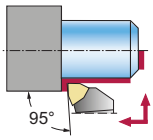
DNMG / DCMT



TNMG / TCMT



WNMG / WCMT

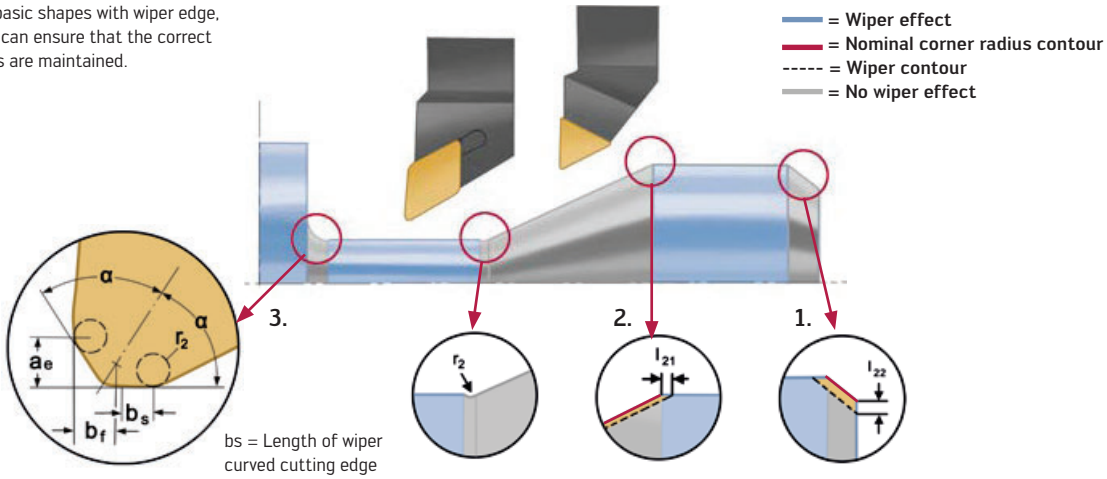


= Wiper effect

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.



bs = Length of wiper curved cutting edge

Indexable insert designation		Dimensions				Compensation dimensions		
						1. Chamfer with 45° inclined surface	2. Profiling 27° D basic shape	3. Profiling 22° T basic shape
		r_2 [mm]	a_e [mm]	b_s [mm]	b_f [mm]	l_{22} [mm]	l_{21} [mm]	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

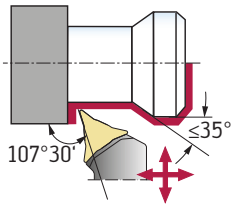
Application information:
W1011/W1010 Walter Turn copy turning system

On 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.



1.1 Application area and profiling angle W1011

N



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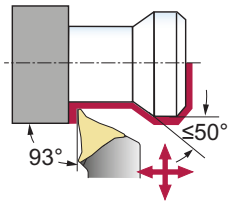
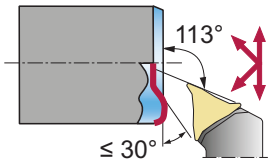
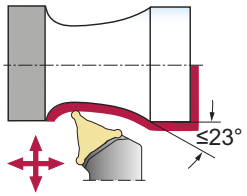


R

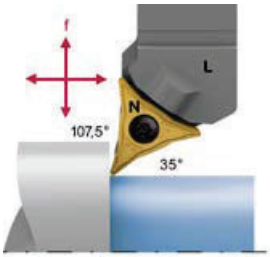


Full radius

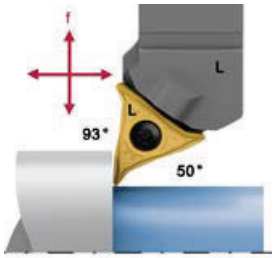


1.2 Fitting options and approach angle W1011

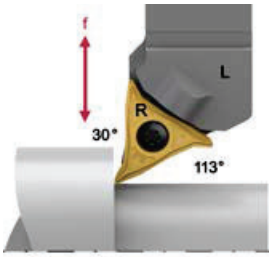
Four different indexable inserts can be fitted in the same tool.
The approach angles are formed by fitting the different indexable inserts.
The point angle of the WL25-VC... is 35°, as on a VBMT indexable insert.



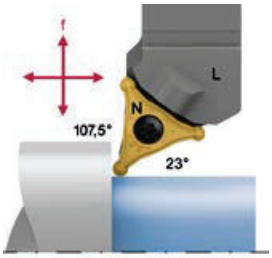
Example:
Left-hand tool:
W1011-2525**L**-WL25-P
Neutral indexable insert:
WL25-VC0708**N**-MP4 WPP20S



Example:
Left-hand tool:
W1011-2525**L**-WL25-P
Left-hand indexable insert:
WL25-VC0708**L**-MP4 WPP20S



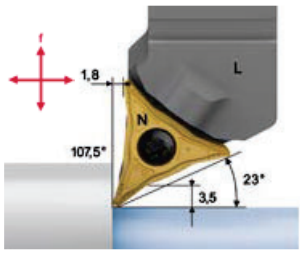
Example:
Left-hand tool:
W1011-2525**L**-WL25-P
Right-hand indexable insert:
WL25-VC0708**R**-MP4 WPP20S

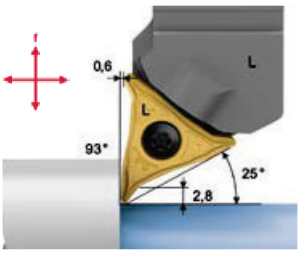


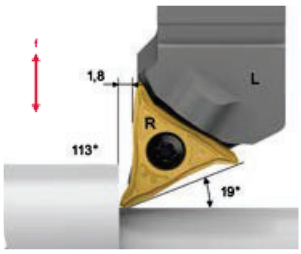
Example:
Left-hand tool:
W1011-2525**L**-WL25-P
Neutral indexable insert:
WL25-RC0420**N**-MU6 WPP20S

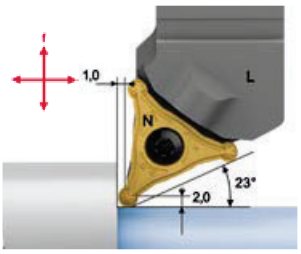
1.3 Maximum feed WL25 indexable inserts W1011

Example – left-hand tool











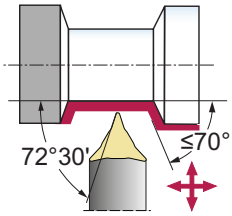
W1011...



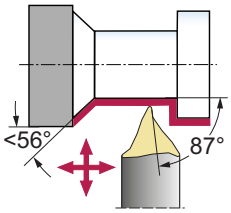
W1010...

2.1 Application area and profiling angle W1010

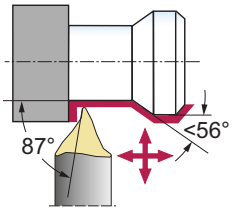
N



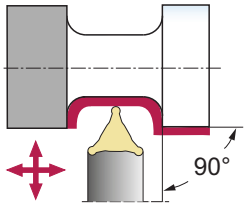
L



R

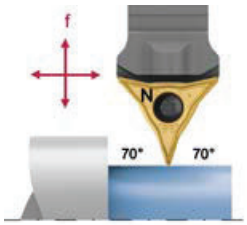


Full radius

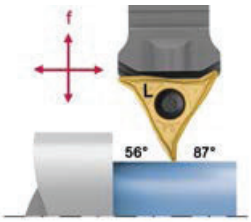


2.2 Fitting options and approach angle W1010

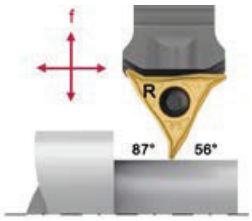
Four different indexable inserts can be fitted in the same tool.
The approach angles are formed by fitting the different indexable inserts.
The point angle of the WL25-VC... is 35°, as on a VBMT indexable insert.



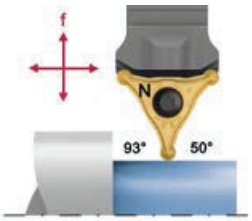
Example:
Neutral tool:
W1010-2525**N**-WL25-P
Neutral indexable insert:
WL25-VC0708**N**-MP4 WPP20S



Example:
Neutral tool:
W1010-2525**N**-WL25-P
Left-hand indexable insert:
WL25-VC0708**L**-MP4 WPP20S



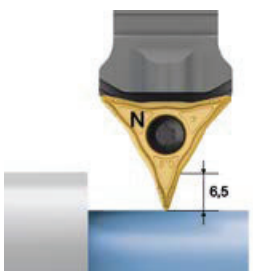
Example:
Neutral tool:
W1010-2525**N**-WL25-P
Right-hand indexable insert:
WL25-VC0708**R**-MP4 WPP20S

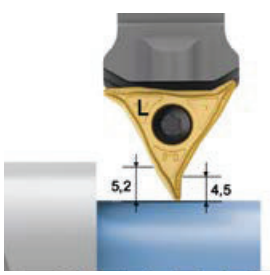


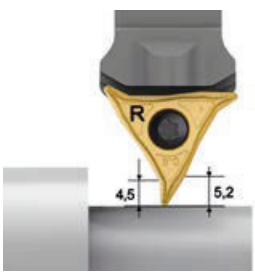
Example:
Neutral tool:
W1010-2525**N**-WL25-P
Neutral indexable insert:
WL25-RC0420**N**-MU6 WPP20S

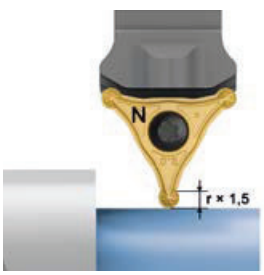
2.3 Maximum feed WL25 indexable inserts W1010

Example – left-hand tool



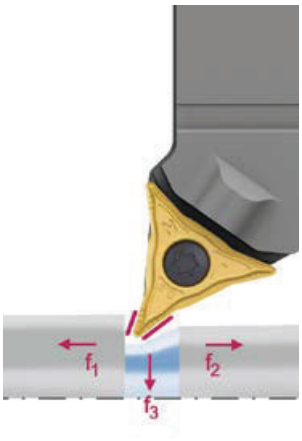






Application information:
W1011/W1010 Walter Turn copy turning system

3. Cutting data for W1010/W1011



f_1 = feed approach angle 93°–113°
f_2 = feed approach angle 31°–72.5°
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/corner radius		FM4 / FP4 – R0,4				
		f_2			f_1	
Approach angle		35°	50°	72,5°	**93°**	107,5°
$a_{p\,min}$	[mm]	0,1	0,1	0,1	**0,1**	0,1
$a_{p\,max}$	[mm]	1,1	1,5	1,9	**2,0**	1,9
f_{min}	[mm]	0,09	0,07	0,05	**0,05**	0,05
f_{max}	[mm]	0,35	0,26	0,21	**0,20**	0,21

Geometry/corner radius		FM4 / FP4 – R0,8				
		f_2			f_1	
Approach angle		35°	50°	72,5°	**93°**	107,5°
$a_{p\,min}$	[mm]	0,1	0,1	0,1	**0,1**	0,1
$a_{p\,max}$	[mm]	1,1	1,5	1,9	**2,0**	1,9
f_{min}	[mm]	0,14	0,10	0,08	**0,08**	0,08
f_{max}	[mm]	0,44	0,33	0,26	**0,25**	0,26

Geometry/corner radius		MM4 / MP4 – R0,4				
		f_2			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				
		f_2			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		MM4 / MP4 – R1,2				
		f_2			f_1	
Approach angle		35°	50°	72,5°	**93°**	107,5°
$a_{p\,min}$	[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]	0,60	0,46	0,37	**0,35**	0,37

Geometry/corner radius		MM4 / MP4 – R1,6				
		f_2			f_1	
Approach angle		35°	50°	72,5°	**93°**	107,5°
$a_{p\,min}$	[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]	0,65	0,52	0,42	**0,40**	0,42

Geometry/corner radius		MU6 – R2,0				
		f_2			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

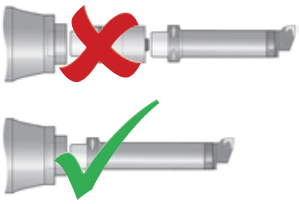
Geometry/corner radius		MU6 – R2,5				
		f_2			f_1	
Approach angle		35°	50°	72,5°	**93°**	107,5°
$a_{p\,min}$	[mm]	0,3	0,4	0,5	**0,5**	0,5
$a_{p\,max}$	[mm]	1,4	1,9	2,4	**2,5**	2,4
f_{min}	[mm]	0,21	0,16	0,13	**0,12**	0,13
f_{max}	[mm]	0,65	0,59	0,47	**0,45**	0,47

Application information:
Accure·tec A3001 – HSK-T and Walter Capto™ vibration-damped boring bars/adaptors with QuadFit Large interface

Accure·tec

1. Installation instructions

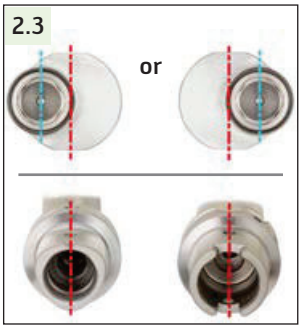


2. Installation of QuadFit Large intermediate adaptor













For QL size	4 × bolt	Tightening torque Nm	ft lb
QL60 / QL64	FS2609	11	8.2
QL80 / QL76	FS2610	16	11.8

3. Installation of QuadFit exchangeable head

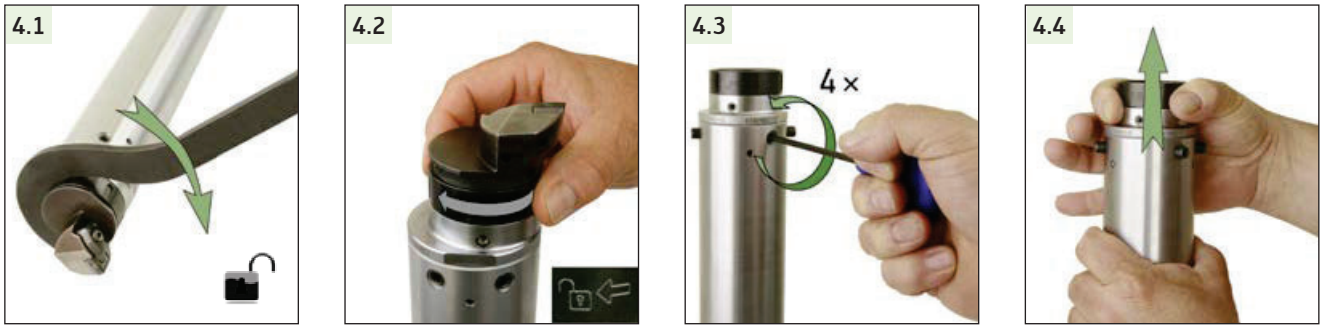






For QuadFit size	Tightening torque Nm	ft lb
Q50	55	40.6

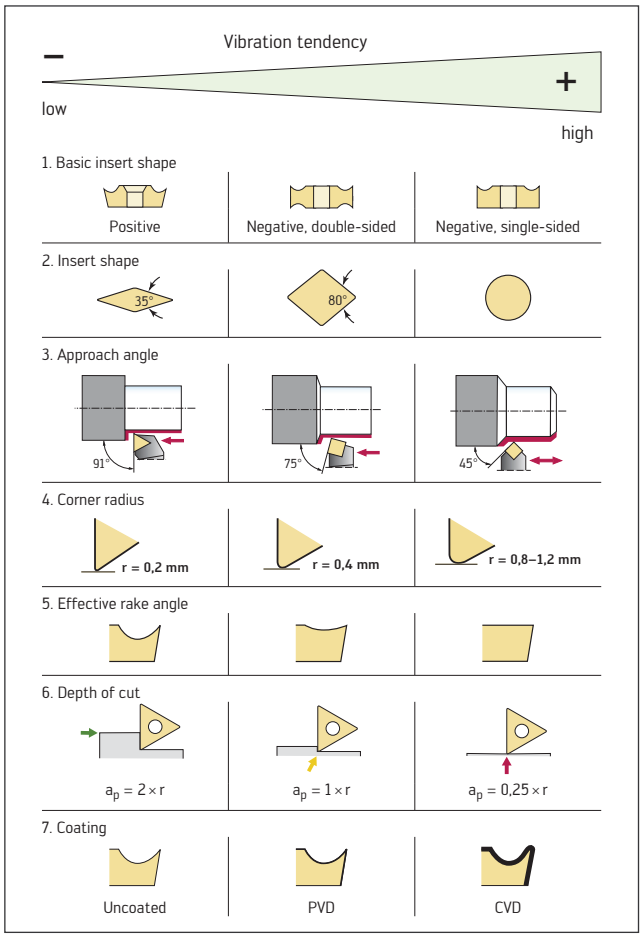
4. Removal of QuadFit and QuadFit Large exchangeable heads

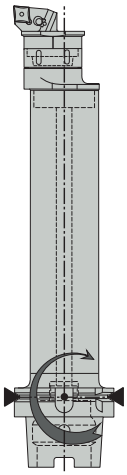


5. Max. permitted operating temperature, speed and load



6. Recommended cutting data and tilting torques





For QL tool size	Tilting torque* Nm	ft lb
A3001-H100T-QL60-301	12	8,9
A3001-H100T-QL60-421	24	17,7
A3001-H100T-QL60-541	39	28,8
A3001-H100T-QL80-421	41	30,2
A3001-H100T-QL80-581	77	56,8
A3001-C6-QL60-301	13	9,6
A3001-C6-QL60-421	25	18,4
A3001-C8-QL60-301	13	9,6
A3001-C8-QL60-421	25	18,4
A3001-C8-QL60-541	40	29,5
A3001-C8-QL80-421	42	31
A3001-C8-QL80-581	79	58,3

* Calculated with a standard exchangeable head installed

7. Safety recommendations

– Risk of injury due to tool cutting edges
– Protective gloves recommended
– Do not exceed the max. speed (see point 5.1)
– Observe the tool manufacturer's recommended cutting speeds



Application information: Accure·tec A3001 – vibration-damped plain cylindrical adaptors with QuadFit Large interface

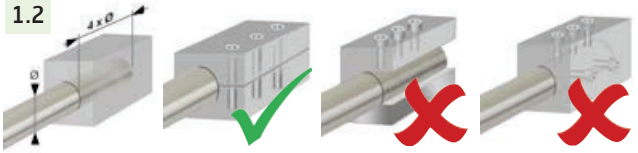
Accure·tec

1. Installation instructions

1.1



1.2



2. Installation of QuadFit Large intermediate adaptor

2.1



2.2



2.3



2.4



2.5



For QL size	4 × bolt	Tightening torque Nm	ft lb
QL60 / QL64	FS2609	11	8.2
QL80 / QL76	FS2610	16	11.8
QL100	FS2611	23	16.9

3. Installation of QuadFit exchangeable head

3.1



3.2

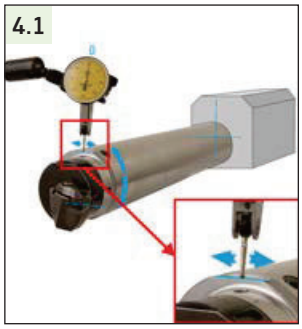


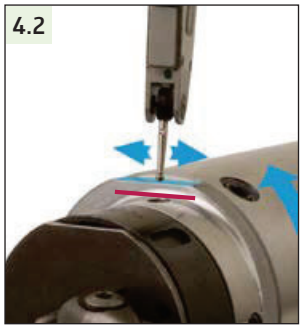
3.3



For QuadFit size	Tightening torque Nm	ft lb
GL 50	55	40.6

4. Centre height adjustment





5. Removal of QuadFit (Q) and QuadFit Large (QL) exchangeable heads





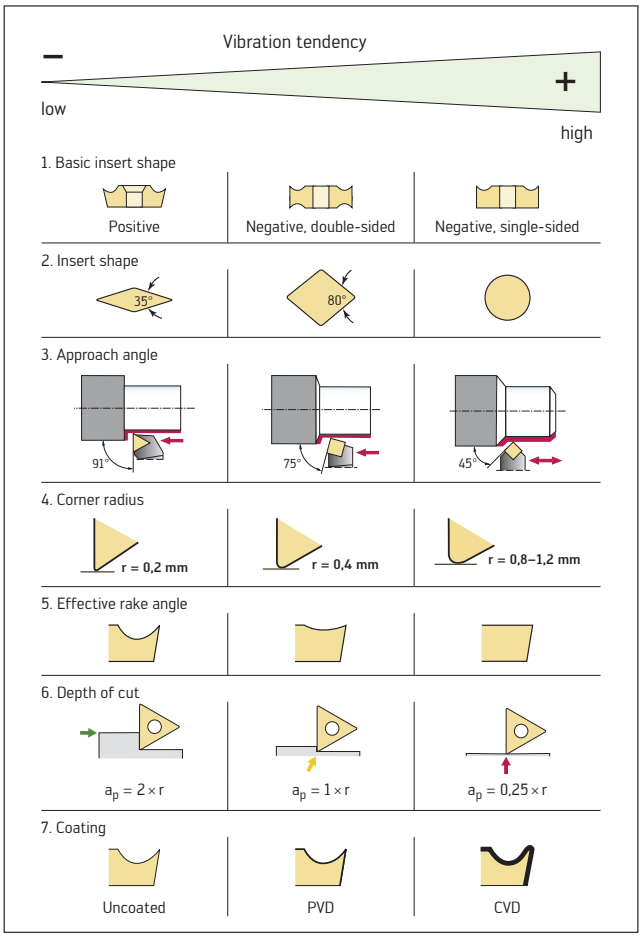




6. Max. permitted operating temperature and load



7. Cutting edge and tool design



8. Safety recommendations

– Risk of injury due to tool cutting edges
– Protective gloves recommended
– Observe the tool manufacturer's recommended cutting speeds

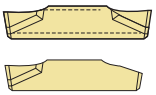
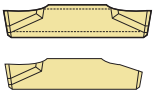


Product range overview of cutting inserts and cutting tool materials: Grooving

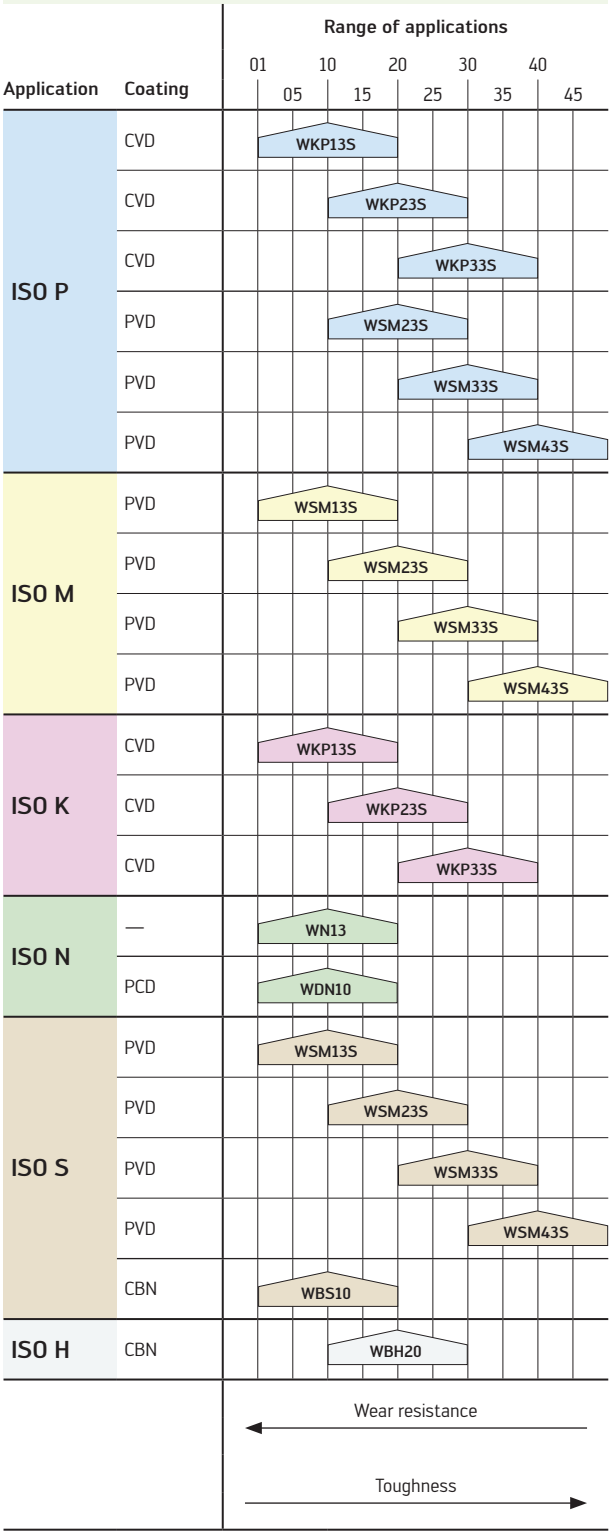




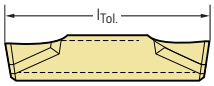

Cutting inserts

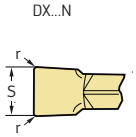
Insert shape	Description	Page
Parting off/grooving		
 **DX**	Walter Cut DX grooving inserts, double-edged/ single-edged	89
 **GX**	Walter Cut GX grooving inserts, double-edged/ single-edged	93

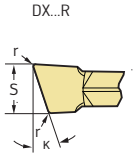
Cutting tool materials: Carbide

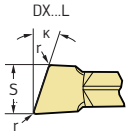


Grooving and parting off
DX cutting inserts
Tiger·tec® Silver

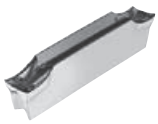






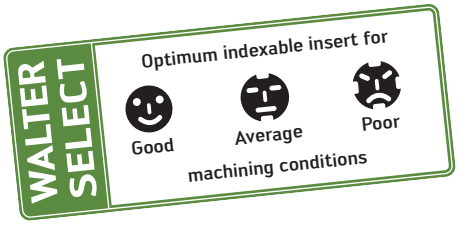


Cutting inserts

	Designation	s mm	r mm	κ	l mm	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WKP33S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	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				😐	😵			😐	😵
	DX18-1E150R10-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				😐				😐	
	DX18-1E150L10-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				😐				😐	
	DX18-1E150N01-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			🙂	😐	😵		🙂	😐	😵
	DX18-1E150R10-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				😐				😐	
	DX18-1E150L10-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				😐				😐	
	DX18-3F300N02-CF5	3	0,2		18	0,08–0,23	±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

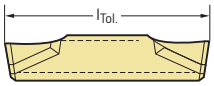
HC = Coated carbide

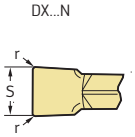


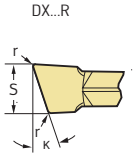
😐😵🙂 / ★ New addition to the product range

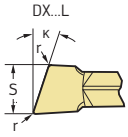
A2

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







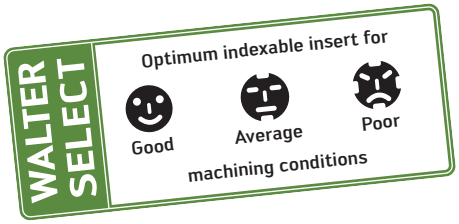


Cutting inserts

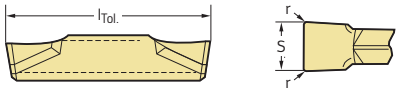
	Designation	s mm	r mm	κ	l mm	f mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WKP33S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	DX18-1E150N01-CE4	1,5	0,15		18	0,03–0,12	±0,05	±0,15				☺	☹			☺	☹
	DX18-2E200N02-CE4	2	0,2		18	0,06–0,17	±0,05	±0,15	☺		☺	☺	☹	☺	☺	☺	☹
	DX18-2E250N02-CE4	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	☺		☺	☺	☹	☺	☺	☺	☹
	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				☺	☹			☺	☹
	DX18-2E200L6-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				☺	☹			☺	☹
	DX18-3F300N02-CE4	3	0,2		18	0,09–0,33	±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	☺			☺		☺		☺	
	DX18-4E400N04-GD3	4	0,4		18,5	0,10–0,23	±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	0,3		18	0,08–0,21	±0,05	±0,15			☺	☺			☺	☺	
	DX18-4E400N04-GD6	4	0,4		18,5	0,10–0,25	±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



A2

Cutting inserts

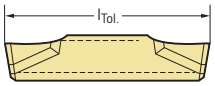
	Designation	s mm	r mm	l mm	f mm	a_p mm	S_{Tol} mm	l_{Tol} mm	P HC WKP13S	P HC WKP23S	P HC WKP33S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	DX18-2E200N02-UF4	2	0,2	18	0,10–0,18	0,3–1,2	±0,05	±0,15		●		●	●	●	●	●	●	●
	DX18-2E250N02-UF4	2,5	0,2	18	0,10–0,21	0,3–1,3	±0,05	±0,15		●		●	●		●	●	●	
	DX18-3E300N03-UF4	3	0,3	18	0,10–0,23	0,4–2,0	±0,05	±0,15		●		●	●	●	●	●	●	●
	DX18-4E400N02-UF4	4	0,2	18,5	0,10–0,33	0,3–2,8	±0,05	±0,15					●				●	
	DX18-4E400N04-UF4	4	0,4	18,5	0,10–0,33	0,5–2,8	±0,05	±0,15		●			●	●	●		●	●
	DX18-4E400N08-UF4	4	0,8	18,5	0,10–0,33	0,9–2,8	±0,05	±0,15		●			●		●		●	
	DX18-4F400N04-UF4	4	0,4	18,5	0,10–0,33	0,5–2,8	±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		●			●		●		●	
	DX18-4E400N04-UD4	4	0,4	18,5	0,10–0,33	0,5–2,8	±0,05	±0,15		●			●		●		●	
	DX18-4E400N08-UD4	4	0,8	18,5	0,10–0,33	0,9–2,8	±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	●		●							
	DX18-4E400N04-UA4	4	0,4	18,5	0,10–0,38	0,5–2,8	±0,05	±0,15	●		●							
	DX18-4E400N08-UA4	4	0,8	18,5	0,10–0,38	0,9–2,8	±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

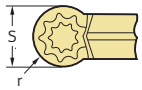
HC = Coated carbide

● ● ● / ★ New addition to the product range

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



DX...N

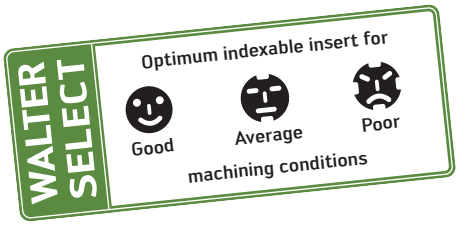


Cutting inserts

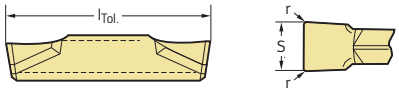
	Designation	s mm	r mm	l mm	f mm	a_p mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WKP33S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	DX18-2E200N10-RF7	2	1	18,3	0,08–0,26	0,1–1,0	±0,05	±0,15			☺				☺		
	DX18-3E300N15-RF7	3	1,5	18,3	0,10–0,33	0,1–1,5	±0,05	±0,15			☺				☺		
	DX18-4E400N20-RF7	4	2	18,5	0,12–0,48	0,1–2,0	±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 recessing
GX cutting inserts
Tiger·tec® Silver



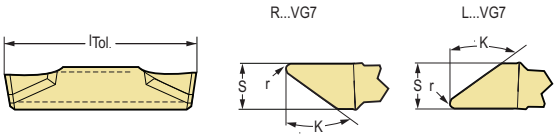
Cutting inserts

	Designation	s mm	r mm	l mm	f mm	a_p mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	GX24-2E300N02-UF4	3	0,2	24	0,10–0,20	0,3–2,0	±0,05	±0,15			●			●				●	
	GX24-2E300N03-UF4	3	0,3	24	0,10–0,20	0,4–2,0	±0,05	±0,15	●	●	●	●	●	●	●	●	●	●	●
	GX24-2E318N03-UF4	3,18	0,3	24	0,10–0,20	0,4–2,0	±0,05	±0,15	●		●	●		●	●	●		●	●
	GX24-3E400N02-UF4	4	0,2	24	0,10–0,30	0,3–2,8	±0,05	±0,15			●			●				●	
	GX24-3E400N04-UF4	4	0,4	24	0,10–0,30	0,5–2,8	±0,05	±0,15	●	●	●	●	●	●	●	●	●	●	●
	GX24-3E400N08-UF4	4	0,8	24	0,10–0,30	0,9–2,8	±0,05	±0,15	●		●			●		●		●	
	GX24-3E475N04-UF4	4,75	0,4	24	0,12–0,35	0,5–3,0	±0,05	±0,15	●		●			●		●		●	
	GX24-3E500N04-UF4	5	0,4	24	0,12–0,35	0,5–3,0	±0,05	±0,15	●	●	●	●	●	●	●	●	●	●	●
	GX24-3E500N08-UF4	5	0,8	24	0,12–0,35	0,9–3,0	±0,05	±0,15	●		●			●		●		●	
	GX24-4E600N05-UF4	6	0,5	24	0,14–0,40	0,6–3,5	±0,05	±0,15	●	●	●	●	●	●	●	●	●	●	●
	GX24-4E600N08-UF4	6	0,8	24	0,14–0,40	0,9–3,5	±0,05	±0,15	●		●			●		●		●	
	GX24-4E635N05-UF4	6,35	0,5	24	0,14–0,40	0,6–3,5	±0,05	±0,15	●		●			●		●		●	
	GX24-2F300N03-UF4	3	0,3	24	0,10–0,20	0,4–2,0	±0,05	±0,15						●				●	
	GX24-3F400N04-UF4	4	0,4	24	0,10–0,30	0,5–2,8	±0,05	±0,15						●				●	
	GX24-3F500N04-UF4	5	0,4	24	0,12–0,35	0,5–3,0	±0,05	±0,15						●				●	
	GX24-4F600N05-UF4	6	0,5	24	0,14–0,40	0,6–3,5	±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 recessing
GX cutting inserts
Tiger·tec® Silver



Cutting inserts

	Designation	s mm	r mm	κ	l mm	f mm	a_p mm	S_{Tol} mm	l_{Tol} mm	P HC WKP23S	P HC WSM23S	P HC WSM33S	P HC WSM43S	M HC WSM23S	M HC WSM33S	M HC WSM43S	K HC WKP23S	S HC WSM23S	S HC WSM33S	S HC WSM43S
	GX24-2E280R02-VG7	2,8	0,2	50°	24	0,05–0,12	0,2–2,0	±0,05	±0,15					●	●			●	●	
	GX24-2E280R04-VG7	2,8	0,4	50°	24	0,08–0,25	0,2–2,5	±0,05	±0,15					●	●			●	●	
	GX24-2E280L02-VG7	2,8	0,2	50°	24	0,05–0,12	0,2	±0,05	±0,15					●				●		

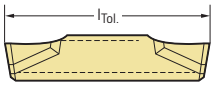
l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

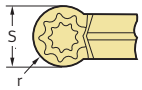
HC = Coated carbide

● ● ● / ★ New addition to the product range

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

GX...N



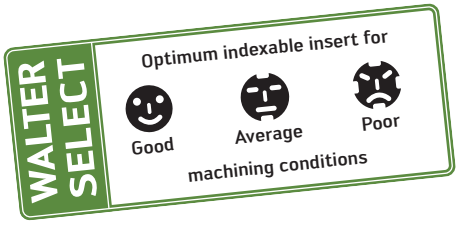


Cutting inserts

	Designation	s mm	r mm	l mm	f mm	a_p mm	S_{Tol} mm	l_{Tol} mm	P HC					M HC				K HC	S 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						☺					☺			

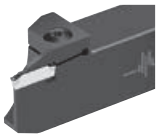
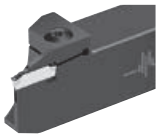
l_{Tol} = Repeat accuracy when changing indexable inserts within the same indexable insert batch
Radius tolerance r_{Tol} = ±0.05 mm

HC = Coated carbide



A2

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	2–4	2–4	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	Precision cooling	External	Precision cooling
Shank size h [mm]	10–20	12–20	19–25	20–25	26–32	26–32
Shank size h [inch]	0,394–0,787	0,472–0,787	0,750–1,000	0,787–1,000	1,024–1,260	1,024–1,260
Page	98	99	105	106	109	110
						

Machining				
Type				
Designation	**G4041...C**	**G4041...C-P**	**G4634-P**	**G1634-P**
Insert width s [mm]	1,5–3	2	2–3	2–4
Cutting depth T_{max} [mm]	17–21	17	13–16	21–33
Coolant supply	External	Precision cooling	Precision cooling	Precision cooling
Shank size h [mm]	26–32	26	33	33–43
Shank size h [inch]	1,024–1,260	1,024	1,29	1,29–1,69
Page	111	112	113	114
				

Walter Cut grooving tools product range overview
Walter Capto™ groove turning holders

Machining		
Type		
Designation	**G4011-C...-P**	**G1011-C...-P**
Insert width s [mm]	2	3–6
Cutting depth T_{max} [mm]	17	21
Coolant supply	Precision cooling	Precision cooling
Walter Capto™ size	C3 / C4	C3 / C4 / C5 / C6
Page	116	117
		

A2

Designation key for Walter Cut grooving tools

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

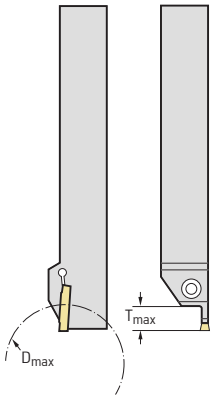
0	Radial grooving tool
1	Axial grooving tool
5	Grooving tool without support
6	Modular external radial grooving

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
34	Grooving module, angled clamping screw
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

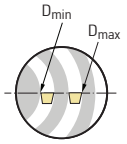
T06	6 mm
T12	12 mm
T21	21 mm
T32	32 mm
T33	33 mm
T35	35 mm
D16	Ø 16 mm
D32	Ø 32 mm



9 – Minimum axial grooving diameter/ blade height

Minimum axial grooving diameter

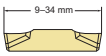
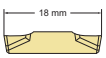
034	Ø 34 mm
042	Ø 42 mm
054	Ø 54 mm
067	Ø 67 mm
090	Ø 90 mm
130	Ø 130 mm
220	Ø 220 mm



Blade height

26	26 mm
32	32 mm
52	52 mm

10 – Type of indexable insert

GX	
DX	
SX	
MX	
UX	

A2

5 Shank size

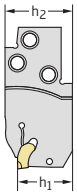
Square shank

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



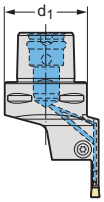
Module size

h_1	
E12	12 mm
E16	16 mm
E20	20 mm
E25	25 mm
E32	32 mm
h_2	
33	33 mm
43	43 mm

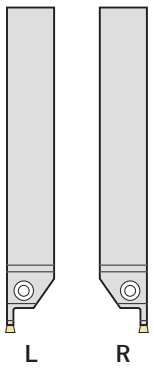


Walter Capto™

C3	d_1 = 32 mm
C4	d_1 = 40 mm
C5	d_1 = 50 mm
C6	d_1 = 60 mm



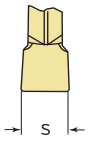
6 Toolholder design



R	Right-hand
L	Left-hand
N	Neutral

7 Insert width

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



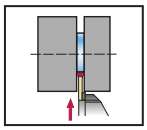
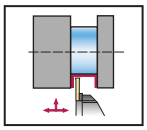
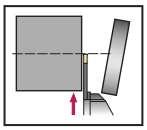
Shank tool – radial grooving

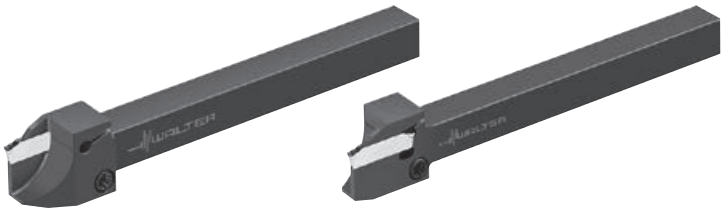
G4014 mm

Walter Cut

A2

– Side screw clamping



Left-hand Right-hand

DX

Tool

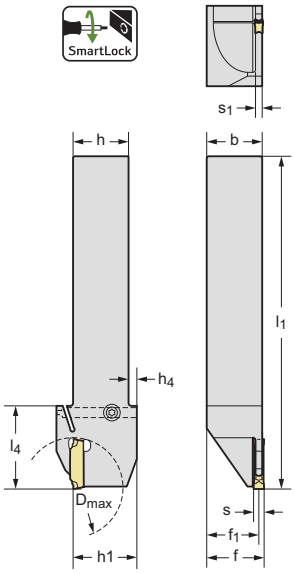


Fig. shows right-hand version

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
G4014-1010R-1.5T10DX18	1,5	20	10	10	9,4	110	4	22	DX18-1E1 ..
G4014-1212R-1.5T12DX18		25	12	12	11,4	110	3	22,3	
G4014-1616R-1.5T12DX18		25	16	16	15,4	120	4	24	
G4014-1010R-2T10DX18	2	20	10	10	9,2	110	4	22	DX18-2E2 ..
G4014-1212R-2T12DX18		25	12	12	11,2	110	3	22,3	
G4014-1616R-2T12DX18		25	16	16	15,2	120	4	24	
★ G4014-1212R-3T12DX18	3	25	12	12	10,8	110	3	22,3	DX18-3E3 .. DX18-3F3 ..
G4014-1616R-3T17DX18		35	16	16	14,8	120	4	30	
G4014-2020R-3T17DX18		35	20	20	18,8	120	3	30	
G4014-1010L-1.5T10DX18	1,5	20	10	10	9,4	110	4	22	DX18-1E1 ..
G4014-1212L-1.5T12DX18		25	12	12	11,4	110	3	22,3	
G4014-1616L-1.5T12DX18		25	16	16	15,4	120	4	24	
G4014-1010L-2T10DX18	2	20	10	10	9,2	110	4	22	DX18-2E2 ..
G4014-1212L-2T12DX18		25	12	12	11,2	110	3	22,3	
G4014-1616L-2T12DX18		25	16	16	15,2	120	4	24	
★ G4014-1212L-3T12DX18	3	25	12	12	10,8	110	3	22,3	DX18-3E3 .. DX18-3F3 ..
G4014-1616L-3T17DX18		35	16	16	14,8	120	4	30	
G4014-2020L-3T17DX18		35	20	20	18,8	120	3	30	

$f = f_1 + s/2$
If no D_2 or D_{max} is specified, the tool has no diameter limit.
Bodies and assembly parts are included in the scope of delivery.

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
Blanking plug	FS2589	FS2589
Torx key	FS1465 (Torx 15IP /SW 3,5)	FS1465 (Torx 15IP /SW 3,5)

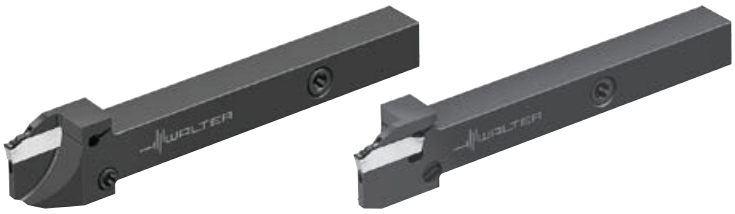
Accessories

h = h_1 [mm]	10–20
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)

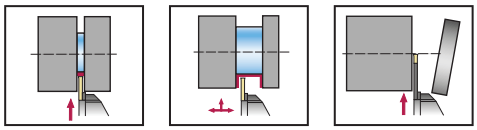
/ ★ New addition to the product range

Shank tool – radial grooving
G4014...-P mm
Walter Cut

– Side screw clamping
– Precision cooling



Left-hand Right-hand



DX

Tool

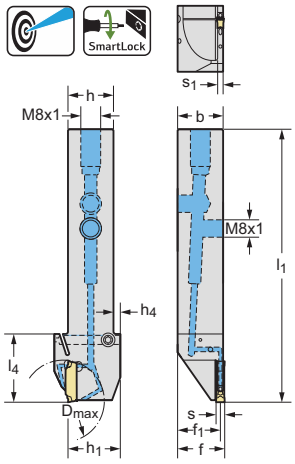


Fig. shows right-hand version

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
G4014-1212R-2T12DX18-P	2	25	12	12	11,2	110	3	22,3	DX18-2E2 ..
G4014-1212R-2.5T12DX18-P	2,5	25	12	12	11	110	3	22,3	
G4014-1212R-3T12DX18-P	3	25	12	12	10,8	110	3	22,3	DX18-3E3 .. DX18-3F3 ..
G4014-1212L-2T12DX18-P	2	25	12	12	11,2	110	3	22,3	DX18-2E2 ..
G4014-1212L-2.5T12DX18-P	2,5	25	12	12	11	110	3	22,3	
G4014-1212L-3T12DX18-P	3	25	12	12	10,8	110	3	22,3	DX18-3E3 .. DX18-3F3 ..

$f = f_1 + s/2$
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)
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	h = h_1 [mm]	12
	Clamping screw for grooving insert Tightening torque	FS2586 (Torx 15IP) 2,0 Nm
	Blanking plug	FS2589
	M8x1 threaded plug	FS2587
	Torx key	FS1465 (Torx 15IP /SW 3,5)

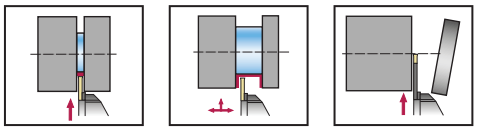
Accessories

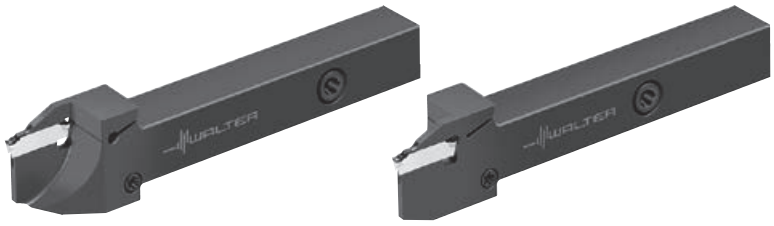
	h = h_1 [mm]	12
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	M8x1 angle connection	FS2596
	M8x1 connection element	FS2597
	Copper gasket	FS2598

A2

Shank tool – radial grooving
G4014...-P mm
Walter Cut

– Side screw clamping
– Precision cooling





Left-hand

Right-hand

DX

Tool

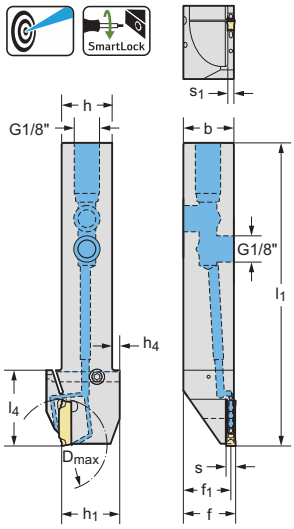


Fig. shows right-hand version

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
G4014-1616R-2T12DX18-P	2	25	16	16	15,2	120	4	24	DX18-2E2 ..
G4014-1616R-2T17DX18-P		35	16	16	15,2	120	4	30	
G4014-1616R-2.5T17DX18-P	2,5	35	16	16	15	120	4	30	
G4014-1616R-3T17DX18-P	3	35	16	16	14,8	120	4	30	DX18-3E3 .. DX18-3F3 ..
G4014-1616L-2T12DX18-P	2	25	16	16	15,2	120	4	24	DX18-2E2 ..
G4014-1616L-2T17DX18-P		35	16	16	15,2	120	4	30	
G4014-1616L-2.5T17DX18-P	2,5	35	16	16	15	120	4	30	
G4014-1616L-3T17DX18-P	3	35	16	16	14,8	120	4	30	DX18-3E3 .. DX18-3F3 ..

$f = f_1 + s/2$
If no D_2 or D_{max} is specified, the tool has no diameter limit.
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)
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

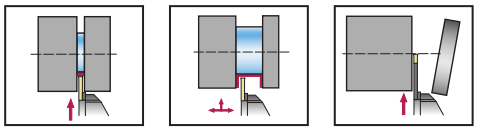
h = h_1 [mm]	16
Clamping screw for grooving insert Tightening torque	FS2585 (Torx 15IP) 3,0 Nm
Blanking plug	FS2589
G 1/8" threaded plug	FS2258 (SW 5)
Torx key	FS1465 (Torx 15IP /SW 3,5)

Accessories

h = h_1 [mm]	16
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)

Shank tool – radial grooving
G4014...-P mm
Walter Cut

– Side screw clamping
– Precision cooling





Left-hand



Right-hand

DX

Tool

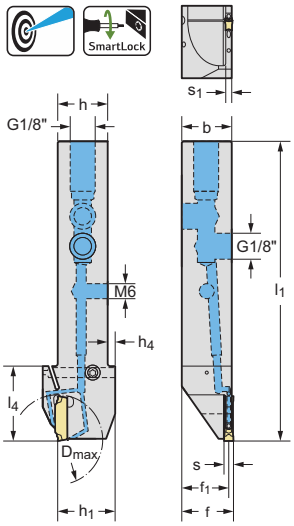


Fig. shows right-hand version

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-2T17DX18-P	2	35	20	20	19,2	120	3	30	DX18-2E2 ..
G4014-2020R-3T17DX18-P	3	35	20	20	18,8	120	3	30	DX18-3E3 .. DX18-3F3 ..
G4014-2020L-2T17DX18-P	2	35	20	20	19,2	120	3	30	DX18-2E2 ..
G4014-2020L-3T17DX18-P	3	35	20	20	18,8	120	3	30	DX18-3E3 .. DX18-3F3 ..

$f = f_1 + s/2$
If no D_2 or D_{max} is specified, the tool has no diameter limit.
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)
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

h = h_1 [mm]	20
Clamping screw for grooving insert Tightening torque	FS2585 (Torx 15IP) 3,0 Nm
Blanking plug	FS2589
G 1/8" threaded plug	FS2258 (SW 5)
M6 threaded plug	FS2288 (SW 3)
Torx key	FS1465 (Torx 15IP /SW 3,5)

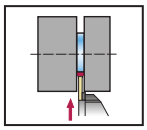
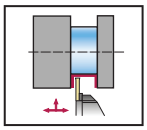
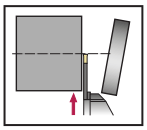
Accessories

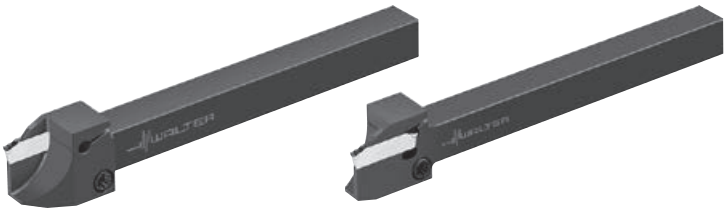
h = h_1 [mm]	20
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)

Shank tool – radial grooving
G4014 inch
Walter Cut

A2

– Side screw clamping



Left-hand Right-hand

DX

Tool

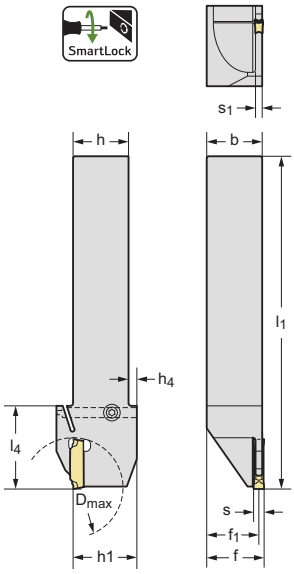


Fig. shows right-hand version

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-1.5T12DX18	0,059	0,984	0,500	0,500	0,476	4,331	0,091	0,878	DX18-1E1 ..
G4014.08L-1.5T12DX18		0,984	0,500	0,500	0,476	4,331	0,091	0,878	

$f = f_1 + s/2$
If no D_2 or D_{max} is specified, the tool has no diameter limit.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

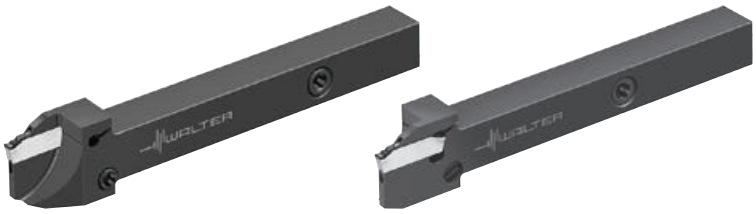
$h = h_1$ [inch]	0,500
Clamping screw for grooving insert Tightening torque	FS2586 (Torx 15IP) 2,0 Nm
Blanking plug	FS2589
Torx key	FS1465 (Torx 15IP /SW 3,5)

Accessories

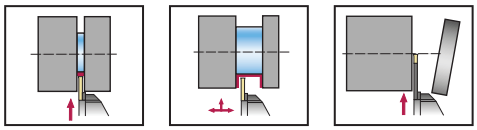
$h = h_1$ [inch]	0,500
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)

Shank tool – radial grooving
G4014...-P inch
Walter Cut

– Side screw clamping
– Precision cooling



Left-hand Right-hand



DX

Tool

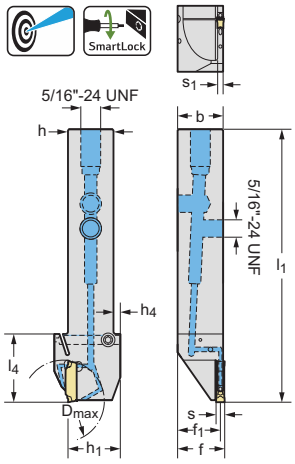


Fig. shows right-hand version

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-2T12DX18-P	0,079	0,984	0,500	0,500	0,469	4,331	0,091	0,878	DX18-2E2 ..
G4014.08R-3T12DX18-P	0,118	0,984	0,500	0,500	0,453	4,331	0,091	0,878	DX18-3E3 .. DX18-3F3 ..
G4014.08L-2T12DX18-P	0,079	0,984	0,500	0,500	0,469	4,331	0,091	0,878	DX18-2E2 ..
G4014.08L-3T12DX18-P	0,118	0,984	0,500	0,500	0,453	4,331	0,091	0,878	DX18-3E3 .. DX18-3F3 ..

$f = f_1 + s/2$
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)
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

$h = h_1$ [inch]	0,500
Clamping screw for grooving insert Tightening torque	FS2586 (Torx 15IP) 2,0 Nm
Blanking plug	FS2589
UNF 5/16-24 threaded plug	FS2593
Torx key	FS1465 (Torx 15IP /SW 3,5)

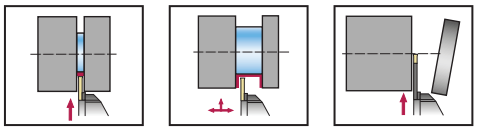
Accessories

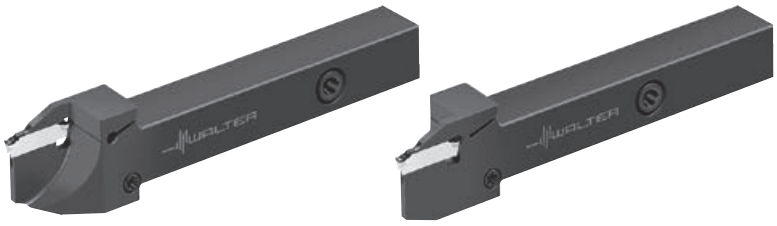
$h = h_1$ [inch]	0,500
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)
5/16" UNF angle connection	FS2594
5/16" UNF connection element	FS2597
Copper gasket	FS2598

A2

Shank tool – radial grooving
G4014...-P inch
Walter Cut

– Side screw clamping
– Precision cooling



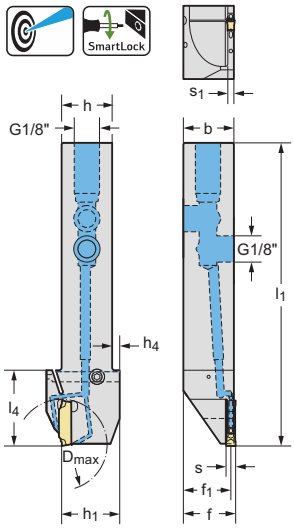


Left-hand

Right-hand

DX

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
G4014.10R-2T17DX18-P	0,079	1,378	0,625	0,625	0,594	4,724	0,161	1,181	DX18-2E2 ..
G4014.12R-2T17DX18-P		1,378	0,750	0,750	0,717	4,724	0,118	1,181	
G4014.10R-3T17DX18-P	0,118	1,378	0,625	0,625	0,579	4,724	0,161	1,181	DX18-3E3 .. DX18-3F3 ..
G4014.12R-3T17DX18-P		1,378	0,750	0,750	0,701	4,724	0,118	1,181	
G4014.10L-2T17DX18-P	0,079	1,378	0,625	0,625	0,594	4,724	0,161	1,181	DX18-2E2 ..
G4014.12L-2T17DX18-P		1,378	0,750	0,750	0,717	4,724	0,118	1,181	
G4014.10L-3T17DX18-P	0,118	1,378	0,625	0,625	0,579	4,724	0,161	1,181	DX18-3E3 .. DX18-3F3 ..
G4014.12L-3T17DX18-P		1,378	0,750	0,750	0,701	4,724	0,118	1,181	

Fig. shows right-hand version

$f = f_1 + s/2$
If no D_2 or D_{max} is specified, the tool has no diameter limit.
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)
Bodies and assembly parts are included in the scope of delivery.

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
Blanking 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

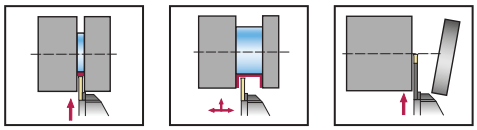
$h = h_1$ [inch]	0,625–0,750
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)

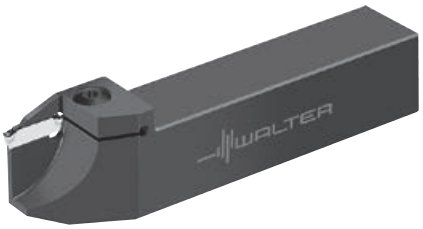
Shank tool – radial grooving

G4011 mm

Walter Cut

– Screw clamping





Left-hand



Right-hand

DX

Tool

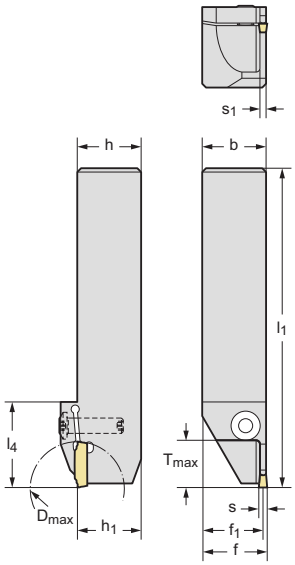


Fig. shows right-hand version

Designation	s mm	T_{max} mm	D_{max} mm	$h = h_1$ mm	b mm	f_1 mm	l_1 mm	l_4 mm	s_1 mm	Type
G4011-2525R-2T10DX18	2	10		25	25	24,2	125	28	1,6	DX18-2E2 ..
G4011-2525R-2T17DX18		17	35	25	25	24,2	125	33,5	1,6	
G4011-2525R-2.5T17DX18	2,5	17	35	25	25	24	125	33,5	2,1	
★ G4011-2020R-3T10DX18	3	10		20	20	18,8	125	33,5	2,4	DX18-3E3 .. DX18-3F3 ..
G4011-2525R-3T10DX18		10		25	25	23,8	125	28	2,4	
G4011-2525R-3T17DX18		17	35	25	25	23,8	125	33,5	2,4	
★ G4011-2020R-4T10DX18	4	10		20	20	18,3	125	33,5	3,4	DX18-4E4 .. DX18-4F4 ..
★ G4011-2020R-4T17DX18		17		20	20	18,3	125	33,5	3,4	
★ G4011-2525R-4T10DX18		10		25	25	23,2	125	33,5	3,4	
★ G4011-2525R-4T17DX18		17		25	25	23,2	125	33,5	3,4	
G4011-2525L-2T10DX18	2	10		25	25	24,2	125	28	1,6	DX18-2E2 ..
G4011-2525L-2T17DX18		17	35	25	25	24,2	125	33,5	1,6	
G4011-2525L-2.5T17DX18	2,5	17	35	25	25	24	125	33,5	2,1	
★ G4011-2020L-3T10DX18	3	10		20	20	18,8	125	33,5	2,4	DX18-3E3 .. DX18-3F3 ..
G4011-2525L-3T10DX18		10		25	25	23,8	125	28	2,4	
G4011-2525L-3T17DX18		17	35	25	25	23,8	125	33,5	2,4	
★ G4011-2020L-4T10DX18	4	10		20	20	18,3	125	33,5	3,4	DX18-4E4 .. DX18-4F4 ..
★ G4011-2020L-4T17DX18		17		20	20	18,3	125	33,5	3,4	
★ G4011-2525L-4T10DX18		10		25	25	23,2	125	33,5	3,4	
★ G4011-2525L-4T17DX18		17		25	25	23,2	125	33,5	3,4	

$f = f_1 + s/2$
If no D_2 or D_{max} is specified, the tool has no diameter limit.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

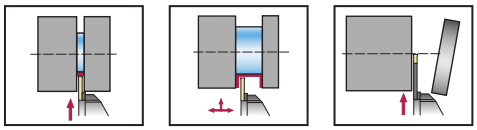
$h = h_1$ [mm] s [mm]	20 3–4	25 2–3	25 4
Clamping screw for grooving insert Tightening torque	FS2118 (Torx 20IP) 5,0 Nm	FS2118 (Torx 20IP) 5,0 Nm	FS2118 (Torx 20IP) 5,0 Nm
Torx key	FS1464 (Torx 20IP)	FS1464 (Torx 20IP)	FS1464 (Torx 20IP)

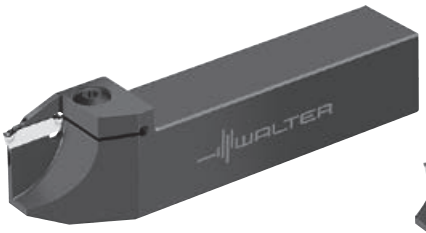
Shank tool – radial grooving

G4011...-P mm

Walter Cut

– Screw clamping
– Precision cooling





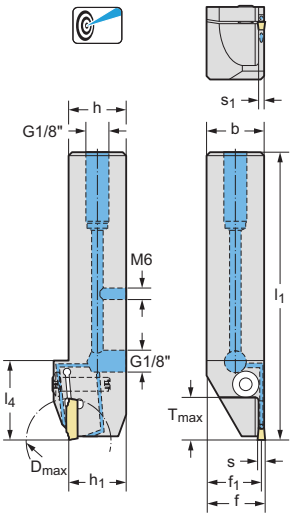
Left-hand



Right-hand

DX

Tool



Designation	s mm	T_{max} mm	D_{max} mm	h = h_1 mm	b mm	f_1 mm	l_1 mm	l_4 mm	s_1 mm	Type
G4011-2525R-2T17DX18-P	2	17	35	25	25	24,2	125	33,5	1,6	DX18-2E2 ..
G4011-2525R-2.5T17DX18-P	2,5	17	35	25	25	24	125	33,5	2,1	
G4011-2525R-3T17DX18-P	3	17	35	25	25	23,8	125	33,5	2,4	DX18-3E3 .. DX18-3F3 ..
★ G4011-2020R-4T17DX18-P	4	17		20	20	18,3	125	33,5	3,4	DX18-4E4 .. DX18-4F4 ..
★ G4011-2525R-4T17DX18-P		17		25	25	23,3	125	33,5	3,4	
G4011-2525L-2T17DX18-P	2	17	35	25	25	24,2	125	33,5	1,6	DX18-2E2 ..
G4011-2525L-2.5T17DX18-P	2,5	17	35	25	25	24	125	33,5	2,1	
G4011-2525L-3T17DX18-P	3	17	35	25	25	23,8	125	33,5	2,4	DX18-3E3 .. DX18-3F3 ..
★ G4011-2020L-4T17DX18-P	4	17		20	20	18,3	125	33,5	3,4	DX18-4E4 .. DX18-4F4 ..
★ G4011-2525L-4T17DX18-P		17		25	25	23,3	125	33,5	3,5	

Fig. shows right-hand version

$f = f_1 + s/2$
If no D_2 or D_{max} is specified, the tool has no diameter limit.
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)
Bodies and assembly parts are included in the scope of delivery.

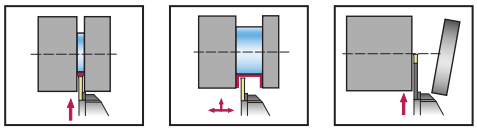
Assembly parts

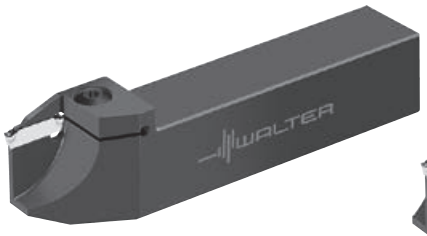
h = h_1 [mm]	20	25
Clamping screw for grooving insert Tightening torque	FS2118 (Torx 20IP) 5,0 Nm	FS2118 (Torx 20IP) 5,0 Nm
G 1/8" threaded plug	FS2258 (SW 5)	FS2258 (SW 5)
M6 threaded plug		FS2288 (SW 3)
Torx key	FS1464 (Torx 20IP)	FS1464 (Torx 20IP)

★ New addition to the product range

Shank tool – radial grooving
G4011 inch
Walter Cut

– Screw clamping





Left-hand



Right-hand

DX

Tool

Designation	s inch	T_{max} inch	D_{max} inch	h = h_1 inch	b inch	f_1 inch	l_1 inch	l_4 inch	s_1 inch	Type
G4011.16R-2T10DX18	0,079	0,394		1,000	1,000	0,969	4,921	1,102	0,063	DX18-2E2 ..
G4011.16R-3T10DX18	0,118	0,394		1,000	1,000	0,953	4,921	1,102	0,094	DX18-3E3 .. DX18-3F3 ..
G4011.16R-3T17DX18		0,669	1,378	1,000	1,000	0,953	4,921	1,319	0,094	
★ G4011.12R-4T17DX18	0,157	0,669		0,750	0,750	0,685	4,921	1,319	0,134	DX18-4E4 .. DX18-4F4 ..
★ G4011.16R-4T17DX18		0,669		1,000	1,000	0,933	4,921	1,319	0,134	
G4011.16L-2T10DX18	0,079	0,394		1,000	1,000	0,969	4,921	1,102	0,063	DX18-2E2 ..
G4011.16L-3T10DX18	0,118	0,394		1,000	1,000	0,953	4,921	1,102	0,094	DX18-3E3 .. DX18-3F3 ..
G4011.16L-3T17DX18		0,669	1,378	1,000	1,000	0,953	4,921	1,319	0,094	
★ G4011.12L-4T17DX18	0,157	0,669		0,750	0,750	0,685	4,921	1,319	0,134	DX18-4E4 .. DX18-4F4 ..
★ G4011.16L-4T17DX18		0,669		1,000	1,000	0,933	4,921	1,319	0,134	

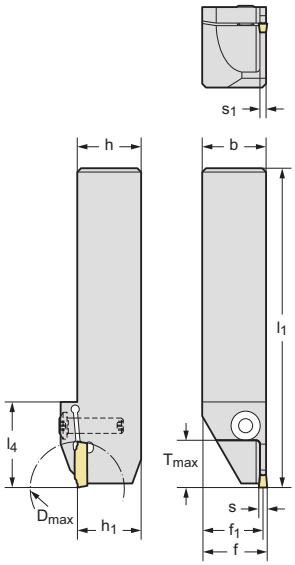


Fig. shows right-hand version

$f = f_1 + s/2$
If no D_2 or D_{max} is specified, the tool has no diameter limit.
Bodies and assembly parts are included in the scope of delivery.

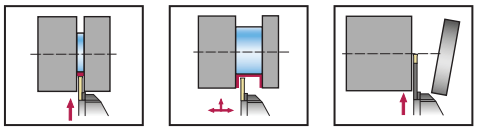
Assembly parts

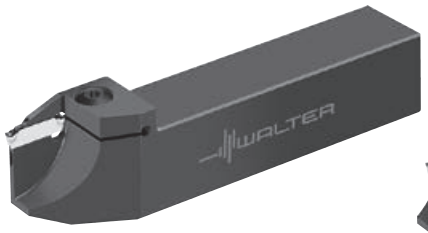
h = h_1 [inch]	0,750–1,000
Clamping screw for grooving insert Tightening torque	FS2118 (Torx 20IP) 5,0 Nm
Torx key	FS1464 (Torx 20IP)

A2

Shank tool – radial grooving
G4011...-P inch
Walter Cut

– Screw clamping
– Precision cooling





Left-hand



Right-hand

DX

Tool

Designation	s inch	T_{max} inch	D_{max} inch	h = h_1 inch	b inch	f_1 inch	l_1 inch	l_4 inch	s_1 inch	Type
G4011.16R-2T17DX18-P	0,079	0,669	1,378	1,000	1,000	0,969	4,921	1,319	0,063	DX18-2E2 ..
G4011.16R-3T17DX18-P	0,118	0,669	1,378	1,000	1,000	0,953	4,921	1,319	0,094	DX18-3E3 .. DX18-3F3 ..
G4011.16L-2T17DX18-P	0,079	0,669	1,378	1,000	1,000	0,969	4,921	1,319	0,063	DX18-2E2 ..
G4011.16L-3T17DX18-P	0,118	0,669	1,378	1,000	1,000	0,953	4,921	1,319	0,094	DX18-3E3 .. DX18-3F3 ..

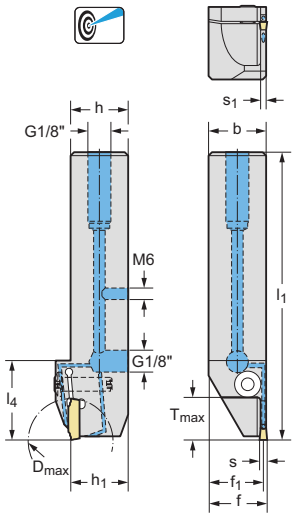


Fig. shows right-hand version

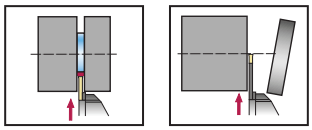
$f = f_1 + s/2$
If no D_2 or D_{max} is specified, the tool has no diameter limit.
For the connection set for coolant supply with G1/8" thread, see "Assembly parts and accessories"
The maximum recommended coolant pressure is 150 bar (2175 psi)
Bodies and assembly parts are included in the scope of delivery.

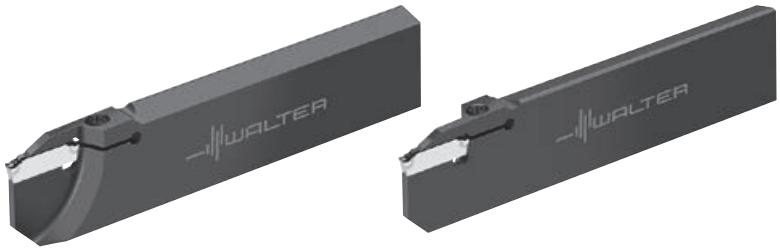
Assembly parts

h = h_1 [inch]	1,000
Clamping screw for grooving insert Tightening torque	FS2118 (Torx 20IP) 5,0 Nm
G 1/8" threaded plug	FS2258 (SW 5)
M6 threaded plug	FS2288 (SW 3)
Torx key	FS1464 (Torx 20IP)

Reinforced parting blade
G4041 mm
Walter Cut

– Screw clamping





Left-hand Right-hand

DX

Tool

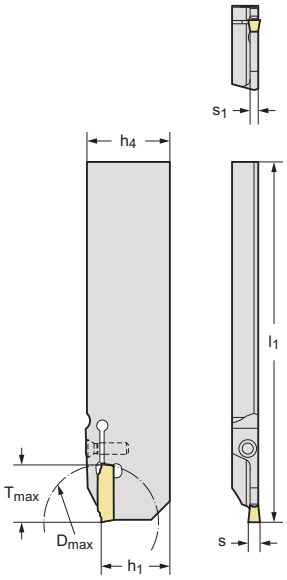


Fig. shows right-hand version

Designation	s mm	T_{max} mm	D_{max} mm	h_4 mm	l_1 mm	h_1 mm	s_1 mm	Type
G4041-26R-1.5T17DX18	1,5	17	35	26	110	21,3	1,2	DX18-1E1 ..
G4041-26R-2T17DX18	2	17	35	26	110	21,3	1,6	DX18-2E2 ..
G4041-32R-2T21DX18		21	42	32	110	25	2,5	
G4041-26R-3T17DX18	3	17	35	26	110	21,3	2,5	DX18-3E3 .. DX18-3F3 ..
G4041-26L-1.5T17DX18	1,5	17	35	26	110	21,3	1,2	DX18-1E1 ..
G4041-26L-2T17DX18	2	17	35	26	110	21,3	1,6	DX18-2E2 ..
G4041-26L-3T17DX18	3	17	35	26	110	21,3	2,5	DX18-3E3 .. DX18-3F3 ..

If no D_2 or D_{max} is specified, the tool has no diameter limit.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

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

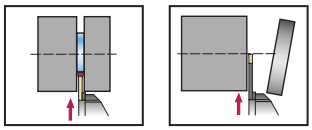
Accessories

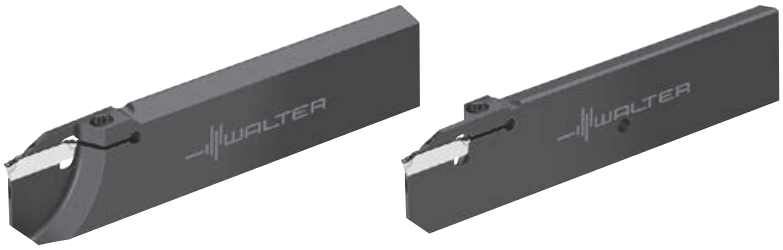
	h_4 [mm]	26–32
	Screwdriver for grooving insert	FS1485 (Torx 15IP)

A2

Reinforced parting blade
G4041...-P mm
Walter Cut

– Screw clamping
– Precision cooling





Left-hand

Right-hand

DX

Tool

Designation	s mm	T_{max} mm	D_{max} mm	h_4 mm	l_1 mm	h_1 mm	s_1 mm	Type
G4041-26R-2T17DX18-P	2	17	35	26	110	21,3	1,6	DX18-2E2 ..
G4041-26L-2T17DX18-P	2	17	35	26	110	21,3	1,6	
G4041-32L-2T21DX18-P		21	42	32	110	25	1,6	

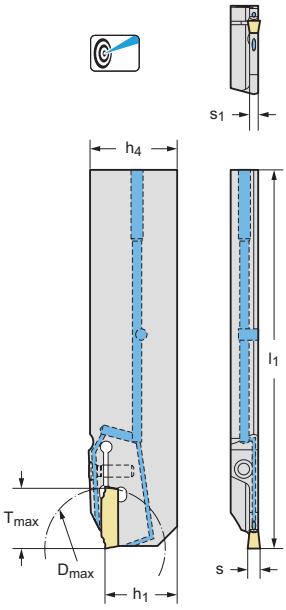


Fig. shows right-hand version

If no D_2 or D_{max} is specified, the tool has no diameter limit.
The maximum recommended coolant pressure is 80 bar (1160 psi)
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

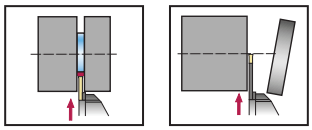
	h_4 [mm]	26–32
	Clamping screw for grooving insert Tightening torque	FS2164 (Torx 15IP) 3,5 Nm

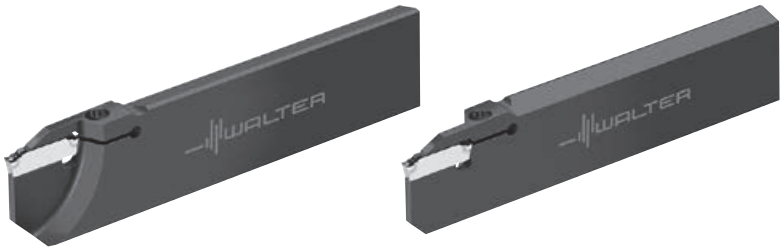
Accessories

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

Reinforced parting blade – Contra
G4041...C mm
Walter Cut

– Screw clamping





Left-hand

Right-hand

DX

Tool

Designation	s mm	T_{max} mm	D_{max} mm	h_4 mm	l_1 mm	h_1 mm	s_1 mm	Type
G4041-26R-1.5T17DX18C	1,5	17	35	26	110	21,3	1,2	DX18-1E1 ..
G4041-26R-2T17DX18C	2	17	35	26	110	21,3	1,6	DX18-2E2 ..
G4041-32R-2T21DX18C		21	42	32	110	25	1,6	
G4041-26R-3T17DX18C	3	17	35	26	110	21,3	2,5	DX18-3E3 .. DX18-3F3 ..
G4041-26L-1.5T17DX18C	1,5	17	35	26	110	21,3	1,2	DX18-1E1 ..
G4041-26L-2T17DX18C	2	17	35	26	110	21,3	1,6	DX18-2E2 ..
G4041-32L-2T21DX18C		21	42	32	110	25	1,6	
G4041-26L-3T17DX18C	3	17	35	26	110	21,3	2,5	DX18-3E3 .. DX18-3F3 ..

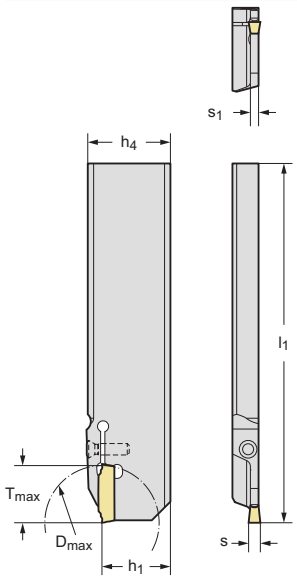


Fig. shows right-hand version

If no D_2 or D_{max} is specified, the tool has no diameter limit.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

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

Accessories

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

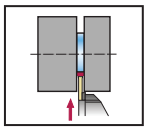
A2

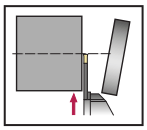
Reinforced parting blade – Contra

G4041...C-P mm

Walter Cut

– Screw clamping
– Precision cooling







Left-hand



Right-hand



Tool

Designation	s mm	T_{max} mm	D_{max} mm	h_4 mm	l_1 mm	h_1 mm	s_1 mm	Type
G4041-26R-2T17DX18C-P	2	17	35	26	110	21,3	1,6	DX18-2E2 ..
G4041-26L-2T17DX18C-P	2	17	35	26	110	21,3	1,6	

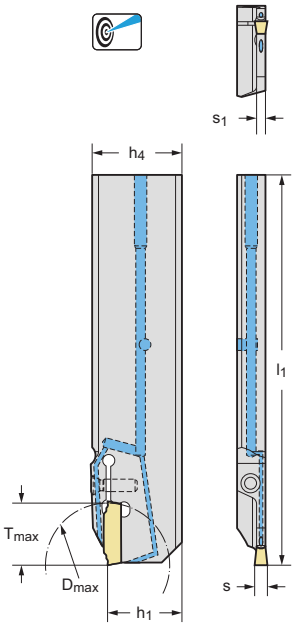


Fig. shows right-hand version

If no D_2 or D_{max} is specified, the tool has no diameter limit.
The maximum recommended coolant pressure is 80 bar (1160 psi)
Bodies and assembly parts are included in the scope of delivery.

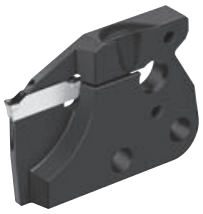
Assembly parts

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

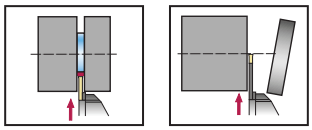
Accessories

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

Grooving module – radial grooving
G4634-P mm
Walter Cut

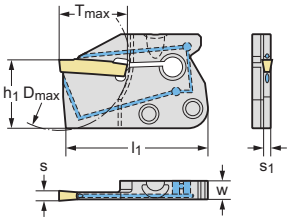


– Screw clamping
– Replacement module



DX

Tool



Designation	s mm	Tmax mm	Dmax mm	h1 mm	W mm	l1 mm	s1 mm	Type
★ G4634-33L-2T13DX18-P	2	13	26	24	4	36	1,6	DX18-2E2 ..
★ G4634-33L-2T16DX18-P		16	32	24	7,2	46	1,6	
★ G4634-33L-3T16DX18-P	3	16	32	24	7,2	46	2,4	DX18-3E3 .. DX18-3F3 ..

Fig. shows right-hand version

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)

Grooving module – radial grooving

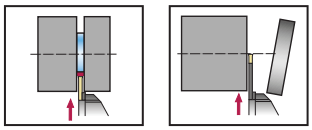
G1634-P mm

Walter Cut



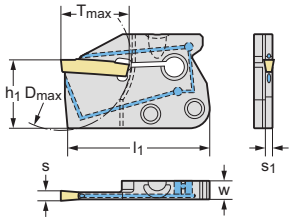
A2

– Screw clamping
– Replacement module





Tool



Designation	s mm	T_{max} mm	D_{max} mm	h_1 mm	W mm	l_1 mm	s_1 mm	Type
★ G1634-33R-2T21GX24-P	2	21	42	24	7,2	49	1,5	GX24-1E2 ..
★ G1634-33L-2T21GX24-P	2	21	42	24	7,2	49	1,5	
★ G1634-33L-3T21GX24-P	3	21	42	24	7,2	49	2,4	GX24-2E .. GX24-2F3 ..

Fig. shows right-hand version

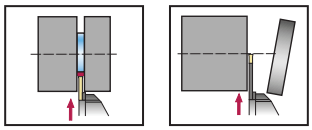
If no D_2 or D_{max} is specified, the tool has no diameter limit.
The maximum recommended coolant pressure is 150 bar (2175 psi)

/ ★ New addition to the product range

Grooving module – radial grooving
G1634-P mm
Walter Cut



– Screw clamping
– Replacement module





Tool

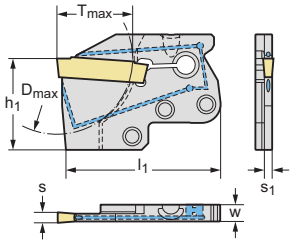


Fig. shows right-hand version

Designation	s mm	T_{max} mm	D_{max} mm	h_1 mm	W mm	l_1 mm	s_1 mm	Type
★ G1634-43R-3T27GX34-P	3	27	52	24	7,2	55	2,4	GX34-2E3 ..
★ G1634-43R-3T33GX34-P		33	65	24	7,2	61	2,4	
★ G1634-43L-3T27GX34-P	3	27	52	24	7,2	55	2,4	
★ G1634-43L-3T33GX34-P		33	65	24	7,2	61	2,4	
★ G1634-43L-4T33GX34-P	4	33	65	24	7,2	61	3,3	GX34-3E4 ..

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)

Groove turning holders – radial grooving

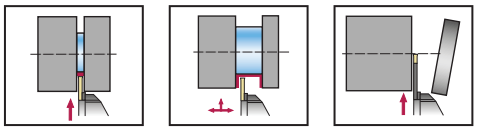
G4011-C...-P mm

Walter Cut

– Walter Capto™
– Screw clamping



Left-hand Right-hand



DX

Tool

Walter Capto™ in acc. with ISO 26623

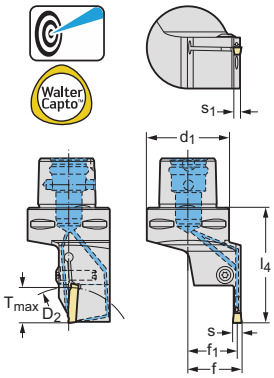


Fig. shows right-hand version

Designation	s mm	T_{max} mm	D_2 mm	d_1	f_1 mm	l_4 mm	s_1 mm	Type
★ G4011-C3R-2T17DX18-P	2	17	52	C3	20	55	1,6	DX18-2E2 ..
★ G4011-C4R-2T17DX18-P		17	52	C4	20	60	1,6	
★ G4011-C3L-2T17DX18-P	2	17	52	C3	20	55	1,6	
★ G4011-C4L-2T17DX18-P		17	52	C4	20	60	1,6	

$f = f_1 + s/2$
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)
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

s [mm]	2
Clamping screw for grooving insert	FS2118 (Torx 20IP)
Tightening torque	5,0 Nm
Torx key	FS1464 (Torx 20IP)

★ New addition to the product range

Groove turning holders – radial grooving

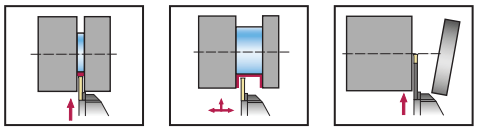
G1011-C...-P mm

Walter Cut

– Walter Capto™
– Screw clamping



Left-hand Right-hand





Tool

Walter Capto™ in acc. with ISO 26623

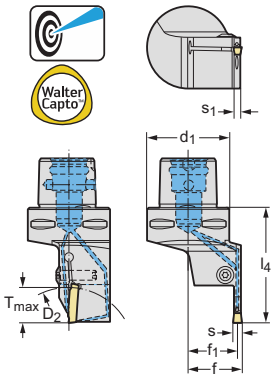
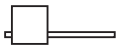


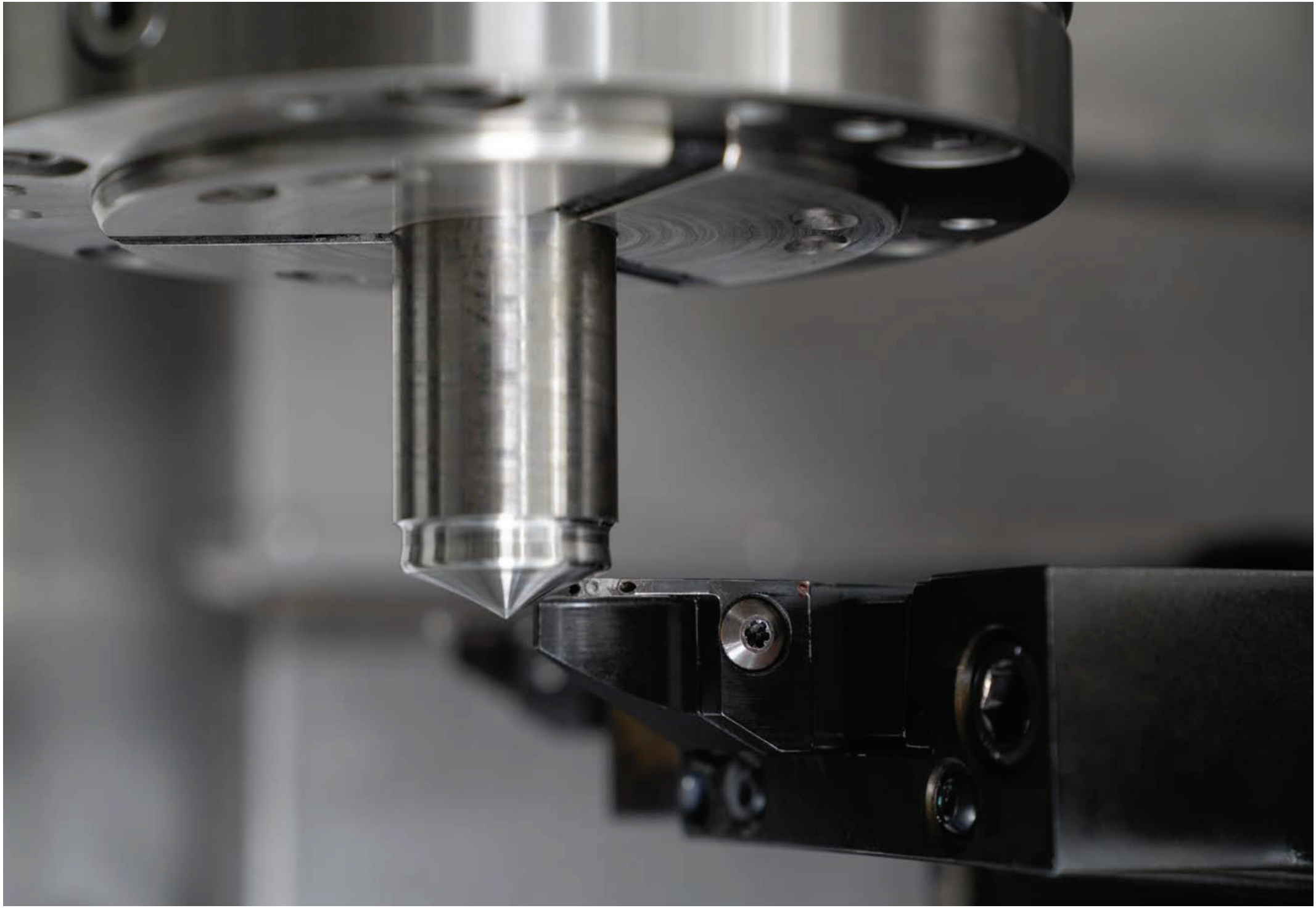
Fig. shows right-hand version

Designation	s mm	T_{max} mm	D_2 mm	d_1	f_1 mm	l_4 mm	s_1 mm	Type
★ G1011-C3R-3T21GX24-P	3	21	65	C3	20,5	60	2,4	GX24-2E .. GX24-2F3 ..
★ G1011-C4R-3T21GX24-P		21	65	C4	25,5	65	2,4	
★ G1011-C5R-3T21GX24-P		21	65	C5	30,5	70	2,4	
★ G1011-C4R-4T21GX24-P	4	21	65	C4	25	65	3,4	GX24-3E .. GX24-3F4 ..
★ G1011-C5R-4T21GX24-P		21		C5	30	70	3,4	
★ G1011-C6R-4T21GX24-P		21		C6	36	76	3,4	
★ G1011-C4R-5T21GX24-P	5-6	21		C4	24,5	65	4,2	GX24-3E5 .. GX24-3F5 ..
★ G1011-C5R-5T21GX24-P		21		C5	30	70	4,2	
★ G1011-C6R-5T21GX24-P		21		C6	36	76	4,2	
★ G1011-C3L-3T21GX24-P	3	21	65	C3	20,5	60	2,4	GX24-2E .. GX24-2F3 ..
★ G1011-C4L-3T21GX24-P		21	65	C4	25,5	65	2,4	
★ G1011-C5L-3T21GX24-P		21	65	C5	30,5	70	2,4	
★ G1011-C4L-4T21GX24-P	4	21	65	C4	25	65	3,4	GX24-3E .. GX24-3F4 ..
★ G1011-C5L-4T21GX24-P		21		C5	30	70	3,4	
★ G1011-C6L-4T21GX24-P		21		C6	36	76	3,4	
★ G1011-C4L-5T21GX24-P	5-6	21		C4	24,5	65	4,2	GX24-3E5 .. GX24-3F5 ..
★ G1011-C5L-5T21GX24-P		21		C5	30	70	4,2	
★ G1011-C6L-5T21GX24-P		21		C6	36	76	4,2	

$f = f_1 + s/2$
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)
Bodies and assembly parts are included in the scope of delivery.

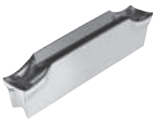
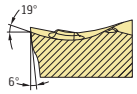
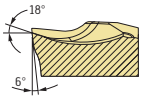
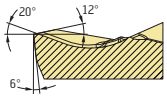
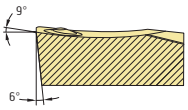
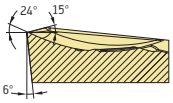
Assembly parts

	s [mm]	3–6
	Clamping screw for grooving insert Tightening torque	FS2118 (Torx 20IP) 5,0 Nm
	Torx key	FS1464 (Torx 20IP)



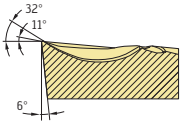
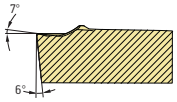
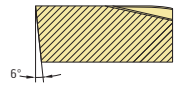
Geometry overview of cutting inserts

DX system: Grooving and parting off

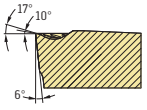
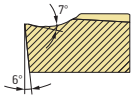
Geometry	Remarks/ field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Section Main cutting edge	View Main cutting edge	s [mm]	f [mm]
	**CF6** – Low feeds – Low burr/centre pip formation – Low cutting force	••	••		••	••		•			1,5 2 2,5 3	0,03–0,12 0,03–0,14 0,03–0,18 0,04–0,23
	**CF5** – Grooving and parting off operations – Light to moderate feeds – Good chip control – Low burr/centre pip formation	••	••	•	••	••		•			1,5 2 2,5 3	0,03–0,12 0,04–0,15 0,05–0,18 0,08–0,23
	**CE4** – Grooving and parting off operations – Moderate to high feeds – Good chip constriction – Stable cutting edge	••	•	••	•	•	•				1,5 2 2,5 3	0,03–0,12 0,06–0,17 0,07–0,21 0,09–0,33
	**GD3** – Extremely soft cutting action – Light to moderate feeds – General parting off and grooving operations	••	••	•	•	•		•			2 2,5 3 4	0,04–0,15 0,04–0,17 0,06–0,21 0,10–0,23
	**GD6** – Moderate feeds – Long-chipping materials – Moderate machining conditions	••	••	•	•	••					2 2,5 3 4	0,04–0,14 0,06–0,20 0,08–0,21 0,10–0,25

•• Primary application
• Additional application

DX system: Grooving, parting off and recessing

Geometry	Remarks/ field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Section Main cutting edge	View Main cutting edge	s [mm]	a_p [mm]	f [mm]
	**UF4** – All grooving operations – Good chip control – Average feed range – Positive cut	●●	●●	●●	●	●					2 2,5 3 4	0,3–1,2 0,3–1,3 0,4–2,0 0,3–2,8	0,10–0,18 0,10–0,21 0,10–0,23 0,10–0,33
	**UD4** – Large chip breaking range – Optimum chip breaking when machining forged parts – Stable cutting edge – For moderate to high feeds	●●	●	●●							2 3 4	0,3–1,2 0,4–2,0 0,5–2,8	0,10–0,18 0,10–0,23 0,10–0,33
	**UA4** – For cast iron machining – For middle to high machining parameters – For maximum process reliability in cast iron machining			●●			●				2 3 4	0,3–1,2 0,4–2,0 0,5–2,8	0,08–0,18 0,10–0,25 0,10–0,38

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

Geometry	Remarks/ field of applications	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Section Main cutting edge	View Main cutting edge	s [mm]	a_p [mm]	f [mm]
	**RF7** – For copy and relief turning – High surface quality – Stable cutting edge	●●	●●	●	●	●●					2 3 4	0,1–1,0 0,1–1,5 0,1–2,0	0,08–0,26 0,10–0,33 0,12–0,48
	**RD4** – For copy turning – Outstanding chip control when grooving – For moderate to high feeds – Fully sintered circumference	●●	●	●●		●					2 3	0,2–1,0 0,5–1,5	0,08–0,28 0,10–0,38

●● Primary application
● Additional application

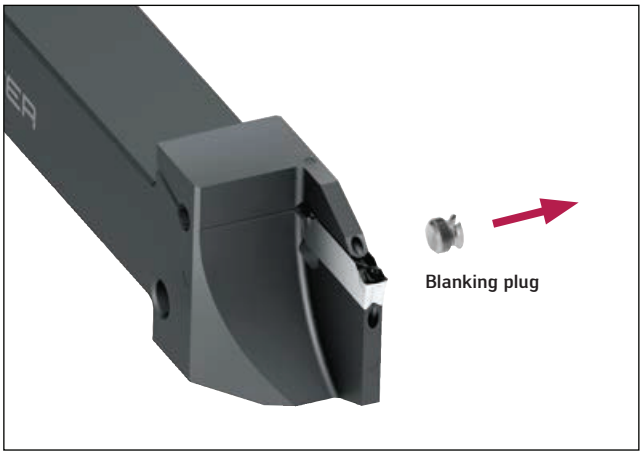
Assembly instructions for Walter Cut DX

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

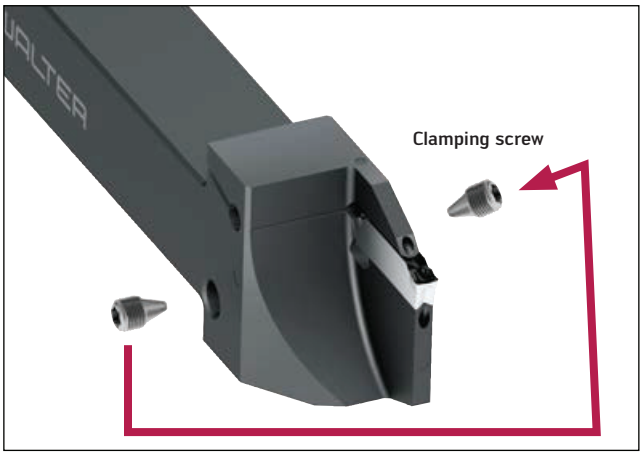
The Torx 15IP clamping screw is delivered fitted on the left-hand side of the toolholder. To fit this screw on the other side, follow the instructions below:

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

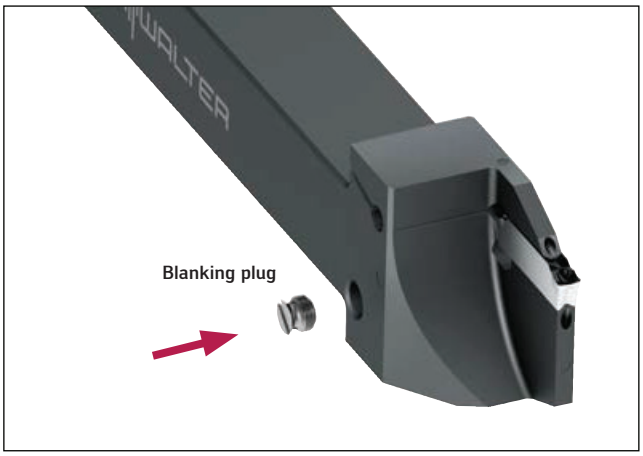
1. Remove the blanking plug on the right-hand side of the toolholder using a slotted screwdriver.



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

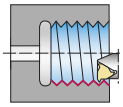


3. Screw the blanking plug back into the left-hand side of the toolholder, which is now free, to protect against contamination.



Link to the video with conversion instructions

Walter NTS threading tools product range overview
Thread turning tools

	
Type	 NTS..
Designation	**T1820-Q...-P**
Clamping system	Toggle
Coolant supply	Precision cooling
QuadFit size	Q25–Q50
Insert size	16–22
Page	123
	

Exchangeable head – internal thread

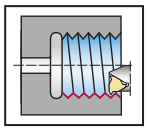
T1820-Q...-P mm

Walter NTS

– QuadFit
– Precision cooling



Left-hand Right-hand



NTS-I . .

A3

Tool

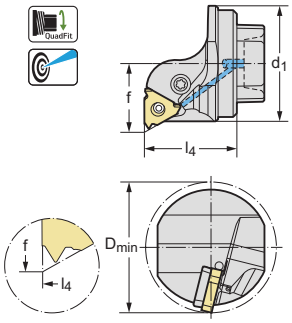


Fig. shows right-hand version

Designation		d_1	D_{min} mm	f mm	l_4 mm	β	Type
T1820-Q25R-16I-P	16	Q25	29	16,3	25	1°	NTS-I . -16 ..
T1820-Q32R-16I-P	16	Q32	36	19,8	32	1°	
T1820-Q40R-16I-P	16	Q40	44	23,8	32	1°	
T1820-Q50R-16I-P	16	Q50	54	28,8	32	1°	
T1820-Q32R-22I-P	22	Q32	38	21,3	32	1°	NTS-I . -22 ..
T1820-Q40R-22I-P	22	Q40	46	25,3	32	1°	
T1820-Q50R-22I-P	22	Q50	56	30,3	32	1°	
T1820-Q25L-16I-P	16	Q25	29	16,3	25	1°	NTS-I . -16 ..
T1820-Q32L-16I-P	16	Q32	36	19,8	32	1°	
T1820-Q40L-16I-P	16	Q40	44	23,8	32	1°	
T1820-Q50L-16I-P	16	Q50	54	28,8	32	1°	
T1820-Q32L-22I-P	22	Q32	38	21,3	32	1°	NTS-I . -22 ..
T1820-Q40L-22I-P	22	Q40	46	25,3	32	1°	
T1820-Q50L-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)
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 Tightening torque	FS2615 (Torx 15IP) 2,0 Nm	FS2616 (Torx 25IP) 5,0 Nm
Lever	KN129	KN130
Pin	RS123	RS124
Torx key	FS1465 (Torx 15IP /SW 3,5)	
Allen key		FS1592 (Torx 25IP)

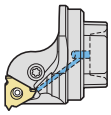
Application information:
Thread turning with Walter NTS

Thread turning – Shims

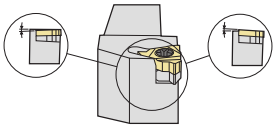
A3

Shims fitted in the tool holder exchangeable head

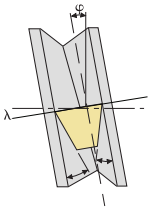
The table shows the shims that are fitted in the tool holder as standard and are used when cutting in the direction of the head stock.

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

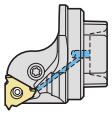
By replacing the shim, the inclination angle can be selected between +5 and –2. The same shims should be used for right-hand and left-hand threads. The centre height dimension always remains constant.



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.

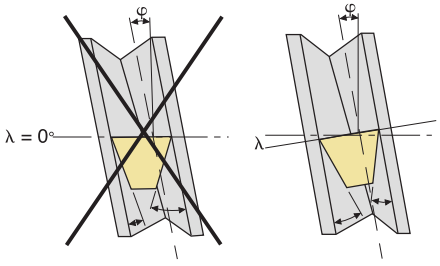


Selecting a shim

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

Application information: Thread turning with Walter NTS

(continued)

Horizontal rows = thread diameter [D_2]

| | | Pitch diameter D_2 [mm] – feed in the direction of the tail stock | | |

Application information:
Standard values for thread turning with Walter NTS

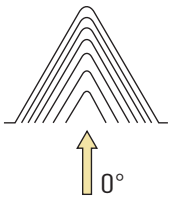
Feed types and their influence on machining

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

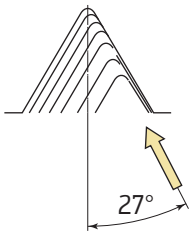
– Suitable for small pitches

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

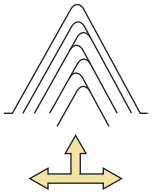
– Thread flanks with excellent surface quality

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 an overhang of more than 2.5 × the boring bar diameter.

Whitworth (WH), external and internal machining

	Pitch [TPI]														
No. of feeds	**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	017	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°

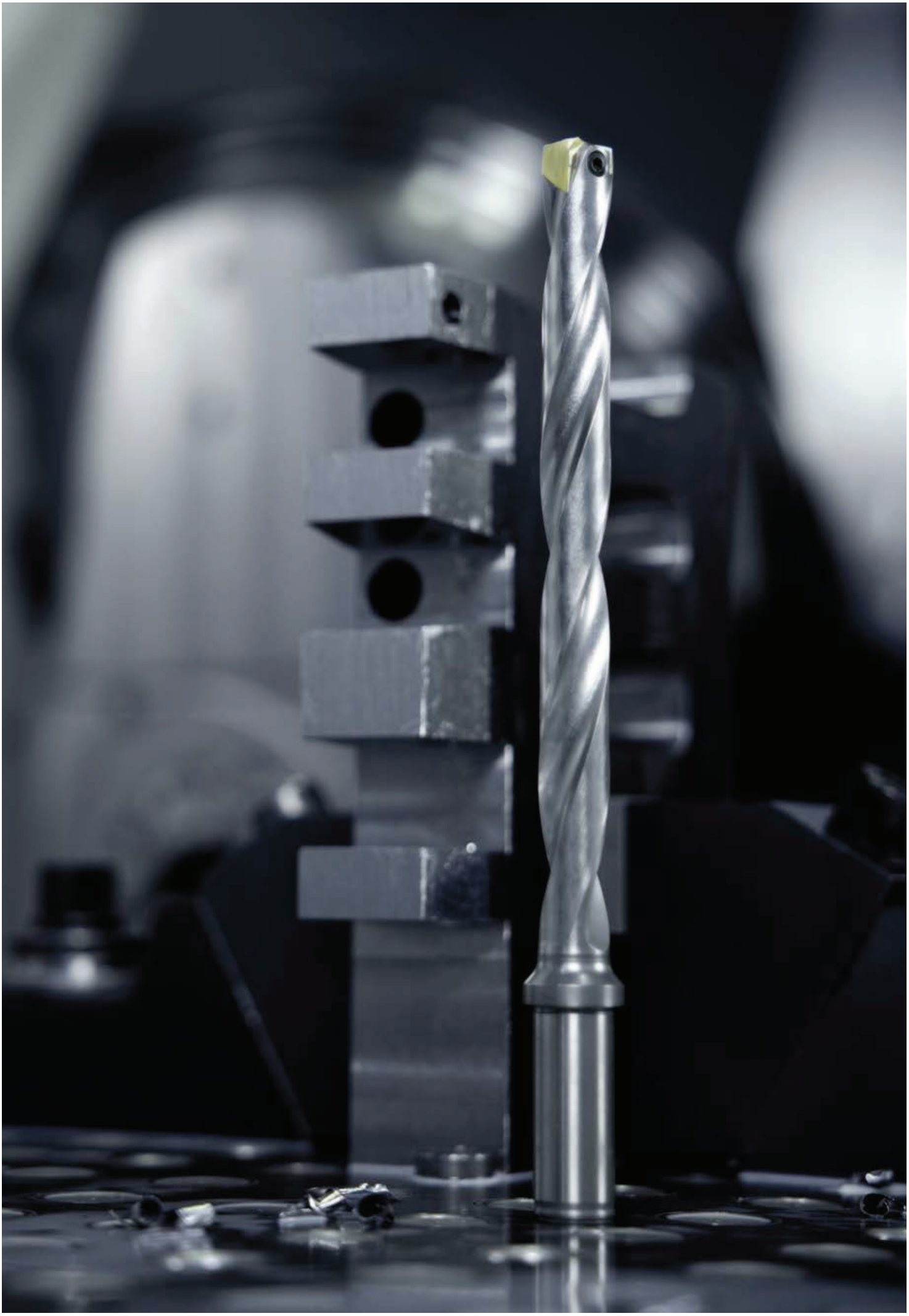
	Pitch [mm]																	
No. of feeds	0,5	0,6	0,7	0,75	0,8	1,0	1,25	1,5	1,75	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0
Total depth [mm]	0,34	0,38	0,44	0,48	0,51	0,63	0,77	0,90	1,07	1,20	1,49	1,77	2,04	2,32	2,62	2,89	3,20	3,46
16																	0,10	0,10
15																	0,12	0,12
14														0,08	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°

	Pitch [TPI]															
No. of feeds	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



B – Drilling

Drilling from solid – B1

Indexable inserts for drilling	Product range overview	130
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	Exchangeable-tip drills	134
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Boring tools with indexable inserts	Product range overview	142
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Boring and precision boring – B2

Indexable inserts for boring and precision boring	Product range overview	180
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Product range overview of indexable inserts for drilling from solid



B 1

Machining	Insert shape		Description	Page
Drilling from solid		L	For drilling from solid	139
		P284..	For drilling from solid	138
		P484..	For drilling from solid	136
		P6006	For drilling from solid	134
		W	For drilling from solid	140

Designation key
for square indexable inserts for drilling from solid

P484	0	C	–	2	R	–	E67
1	2	3		4	5		6

1	
Walter indexable insert designation	
P284	For D3120
P484	for D4120, D4170 and B421 .

2	
Version	
0	Fully ground circumference
1	Fully sintered circumference

3	
Position	
C	Centre insert
P	Outer insert
S	Centre insert and outer insert identical

4	
Insert size	
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	
Cutting direction	
R	RH-cutting
N	Neutral

6	
Walter geometry	
A57	The stable one
E57	The universal one
E67	The sharp one

Designation key
for exchangeable tips for drilling from solid

P600	6	–	D 18,50	R	WPP25
1	2		3	4	5

1		
Walter indexable insert designation		
P600x	For	D4140 / D4240 / B401 . .

2	
Walter geometry	
1	For ISO P
3	For ISO M and ISO S
4	For ISO N
5	For ISO K
6	For ISO P

3	
Insert diameter	
D	In mm

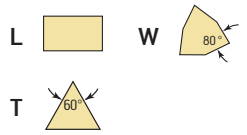
4	
Cutting direction	
R	RH-cutting

5
Coating

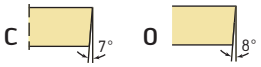
Designation key in accordance with ISO 1832 for indexable inserts for drilling from solid

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

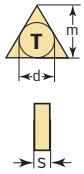
1 Insert shape



2 Clearance angle



3 Tolerances

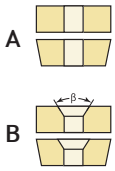


Permissible deviation in mm for

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

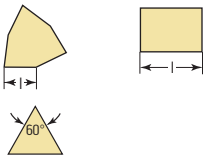
[1] Inserts with ground planar cutting edges
[2] Depending on the insert size (see ISO standard 1832)

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 Walter geometry

A57	The stable one
E57	The universal one
E67	The sharp one

Designation key for cutting material grades – Drilling

W	P	P	25	
Walter	1	2	3	4

1

1. Primary application or coating type

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

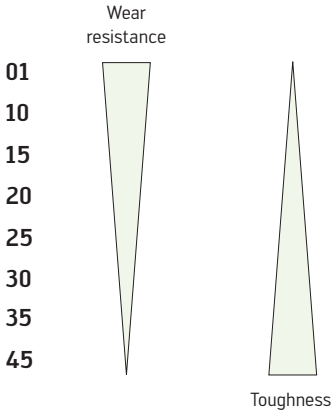
2

2. Primary application

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

3

ISO range of applications



4

Generation

S	Tiger·tec® Silver
C	Color Select
G	Tiger·tec® Gold

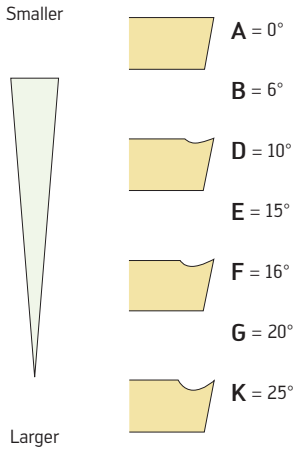
B 1

Geometry designation key for indexable inserts for drilling from solid

B	5	7
1	2	3

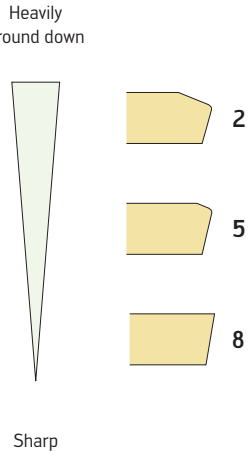
1

Chip breaker groove



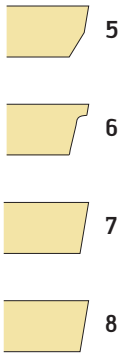
2

Cutting edge

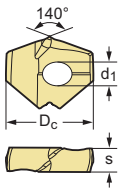


3

Flank face design



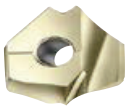
Exchangeable-tip drills
P6006



Drill inserts

B 1

P6006



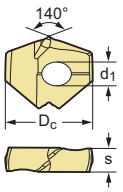
Designation	Number of cutting edges	D_c mm	D_c Inch/No.	Seat size	d_1 mm	s mm	P6006 P HC WPP25
P60..-D12,00R	2	12		A	3	3,6	☺
P60..-D12,50R	2	12,5		A	3	3,6	☺
P60..-D12,70R	2	12,7	1/2"	A	3	3,6	☺
P60..-D13,00R	2	13		A	3	3,6	☺
P60..-D13,50R	2	13,5		A	3	3,6	☺
P60..-D13,70R	2	13,7		A	3	3,6	☺
P60..-D14,00R	2	14		B	3	4,0	☺
P60..-D14,10R	2	14,1		B	3	4,0	☺
P60..-D14,20R	2	14,2		B	3	4,0	☺
P60..-D14,30R	2	14,3		B	3	4,0	☺
P60..-D14,50R	2	14,5		B	3	4,0	☺
P60..-D14,68R	2	14,68		B	3	4,0	☺
P60..-D15,00R	2	15		B	3	4,0	☺
P60..-D15,09R	2	15,09		B	3	4,0	☺
P60..-D15,20R	2	15,2		B	3	4,0	☺
P60..-D15,30R	2	15,3		B	3	4,0	☺
P60..-D15,50R	2	15,5		B	3	4,0	☺
P60..-D15,70R	2	15,7		B	3	4,0	☺
P60..-D15,87R	2	15,87		B	3	4,0	☺
P60..-D16,00R	2	16		C	4	4,5	☺
P60..-D16,26R	2	16,26		C	4	4,5	☺
P60..-D16,50R	2	16,5		C	4	4,5	☺
P60..-D16,66R	2	16,66		C	4	4,5	☺
P60..-D16,70R	2	16,7		C	4	4,5	☺
P60..-D17,00R	2	17		C	4	4,5	☺
P60..-D17,07R	2	17,07		C	4	4,5	☺
P60..-D17,45R	2	17,45		C	4	4,5	☺
P60..-D17,50R	2	17,5		C	4	4,5	☺
P60..-D17,70R	2	17,7		C	4	4,5	☺
P60..-D17,86R	2	17,86	45/64"	C	4	4,5	☺
P60..-D18,00R	2	18		D	4	5,0	☺
P60..-D18,24R	2	18,24		D	4	5,0	☺
P60..-D18,50R	2	18,5		D	4	5,0	☺
P60..-D18,65R	2	18,65		D	4	5,0	☺
P60..-D18,70R	2	18,7		D	4	5,0	☺
P60..-D19,00R	2	19		D	4	5,0	☺
P60..-D19,05R	2	19,05	3/4"	D	4	5,0	☺
P60..-D19,25R	2	19,25		D	4	5,0	☺
P60..-D19,50R	2	19,5		D	4	5,0	☺
P60..-D19,70R	2	19,7		D	4	5,0	☺
P60..-D19,84R	2	19,84		D	4	5,0	☺
P60..-D20,00R	2	20		E	5	5,5	☺
P60..-D20,24R	2	20,24	51/64"	E	5	5,5	☺

Ordering example: P60.. -D13.00R is available as P6006 in the WPP25 grade (ISO P, unalloyed steels): P6006-D13,00R WPP25

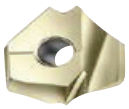
HC = Coated carbide

☺☺☺ / ★ New addition to the product range

Exchangeable-tip drills
P6006

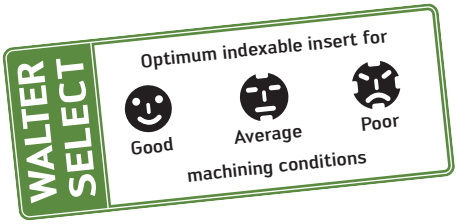


Drill inserts

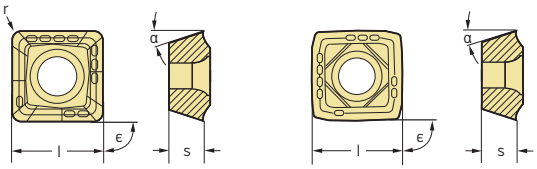
	Designation	Number of cutting edges	D_c mm	D_c Inch/No.	Seat size	d_1 mm	s mm	P6006 P HC WPP25
P6006	P60..-D20,50R	2	20,5		E	5	5,5	☺
	P60..-D20,62R	2	20,62		E	5	5,5	☺
	P60..-D20,70R	2	20,7		E	5	5,5	☺
	P60..-D21,00R	2	21		E	5	5,5	☺
	P60..-D21,50R	2	21,5		E	5	5,5	☺
	P60..-D21,70R	2	21,7		E	5	5,5	☺
	P60..-D22,00R	2	22		F	5	6,0	☺
	P60..-D22,22R	2	22,22		F	5	6,0	☺
	P60..-D22,50R	2	22,5		F	5	6,0	☺
	P60..-D22,70R	2	22,7		F	5	6,0	☺
	P60..-D23,00R	2	23		F	5	6,0	☺
	P60..-D23,50R	2	23,5		F	5	6,0	☺
	P60..-D23,80R	2	23,8		F	5	6,0	☺
	P60..-D24,00R	2	24		G	5	6,5	☺
	P60..-D24,50R	2	24,5		G	5	6,5	☺
	P60..-D24,70R	2	24,7		G	5	6,5	☺
	P60..-D25,00R	2	25		G	5	6,5	☺
	P60..-D25,25R	2	25,25		G	5	6,5	☺
	P60..-D25,40R	2	25,4	1"	G	5	6,5	☺
	P60..-D25,50R	2	25,5		G	5	6,5	☺
	P60..-D25,65R	2	25,65		G	5	6,5	☺
	P60..-D25,70R	2	25,7		G	5	6,5	☺
	P60..-D25,80R	2	25,8		G	5	6,5	☺
	P60..-D26,00R	2	26		H	6	7,1	☺
	P60..-D26,25R	2	26,25		H	6	7,1	☺
	P60..-D26,50R	2	26,5		H	6	7,1	☺
	P60..-D27,00R	2	27		H	6	7,1	☺
	P60..-D27,50R	2	27,5		H	6	7,1	☺
	P60..-D28,00R	2	28		J	6	7,7	☺
	P60..-D28,50R	2	28,5		J	6	7,7	☺
	P60..-D28,57R	2	28,57		J	6	7,7	☺
	P60..-D29,00R	2	29		J	6	7,7	☺
	P60..-D29,50R	2	29,5		J	6	7,7	☺

Ordering example: P60.. -D13.00R is available as P6006 in the WPP25 grade (ISO P, unalloyed steels): P6006-D13,00R WPP25

HC = Coated carbide



Square
P484 .
Tiger·tec® Gold



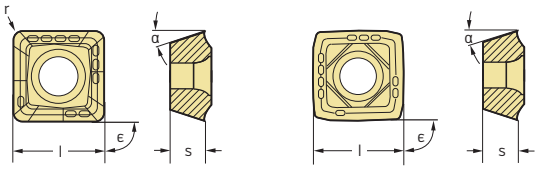
Indexable inserts

B 1

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

HC = Coated carbide

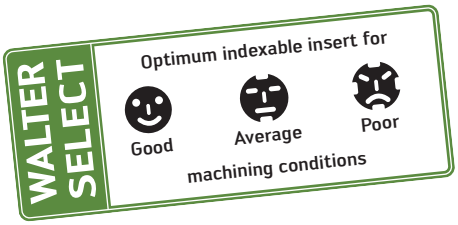
Square
P484 .
Tiger·tec® Gold



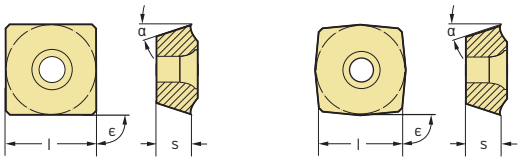
Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	r mm	α	ε	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
	P4841C-1R-A57	4	4,9	1,96	0,29	11°	90°				●			●									●	
	P4841C-2R-A57	4	5,95	2,38	0,34	11°	90°				●			●									●	
	P4841C-3R-A57	4	7	2,8	0,4	11°	90°				●			●									●	
	P4841C-4R-A57	4	8,4	3,36	0,48	11°	90°				●			●									●	
	P4841C-5R-A57	4	10,29	4,12	0,59	11°	90°				●			●									●	
	P4841C-6R-A57	4	12,24	4,87	0,7	11°	90°				●			●									●	
	P4841C-7R-A57	4	14,69	5,53	0,8	11°	90°				●			●									●	
	P4841C-8R-A57	4	17,49	5,53	1	11°	90°				●			●									●	
	P4841C-1R-E57	4	4,9	1,96	0,29	11°	90°				●			●									●	
	P4841C-2R-E57	4	5,95	2,38	0,34	11°	90°				●			●									●	
	P4841C-3R-E57	4	7	2,8	0,4	11°	90°				●			●									●	
	P4841C-4R-E57	4	8,4	3,36	0,48	11°	90°				●			●									●	
	P4841C-5R-E57	4	10,29	4,12	0,59	11°	90°				●			●									●	
	P4841C-6R-E57	4	12,24	4,87	0,7	11°	90°				●			●									●	
	P4841C-7R-E57	4	14,69	5,53	0,8	11°	90°				●			●									●	
	P4841C-8R-E57	4	17,49	5,53	1	11°	90°				●			●									●	
	P4840C-1R-E67	4	4,9	1,96	0,29	11°	90°				●			●						◐			●	
	P4840C-2R-E67	4	5,95	2,38	0,34	11°	90°				●			●						◐			●	
	P4840C-3R-E67	4	7	2,8	0,4	11°	90°				●			●						◐			●	
	P4840C-4R-E67	4	8,4	3,36	0,48	11°	90°				●			●						◐			●	
	P4840C-5R-E67	4	10,29	4,12	0,59	11°	90°				●			●						◐			●	
	P4840C-6R-E67	4	12,24	4,87	0,7	11°	90°				●			●						◐			●	
	P4840C-7R-E67	4	14,69	5,53	0,8	11°	90°				●			●						◐			●	
	P4840C-8R-E67	4	17,49	5,53	1	11°	90°				●			●						◐			●	

HC = Coated carbide



Square
P284..
Tiger·tec® Gold

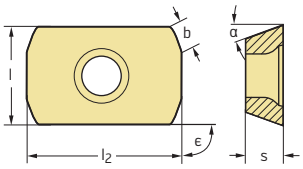


Indexable inserts

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

HC = Coated carbide

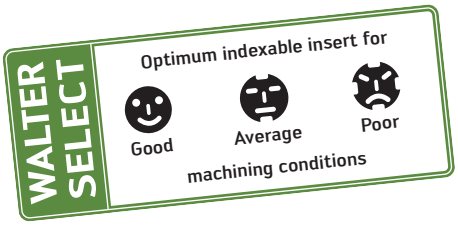
Rectangular
LCMX
Tiger·tec® Gold



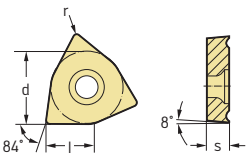
Indexable inserts

	Designation	Number of cutting edges	l mm	l_2 mm	s mm	α	b mm	ε	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	P HC WXP40	M HC WSP45S	M HC WSP45G	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45S	N HC WSP45G	S HC WSP45S	S HC WSP45G	S HC 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°				●			●							☺		●	

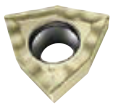
HC = Coated carbide



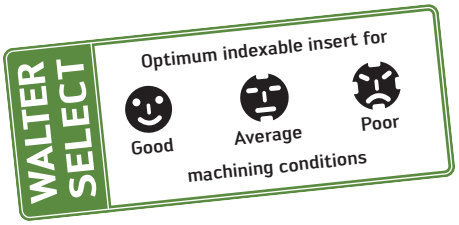
Trigon
WOMX / WOEX
Tiger·tec® Gold



Indexable inserts

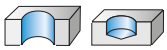
	Designation	Number of cutting edges	l mm	s mm	r mm	d mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	P HC WXP40	M HC WSP45S	M HC WSP45G	M HC WXP40	K HC WAK15	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45G	S HC WSP45S	S HC WSP45G	S HC WXP40
	WOMX030204-B57	3	3,31	2,3	0,4	5				●			●								●	
	WOMX040304-B57	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	**10 x D_c**	
Designation	**D4140-10**	**D4140.10**
Dia. range [mm]/["]	12,00–25,00	0.472–0.984"
Page	144	146
		

				
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]/["]	0.531–2.25"	0.531–2.25"	0.656–2.25"	0.656–2.25"
Page	148	154	158	162
				

	
Drilling depth	**3 x D_c**
Designation	**D4170-03**
Dia. range [mm]	65–80
Page	166
	

Designation key for Walter boring tools with indexable inserts

D	4	1	40	–	10	–	15.00	F25	–	G
1	2	3	4	5	6		7	8		9

1 – Tool group

D	Drilling

2 – Generation

3 – Tool type

1	Cylindrical drill
2	Chamfer drill
5	Chamfering tool

4 – Tool type

20	Indexable insert drill with square indexable insert
40	Exchangeable-tip drill with P600x indexable insert
80	Compact chamfering tool

5 – 1. Delimiters

–	Metric
.	Inch

6 – Drilling depth/ chamfer angle

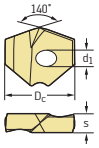
01	$1{,}3 \times D_c$
02	$2 \times D_c$ / $2{,}5 \times D_c$
03	$3 \times D_c$
04	$4 \times D_c$
05	$5 \times D_c$
07	$7 \times D_c$
10	$10 \times D_c$
45	45° chamfer angle

7 – Cutting diameter/ clamping diameter of the chamfering tool

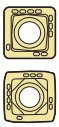
8 – Shank type and size, parallel

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

9 – Insert size/ interface size



Seat size	d_1 [mm]	s [mm]
A	3,0	3,6
B	3,0	4,0
C	4,0	4,5
D	4,0	5,0
E	5,0	5,5
F	5,0	6,0
G	5,0	6,5
H	6,0	7,1
J	6,0	7,7
K	6,0	8,0
M	6,0	8,3
N	6,0	8,6
P	6,0	8,9



P41	P484	Size 1
.	.	.
.	.	.
.	.	.
P48	P484	Size 8

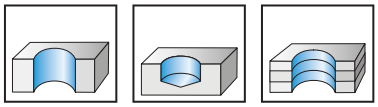


P21	P284	Size 1
.	.	.
.	.	.
.	.	.
P25	P284	Size 5

Exchangeable-tip drills
D4140-10 mm



– P6006 – Can be used without pilot drilling up to 10 × D_c



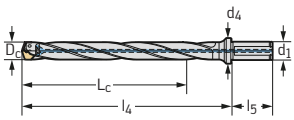


	P	M	K	N	S	H	O
D4140-10	●●	●	●●	●●	●		

B 1

Tool

Parallel shank with flat

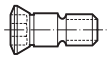


Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Seat size	Type
★ D4140-10-12.00F16-A	12	120	152	48	16	20	0,16	1	A	P600 . -D12, ..
★ D4140-10-13.00F16-A	13	130	163	48	16	20	0,18	1	A	P600 . -D13, ..
★ D4140-10-14.00F16-B	14	140	174	48	16	20	0,2	1	B	P600 . -D14, ..
★ D4140-10-15.00F16-B	15	150	185	48	16	20	0,22	1	B	P600 . -D15, ..
★ D4140-10-16.00F20-C	16	160	196	50	20	25	0,31	1	C	P600 . -D16, ..
★ D4140-10-17.00F20-C	17	170	207	50	20	25	0,34	1	C	P600 . -D17, ..
D4140-10-18.00F20-D	18	180	218	50	20	25	0,40	1	D	P600 . -D18, ..
★ D4140-10-19.00F20-D	19	190	229	50	20	25	0,4	1	D	P600 . -D19, ..
D4140-10-20.00F20-E	20	200	240	50	20	25	0,48	1	E	P600 . -D20, ..
★ D4140-10-21.00F20-E	21	210	251	50	20	25	0,49	1	E	P600 . -D21, ..
D4140-10-22.00F25-F	22	220	263	56	25	32	0,71	1	F	P600 . -D22, ..
★ D4140-10-23.00F25-F	23	230	273	56	25	32	0,75	1	F	P600 . -D23, ..
D4140-10-24.00F25-G	24	240	285	56	25	32	0,83	1	G	P600 . -D24, ..
★ D4140-10-25.00F25-G	25	250	296	56	25	32	0,87	1	G	P600 . -D25, ..

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

/ ★ New addition to the product range

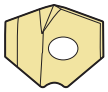
Assembly parts

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

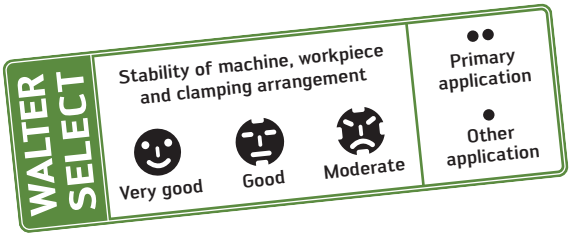
Accessories

D_c [mm]	12–13	14–17	18	19	20–24	21–25
 Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
 Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)	FS2015 (Torx 20IP)
 Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)	FS1486 (Torx 20IP)

Drill inserts

Designation	D_c mm	Seat size	P WPP25	P HC WPP45C	P HC WMP35	M WMP35	M HC WMP35	K WKK45C	K HC WKK45C	N WNN25	N HC WNN25	S WMP35	S HC WMP35
 P6001-D..	12–25,8	A–G		●									
P6003-D..	12–25,8	A–G			▲		●					●	
P6004-D..	12–25,5	A–G									●		
P6005-D..	12–25,8	A–G							▲				
P6006-D..	12–25,8	A–G	☺										

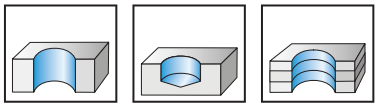
HC = Coated carbide



Exchangeable-tip drills
D4140.10 inch



– P6006 – Can be used without pilot drilling up to 10 × D_c



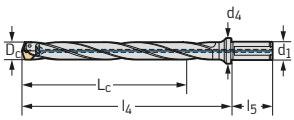


	P	M	K	N	S	H	O
D4140.10	●●	●	●●	●●	●		

B 1

Tool

Parallel shank with flat

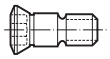


Designation	D_c mm	L_c mm	l_4 mm	l_5 mm	d_1 mm	d_4 mm	kg	No. of indexable inserts	Seat size	Type
★ D4140.10-12.00F15-A	12	120	152	48	16	20	0,16	1	A	P600 . -D12, ..
★ D4140.10-15.00F15-B	15	150	185	48	16	20	0,22	1	B	P600 . -D15, ..
★ D4140.10-19.00F19-D	19	190	229	52	19	25	0,4	1	D	P600 . -D19, ..
★ D4140.10-22.00F26-F	22	220	263	58	25	32	0,7	1	F	P600 . -D22, ..
★ D4140.10-25.00F26-G	25	250	296	58	25	32	0,9	1	G	P600 . -D25, ..

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

/ ★ New addition to the product range

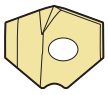
Assembly parts

	D_c [mm]	12	15	19	22	25
	Clamping screw for drill insert Tightening torque	FS1396 (Torx 7IP) 1,2 Nm	FS1397 (Torx 8IP) 2,0 Nm	FS1399 (Torx 15IP) 4,0 Nm	FS1401 (Torx 20IP) 5,0 Nm	FS1402 (Torx 20IP) 5,0 Nm

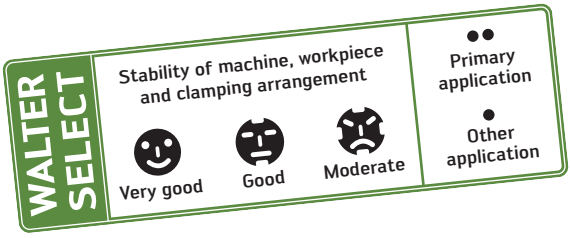
Accessories

	D_c [mm]	12	15	19	22–25
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

Drill inserts

	Designation	D_c mm	Seat size	P HC WPP25	P HC WPP45C	P HC WMP35	M HC WMP35	K HC WKK45C	N HC WNN25	S HC WMP35
	P6001-D..	12–25,8	A–G		☹					
	P6003-D..	12–25,8	A–G			😐	☹			☹
	P6004-D..	12–25,5	A–G						☹	
	P6005-D..	12–25,8	A–G					☹		
	P6006-D..	12–25,8	A–G	☺						

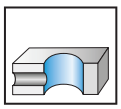
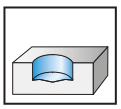
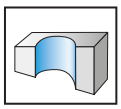
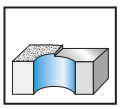
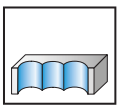
HC = Coated carbide



Indexable insert drills
D4120.02 inch

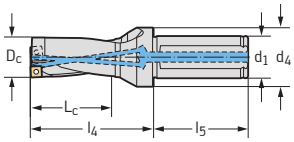
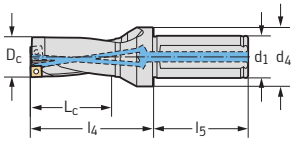
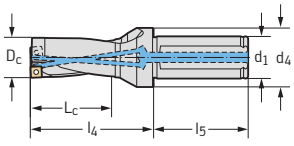


2×D_c | Z=1

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

B 1

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 	D4120.02-13.49F19-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	0,49	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	0,92	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	0,93	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	0,95	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	0,97	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	0,10	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	0,99	1 1	
	D4120.02-22.23F31-P43	0,875	1,750	2,880	2,281	1,250	1,625	1,43	1 1	
	D4120.02-23.01F31-P43	0,906	1,812	2,940	2,281	1,250	1,625	1,46	1 1	
	D4120.02-23.39F31-P43	0,921	1,842	2,970	2,281	1,250	1,625	1,47	1 1	
	D4120.02-23.80F31-P43	0,937	1,874	3,000	2,281	1,250	1,625	1,48	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	1,687–2,250
	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	FS1495 (Torx 20IP) 5,0 Nm

Accessories

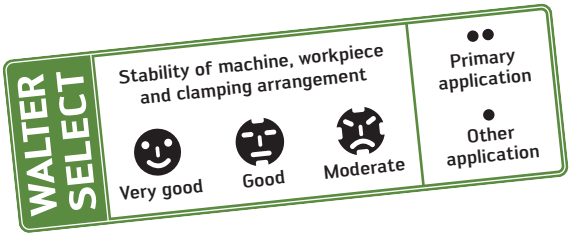
	D_c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625	1,687–2,250
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

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		●●		●	●		●	●		●●	●					●	●

P48 . . C = Centre insert
P48 . . P = Outer insert

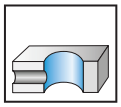
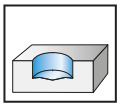
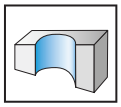
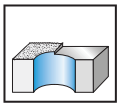
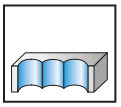
HC = Coated carbide



Indexable insert drills
D4120.02 inch

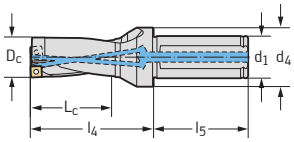
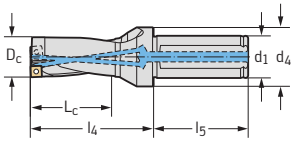
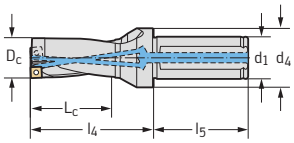
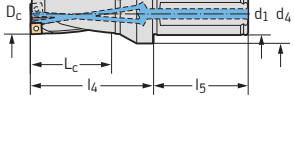


2×D_c | Z=1

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

B 1

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 	D4120.02-24.59F31-P44	0,968	1,936	3,070	2,281	1,250	1,625	1,55	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	1,58	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	1,70	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	1,94	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	2,99	1 1	
	D4120.02-41.28F38-P46	1,625	3,250	4,630	2,688	1,500	1,940	3,06	1 1	
Parallel shank with flat 	★ D4120.02-42.85F38-P47	1,687	3,374	4,750	2,688	1,500	1,940	3,02	1 1	P484 . P-7R- .. P484 . C-7R- ..
	★ D4120.02-44.45F38-P47	1,750	3,500	4,880	2,688	1,500	1,940	3,17	1 1	
	★ D4120.02-46.02F38-P47	1,812	3,624	5,000	2,688	1,500	1,940	3,32	1 1	
	★ D4120.02-47.63F38-P47	1,875	3,750	5,130	2,688	1,500	1,940	3,50	1 1	
	★ D4120.02-49.20F38-P47	1,937	3,874	5,250	2,688	1,500	1,940	3,69	1 1	

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

●●● / ★ New addition to the product range

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	1,687–2,250
	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	FS1495 (Torx 20IP) 5,0 Nm

Accessories

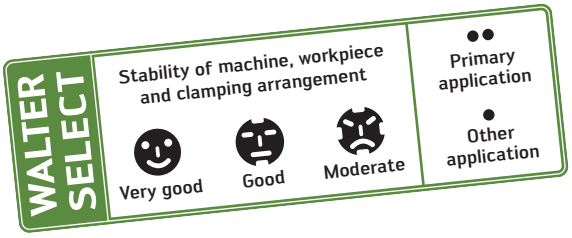
	D_c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625	1,687–2,250
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

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	4–7	●●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840P-.R-E57	4–7	●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840P-.R-E67	4–7	●	●●	●●	●●		●●	●●		●●	●●		●●	●●		●●	●●	
	P4841P-.R-A57	4–7	●●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4841P-.R-E57	4–7	●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840C-.R-E67	4–7		●		●●	●●		●●	●●		●	●●		●●	●●		●●	●●
	P4841C-.R-A57	4–7		●●		●●	●●		●●	●●		●●	●●					●●	●●
	P4841C-.R-E57	4–7		●●		●●	●●		●●	●●		●●	●●					●●	●●

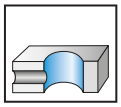
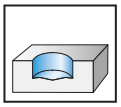
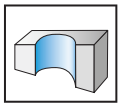
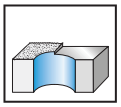
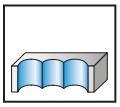
P48 . . C = Centre insert
P48 . . P = Outer insert

HC = Coated carbide



Indexable insert drills
D4120.02 inch



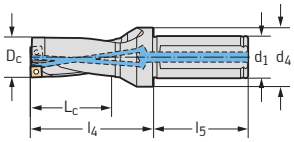
2×D_c | Z=1

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

B 1

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
★ D4120.02-50.80F51-P48	2,000	4,000	5,620	3,250	2,000	2,440	5,94	1 1	P484 . P-8R- .. P484 . C-8R- ..
★ D4120.02-52.37F51-P48	2,062	4,124	5,740	3,250	2,000	2,440	6,17	1 1	
★ D4120.02-53.98F51-P48	2,125	4,250	5,870	3,250	2,000	2,440	6,42	1 1	
★ D4120.02-55.55F51-P48	2,187	4,374	5,990	3,250	2,000	2,440	6,66	1 1	
★ D4120.02-57.15F51-P48	2,250	4,500	6,120	3,250	2,000	2,440	6,92	1 1	

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

/ ★ New addition to the product range

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	1,687–2,250
	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	FS1495 (Torx 20IP) 5,0 Nm

Accessories

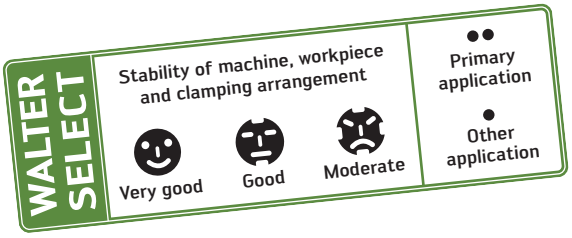
	D_c [inch]	0,531–0,625	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625	1,687–2,250
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

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	8–8	●●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840P-.R-E57	8–8	●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840P-.R-E67	8–8	●	●●	●●	●●		●●	●●		●●	●●		●●	●●		●●	●●	
	P4841P-.R-A57	8–8	●●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4841P-.R-E57	8–8	●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840C-.R-E67	8–8		●		●●	●●		●●	●●		●	●●		●●	●●		●●	●●
	P4841C-.R-A57	8–8		●●		●●	●●		●●	●●		●●	●●					●●	●●
	P4841C-.R-E57	8–8		●●		●●	●●		●●	●●		●●	●●					●●	●●

P48 . . C = Centre insert
P48 . . P = Outer insert

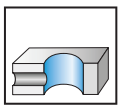
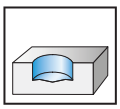
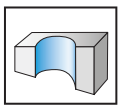
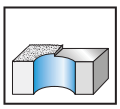
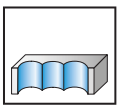
HC = Coated carbide



Indexable insert drills
D4120.03 inch

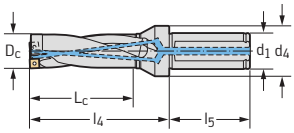
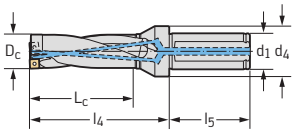
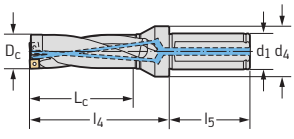
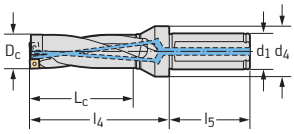
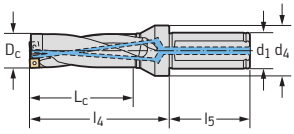


3×D_c | Z=1

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

B 1

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 	D4120.03-13.49F19-P41	0,531	1,593	2,380	2,031	0,750	1,125	0,42	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	0,37	1 1	
	D4120.03-15.09F19-P41	0,594	1,782	2,569	2,031	0,750	1,125	0,44	1 1	
	D4120.03-15.47F19-P41	0,609	1,827	2,614	2,031	0,750	1,125	0,45	1 1	
Parallel shank with flat 	D4120.03-17.04F26-P42	0,671	2,013	3,010	2,281	1,000	1,375	0,88	1 1	P484 . P-2R- .. P484 . C-2R- ..
	D4120.03-17.45F26-P42	0,687	2,061	3,060	2,281	1,000	1,375	0,90	1 1	
	D4120.03-17.86F26-P42	0,703	2,109	3,110	2,281	1,000	1,375	0,90	1 1	
	D4120.03-18.24F26-P42	0,718	2,154	3,150	2,281	1,000	1,375	0,93	1 1	
	D4120.03-19.43F26-P42	0,765	2,295	3,300	2,281	1,000	1,375	0,95	1 1	
Parallel shank with flat 	D4120.03-23.01F31-P43	0,906	2,718	3,850	2,281	1,250	1,625	1,54	1 1	P484 . P-3R- .. P484 . C-3R- ..
	D4120.03-23.39F31-P43	0,921	2,763	3,890	2,281	1,250	1,625	1,50	1 1	
	D4120.03-23.80F31-P43	0,937	2,811	3,940	2,281	1,250	1,625	1,52	1 1	
Parallel shank with flat 	D4120.03-24.59F31-P44	0,968	2,904	4,030	2,281	1,250	1,625	1,48	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	1,50	1 1	
	D4120.03-26.57F31-P44	1,046	3,138	4,270	2,281	1,250	1,625	1,57	1 1	
	D4120.03-28.17F31-P44	1,109	3,327	4,459	2,281	1,250	1,625	1,73	1 1	
Parallel shank with flat 	D4120.03-29.74F31-P45	1,171	3,513	4,640	2,281	1,250	1,625	1,76	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	1,85	1 1	
	D4120.03-34.11F31-P45	1,343	4,029	5,160	2,281	1,250	1,625	2,17	1 1	

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

Assembly parts

	D_c [inch]	0,531–0,609	0,671–0,765	0,906–0,937	0,968–1,109	1,171–1,343	1,421–1,625	1,687–2,250
	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	FS1495 (Torx 20IP) 5,0 Nm

Accessories

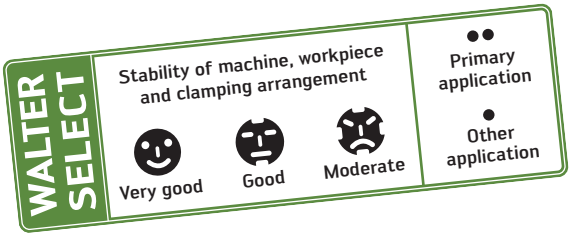
	D_c [inch]	0,531–0,609	0,671–0,765	0,906–0,937	0,968–1,109	1,171–1,625	1,687–2,250
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

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	1–5	●●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840P-.R-E57	1–5	●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840P-.R-E67	1–5	●	●●	●●	●●		●●	●●		●●	●●		●●	●●		●●	●●	
	P4841P-.R-A57	1–5	●●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4841P-.R-E57	1–5	●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840C-.R-E67	1–5		●		●●	●●		●●	●●		●	●●		●●	●●		●●	●●
	P4841C-.R-A57	1–5		●●		●●	●●		●●	●●		●●	●●					●●	●●
	P4841C-.R-E57	1–5		●●		●●	●●		●●	●●		●●	●●					●●	●●

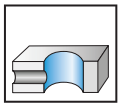
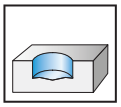
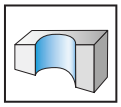
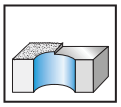
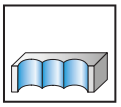
P48 . . C = Centre insert
P48 . . P = Outer insert

HC = Coated carbide



Indexable insert drills
D4120.03 inch

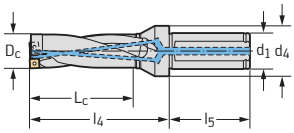
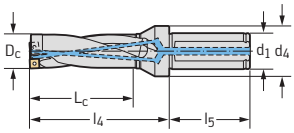
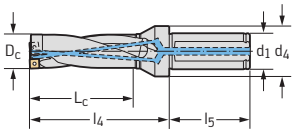


3×D_c	Z=1

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

B 1

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 									
D4120.03-36.09F31-P46	1,421	4,263	5,390	2,281	1,250	1,625	2,27	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	3,09	1 1	
D4120.03-38.10F38-P46	1,500	4,500	5,880	2,688	1,500	1,940	3,36	1 1	
D4120.03-39.67F38-P46	1,562	4,686	6,070	2,688	1,500	1,940	3,46	1 1	
D4120.03-41.28F38-P46	1,625	4,875	6,260	2,688	1,500	1,940	3,89	1 1	
Parallel shank with flat 									
★ D4120.03-42.85F38-P47	1,687	5,061	6,440	2,688	1,500	1,940	3,68	1 1	P484 . P-7R- .. P484 . C-7R- ..
★ D4120.03-44.45F38-P47	1,750	5,250	6,630	2,688	1,500	1,940	3,90	1 1	
★ D4120.03-46.02F38-P47	1,812	5,436	6,820	2,688	1,500	1,940	4,15	1 1	
★ D4120.03-47.63F38-P47	1,875	5,625	7,010	2,688	1,500	1,940	4,42	1 1	
★ D4120.03-49.20F38-P47	1,937	5,811	7,190	2,688	1,500	1,940	4,71	1 1	
Parallel shank with flat 									
★ D4120.03-50.80F51-P48	2,000	6,000	7,620	3,250	2,000	2,440	7,00	1 1	P484 . P-8R- .. P484 . C-8R- ..
★ D4120.03-52.37F51-P48	2,062	6,186	7,810	3,250	2,000	2,440	7,32	1 1	
★ D4120.03-53.98F51-P48	2,125	6,375	8,000	3,250	2,000	2,440	7,69	1 1	
★ D4120.03-55.55F51-P48	2,187	6,561	8,180	3,250	2,000	2,440	8,05	1 1	
★ D4120.03-57.15F51-P48	2,250	6,750	8,370	3,250	2,000	2,440	8,51	1 1	

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

/ ★ New addition to the product range

Assembly parts

	D_c [inch]	0,531–0,609	0,671–0,765	0,906–0,937	0,968–1,109	1,171–1,343	1,421–1,625	1,687–2,250
	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	FS1495 (Torx 20IP) 5,0 Nm

Accessories

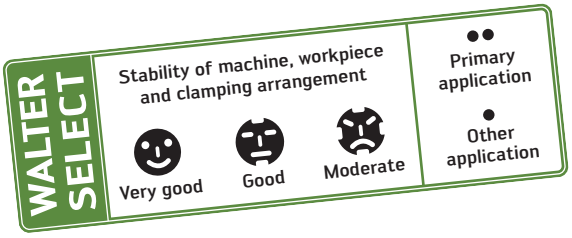
	D_c [inch]	0,531–0,609	0,671–0,765	0,906–0,937	0,968–1,109	1,171–1,625	1,687–2,250
	Torque screwdriver, analogue Tightening torque	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2002 0,4–1,2 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

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	6–8	●	●	●	●		●	●		●	●					●	●	
	P4840P-.R-E57	6–8	●	●	●	●		●	●		●	●					●	●	
	P4840P-.R-E67	6–8	●	●	●	●		●	●		●	●		●	●		●	●	
	P4841P-.R-A57	6–8	●	●	●	●		●	●		●	●					●	●	
	P4841P-.R-E57	6–8	●	●	●	●		●	●		●	●					●	●	
	P4840C-.R-E67	6–8		●		●	●		●	●		●	●		●	●		●	●
	P4841C-.R-A57	6–8		●		●	●		●	●		●	●					●	●
	P4841C-.R-E57	6–8		●		●	●		●	●		●	●					●	●

P48 . . C = Centre insert
P48 . . P = Outer insert

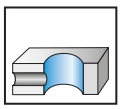
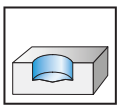
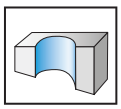
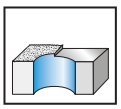
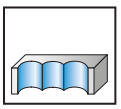
HC = Coated carbide



Indexable insert drills
D4120.04 inch

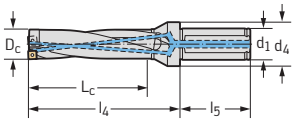
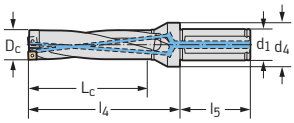
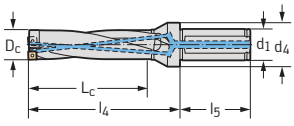
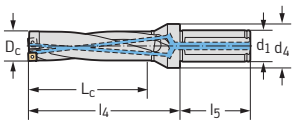


4×D_c | Z=1

	P	M	K	N	S	H	O
D4120.04	●●	●	●●	●	●		

B 1

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	0,90	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	0,93	1 1	
	D4120.04-17.45F26-P42	0,687	2,748	3,750	2,281	1,000	1,375	0,93	1 1	
	D4120.04-17.86F26-P42	0,703	2,812	3,810	2,281	1,000	1,375	0,96	1 1	
	D4120.04-18.24F26-P42	0,718	2,872	3,870	2,281	1,000	1,375	0,97	1 1	
	D4120.04-19.05F26-P42	0,750	3,000	4,000	2,281	1,000	1,375	0,99	1 1	
	D4120.04-19.43F26-P42	0,765	3,060	4,060	2,281	1,000	1,375	1,01	1 1	
	D4120.04-19.84F26-P42	0,781	3,124	4,120	2,281	1,000	1,375	1,03	1 1	
Parallel shank with flat 	D4120.04-21.41F26-P43	0,843	3,372	4,370	2,281	1,000	1,375	1,06	1 1	P484 . P-3R- .. P484 . C-3R- ..
	D4120.04-23.01F31-P43	0,906	3,624	4,750	2,281	1,250	1,625	1,62	1 1	
	D4120.04-23.39F31-P43	0,921	3,684	4,810	2,281	1,250	1,625	1,49	1 1	
Parallel shank with flat 	D4120.04-24.59F31-P44	0,968	3,872	5,000	2,281	1,250	1,625	1,59	1 1	P484 . P-4R- .. P484 . C-4R- ..
	D4120.04-26.57F31-P44	1,046	4,184	5,309	2,281	1,250	1,625	1,76	1 1	
	D4120.04-28.17F31-P44	1,109	4,436	5,570	2,281	1,250	1,625	1,90	1 1	
	D4120.04-28.58F31-P44	1,125	4,500	5,630	2,281	1,250	1,625	1,94	1 1	
Parallel shank with flat 	D4120.04-29.74F31-P45	1,171	4,684	5,810	2,281	1,250	1,625	2,03	1 1	P484 . P-5R- .. P484 . C-5R- ..
	D4120.04-33.32F31-P45	1,312	5,248	6,380	2,281	1,250	1,625	2,39	1 1	
	D4120.04-34.11F31-P45	1,343	5,372	6,496	2,281	1,250	1,625	2,36	1 1	

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

Assembly parts

	D_c [inch]	0,656–0,781	0,843–0,921	0,968–1,125	1,171–1,343	1,421–1,625	1,687–2,250
	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	FS1495 (Torx 20IP) 5,0 Nm

Accessories

	D_c [inch]	0,656–0,781	0,843–0,921	0,968–1,125	1,171–1,625	1,687–2,250
	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	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	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

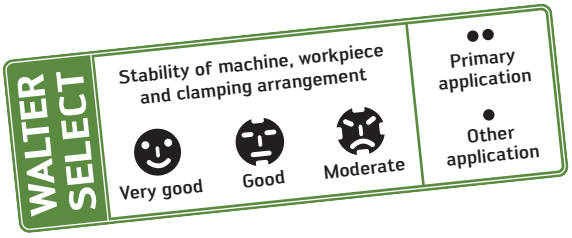
B 1

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	2–5	●	●	●●	●●		●●	●●		●	●					●●	●●	
	P4840P-.R-E57	2–5	●●	●	●●	●●		●●	●●		●	●					●●	●●	
	P4840P-.R-E67	2–5	●●	●	●●	●●		●●	●●		●	●		●	●		●●	●●	
	P4841P-.R-A57	2–5	●	●●	●●	●●		●●	●●		●	●●					●●	●●	
	P4841P-.R-E57	2–5	●●	●	●●	●●		●●	●●		●	●●					●●	●●	
	P4840C-.R-E67	2–5		●●		●●	●●		●●	●●		●●	●●		●	●		●●	●●
	P4841C-.R-A57	2–5		●		●●	●●		●●	●●		●●	●●					●●	●●
	P4841C-.R-E57	2–5		●		●●	●●		●●	●●		●	●●					●●	●●

P48 . . C = Centre insert
P48 . . P = Outer insert

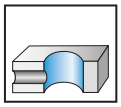
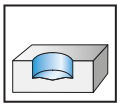
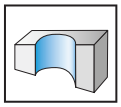
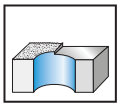
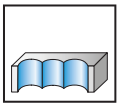
HC = Coated carbide



Indexable insert drills
D4120.04 inch



4×D_c | Z=1

	P	M	K	N	S	H	O
D4120.04	●●	●	●●	●	●		

B 1

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	D4120.04-36.09F31-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	3,30	1 1	
	D4120.04-38.10F38-P46	1,500	6,000	7,380	2,688	1,500	1,940	3,68	1 1	
	D4120.04-39.67F38-P46	1,562	6,248	7,630	2,688	1,500	1,940	3,92	1 1	
	D4120.04-41.28F38-P46	1,625	6,500	7,880	2,688	1,500	1,940	4,05	1 1	
Parallel shank with flat	★ D4120.04-42.85F38-P47	1,687	6,748	8,128	2,688	1,500	1,940	4,23	1 1	P484 . P-7R- .. P484 . C-7R- ..
	★ D4120.04-44.45F38-P47	1,750	7,000	8,380	2,688	1,500	1,940	4,54	1 1	
	★ D4120.04-46.02F38-P47	1,812	7,248	8,628	2,688	1,500	1,940	4,87	1 1	
	★ D4120.04-47.63F38-P47	1,875	7,500	8,880	2,688	1,500	1,940	5,23	1 1	
	★ D4120.04-49.20F38-P47	1,937	7,748	9,128	2,688	1,500	1,940	5,63	1 1	
Parallel shank with flat	★ D4120.04-50.80F51-P48	2,000	8,000	9,620	3,250	2,000	2,440	8,13	1 1	P484 . P-8R- .. P484 . C-8R- ..
	★ D4120.04-52.37F51-P48	2,062	8,248	9,868	3,250	2,000	2,440	8,58	1 1	
	★ D4120.04-53.98F51-P48	2,125	8,500	10,120	3,250	2,000	2,440	9,06	1 1	
	★ D4120.04-55.55F51-P48	2,187	8,748	10,368	3,250	2,000	2,440	9,56	1 1	
	★ D4120.04-57.15F51-P48	2,250	9,000	10,620	3,250	2,000	2,440	10,09	1 1	

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

/ ★ New addition to the product range

Assembly parts

	D_c [inch]	0,656–0,781	0,843–0,921	0,968–1,125	1,171–1,343	1,421–1,625	1,687–2,250
	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	FS1495 (Torx 20IP) 5,0 Nm

Accessories

	D_c [inch]	0,656–0,781	0,843–0,921	0,968–1,125	1,171–1,625	1,687–2,250
	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	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	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

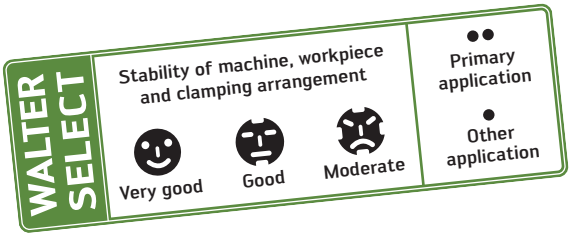
B 1

Indexable inserts

	Designation	Size	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45G	P HC WXP40	M HC WSP45	M HC WSP45G	M HC WXP40	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45	N HC WSP45G	N HC WXP40	S HC WSP45	S HC WSP45G	S HC WXP40
	P4840P-.R-A57	6–8	●●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840P-.R-E57	6–8	●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840P-.R-E67	6–8	●	●●	●●	●●		●●	●●		●●	●●		●●	●●		●●	●●	
	P4841P-.R-A57	6–8	●●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4841P-.R-E57	6–8	●	●●	●●	●●		●●	●●		●●	●●					●●	●●	
	P4840C-.R-E67	6–8		●		●●	●●		●●	●●		●	●●		●●	●●		●●	●●
	P4841C-.R-A57	6–8		●●		●●	●●		●●	●●		●●	●●					●●	●●
	P4841C-.R-E57	6–8		●●		●●	●●		●●	●●		●●	●●					●●	●●

P48 . . C = Centre insert
P48 . . P = Outer insert

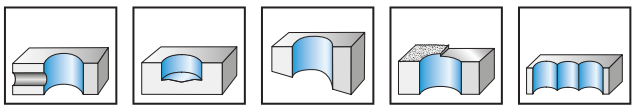
HC = Coated carbide



Indexable insert drills
D4120.05 inch

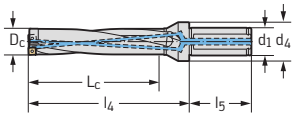
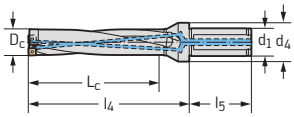
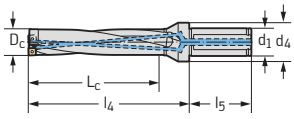


5×D_C | Z=1



	P	M	K	N	S	H	O
D4120.05	●●		●●	●			

B 1

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	
	D4120.05-19.84F26-P42	0,781	3,905	4,905	2,281	1,000	1,375	1,14	1 1	
Parallel shank with flat 	D4120.05-20.62F26-P43	0,812	4,060	5,060	2,281	1,000	1,375	1,18	1 1	P484 . P-3R- .. P484 . C-3R- ..
	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	1,72	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	
	D4120.05-23.80F31-P43	0,937	4,685	5,815	2,281	1,250	1,625	1,83	1 1	
Parallel shank with flat 	D4120.05-24.59F31-P44	0,968	4,840	5,970	2,281	1,250	1,625	1,96	1 1	P484 . P-4R- .. P484 . C-4R- ..
	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	2,07	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	2,23	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	1,687–2,250
	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	FS1495 (Torx 20IP) 5,0 Nm

Accessories

	D_c [inch]	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625	1,687–2,250
	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	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	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

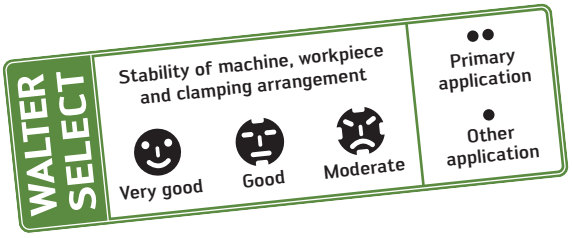
B 1

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		●●		●	●		●	●		●●	●					●	●

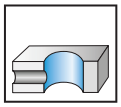
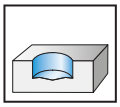
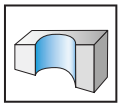
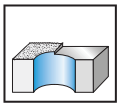
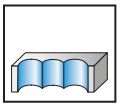
P48 . . C = Centre insert
P48 . . P = Outer insert

HC = Coated carbide



Indexable insert drills
D4120.05 inch



5×D_c | Z=1

	P	M	K	N	S	H	O
D4120.05	●●		●●	●			

B 1

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	D4120.05-29.74F31-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	2,79	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	2,93	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	3,81	1 1	
	D4120.05-38.10F38-P46	1,500	7,500	8,880	2,688	1,500	1,940	4,08	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	4,58	1 1	
Parallel shank with flat	★ D4120.05-42.85F38-P47	1,687	8,435	9,815	2,688	1,500	1,940	4,66	1 1	P484 . P-7R- .. P484 . C-7R- ..
	★ D4120.05-44.45F38-P47	1,750	8,750	10,130	2,688	1,500	1,940	5,15	1 1	
	★ D4120.05-46.02F38-P47	1,812	9,060	10,440	2,688	1,500	1,940	5,54	1 1	
	★ D4120.05-47.63F38-P47	1,875	9,375	10,755	2,688	1,500	1,940	5,98	1 1	
	★ D4120.05-49.20F38-P47	1,937	9,685	11,065	2,688	1,500	1,940	6,45	1 1	
Parallel shank with flat	★ D4120.05-50.80F51-P48	2,000	10,000	11,620	3,250	2,000	2,440	9,13	1 1	P484 . P-8R- .. P484 . C-8R- ..
	★ D4120.05-52.37F51-P48	2,062	10,310	11,930	3,250	2,000	2,440	9,68	1 1	
	★ D4120.05-53.98F51-P48	2,125	10,625	12,245	3,250	2,000	2,440	10,28	1 1	
	★ D4120.05-55.55F51-P48	2,187	10,935	12,555	3,250	2,000	2,440	10,90	1 1	
	★ D4120.05-57.15F51-P48	2,250	11,250	12,870	3,250	2,000	2,440	11,56	1 1	

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

★ New addition to the product range

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	1,687–2,250
	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	FS1495 (Torx 20IP) 5,0 Nm

Accessories

	D_c [inch]	0,656–0,781	0,812–0,937	0,968–1,125	1,171–1,625	1,687–2,250
	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	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	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2012 (Torx 8IP)	FS2013 (Torx 9IP)	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS2088 (Torx 7IP)	FS1483 (Torx 8IP)	FS1484 (Torx 9IP)	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

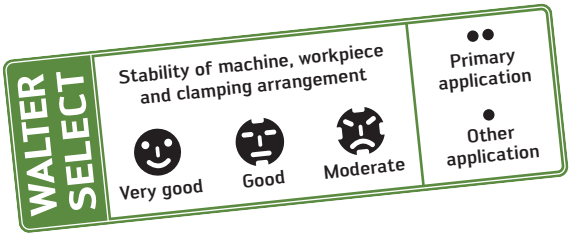
B 1

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	5–8	●●	●●	●	●		●	●		●●	●●					●	●	
	P4840P-.R-E57	5–8	●	●●	●	●		●	●		●●	●●					●	●	
	P4840P-.R-E67	5–8	●	●●	●	●		●	●		●●	●●		●●	●●		●	●	
	P4841P-.R-A57	5–8	●●	●●	●	●		●	●		●●	●●					●	●	
	P4841P-.R-E57	5–8	●	●●	●	●		●	●		●●	●●					●	●	
	P4840C-.R-E67	5–8		●		●	●		●	●		●	●		●●	●●		●	●
	P4841C-.R-A57	5–8		●●		●	●		●	●		●	●					●	●
	P4841C-.R-E57	5–8		●●		●	●		●	●		●●	●					●	●

P48 . . C = Centre insert
P48 . . P = Outer insert

HC = Coated carbide

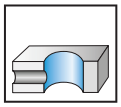
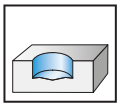
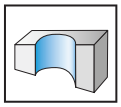
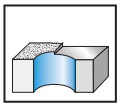
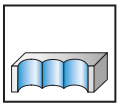


Indexable insert drill with cartridge

D4170-03 mm



D_c 65–80	3×D_c	Z=1

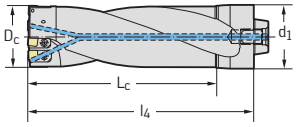






	P	M	K	N	S	H	O
D4170-03	●●	●●	●●	●	●●		

B 1

Tool

Modular NCT boring bar/adaptor



Designation	D_c mm	L_c mm	l_4 mm	d_1 mm	kg	No. of indexable inserts	Type
★ D4170-03-65.00N8-P45	65	195	245	NCT 80	4,3	3 1	P484 . P-5R- .. P484 . C-5R- ..
★ D4170-03-68.00N8-P46	68	204	254	NCT 80	4,7	3 1	
★ D4170-03-70.00N8-P46	70	210	260	NCT 80	4,9	3 1	P484 . P-6R- .. P484 . C-6R- ..
★ D4170-03-78.00N8-P46	78	234	284	NCT 80	6,1	3 1	
★ D4170-03-80.00N8-P45	80	240	290	NCT 80	6,3	5 1	P484 . P-5R- .. P484 . C-5R- ..

Important: A disc forms where through holes are created by a rotating tool. This disc might then be ejected. Please take precautionary measures.
Bodies and assembly parts are included in the scope of delivery.

/ ★ New addition to the product range

Assembly parts

	D_c [mm]	65	68	70	78	80
	Clamping screw for indexable insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm
	Adjusting screw, radial	FS334	FS334	FS334	FS334	FS334
	Internal cartridge	FR737C-5	FR743C-6	FR743C-6	FR743C-6	FR737C-5
	External cartridge 1	FR738P-5	FR744P-6	FR744P-6	FR744P-6	FR738P-5
	External cartridge 2	FR741P-5	FR745P-6	FR746P-6	FR748P-6	FR739P-5
	Clamping screw for internal and external cartridge 1 Tightening torque	FS1149 (SW 4) 5,0 Nm	FS1149 (SW 4) 5,0 Nm	FS1149 (SW 4) 5,0 Nm	FS1149 (SW 4) 5,0 Nm	FS1149 (SW 4) 5,0 Nm
	Clamping screw for external cartridge 2 Tightening torque	FS966 (SW 5) 8,0 Nm	FS966 (SW 5) 8,0 Nm	FS966 (SW 5) 8,0 Nm	FS966 (SW 5) 8,0 Nm	FS966 (SW 5) 8,0 Nm

B 1

Accessories

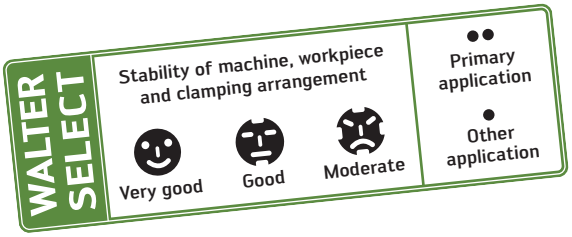
	D_c [mm]	65–80
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	ISO 2936 Allen key for internal and external cartridge 1	ISO2936-4 (SW 4)
	ISO 2936 Allen key for external cartridge 2	ISO2936-5 (SW 5)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	Size	P HC WKP25S	P HC WKP35S	P HC WSP45	P HC WSP45G	P HC WXP40	M HC WSP45	M HC WSP45G	M HC WXP40	K HC WKP25S	K HC WKP35S	K HC WXP40	N HC WSP45	N HC WSP45G	N HC WXP40	S HC WSP45	S HC WSP45G	S HC 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		●●		●●	●●		●●	●●		●●	●●					●●	●●

P48 . . C = Centre insert
P48 . . P = Outer insert

HC = Coated carbide



Cutting data for D4140

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

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

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

v_c = Cutting speed

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

Drilling depth							10 × D_C				
Designation							D4140				
Dia. range [mm]							18–25,8				
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *	P6006 WPP25 v_c	VRR		
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	90	7	E O	
		C > 0.25% to ≤ 0.55%	Annealed	190	640	P2	90	7	E O	
		C > 0.25% to ≤ 0.55%	Heat-treated	210	710	P3	80	7	E O	
		C > 0.55%	Annealed	190	640	P4	80	6	E O	
		C > 0.55%	Heat-treated	300	1010	P5	63	7	E O	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	90	7	E O	
	Low-alloy steel	Annealed		175	590	P7	90	7	E O	
		Heat-treated		285	960	P8	56	7	E O	
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloy steel and high-alloy tool steel	Annealed		200	680	P11	63	6	E O	
		Hardened and tempered		300	1010	P12	63	7	E O	
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14				
		Martensitic, heat-treated		330	1110	P15				
M	Stainless steel	Austenitic, quench hardened		200	680	M1				
		Austenitic, precipitation hardened (PH)		300	1010	M2				
		Austenitic/ferritic, duplex		230	780	M3				
K	Malleable cast iron	Ferritic		200	400	K1				
		Pearlitic		260	700	K2				
	Grey cast iron	Low tensile strength		180	200	K3				
		High tensile strength/austenitic		245	350	K4				
	Cast iron with spheroidal graphite	Ferritic		155	400	K5				
		Pearlitic		265	700	K6				
	GGV (CGI)			230	400	K7				
N	Wrought aluminium alloys	Not hardenable		30	–	N1				
		Hardenable, hardened		100	340	N2				
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3				
		≤ 12% Si, hardenable, hardened		90	310	N4				
		> 12% Si, not hardenable		130	450	N5				
	Magnesium-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				
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1				
			Hardened	280	940	S2				
		Ni- or Co-based	Annealed	250	840	S3				
			Hardened	350	1180	S4				
			Cast	320	1080	S5				
	Titanium alloys	Pure titanium		200	680	S6				
		α and β alloys, hardened		375	1260	S7				
		β alloys		410	1400	S8				
	Tungsten alloys			300	1010	S9				
	Molybdenum alloys			300	1010	S10				
H	Hardened steel	Hardened and tempered		50 HRC	–	H1				
		Hardened and tempered		55 HRC	–	H2				
		Hardened and tempered		60 HRC	–	H3				
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4				
O	Thermoplastics	Without abrasive fillers				O1				
	Thermosets	Without abrasive fillers				O2				
	Plastic, glass-fibre-reinforced	GFRP				O3				
	Plastic, carbon-fibre-reinforced	CFRP				O4				
	Plastic, aramid-fibre-reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

Cutting data for D4170

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

= 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

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *			Indexable insert geometry: Starting values for feed f [mm/rev] A57 Size 5 Size 6	E57 Size 5 Size 6	E67 Size 5 Size 6
									D_c [mm] 60,3–95,3	60,3–95,3	60,3–95,3
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●		0,12	0,12	0,12
		C > 0.25% to ≤ 0.55%	Annealed	190	640	P2	●●		0,18	0,17	0,17
		C > 0.25% to ≤ 0.55%	Heat-treated	210	710	P3	●●		0,18	0,17	
		C > 0.55%	Annealed	190	640	P4	●●		0,18	0,17	
		C > 0.55%	Heat-treated	300	1010	P5	●●		0,18	0,17	
		Free-machining steel (short-chipping)	Annealed	220	750	P6	●●	●	0,18	0,17	
	Low-alloy steel	Annealed		175	590	P7	●●		0,20	0,19	0,20
		Heat-treated		285	960	P8	●●		0,15	0,14	
		Heat-treated		380	1280	P9	●●		0,15	0,14	
		Heat-treated		430	1480	P10	●●		0,12	0,11	
	High-alloy steel and high-alloy tool steel	Annealed		200	680	P11	●●		0,18	0,17	0,16
		Hardened and tempered		300	1010	P12	●●		0,15	0,14	
		Hardened and tempered		380	1280	P13	●●		0,14	0,13	
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●●		0,15	0,14	0,14
		Martensitic, heat-treated		330	1110	P15	●●		0,14	0,13	0,13
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●		0,13	0,13	0,14
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●		0,13	0,13	0,14
		Austenitic/ferritic, duplex		230	780	M3	●●		0,13	0,13	0,14
K	Malleable cast iron	Ferritic		200	400	K1	●●	●	0,22	0,21	0,21
		Pearlitic		260	700	K2	●●	●	0,19	0,18	
	Grey cast iron	Low tensile strength		180	200	K3	●●	●	0,23	0,22	0,22
		High tensile strength/austenitic		245	350	K4	●●	●	0,20	0,19	
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●	●	0,23	0,22	0,22
		Pearlitic		265	700	K6	●●		0,23	0,22	
	GGV (CGI)			230	400	K7	●●	●	0,22	0,21	0,21
N	Wrought aluminium alloys	Not hardenable		30	–	N1					
		Hardenable, hardened		100	340	N2	●●			0,17	0,17
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●			0,17	0,17
		≤ 12% Si, hardenable, hardened		90	310	N4	●●			0,17	0,17
		> 12% Si, not hardenable		130	450	N5	●●	●		0,17	0,17
	Magnesium-based alloys			70	250	N6	●●			0,17	0,17
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7					
		Brass, bronze, red brass		90	310	N8	●●			0,22	0,22
		Cu alloys, short-chipping		110	380	N9	●●	●		0,22	0,22
		High tensile, Ampco		300	1010	N10	●●	●	0,13	0,13	0,14
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●			0,13	0,13
			Hardened	280	940	S2	●●			0,11	0,11
		Ni- or Co-based	Annealed	250	840	S3	●●			0,12	0,12
			Hardened	350	1180	S4	●●			0,11	0,11
			Cast	320	1080	S5	●●			0,11	0,11
	Titanium alloys	Pure titanium		200	680	S6					
		α and β alloys, hardened		375	1260	S7	●●			0,12	0,12
		β alloys		410	1400	S8	●●			0,11	0,11
	Tungsten alloys			300	1010	S9	●●		0,11	0,11	0,11
	Molybdenum alloys			300	1010	S10	●●		0,11	0,11	0,11
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	●●		0,10	0,10	
		Hardened and tempered		55 HRC	–	H2	●●		0,10	0,10	
		Hardened and tempered		60 HRC	–	H3					
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	●●		0,10	0,10	
O	Thermoplastics	Without abrasive fillers				O1	●●	●		0,30	0,30
	Thermosets	Without abrasive fillers				O2	●●	●		0,25	0,25
	Plastic, glass-fibre-reinforced	GFRP				O3					
	Plastic, carbon-fibre-reinforced	CFRP				O4					
	Plastic, aramid-fibre-reinforced	AFRP				O5					
	Graphite (technical)			80 Shore		O6	●●	●	0,22	0,21	

●● 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.

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

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *			Indexable insert geometry — Starting values for feed f [mm/rev] — A 57 — Size 1 — D_c [mm] 13,5–16,4	Size 2 — 16,5–20,4	Size 3 — 20,5–24,4	Size 4 — 24,5–29,4	Size 5 Size 6 — 29,5–42,4	Size 7 Size 8 — 42,5–59,4
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●		0,05	0,06	0,06	0,09	0,12	0,13
		C > 0.25% 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	●●							
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7								
		Brass, bronze, red brass		90	310	N8	●●							
		Cu alloys, short-chipping		110	380	N9	●●	●						
		High tensile, Ampco		300	1010	N10	●●	●	0,06	0,07	0,08	0,10	0,13	0,14
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●							
			Hardened	280	940	S2	●●							
		Ni- or Co-based	Annealed	250	840	S3	●●							
			Hardened	350	1180	S4	●●							
			Cast	320	1080	S5	●●							
	Titanium alloys	Pure titanium		200	680	S6								
		α and β alloys, hardened		375	1260	S7	●●							
		β alloys		410	1400	S8	●●							
	Tungsten alloys			300	1010	S9	●●		0,05	0,06	0,06	0,09	0,11	0,12
	Molybdenum alloys			300	1010	S10	●●		0,05	0,06	0,06	0,09	0,11	0,12
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	●●		0,05	0,06	0,06	0,09	0,10	0,10
		Hardened and tempered		55 HRC	–	H2	●●		0,05	0,06	0,06	0,09	0,10	0,10
		Hardened and tempered		60 HRC	–	H3								
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	●●		0,05	0,06	0,06	0,09	0,10	0,10
O	Thermoplastics	Without abrasive fillers				O1	●●	●						
	Thermosets	Without abrasive fillers				O2	●●	●						
	Plastic, glass-fibre-reinforced	GFRP				O3								
	Plastic, carbon-fibre-reinforced	CFRP				O4								
	Plastic, aramid-fibre-reinforced	AFRP				O5								
	Graphite (technical)			80 Shore		O6	●●	●	0,09	0,12	0,14	0,17	0,22	0,23

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

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

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

Indexable insert geometry													Cutting material grade Outer insert [P484.P..]											
Starting values for feed f [mm/rev]													Starting values for cutting speed v_c [m/min]											
E 57							E 67						HC											
													WKP25S f [mm/rev]			WKP35S f [mm/rev]			WSP45 f [mm/rev]			WSP45G f [mm/rev]		
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													
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	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	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

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *			Indexable insert geometry Starting values for feed f [mm/rev] A 57 Size 1	Size 2	Size 3	Size 4	Size 5
									D_c [mm]				
									16–20	21–25	26–30	31–36	37–42
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●		0,05	0,06	0,06	0,09	0,12
		C > 0.25% 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.

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

Indexable insert geometry											Cutting material grades																	
Starting values for feed f [mm/rev]											Starting values for cutting speed v_c [m/min]																	
E 57						E 67					HC																HW		
											WKP25S f [mm/rev]			WKP35S f [mm/rev]			WSP45S f [mm/rev]			WSP45G f [mm/rev]			WXP40 f [mm/rev]			WK40 f [mm/rev]		
Size 1	Size 2	Size 3	Size 4	Size 5	Size 1	Size 2	Size 3	Size 4	Size 5																			
D_c [mm]					D_c [mm]																							
16–20	21–25	26–30	31–36	37–42	16–20	21–25	26–30	31–36	37–42		0,06	0,10	0,16	0,06	0,10	0,16	0,06	0,10	0,16	0,06	0,10	0,16	0,06	0,10	0,16	0,06	0,10	0,16
0,05	0,06	0,06	0,09	0,12	0,05	0,06	0,06	0,09	0,12		350	320		300	270		250	220		250	220		200	180	160			
0,06	0,07	0,08	0,11	0,17	0,06	0,07	0,08	0,11	0,17		260	240	220	220	200	180	170	160	150	170	160	150	150	140	130			
0,06	0,07	0,08	0,11	0,17							240	220	200	200	180	150	150	140	130	150	140	130	150	140	120			
0,06	0,07	0,08	0,11	0,17							220	200	180	180	150	140	140	130	120	140	130	120	150	140	130			
0,06	0,07	0,08	0,11	0,17							190	170	150	150	130	120	130	120	110	130	120	110	120	110	100			
0,06	0,07	0,08	0,11	0,17							220	200	180	180	150	140	140	130	120	140	130	120	120	110	130			
0,06	0,08	0,10	0,13	0,19	0,06	0,08	0,10	0,14	0,20		260	240	220	220	200	180	170	160	160	170	160	160	150	140	130			
0,06	0,07	0,08	0,11	0,14							230	210	190	190	170	140	140	130	120	140	130	120	140	120	110			
0,06	0,07	0,08	0,11	0,14							210	190	170	180	160	130	140	120	110	140	120	110	140	120	90			
0,05	0,06	0,06	0,09	0,11							190	170	160	170	140	130	140	120	110	140	120	110	120	110	80			
0,06	0,08	0,10	0,13	0,17	0,06	0,08	0,10	0,12	0,16		220	200	180	200	170	150	140	130	120	140	130	120	130	120	110			
0,06	0,07	0,08	0,11	0,14							200	170	150	180	140	130	130	120	110	130	120	110	120	110	100			
0,05	0,06	0,07	0,10	0,13							190	160	140	170	130	120	120	110	100	120	110	100	110	100	80			
0,06	0,07	0,08	0,11	0,14	0,06	0,07	0,08	0,11	0,14					190	170	150	140	130	120	140	130	120	130	120	110			
0,05	0,06	0,07	0,10	0,13	0,05	0,06	0,07	0,10	0,13					150	130	120	120	110	100	120	110	100	110	100	90			
0,06	0,07	0,08	0,10	0,13	0,06	0,07	0,09	0,12	0,14					220	200	180	180	170	150	180	170	150	160	150	120			
0,06	0,07	0,08	0,10	0,13	0,06	0,07	0,09	0,12	0,14					150	130	110	130	110	100	130	110	100	110	100	75			
0,06	0,07	0,08	0,10	0,13	0,06	0,07	0,09	0,12	0,14					120	100	80	100	80	70	100	80	70	80	70	60			
0,07	0,09	0,11	0,14	0,21	0,07	0,09	0,11	0,14	0,21		210	190	170	190	180	160	170	140	120	170	140	120	160	140	140			
0,05	0,07	0,08	0,11	0,18	0,05	0,07	0,09				190	140	120	130	120	110	130	120	110	130	120	110	130	120	120			
0,08	0,10	0,12	0,15	0,22	0,08	0,10	0,12	0,15	0,22		220	200	180	200	190	170	180	160	130	180	160	130	160	140	120			
0,06	0,08	0,09	0,12	0,19							180	150	130	150	130	110	150	130	110	150	130	110	130	120	100			
0,08	0,10	0,12	0,15	0,22	0,08	0,10	0,12	0,15	0,22		150	140	130	140	120	110	150	130	120	150	130	120	130	120	110			
0,06	0,08	0,09	0,12	0,22	0,06	0,08					140	130	120	120	110	100	120	110	110	120	110	110	110	100	100			
0,07	0,09	0,11	0,14	0,21	0,07	0,09	0,11	0,14	0,21		180	150	130	150	130	110	150	130	110	150	130	110	130	120	100			
																											500	500
0,07	0,09	0,10	0,12	0,17	0,07	0,09	0,11	0,12	0,17								450	450	450	450	450	450					450	400
0,08	0,10	0,12	0,15	0,17	0,08	0,10	0,12	0,15	0,17								300	300	300	300	300	300					400	400
0,08	0,10	0,12	0,15	0,17	0,08	0,10	0,12	0,15	0,17								250	250	250	250	250	250					300	300
0,08	0,10	0,12	0,15	0,17	0,08	0,10	0,12	0,15	0,17								200	200	200	200	200	200					200	200
0,08	0,10	0,12	0,15	0,17	0,08	0,10	0,12	0,15	0,17								300	300	300	300	300	300						
																											300	260
0,10	0,12	0,14	0,17	0,22	0,10	0,12	0,14	0,17	0,22								300	250	200	300	250	200					300	260
0,10	0,12	0,14	0,17	0,22	0,10	0,12	0,14	0,17	0,22								350	300	250	350	300	250					400	350
0,06	0,07	0,08	0,10	0,13	0,06	0,07	0,09	0,12	0,14					150	130	110	130	110	100	130	110	100						
0,05	0,06	0,07	0,10	0,13	0,05	0,06	0,07	0,10	0,13		100	100		100	100		90	90		90	90		80	80	70	70	70	
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11		80	80		80	80		70	70		70	70		60	60	50	50	50	
0,05	0,06	0,07	0,10	0,12	0,05	0,06	0,07	0,10	0,12		60	60		60	60		50	50		50	50		50	50	40	40	40	
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11		50	50		50	50		40	40		40	40		40	40	35	30	30	
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11		50	50		50	50		40	40		40	40		40	40	35	30	30	
0,05	0,06	0,07	0,10	0,12	0,05	0,06	0,07	0,10	0,12					50	50		50	45		50	45							
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11					50	50		40	40		40	40							
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11		70	60																
0,05	0,06	0,06	0,09	0,11	0,05	0,06	0,06	0,09	0,11		70	60																
0,05	0,06	0,06	0,09	0,10							70	60	50															
0,05	0,06	0,06	0,09	0,10							60	50	50															
0,05	0,06	0,06	0,09	0,10							60	50	50															
0,16	0,18	0,20	0,25	0,30	0,16	0,18	0,20	0,25	0,30					400	400	400	400	400	400	400	400	400	400	400	400			
0,12	0,14	0,18	0,20	0,25	0,12	0,14	0,18	0,20	0,25		300	300	300	300	300	300	300	300	300	300	300	300	300	300	300			
0,07	0,09	0,11	0,14	0,21							300	250	200	250	200	150	250	200	150	250	200	150	250	200	150			

HC = Coated carbide
HW = Uncoated carbide

Cutting data for B321.

= 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

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group *			Indexable insert geometry Starting values for feed f [mm/rev] LCMX . . –B57 D_c [mm] 10,0–12,0	D_c [mm] 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	●●			
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7				
		Brass, bronze, red brass		90	310	N8	●●			
		Cu alloys, short-chipping		110	380	N9	●●	●		
		High tensile, Ampco		300	1010	N10	●●	●		
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●		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 × 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.

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

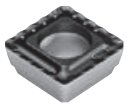
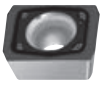
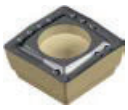
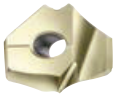
Indexable insert geometry				Cutting material grades									
Starting values for feed f [mm/rev]				Starting values for cutting speed v_c [m/min]									
LCMX . . –D57		LCMX . . –E57		HC									
D_c [mm]		D_c [mm]		WKP25S f [mm/rev]		WKP35S f [mm/rev]		WSP45S f [mm/rev]		WSP45G f [mm/rev]		WXP40 f [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

B 1

Grades for drilling from solid

Walter grade designation	Standard designation	Material groups P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Range of applications 01 05 10 15 20 25 30 35 40 45	Coating process	Coating composition	Indexable insert example
WKP25S	HC – P 25	●●								CVD	TiCN + Al_2O_3 (+ TiCN)	
	HC – K 25			●●								
WKP35S	HC – P 35	●●								CVD	TiCN + Al_2O_3 (+ TiCN)	
	HC – K 35			●●								
WSP45S	HC – P 45	●●								PVD	TiAlN + Al_2O_3 (+ Al)	
	HC – M45		●●									
	HC – S 45					●●						
WSP45	HC – P 45	●●								PVD	TiAlN + Al_2O_3 (+ ZrN)	
	HC – M45		●●									
	HC – S 45					●●						
	HC – N 30				●							
WSP45G	HC – P 45	●●								PVD	TiAlN + Al_2O_3 (+ ZrN)	
	HC – M45		●●									
	HC – S 45					●●						
	HC – N 30				●							
WXP40	HC – P 40	●●								PVD	TiCN	
	HC – M30		●●									
	HC – K 40			●●								
	HC – S 30					●						
WXP30	HC – P 30	●●								PVD	TiAlN / TiSiN	
	HC – M30		●									
	HC – K 30			●●								
	HC – N 30				●							
	HC – S 30					●						
WPP45C	HC – P 45	●●								PVD	TiAlN / TiAl	
	HC – K 45			●								
WKK45C	HC – P 45	●								PVD	TiAlN / TiSiAlCrN / TiSiN	
	HC – K 45			●●								
WMP35	HC – P 35	●●								PVD	TiAlN	
	HC – M35		●●									
	HC – S 35					●●						
WNN25	HC – N 25				●●					PVD	ta-C (DLC)	
	HC – O 25							●				
WPP25	HC – P 25	●●								PVD	AlTiN	

HC = Coated carbide
HW = Uncoated carbide

●● Primary application
● Additional application

Drilling strategies

P6001–P6005 — 7–10 × D_c

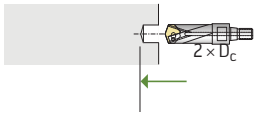
P	M	K	N	S	H	O
✓	✓	✓	✓	✓		✓

Pilot drilling



10–50 bar
145–725 psi
on

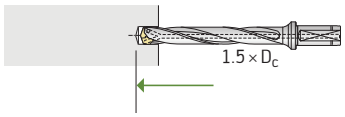
D4140-03
D4140.03



Running in



off

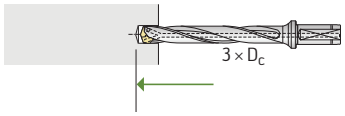


n_{max} = 100 rpm
v_f = 1000 mm/min

Spot drilling



10–50 bar
145–725 psi
on

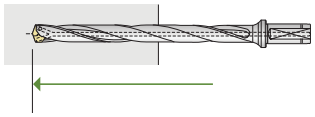


v_c = 75%
v_f = 50%

Deep-hole drilling



10–50 bar
145–725 psi
on

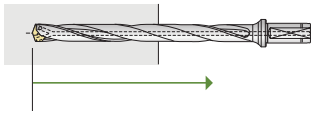


v_c = 100%
v_f = 100%

Retracting



off



n_{max} = 100 rpm
v_f = 1000 mm/min

Recommended cutting data can be found in Walter GPS.

P6006 — 7–10 × D_c

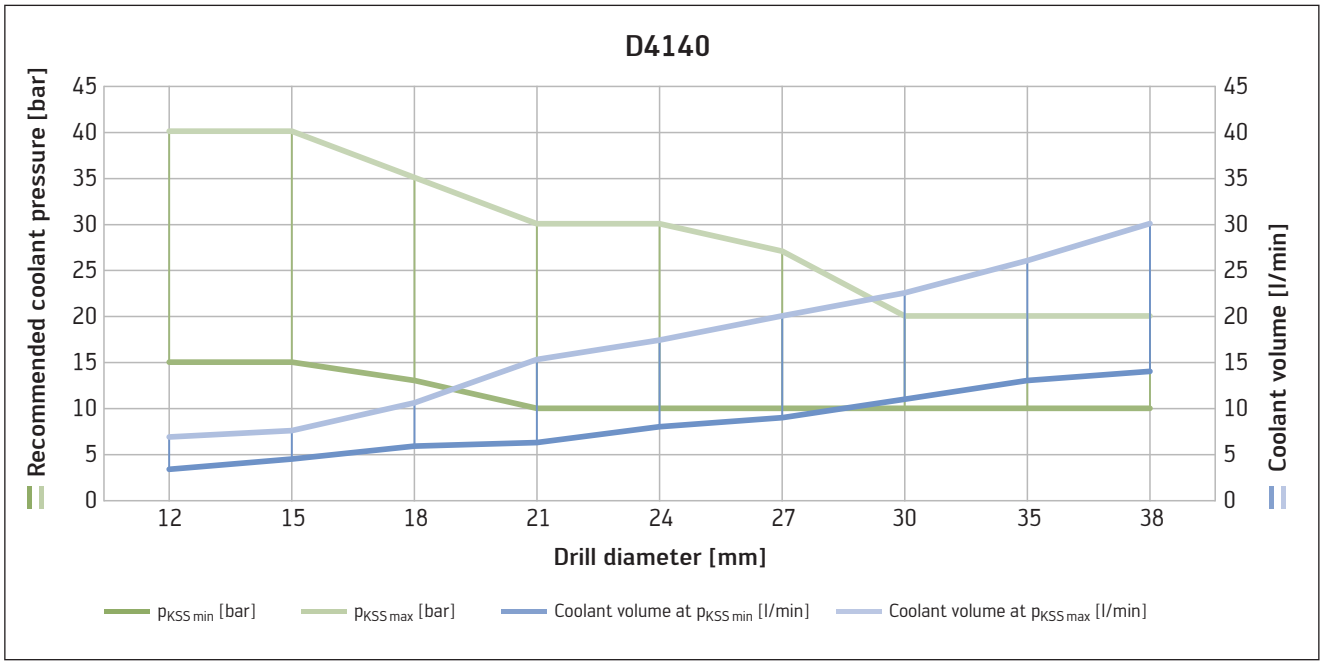
P	M	K	N	S	H	O
✓						

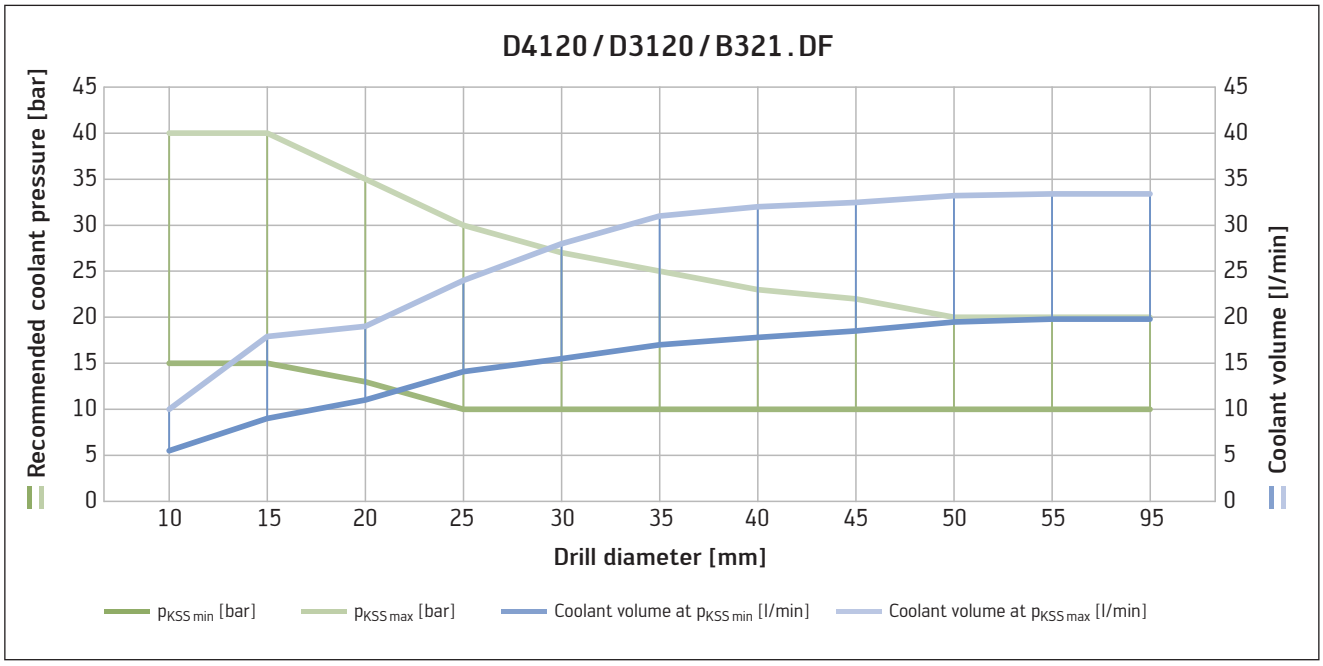
No pilot drilling strategy necessary

B 1

Standard value diagrams for coolant pressure/flow rate information

Indexable insert drilling





Note
The standard values shown were determined under laboratory conditions. During use, deviations may occur due to factors including the machine type being used, the coolant, the coolant preparation or the coolant pump.

Abbreviations

KSS	Coolant
L/D	Length/Diameter
p_{KSS}	Coolant pressure
$p_{KSS\,max}$	Maximum coolant pressure
$p_{KSS\,min}$	Minimum coolant pressure

Product range overview of indexable inserts for boring and precision boring



Machining	Insert shape		Description	Page
Boring Precision boring		C	Positive rhombic for precision boring	183
			Positive rhombic for precision boring – CBN	185
		P413x P416x P446x	Tangential/lateral rhombic for boring	182
		T	Positive rhombic for precision boring	184
			Positive rhombic for precision boring – CBN	185

Designation key
for negative indexable inserts for boring

P413	0	–	2	R	–	E47
1	2		3	4		5

1	
Walter indexable insert designation	
P413	
P416	Negative boring
P446	

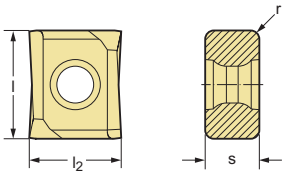
2	
Version	
0	Ground
1	Sintered

3	
Insert size	
0	08 . . .
2	10 . . .
3	12 . . .
4	14 . . .

4	
Cutting direction	
R	RH-cutting
L	LH-cutting

5	
Walter geometry	
E47	The universal one
G88	The sharp one

Tangential rhombic
P4130 / P4160 / P4460



Indexable inserts

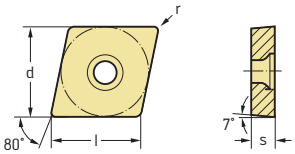
	Designation	Number of cutting edges	l mm	l_2 mm	s mm	P HC WKP30S	M HC WSM20S	K HC WKK10S	K HC WKK20S	N HC WNN15	N HW WK10
	P4130-4R12-E47	4	14	10,5	7	☻		☻	☻		
	P4160-2R04-E47	4	10	9,7	5	☻	☻		☻		
	P4160-2R/L08-E47	4	10	9,7	5	☻	☻		☻		
	P4460-2R08-G88	4	10	9,7	5					☻	☻
	P4460-2R04-G88	4	10	9,7	5					☻	

HC = Coated carbide
HW = Uncoated carbide

B 2

☻☻☻ / ★ New addition to the product range

Positive rhombic 80°
CCGT



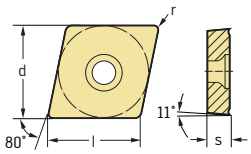
Indexable inserts

	Designation	l mm	r mm	P HE WEP10C	P HE WPP10S	P HE WPP20S	P HE WPP30S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM21	M HC WSM30S	M HC WSM10	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	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

HE = Coated cermet

Positive rhombic 80°
CPGT



Indexable inserts

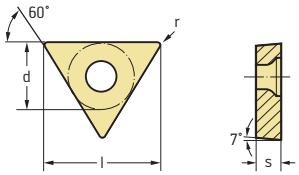
	Designation	l mm	r mm	P HE WEP10C	P HE WPP10S	P HE WPP20S	P HE WPP30S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM21	M HC WSM30S	M HC WSM10	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	CPGT050202M-FP2	5,64	0,17	☺																	
	CPGT050204M-FP2	5,64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

See the ISO 1832 designation key for dimensions

HE = Coated cermet

B 2

Positive triangular 60°
TCGT



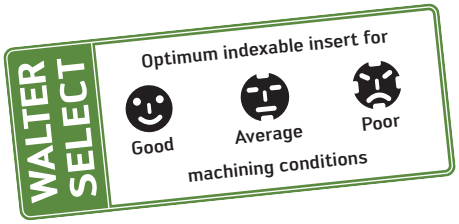
Indexable inserts

	Designation	l mm	r mm	P HE WEP10C	P HE WPP10S	P HE WPP20S	P HE WPP30S	M HC WMP20S	M HC WSM01	M HC WSM10S	M HC WSM20S	M HC WSM21	M HC WSM30S	M HC WSM10	K HC WKK10S	K HC WKK20S	N HC WNN10	S HC WSM01	S HC WSM10S	S HC WSM20S	S HC WSM30S
	TCGT06T104M-FP2	6,87	0,37	☺																	
	TCGT090204M-FP2	9,62	0,37	☺																	
	TCGT110202M-FP2	11,00	0,17	☺																	
	TCGT110204M-FP2	11,00	0,37	☺																	

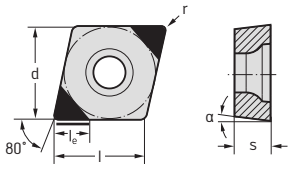
See the ISO 1832 designation key for dimensions

HE = Coated cermet

B 2



CBN – Positive rhombic 80°
CCGW



Indexable inserts

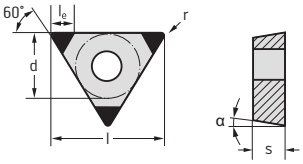
	Designation	l_e mm	r mm	K CN WCK10	K BH WBK20	K HC WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	O DP WDN10
	CCGW060208TM-2	2,7	0,8						☻	☻	😐	☹	
	CCGW060204TM-2	2,8	0,4						☻	☻	😐	☹	
	CCGW09T308TM-2	2,7	0,8						☻	☻	😐	☹	
	CCGW09T304TM-2	2,8	0,4						☻	☻	😐	☹	

See the ISO 1832 designation key for dimensions

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

B 2

CBN – Positive triangular 60°
TCGW



Indexable inserts

	Designation	l_e mm	r mm	K CN WCK10	K BH WBK20	K HC WBK30	N DP WDN10	S BH WBS10	H BL WBH10C	H BL WBH10	H BL WBH20	H BL WBH30	O DP 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						☻	☻	😐	☹	

See the ISO 1832 designation key for dimensions

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

☻😐☹ / ★ New addition to the product range

Cutting data for boring and precision boring

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Boring Negative basic shape: = Cutting data for wet machining	Boring Negative basic shape: = Dry machining is possible	Starting values for feed f_z [mm/rev] Indexable insert geometry –E47 fz [mm]	Starting values for feed f_z [mm/rev] Indexable insert geometry –G88 fz [mm]
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1	●●		0.25	
		C > 0.25% to ≤ 0.55%	Annealed	190	639	P2	●●		0.20	
		C > 0.25% to ≤ 0.55%	Heat-treated	210	708	P3	●●		0.19	
		C > 0.55%	Annealed	190	639	P4	●●		0.18	
		C > 0.55%	Heat-treated	300	1013	P5	●●		0.15	
		Free-machining steel (short-chipping)	Annealed	220	745	P6	●●	●	0.19	
	Low-alloy steel	Annealed		175	591	P7	●●		0.25	
		Heat-treated		300	1013	P8	●●		0.18	
		Heat-treated		380	1282	P9	●●		0.15	
		Heat-treated		430	1477	P10	●●		0.13	
	High-alloy steel and high-alloy tool steel	Annealed		200	675	P11	●●		0.18	
		Hardened and tempered		300	1013	P12	●●		0.16	
		Hardened and tempered		400	1361	P13	●●		0.13	
	Stainless steel	Ferritic/martensitic, annealed		200	675	P14	●●		0.15	
		Martensitic, heat-treated		330	1114	P15	●●		0.15	
M	Stainless steel	Austenitic, quench hardened		200	675	M1	●●		0.16	
		Austenitic, precipitation hardened (PH)		300	1013	M2	●●		0.16	
		Austenitic/ferritic, duplex		230	778	M3	●●		0.16	
K	Malleable cast iron	Ferritic		200	675	K1	●●	●	0.23	
		Pearlitic		260	867	K2	●●	●	0.20	
	Grey cast iron	Low tensile strength		180	602	K3	●●	●	0.25	
		High tensile strength/austenitic		245	825	K4	●●	●	0.20	
	Cast iron with spheroidal graphite	Ferritic		155	518	K5	●●	●	0.25	
		Pearlitic		265	885	K6	●●		0.20	
	GGV (CGI)			200	675	K7	●●	●	0.23	
N	Wrought aluminium alloys	Not hardenable		30	–	N1	●●			0.25
		Hardenable, hardened		100	343	N2	●●			0.25
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●	●		0.25
		≤ 12% Si, hardenable, hardened		90	314	N4	●●	●		0.25
		> 12% Si, not hardenable		130	447	N5	●●	●		0.25
	Magnesium-based alloys [3]			70	250	N6	●●	●		0.25
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	343	N7	●●			0.25
		Brass, bronze, red brass		90	314	N8	●●	●		0.25
		Cu alloys, short-chipping		110	382	N9	●●	●		0.25
		High tensile, Ampco		300	1013	N10	●●			
S	Heat-resistant alloys	Fe-based	Annealed	200	675	S1	●●		0.13	
			Hardened	280	943	S2	●●		0.13	
		Ni- or Co-based	Annealed	250	839	S3	●●		0.13	
			Hardened	350	1177	S4	●●		0.13	
			Cast	320	1076	S5	●●		0.13	
	Titanium alloys	Pure titanium		200	675	S6				
		α and β alloys, hardened		375	1262	S7	●●		0.17	
		β alloys		410	1396	S8	●●		0.15	
	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				

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

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

[1] The classification of the machining groups can be found from page B 1174 onwards in the General Catalogue 2017.
[3] Water-miscible coolants must not be used when machining magnesium-based alloys.

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

Boring Negative basic shape																			Precision boring Positive basic shape									
Starting values for cutting speed v_c [m/min]																			Starting values for cutting speed v_c [m/min]									
Carbide																			Cermet						CBN				
HC																			HE						BH				
WKK10S				WKK20S			WKP30S			WSM20S			WK10			WNN10			WEP10C						WBH				
L/D				L/D			L/D			L/D			L/D			L/D					f_z [mm/rev]					f_z [mm/rev]			
$2 \times D_c$	$3 \times D_c$	$4 \times D_c$	$2 \times D_c$	$3 \times D_c$	$4 \times D_c$	$2 \times D_c$	$3 \times D_c$	$4 \times D_c$	$2 \times D_c$	$3 \times D_c$	$4 \times D_c$	$2 \times D_c$	$3 \times D_c$	$4 \times D_c$	$2 \times D_c$	$3 \times D_c$	$4 \times D_c$			$3 \times D_c$	$4 \times D_c$	$6 \times D_c$			0,05	0,15	0,20
			300	270	120	260	240	120	240	220									●●	●	288	261	162					
			280	220	100	220	200	100	180	160									●●	●	270	216	135					
			250	200	90	200	180	90	140	120									●●	●	243	198	126					
			240	190	90	180	160	90	160	140									●●	●	234	189	117					
			210	170	80	140	130	80											●●	●	207	171	108					
			250	200	90	200	180	90	160	140									●●	●	243	198	126					
			280	220	100	220	200	100											●●	●	270	216	135					
			230	180	80	180	160	80											●●	●	225	180	117					
			200	160	70	130	120	70											●●	●	198	162	99					
			170	130	60	120	100	60											●●	●	171	135	72					
			230	170	100	180	160	100											●●	●	225	171	117					
			190	160	80	160	150	80											●●	●	189	162	99					
			180	140	70	120	100	70											●●	●	180	144	81					
			230	180	100	160	130	100											●●	●	225	180	117					
			170	150	80	130	110	80											●●	●	171	153	90					
						230	210	100	200	180	100								●●	●	207	162	108					
						190	170	80	150	120	80								●●	●	153	117	99					
						210	190	100	170	140	100								●●	●	171	135	81					
280	250		210	190	130	190	170	130											●●	●	225	189	108					
220	200		170	150	130	170	150	130											●●	●	180	153	99					
390	350		350	320	150	210	190	150											●●	●	243	207	126					
250	220		190	170	130	170	150	130											●●	●	180	153	99					
260	230		200	180	130	160	150	130											●●	●	225	180	117					
190	170		150	130	120	150	140	120											●●	●	207	162	108					
190	160		160	140	120																							
												1000	850	650	1000	850	650											
												800	700	600	900	820	600											
												500	450	400	600	550	400											
												400	350	300	500	450	400											
												300	260	230	400	360	320											
												500	450	400	600	550	400											
												450	400	350	550	250	200											
												400	350	300	500	450	400											
												350	300	250	400	350	300											
									80	70	60																	
									60	50	45																	
									50	45	40																	
									40	35	30																	
									40	35	30																	
									50	45	40	45	40	35	50	45	40											
									40	35	30	40	35	30	40	35	30											
																								●●	200	185	170	
																								●●	180	170	160	
																								●●	150	130	110	

HC = Coated carbide
HE = Coated cermet
BH = CBN with high CBN content

B 2



B – Threading

Tapping – B3

HSS-E taps	Product range overview	190
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Thread forming – B4

HSS-E-PM thread formers	Product range overview	194
	Designation key	195
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Thread milling – B5

Thread milling cutters	Product range overview	208
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Product range overview of HSS-E taps UNF

Machining		
Thread depth	**3,5 × D_N**	**3 × 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	191	192
		

B 3

HSS-E machine taps
TC216 Perform mm

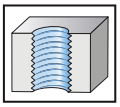


– For long-chipping materials

≤ 3×D_N | B=3,5-5 | 32HRC, 1000 –350 N/mm²

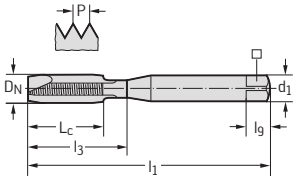
UNF
ASME B1.1

2B



	P	M	K	N	S	H	O
WY80AA	●●	●●	●●	●●			

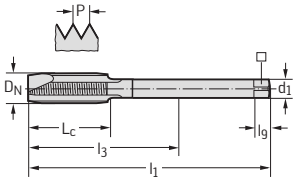
DIN 371



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	●●

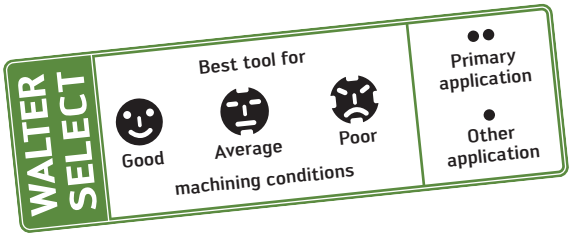
Ordering example for the WY80AA grade: TC216-UNF6-C0-WY80AA

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



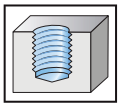
HSS-E machine taps
TC115 Perform mm



– For long-chipping materials

UNF
ASME B1.1

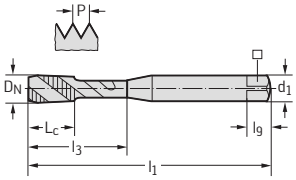
2B



≤ 3×D_N | C=2-3 | 45° | 32HRC, 1000 –350 N/mm²

	P	M	K	N	S	H	O
WY80AA	●●	●●	●●	●			

DIN 371

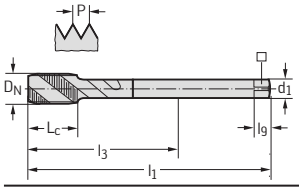


Designation	D_N-P	D_N mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AA
TC115-UNF6-C0-	UNF 6-40	3,505	56	6,5	20	4	3	6	3	⊠
TC115-UNF10-C0-	UNF 10-32	4,826	70	8	25	6	4,9	8	3	⊠
TC115-UNF1/4-C0-	UNF 1/4-28	6,35	80	10	30	7	5,5	8	3	⊠
TC115-UNF5/16-C0-	UNF 5/16-24	7,938	90	12	35	8	6,2	9	3	⊠
TC115-UNF3/8-C0-	UNF 3/8-24	9,525	100	15	39	10	8	11	3	⊠

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

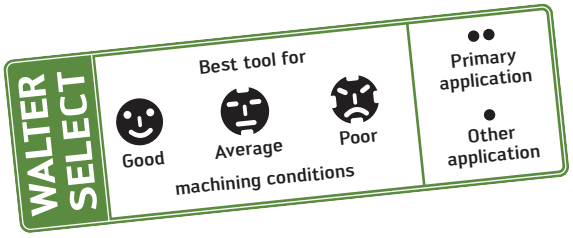
B 3

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



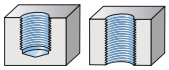
Cutting data
Tapping

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

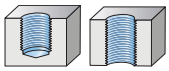
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	TC115 / TC216 Coated v_c [m/min]			
	= Coolant recommended **E** = Emulsion **O** = Oil v_c = Cutting speed							1,5 × D_N	2 × D_N	2,5 × D_N
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1	**E**	37	30	26
		C > 0.25% to ≤ 0.55%	Annealed	190	639	P2	**E**	37	31	26
		C > 0.25% to ≤ 0.55%	Heat-treated	210	708	P3	**E**	23	19	17
		C > 0.55%	Annealed	190	639	P4	**E**	23	19	16
		C > 0.55%	Heat-treated	300	1013	P5	**E**	14	12	10
		Free-machining steel (short-chipping)	Annealed	220	745	P6	**E**	23	19	16
	Low-alloy steel	Annealed		175	591	P7	**E**	37	30	26
		Heat-treated		285	960	P8	**E**	12	10	9
		Heat-treated		380	1282	P9	**E**	7	6	5
		Heat-treated		430	1477	P10	**O**	5		
	High-alloy steel and high-alloy tool steel	Annealed		200	675	P11	**E**	23	19	16
		Hardened and tempered		300	1013	P12	**E**	14	12	10
		Hardened and tempered		380	1282	P13	**O**	7	6	5
	Stainless steel	Ferritic/martensitic, annealed		200	675	P14	**E**	7	6	5
		Martensitic, heat-treated		330	1114	P15	**E**	5	4	3
M	Stainless steel	Austenitic, quench hardened		200	675	M1	**E**	8	7	6
		Austenitic, precipitation hardened (PH)		300	1013	M2	**E**	5	4	3
		Austenitic/ferritic, duplex		230	778	M3	**E**	6	5	4
K	Malleable cast iron	Ferritic		200	400	K1	**E**	22	18	16
		Pearlitic		260	700	K2	**E**	11	9	8
	Grey cast iron	Low tensile strength		180	200	K3	**E**	44	36	32
		High tensile strength/austenitic		245	350	K4	**E**	17	14	12
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	**E**	22	18	16
		Pearlitic		265	700	K6	**E**	12	10	9
	GGV (CGI)			230	400	K7	**E**	10	8	7
N	Wrought aluminium alloys	Not hardenable		30	–	N1	**E**	8	7	6
		Hardenable, hardened		100	343	N2	**E**	32	26	22
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	**E**	22	18	16
		≤ 12% Si, hardenable, hardened		90	314	N4	**E**	22	18	16
		> 12% Si, not hardenable		130	447	N5	**E**	25	21	18
	Magnesium-based alloys [3]			70	250	N6	**O**	34	28	24
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	343	N7	**E**	14	12	10
		Brass, bronze, red brass		90	314	N8	**E**	36	29	25
		Cu alloys, short-chipping		110	382	N9	**E**	48	40	34
		High tensile, Ampco		300	1013	N10	**E**			
S	Heat-resistant alloys	Fe-based	Annealed	200	675	S1	**E**			
			Hardened	280	943	S2	**E**	3		
		Ni- or Co-based	Annealed	250	839	S3	**E**			
			Hardened	350	1177	S4	**O**	3		
			Cast	320	1076	S5	**O**	3		
	Titanium alloys	Pure titanium		200	675	S6	**E**	8	7	6
		α and β alloys, hardened		375	1262	S7	**O**	4	4	
		β alloys		410	1396	S8	**O**	4	4	
	Tungsten alloys			300	1013	S9	**O**	2	2	
	Molybdenum alloys			300	1013	S10	**O**	7	5	
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	**E**	22	18	15
	Thermosets	Without abrasive fillers				O2	**E**	13	10	9
	Plastic, glass-fibre-reinforced	GFRP				O3	**E**	8	6	5
	Plastic, carbon-fibre-reinforced	CFRP				O4	**E**	8	6	5
	Plastic, aramid-fibre-reinforced	AFRP				O5	**E**	8	6	5
	Graphite (technical)			65 Shore		O6	**E**	19	16	13

[1] The classification of the machining groups can be found from page B 1174 onwards in the 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%.

Product range overview of HSS-E (-PM) thread formers
M – Metric thread

Machining						
Thread depth	**3 × D_N**	**3,5 × D_N**			**3,5 × D_N**	
Designation	**TC430 Supreme**	**TC420 Supreme**	**TC430 Supreme**	**TC440 Supreme**	**TC420 Supreme**	**TC430 Supreme**	**TC440 Supreme**
Dimension range	M 3–M 10	M 5–M 24	M 5–M 16	M 2–M 12	M 5–M 16	M 5–M 16	M 5–M 12
Tolerance	6HX	6HX	6HX	6HX	6GX / 6HX	6HX	6HX
Coolant supply	External	Radial	Radial	External/radial	Axial	Axial	Axial
Chamfer form	C	C	C	C	E	C	C
Coating/grade	WW60EL	WW60AD / WW60BA	WW60AD / WW60EL	WY80AD	WW60AD / WW60BA	WW60AD / WW60EL	WY80AD
Cutting tool material	HSS-E-PM	HSS-E-PM	HSS-E-PM	HSS-E	HSS-E-PM	HSS-E-PM	HSS-E
Page	199	198	200	202	196	201	203
							

Product range overview of HSS-E (-PM) thread formers
MF – Metric fine-pitch thread

Machining			
Thread depth	**3,5 × D_N**		**3,5 × D_N**
Designation	**TC430 Supreme**	**TC440 Supreme**	**TC430 Supreme**
Dimension range	MF 8x1– MF 16x1.5	MF 8x1– MF 16x1.5	MF 8x1– MF 16x1.5
Tolerance	6HX	6HX	6HX
Coolant supply	Radial	Radial	Axial
Chamfer form	C	C	C
Coating/grade	WW60AD / WW60EL	WY80AD	WW60AD / WW60EL
Cutting tool material	HSS-E-PM	HSS-E	HSS-E-PM
Page	205	206	205
			

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

Example:

T	C	4	40	–	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	30 ISO P, Supreme
			20 Universal, Supreme	40 ISO M, Supreme
				70 ISO P, Supreme

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

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

Example:

W	W	80	AD
Walter	1	2	3

1	2	3
Substrate	**Range of applications**	**Coating**
G Solid carbide	Wear resistance 05 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 Toughness	AD TiN
W HSS-E-PM		BA TiCN
Y HSS-E		EL AlCrN

HSS-E-PM machine thread formers
TC420 Supreme mm

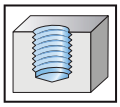


– For long-chipping materials

≤ 3,5×D_N | E=1,5-2 | 36HRC 1200 –200 N/mm²

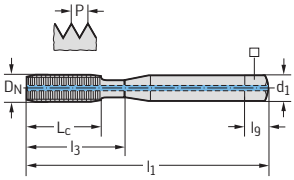
M
DIN 13

6HX



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

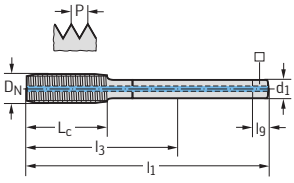
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M5-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	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-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	✕	

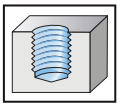
Ordering example for the WW60AD grade: TC420-M12-LF-WW60AD

B 4

HSS-E-PM machine thread formers
TC420 Supreme mm

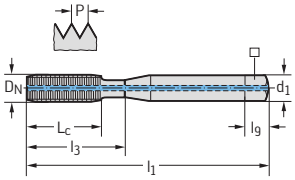


– For long-chipping materials

M DIN 13	6GX	

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

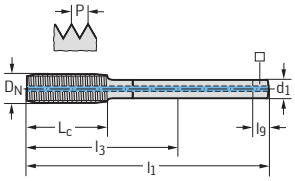
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-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	✖	✖

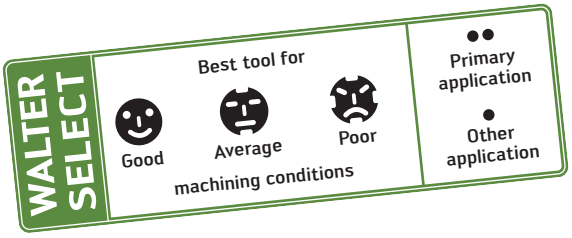
Ordering example for the WW60AD grade: TC420-M5-EF-WW60AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-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



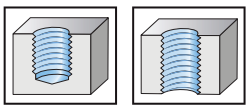
HSS-E-PM machine thread formers
TC420 Supreme mm



≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

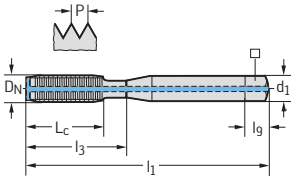
– For long-chipping materials

M DIN 13 | 6HX



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

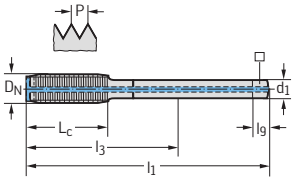
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M5-C2-	M 5	0,8	70	8	25	6	4,9	8	5	✖	✖
TC420-M6-C2-	M 6	1	80	10	30	6	4,9	8	5	✖	✖
TC420-M8-C2-	M 8	1,25	90	12	35	8	6,2	9	5	✖	✖
TC420-M10-C2-	M 10	1,5	100	15	39	10	8	11	6	✖	✖

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

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60AD	WW60BA
TC420-M12-L2-	M 12	1,75	110	16	83	9	7	10	6	✖	✖
TC420-M14-L2-	M 14	2	110	20	81	11	9	12	6	✖	✖
TC420-M16-L2-	M 16	2	110	20	68	12	9	12	6	✖	✖
TC420-M20-L2-	M 20	2,5	140	25	95	16	12	15	7	✖	✖
TC420-M24-L2-	M 24	3	160	30	113	18	14,5	17	8	✖	✖

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

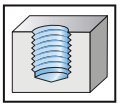
HSS-E-PM machine thread formers
TC430 Supreme mm



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

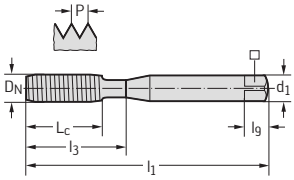
≤ 3×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

M DIN 13 | 6HX



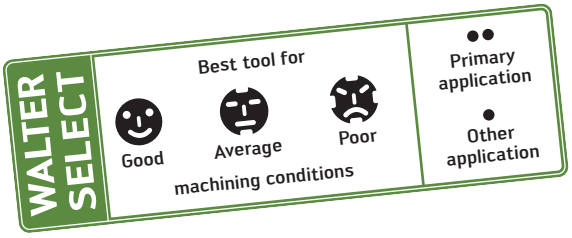
	P	M	K	N	S	H	O
WW60EL	●●	●	●	●			

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60EL
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



B 4

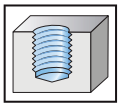
HSS-E-PM machine thread formers
TC430 Supreme mm



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

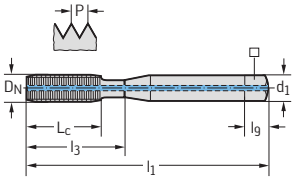
≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

M DIN 13 | 6HX



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

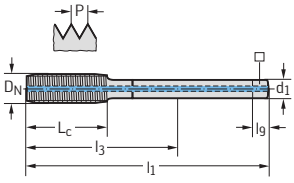
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60EL	WW60AD
TC430-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	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60EL	WW60AD
TC430-M12-L1-	M 12	1,75	110	16	83	9	7	10	8	✱	✱
TC430-M16-L1-	M 16	2	110	20	68	12	9	12	8	✱	✱

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

B 4

HSS-E-PM machine thread formers
TC430 Supreme mm

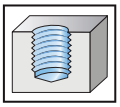


– For long-chipping materials
– ISO M with oil only

≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

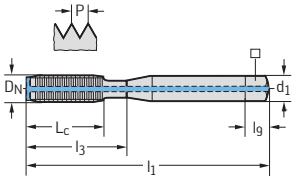
M
DIN 13

6HX



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

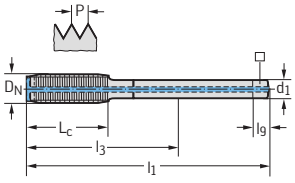
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60EL	WW60AD
TC430-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	⊠	⊠

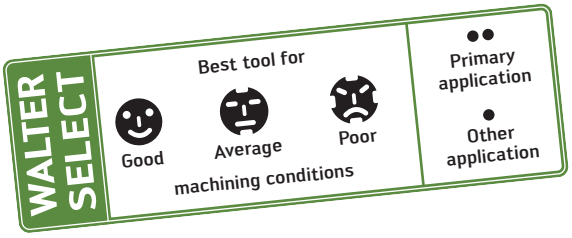
Ordering example for the WW60AD grade: TC430-M8-C2-WW60AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60EL	WW60AD
TC430-M12-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 machine thread formers
TC440 Supreme mm

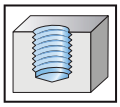


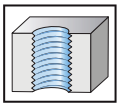
– For long-chipping materials
– For stainless steels when using emulsion

≤ 3,5×D_N | C=2-3 | 32HRC, 1000 –200 N/mm²

M
DIN 13

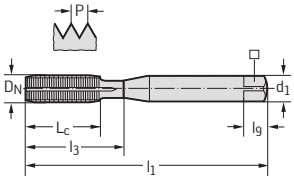
6HX





	P	M	K	N	S	H	O
WY80AD	●	●●		●	●		

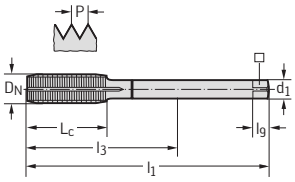
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC440-M2-C6-	M 2	0,4	45	6	6	2,8	2,1	5	3	●
TC440-M2.5-C6-	M 2.5	0,45	50	8	8	2,8	2,1	5	3	●
TC440-M3-C6-	M 3	0,5	56	6	18	3,5	2,7	6	3	●
TC440-M4-C6-	M 4	0,7	63	7	21	4,5	3,4	6	3	●
TC440-M5-C6-	M 5	0,8	70	8	25	6	4,9	8	4	●
TC440-M6-C6-	M 6	1	80	10	30	6	4,9	8	5	●
TC440-M8-C6-	M 8	1,25	90	12	35	8	6,2	9	5	●
TC440-M10-C6-	M 10	1,5	100	15	39	10	8	11	5	●

≤ M2.5 max. thread depth 3xD_N
Ordering example for the WY80AD grade: TC440-M2-C6-WY80AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC440-M12-L6-	M 12	1,75	110	16	83	9	7	10	5	●

Ordering example for the WY80AD grade: TC440-M12-L6-WY80AD

B 4

● ● ● / ★ New addition to the product range

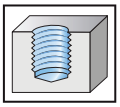
HSS-E machine thread formers
TC440 Supreme mm



– For long-chipping materials
– For stainless steels when using emulsion

M
DIN 13

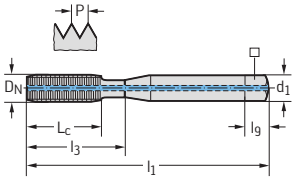
6HX



≤ 3,5×D_N | C=2-3 | 32HRC 1000 –200 N/mm²

	P	M	K	N	S	H	O
WY80AD	●	●●		●	●		

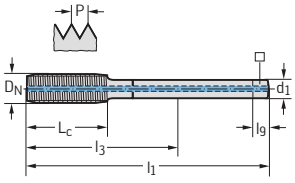
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC440-M5-C1-	M 5	0,8	70	8	25	6	4,9	8	4	●
TC440-M6-C1-	M 6	1	80	10	30	6	4,9	8	5	●
TC440-M8-C1-	M 8	1,25	90	12	35	8	6,2	9	5	●
TC440-M10-C1-	M 10	1,5	100	15	39	10	8	11	5	●

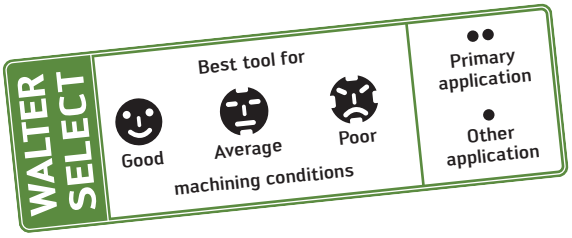
Ordering example for the WY80AD grade: TC440-M5-C1-WY80AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC440-M12-L1-	M 12	1,75	110	16	83	9	7	10	5	●

Ordering example for the WY80AD grade: TC440-M12-L1-WY80AD



HSS-E machine thread formers
TC440 Supreme mm

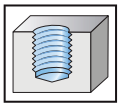


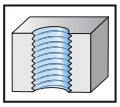
– For long-chipping materials
– For stainless steels when using emulsion

≤ 3,5×D_N | C=2-3 | 32HRC 1000 –200 N/mm²

M
DIN 13

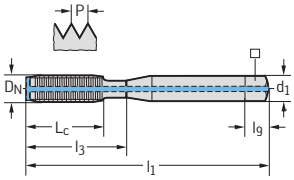
6HX





	P	M	K	N	S	H	O
WY80AD	●	●●		●	●		

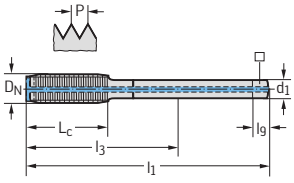
DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC440-M5-C2-	M 5	0,8	70	8	25	6	4,9	8	4	●
TC440-M6-C2-	M 6	1	80	10	30	6	4,9	8	5	●
TC440-M8-C2-	M 8	1,25	90	12	35	8	6,2	9	5	●
TC440-M10-C2-	M 10	1,5	100	15	39	10	8	11	5	●

Ordering example for the WY80AD grade: TC440-M5-C2-WY80AD

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC440-M12-L2-	M 12	1,75	110	16	83	9	7	10	5	●

Ordering example for the WY80AD grade: TC440-M12-L2-WY80AD

B 4

● ● ● / ★ New addition to the product range

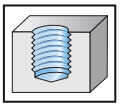
HSS-E-PM machine thread formers
TC430 Supreme mm



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

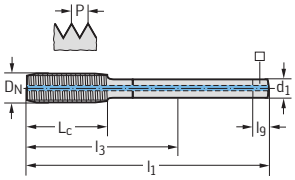
≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

MF DIN 13 | 6HX



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

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60EL	WW60AD
TC430-M8X1-L1-	MF 8x1	1	90	12	67	6	4,9	8	6	⊠	⊠
TC430-M10X1-L1-	MF 10x1	1	90	12	67	7	5,5	8	7	⊠	⊠
TC430-M10X1.25-L1-	MF 10x1.25	1,25	100	15	77	7	5,5	8	7	⊠	⊠
TC430-M12X1-L1-	MF 12x1	1	100	13	73	9	7	10	8	⊠	⊠
TC430-M12X1.25-L1-	MF 12x1.25	1,25	100	13	73	9	7	10	8	⊠	⊠
TC430-M12X1.5-L1-	MF 12x1.5	1,5	100	13	73	9	7	10	8	⊠	⊠
TC430-M14X1.5-L1-	MF 14x1.5	1,5	100	15	71	11	9	12	8	⊠	⊠
TC430-M16X1.5-L1-	MF 16x1.5	1,5	100	15	58	12	9	12	8	⊠	⊠

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

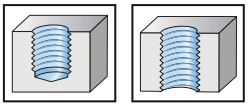
HSS-E-PM machine thread formers
TC430 Supreme mm



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

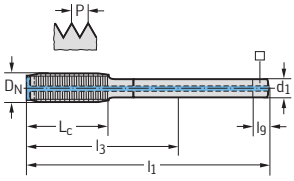
≤ 3,5×D_N | C=2-3 | 36HRC 1200 –200 N/mm²

MF DIN 13 | 6HX



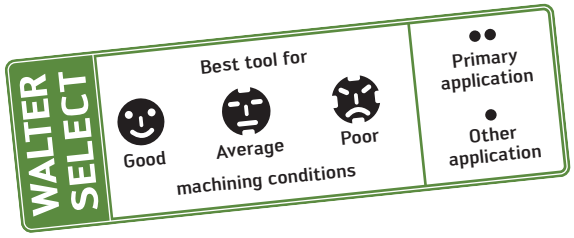
	P	M	K	N	S	H	O
WW60EL	●●	●	●	●			
WW60AD	●●	●	●	●			

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WW60EL	WW60AD
TC430-M8X1-L2-	MF 8x1	1	90	12	67	6	4,9	8	6	⊠	⊠
TC430-M10X1-L2-	MF 10x1	1	90	12	67	7	5,5	8	7	⊠	⊠
TC430-M10X1.25-L2-	MF 10x1.25	1,25	100	15	77	7	5,5	8	7	⊠	⊠
TC430-M12X1-L2-	MF 12x1	1	100	13	73	9	7	10	8	⊠	⊠
TC430-M12X1.25-L2-	MF 12x1.25	1,25	100	13	73	9	7	10	8	⊠	⊠
TC430-M12X1.5-L2-	MF 12x1.5	1,5	100	13	73	9	7	10	8	⊠	⊠
TC430-M14X1.5-L2-	MF 14x1.5	1,5	100	15	71	11	9	12	8	⊠	⊠
TC430-M16X1.5-L2-	MF 16x1.5	1,5	100	15	58	12	9	12	8	⊠	⊠

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



B 4

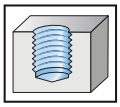
HSS-E machine thread formers
TC440 Supreme mm



– For long-chipping materials
– For stainless steels when using emulsion

MF
DIN 13

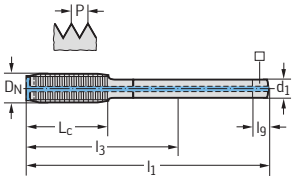
6HX



≤ 3,5×D_N | C=2-3 | 32HRC 1000 –200 N/mm²

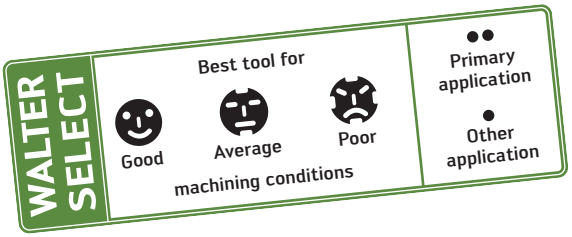
	P	M	K	N	S	H	O
WY80AD	●	●●		●	●		

DIN 2174



Designation	D_N	P mm	l_1 mm	L_c mm	l_3 mm	d_1 h9 mm	□ mm	l_9 mm	N	WY80AD
TC440-M8X1-L2-	MF 8x1	1	90	12	67	6	4,9	8	5	☹
TC440-M10X1-L2-	MF 10x1	1	90	12	67	7	5,5	8	5	☹
TC440-M12X1.5-L2-	MF 12x1.5	1,5	100	13	73	9	7	10	5	☹
TC440-M14X1.5-L2-	MF 14x1.5	1,5	100	15	58	11	9	12	6	☹
TC440-M16X1.5-L2-	MF 16x1.5	1,5	100	15	58	12	9	12	6	☹

Ordering example for the WY80AD grade: TC440-M8X1-L2-WY80AD



☹ / ★ New addition to the product range

Cutting data
Thread forming

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

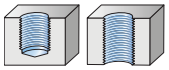
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	TC410 / TC420 / TC430 / TC440 Coated v_c [m/min]			
							= Coolant recommended	1,5 × D_N	2 × D_N	2,5 × D_N
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1	E	48	39	34
		C > 0.25% to ≤ 0.55%	Annealed	190	639	P2	E	45	37	31
		C > 0.25% to ≤ 0.55%	Heat-treated	210	708	P3	E	50	41	35
		C > 0.55%	Annealed	190	639	P4	E	31	25	21
		C > 0.55%	Heat-treated	300	1013	P5	E	18	15	13
		Free-machining steel (short-chipping)	Annealed	220	745	P6	E	31	25	21
	Low-alloy steel	Annealed		175	591	P7	E	28	23	19
		Heat-treated		285	960	P8	E	18	15	13
		Heat-treated		380	1282	P9				
		Heat-treated		430	1477	P10				
	High-alloy steel and high-alloy tool steel	Annealed		200	675	P11	E	31	25	21
		Hardened and tempered		300	1013	P12	E	18	15	13
		Hardened and tempered		380	1282	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	675	P14	E O	3/6	2/5	2/4
		Martensitic, heat-treated		330	1114	P15	O	5	4	4
M	Stainless steel	Austenitic, quench hardened		200	675	M1	E O	7/16	6/13	5/11
		Austenitic, precipitation hardened (PH)		300	1013	M2	O	5	4	4
		Austenitic/ferritic, duplex		230	778	M3	E O	2/5	2/4	2/4
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	31	25	21
		Pearlitic		265	700	K6	E	15	13	11
	GGV (CGI)			230	400	K7				
N	Wrought aluminium alloys	Not hardenable		30	–	N1	E	61	50	43
		Hardenable, hardened		100	343	N2	E	57	47	40
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	E	54	44	37
		≤ 12% Si, hardenable, hardened		90	314	N4	E	54	44	37
		> 12% Si, not hardenable		130	447	N5				
	Magnesium-based alloys [3]			70	250	N6				
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	343	N7	E	23	19	16
		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	O	8	6	5
			Hardened	280	943	S2				
		Ni- or Co-based	Annealed	250	839	S3	O	8	6	5
			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)			65 Shore		O6				

E = Emulsion
O = Oil
v_c = Cutting speed

[1] The classification of the machining groups can be found from page B 1174 onwards in the General Catalogue 2017.
[3] Water-miscible coolants must not be used when machining magnesium-based alloys.

B 4

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 | 210 UNC / UNF / UN | 212	M / MF | 214 UNC / UNF / UN | 216	M / MF | 218 UNC / UNF / UN | 220	M / MF | 222 UNC / UNF / UN | 222	M / MF | 224 UNC / UNF / UN | 224
					

Designation key for indexable insert thread milling cutters

Tool:

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

1 – Tool group

T	Threading

2 – Generation

3 – Tool type

7	Indexable insert thread milling cutter

4 – Tool type

10	Universal with triangular insert	$1,5 \times D_N$
11	Universal with triangular insert	$2,0 \times D_N$
12	Universal with triangular insert	$2,5 \times D_N$
13	Universal with triangular insert	$3.0 \times D_N$/ modular

5 – 1. Delimiters

–	Metric
.	Inch

6 – Cutting diameter

7 – Boring bar/ adaptor type

W	Weldon shank
C	Walter Capto™

8 – Boring bar/ adaptor size

9 – Number of teeth

10 – Insert size

11 – Number of cutting rows

12 – Cutting row spacing

Indexable insert:

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

1 – Family

P26300	Triangular positive thread milling cutter insert
P26310	Triangular positive thread milling cutter insert, for single-row tools

2 – Insert size

06
09
11
14
22

3 – Insert radius/thread specification

01 = 0,1 mm
02 = 0,2 mm
04 = 0,4 mm
G11 = G thread, 11 TPI

4 – Chip breaker groove



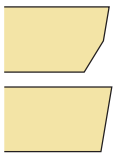
D = 10°

5 – Cutting edge



6

6 – Flank face design



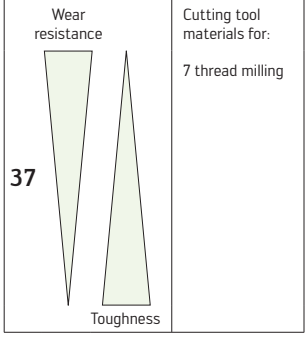
1

7

7 – Application

SM	Universal application with ISO P, M, K, N, S and H materials

8 – ISO range of applications



Cutting tool materials for:

7 thread milling

9 – Generation

S	Tiger·tec® Silver

B 5

Indexable insert thread milling cutter

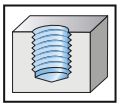
T2710 mm

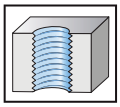


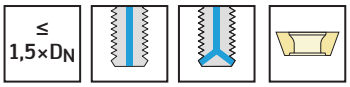


– Universal indexable insert thread milling cutter
– Radius correction values: Walter GPS/Technical information

M-MF
DIN 13







	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	
	★ 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	
	★ T2710-52-W40-4-14-3-24	M 64	6,00	52	24	103	185	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.

B5

Assembly parts



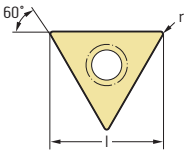
D_c [mm]	16,5–19	24–29	35	40–52
Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm
Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx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

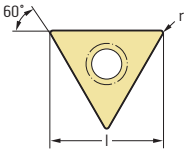
Accessories

	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)

● ● ● / ★ New addition to the product range

Thread milling cutter inserts P26300





Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
P26300-0601-D67	6	0,1	1,40–2,90	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 WSM37S

HC = Coated carbide

Tool selection

Metric thread		Coarse-pitch thread								Fine-pitch thread										
											P [mm]									
Body designation	l_3 [mm]	M20/ M22	M24/ M27	M30/ M33	M36/ M39	M42/ M45	M48/ M52	M56/ M59	M64/ M68	D_N [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

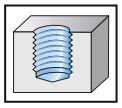
T2710 mm

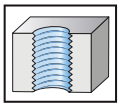




– Universal indexable insert thread milling cutter
– Radius correction values: Walter GPS/Technical information

UNC/UNF
UN
ASME B1.1





	≤ 1,5×D_N			
	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	
	★ T2710-31-W32-3-09-3-19.1	UN 1.1/2-8	8	31	19,05	63,7	135	32	3	9	P26300-09 ..
	★ 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.

B5

/ ★ New addition to the product range

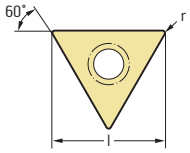
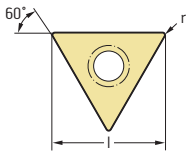
Assembly parts

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

Accessories

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

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
	P26300-0601-D67	6	0,1	1,40–2,90	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

Body designation	l_3 [mm]	UNC 7/8 –9	UNC 1–8	UNF 1 1/8 –12	UNF 1 1/4 –12	UNF 1 3/8 –12	UNF 1 1/2 –12	D_N	UN TPI 18*	UN TPI 16	UN TPI 14	UN TPI 12	UN TPI 8	UN TPI 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

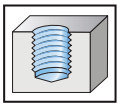
T2711 mm

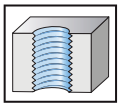




– Universal indexable insert thread milling cutter
– Radius correction values: Walter GPS/Technical information

M-MF
DIN 13





≤ 2×D_N

	P	M	K	N	S	H	O
T2711	●●	●●	●●	●	●●	●	●

Tool

	Designation	D_N	P_{max} mm	D_c mm	l_{21} mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B	★ T2711-17-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	
	T2711-24-W25-3-09-2-31.5	M 30	3,50	24	31,5	64,5	132	25	3	6	P26300-09 ..
	T2711-52-W40-4-14-2-60	M 64	6,00	52	60	135	217	40	4	8	P26300-14 ..
Shank DIN 1835 B	T2711-29-W32-3-09-3-24	M 36	4,00	29	24	76,5	149	32	3	9	P26300-09 ..
	T2711-35-W32-3-11-3-27	M 42	4,50	35	27	89,5	160	32	3	9	P26300-11 ..
	T2711-40-W40-3-14-3-30	M 48	5,00	40	30	103	187	40	3	9	P26300-14 ..
	T2711-44-W40-3-14-3-33	M 56	5,50	44	33	119	202	40	3	9	

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

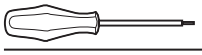
B5

Assembly parts



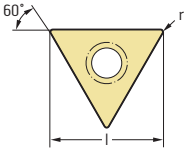
D_c [mm]	16,5–19	24–29	35	40–52
Clamping screw for indexable insert Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm
Coolant screw Tightening torque	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx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

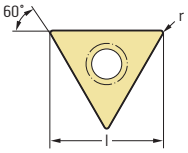
Accessories

	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)

● ● ● / ★ New addition to the product range

Thread milling cutter inserts P26300





Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
P26300-0601-D67	6	0,1	1,40–2,90	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										
											P [mm]									
Body designation	l_3 [mm]	M20/ M22	M24/ M27	M30/ M33	M36/ M39	M42/ M45	M48/ M52	M56/ M59	M64/ M68	D_N [mm]	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6
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

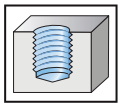
T2711 mm

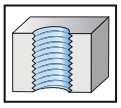




– Universal indexable insert thread milling cutter
– Radius correction values: Walter GPS/Technical information

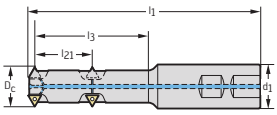
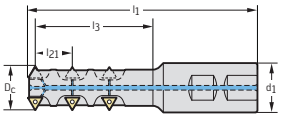
UNC/UNF
UN
ASME B1.1





≤ 2×D_N

	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	
	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.

B5

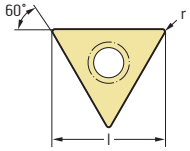
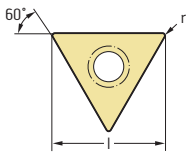
Assembly parts

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

Accessories

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

Thread milling cutter inserts P26300

	Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
	P26300-0601-D67	6	0,1	1,40–2,90	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

Body designation	l_3 [mm]	UNC 7/8 –9	UNC 1–8	UNC 1 1/4 –7	UNC 1 1/2 –6	UNF 7/8 –14	UNF 1–12	UNF 1 1/8 –12	UNF 1 1/4 –12	UNF 1 3/8 –12	UNF 1 1/2 –12	UN D_N	UN TPI 18*	UN TPI 16	UN TPI 14	UN TPI 12	UN TPI 8	UN TPI 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".

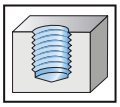
Indexable insert thread milling cutter

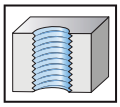
T2712 mm



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

M-MF
DIN 13



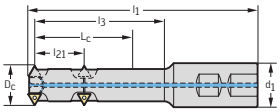


≤ 2,5×D_N

	P	M	K	N	S	H	O
T2712	●●	●●	●●	●	●●	●	●

Tool

Shank DIN 1835 B



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
T2712-24-W25-3-09-2-31.5	M 30	3,50	24	31,5	63	79,5	147	25	3	6	P26300-09 ..
T2712-29-W32-3-09-2-36	M 36	4,00	29	36	72	94,5	167	32	3	6	
T2712-35-W32-3-11-2-40.5	M 42	4,50	35	40,5	81	110,5	180	32	3	6	P26300-11 ..
T2712-40-W40-3-14-2-50	M 48	5,00	40	50	100	127	211	40	3	6	P26300-14 ..

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

B5

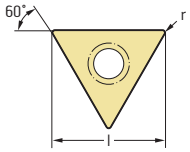
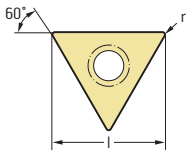
Assembly parts

	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 HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
	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	●	●	●	●	●	●	
	P26300-1404-D61	14	0,4	5,50–6,40	4,5–4	13,43	3	●	●	●	●	●	●	

HC = Coated carbide

Tool selection

Metric thread

Body designation	l_3 [mm]	Coarse-pitch thread M30 / M33	M36 / M39	M42 / M45	M48 / M52	D_N [mm]	Fine-pitch thread 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.

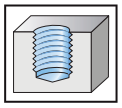
Indexable insert thread milling cutter

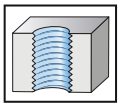
T2712 mm



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

UNC/UNF
UN
ASME B1.1



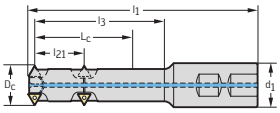


≤ 2,5×D_N

	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	



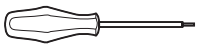
Variable coolant supply: Remove the face-side coolant screw for blind hole machining
Bodies and assembly parts are included in the scope of delivery.

B5

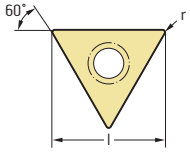
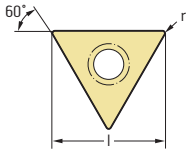
Assembly parts

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

Accessories

	D_c [mm]	26–31
	Torque screwdriver, analogue Tightening torque	FS2001 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 HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
	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

Tool selection

UN threads		UNC		UNF	UN						
								TPI			
Body designation	l_3 [mm]	1 1/4–7	1 1/2–6	1 1/2–12	D_N	18*	16	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

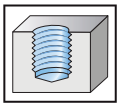
T2712 mm

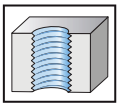


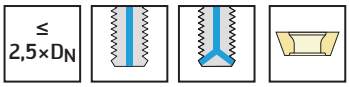
– Universal indexable insert thread milling cutter
– Radius correction values: Walter GPS/Technical information

M-MF
DIN 13

UNC/UNF
UN
ASME B1.1



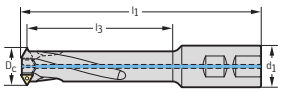




	P	M	K	N	S	H	O
T2712	●●	●●	●●	●	●●	●	●

Tool

Shank DIN 1835 B



	Designation	D_N [mm]	D_N [inches]	P_{max} mm	P_{max} TPI	D_c mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of indexable inserts	Type
★	T2712-17-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	
	T2712-24-W25-3-09	M 30	1.25"	3,50	7	24	79,5	148	25	3	3	P263 . 0-09 ..
	T2712-29-W32-3-09	M 36	1.50"	4,00	6	29	94,5	167	32	3	3	
	T2712-35-W32-3-11	M 42	1.75"	4,50	6	35	110,5	181	32	3	3	P26300-11 ..
	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	P263 . 0-14 ..
	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.

B5

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





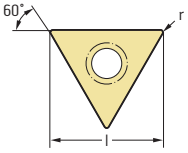


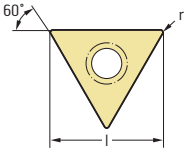


D_c [mm]	16,5–19	24–35	40–52
Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm
Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
Screwdriver	FS2086 (Torx 6IP)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

● ● ● / ★ New addition to the product range

Thread milling cutter inserts P26300





Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
P26300-0601-D67	6	0,1	1,40–2,90	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

Body designation	l_3 [mm]	Coarse-pitch thread: M20/ M22	M24 / M27	M30 / M33	M36 / M39	M42 / M45	M48 / M52	M56 / M59	M64 / M68	D_N [mm]	Fine-pitch thread, P [mm]: 1,5–2,5	3	3,5	4	4,5	5	5,5	6
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

Body designation	l_3 [mm]	UNC: 7/8-9	1-8	1 1/4-7	1 1/2-6	2 1/4-4.5	≥ 2 3/4-4	UNF: 7/8-14	1-12	1 1/8-12	1 1/4-12	1 3/8-12	1 1/2-12	D_N	UN, 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

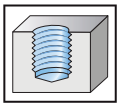
T2713 mm

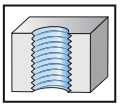


– Universal indexable insert thread milling cutter
– Radius correction values: Walter GPS/Technical information

M-MF
DIN 13

UNC/UNF
UN
ASME B1.1



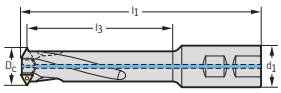


≤ 3×D_N

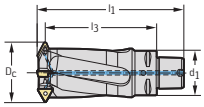
	P	M	K	N	S	H	O
T2713	●●	●●	●●	●	●●	●	●

Tool

Shank DIN 1835 B



Walter Capto™ in acc. with ISO 26623



Designation	D_N [mm]	D_N [inches]	P_{max} mm	P_{max} TPI	D_c mm	l_3 mm	l_1 mm	d_1 mm	Z	No. of indexable inserts	Type
★ T2713-17-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	
T2713-24-W25-3-09	M 30	1.25"	3,50	7	24	94,5	163	25	3	3	P263 . 0-09 ..
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	
T2713-44-W40-3-14	M 56	2.25"	5,50	4,5	44	175	258	40	3	3	P263 . 0-14 ..
T2713-52-W40-4-14	M 64	2.75"	6,00	4	52	199	281	40	4	4	
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.

B5

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





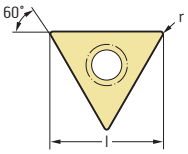


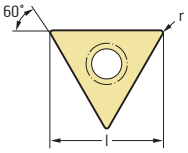


D_c [mm]	16,5–19	24–35	40–73	94
Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque			FS2248 1,0–6,0 Nm	
Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)	FS2015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

/ ★ New addition to the product range

Thread milling cutter inserts P26300





Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P HC WSM37S	M HC WSM37S	K HC WSM37S	N HC WSM37S	S HC WSM37S	H HC WSM37S	O HC WSM37S
P26300-0601-D67	6	0,1	1,40–2,90	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	○	○	○	○	○	○	
P26300-2204-D61	22	0,4	5,50–10,00	4,5–4	21,41	3	○	○	○	○	○	○	

HC = Coated carbide

Tool selection

Metric thread

Body designation	l_3 [mm]	Coarse-pitch thread: M20 / M22	M24 / M27	M30 / M33	M36 / M39	M42 / M45	M48 / M52	M56 / M59	M64 / M68	D_N [mm]	Fine-pitch thread, P [mm]: 1,5–2,5	3	3,5	4	4,5	5	5,5	6	7–10
T2713-17-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

Body designation	l_3 [mm]	UNC: 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	UNF: 7/8-14	1-12	≥ 1 1/8-12	≥ 1 3/8-12	D_N	UN, TPI: 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 their nominal diameter is ≥ 1.5".

B 5

Cutting data
Thread milling

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

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	T2710 / T2711 / T2712 / T2713			
	= Coolant recommended **E** = Emulsion **O** = Oil v_c = Cutting speed								f_z [mm]	
								v_c [m/min]	Insert size	
									06	09/11/14/22
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1	**E M**	200	0,3	0,4
		C > 0.25% to ≤ 0.55%	Annealed	190	639	P2	**E M**	200	0,3	0,4
		C > 0.25% to ≤ 0.55%	Heat-treated	210	708	P3	**E M**	200	0,3	0,4
		C > 0.55%	Annealed	190	639	P4	**E M**	200	0,3	0,4
		C > 0.55%	Heat-treated	300	1013	P5	**E M**	200	0,3	0,4
		Free-machining steel (short-chipping)	Annealed	220	745	P6	**E M**	200	0,3	0,4
	Low-alloy steel	Annealed		175	591	P7	**E M**	200	0,3	0,4
		Heat-treated		285	960	P8	**E M**	200	0,3	0,4
		Heat-treated		380	1282	P9	**E M**	150	0,25	0,35
		Heat-treated		430	1477	P10	**E M**	100	0,2	0,3
	High-alloy steel and high-alloy tool steel	Annealed		200	675	P11	**E M**	200	0,3	0,4
		Hardened and tempered		300	1013	P12	**E M**	200	0,3	0,4
		Hardened and tempered		380	1282	P13	**E M**	150	0,3	0,4
	Stainless steel	Ferritic/martensitic, annealed		200	675	P14	**E M**	200	0,25	0,35
		Martensitic, heat-treated		330	1114	P15	**E M**	150	0,25	0,35
M	Stainless steel	Austenitic, quench hardened		200	675	M1	**E**	200	0,2	0,3
		Austenitic, precipitation hardened (PH)		300	1013	M2	**E**	150	0,2	0,3
		Austenitic/ferritic, duplex		230	778	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	343	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	314	N4	**E M**	200	0,3	0,4
		> 12% Si, not hardenable		130	447	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	343	N7	**E M**	200	0,3	0,4
		Brass, bronze, red brass		90	314	N8	**E M**	200	0,3	0,4
		Cu alloys, short-chipping		110	382	N9	**E M**	200	0,3	0,4
		High tensile, Ampco		300	1013	N10	**E M**	50	0,3	0,4
S	Heat-resistant alloys	Fe-based	Annealed	200	675	S1	**E**	40	0,25	0,25
			Hardened	280	943	S2	**E**	25	0,15	0,15
		Ni- or Co-based	Annealed	250	839	S3	**E**	40	0,25	0,25
			Hardened	350	1177	S4	**E**	25	0,15	0,15
			Cast	320	1076	S5	**E**	30	0,2	0,2
	Titanium alloys	Pure titanium		200	675	S6	**E**	40	0,25	0,25
		α and β alloys, hardened		375	1262	S7	**E**	40	0,25	0,25
		β alloys		410	1396	S8	**E**	30	0,2	0,2
	Tungsten alloys			300	1013	S9	**E**	40	0,25	0,25
	Molybdenum alloys			300	1013	S10	**E**	40	0,25	0,25
H	Hardened steel	Hardened and tempered		50 HRC	–	H1	**M A**	45	0,2	0,3
		Hardened and tempered		55 HRC	–	H2	**M**	–	–	–
		Hardened and tempered		60 HRC	–	H3	**M**	–	–	–
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4	**M A**	45	0,2	0,3
O	Thermoplastics	Without abrasive fillers				O1	**E M**	200	0,3	0,4
	Thermosets	Without abrasive fillers				O2	**E M**	150	0,3	0,4
	Plastic, glass-fibre-reinforced	GFRP				O3	**E M**	50	0,3	0,4
	Plastic, carbon-fibre-reinforced	CFRP				O4	**E M**	50	0,3	0,4
	Plastic, aramid-fibre-reinforced	AFRP				O5	**E M**	50	0,3	0,4
	Graphite (technical)			65 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 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

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

Metric thread in accordance with DIN 13

Thread nominal diameter D_N	P	r	Radius correction		
			Minimum dimension for H tolerances	Middle of the tolerance range for a 6H tolerance	Middle of the tolerance range for a 6G tolerance
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
≥ 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	P	r	Radius correction		
			Minimum dimension	Middle of the tolerance range for a 2B tolerance	Middle of the tolerance range for a 3B tolerance
[inches]	[TPI]	[mm]	[mm]	[mm]	[mm]
≥ 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

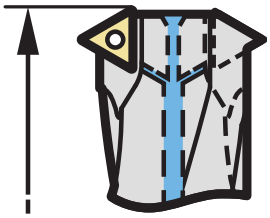
Thread nominal diameter D_N	P	r	Radius correction	
			Minimum dimension	Middle of the tolerance range
[inches]	[TPI]	[mm]	[mm]	[mm]
≥ 1" and < 2 1/4"	11	0,2	-0,11	-0,16
≥ 2 1/4"	11	0,2	-0,11	-0,17

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

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**

Application information
Walter T2710/T2711/T2712/T2713

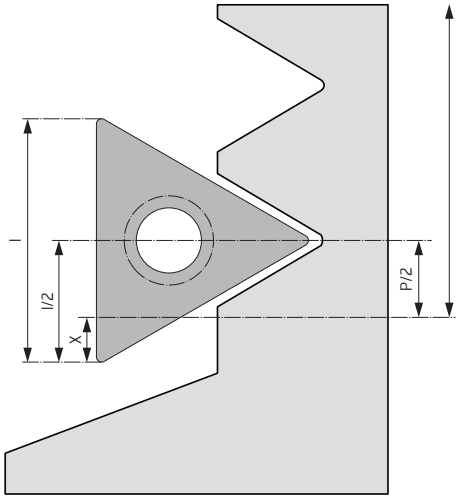


TOOL GAUGING

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.



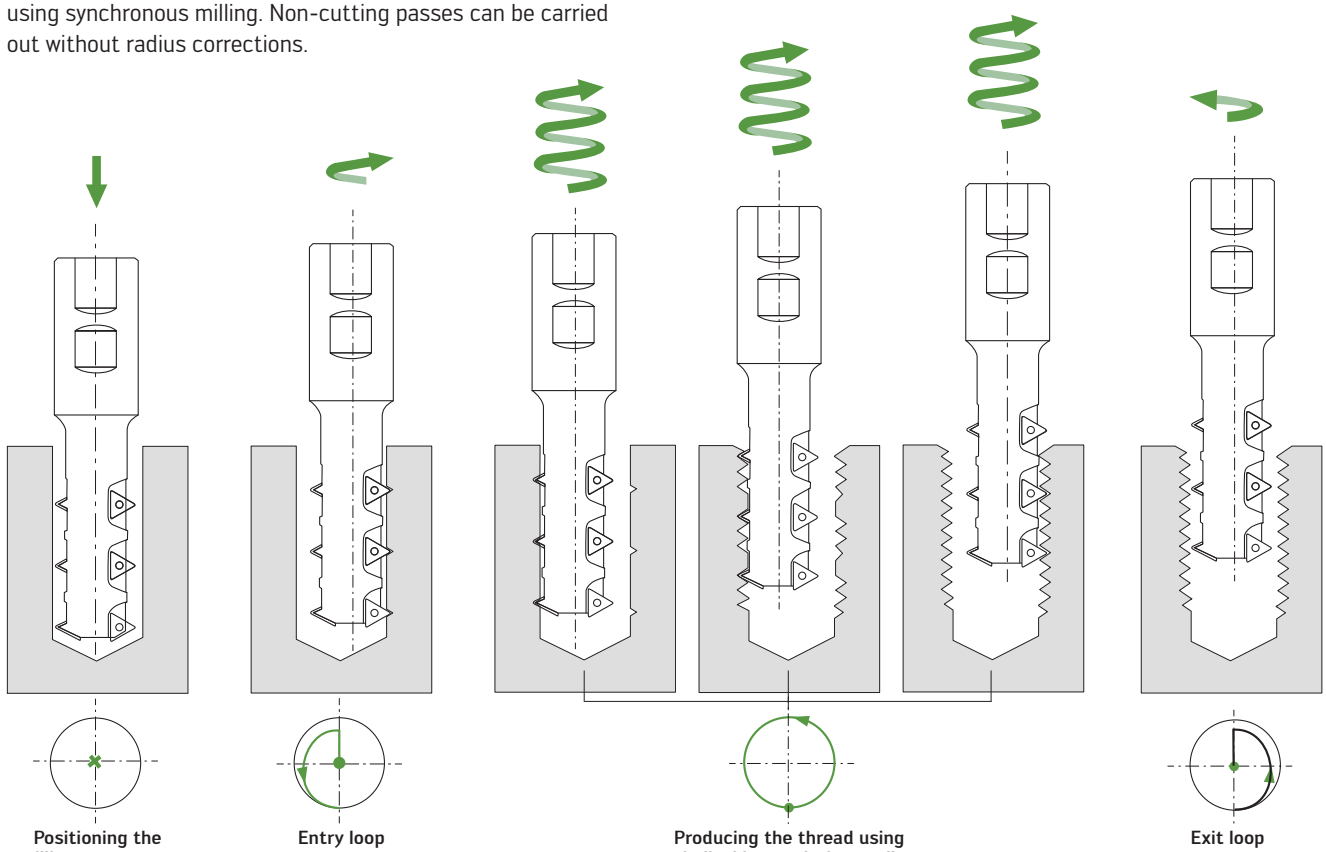
The unusable length of the T271.. families is less than the chamfer length of a tap.

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

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

THE STRATEGY

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



Positioning the milling cutter over core hole and plunging

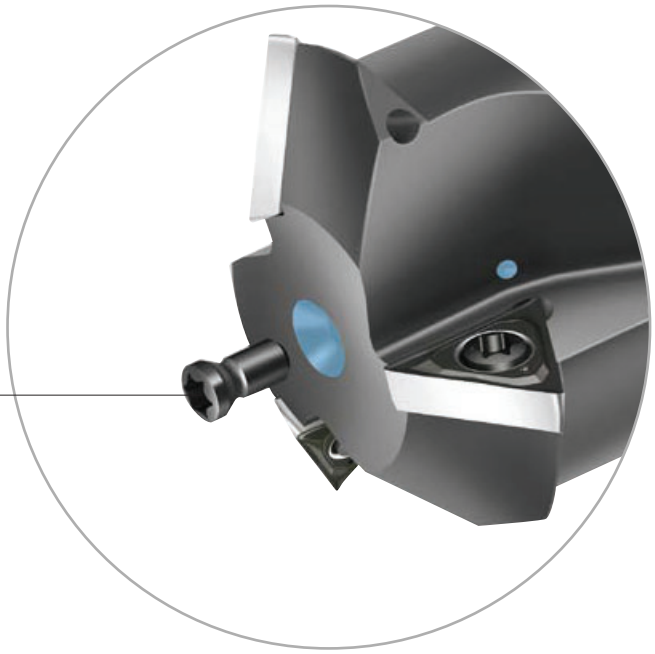
Entry loop

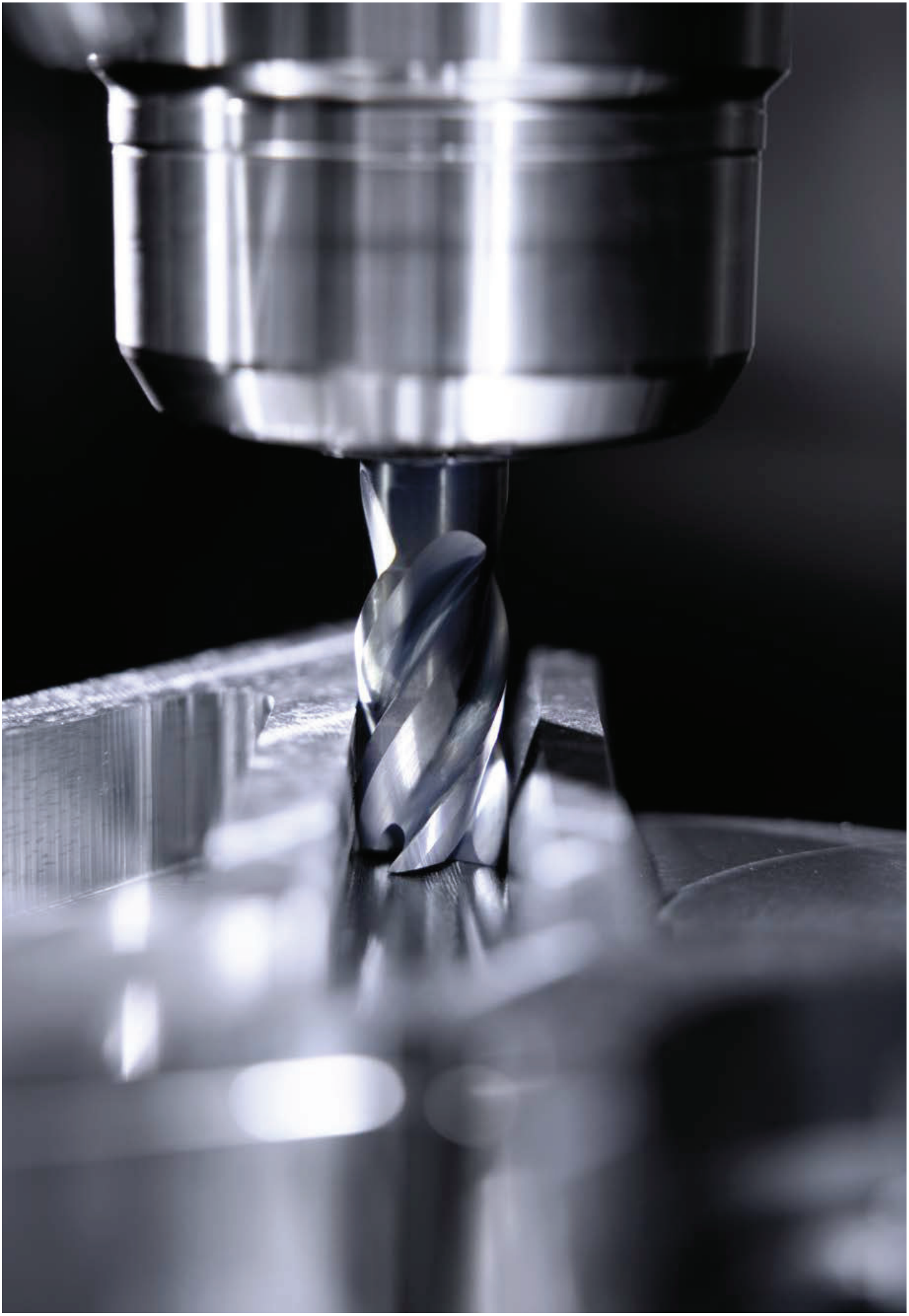
Producing the thread using helical interpolation until the row spacing is bridged

Exit loop

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.





Solid carbide and PCD milling tools – C1

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Product range overview of solid carbide milling tools

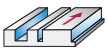
Shoulder milling cutters

Machining		
Helix angle	**50°**	
Designation	**MD128 Supreme**	**MC128 Advance**
Dia. range [mm]	6–25	2–25
Z	6–8	4–8
Corner radius [mm]	0–4	0–6,35
Page	235	236
		

Circle segment milling cutters

Machining		
Helix angle	**30°**	
Designation	**MD838 Supreme**	**MD839 Supreme**
Dia. range [mm]	1–8	2–8
Z	4–8	4
Corner radius [mm]	0,5–4	1–4
Page	247	248
		

Shoulder/slot milling cutters

Machining					
Helix angle	**30°**	**45°**	**40°**		**35° / 38°**
Designation	**MD266 Supreme**	**MC267 Advance**	**MD377 Supreme**	**MC377 Advance**	**MC230 Advance Xill·tec™**
Dia. range [mm]	2–25	1–20	6–25	2–25	2–25
Z	2–3	2–3	5	3–4	4
Corner radius [mm]	0–4	0–4	0,5–6,35	0–4	0–4
Page	238	240	242	243	244
					

C 1

Designation key – Solid carbide and PCD milling tools

Example:

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

1 Tool group

M	Milling

2 Generation

P	Tools with brazed cutting edge

3 Tool type

0	Face milling cutter, high-feed milling cutter
1	Shoulder milling cutter
2	Shoulder/slot/ helical milling cutter
3	Shoulder/slot/helical milling cutter Helix angle ≥ 40°
4	Ball nose mill/copy milling cutter
5	Profiling cutter
7	Routing cutter/ circular interpolation mill
8	Conical/circle segment milling cutter

4 Tool type

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
30	Universal	Helix angle 35°/38° UNI HPC geometry
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
60	ISO N	PCD brazed, continuous cutting edge
65	ISO N	30° helix angle, Al geometry, RAPAX G30 roughing profile, axial internal coolant
66	ISO N	30°–35° helix angle, Al geometry
67	ISO N	45° helix angle, Al geometry
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 Delimiters

–	Metric
.	Inch

6 Cutting diameter

7 Shank type

A	Parallel shank
B	Bore
E	ConeFit
T	ScrewFit
W	Weldon shank

8 Number of teeth

9 Design standard

A	DIN 6527 K
B	DIN 6527 L
C	ANSI stub
D	ANSI standard
L	P standard L
M	P standard mini
P	P standard
S	P standard S
X	P standard XL

10 Corner radius

11 Variant

A	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 XXXXL / $10 \times D_c$*
J	Lc S / $3 \times D_c$*
K	Lc M / $4 \times D_c$*
L	Lc L / $5 \times D_c$*
V	Conical neck $\alpha \leq 3°$
W	Conical neck $\alpha \leq 6°$
X	Conical neck $\alpha \leq 12°$

* Standard values

Grade designation key for solid carbide cutting tool materials

Example:

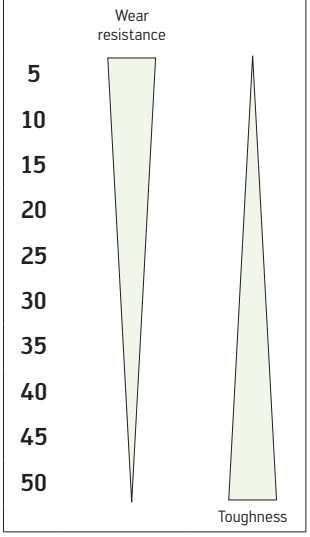
W	K	40	TF
Walter	1	2	3

1 – Substrate

Solid carbide

- B
- J
- K

2 – Range of applications



3 – Coating

TF	TiAlN
UU	Uncoated
CA	CrN
RC	TiAlN + AlTi
TZ	AlTiN + ZrN
ED	AlCrN
TG	TiAlSiN
RD	AlTiN + ZrN
RA	TiAlN + TiAl
EA	ACN

Grade designation key for PCD cutting tool materials

Example:

W	D	N	20
Walter	1	2	3

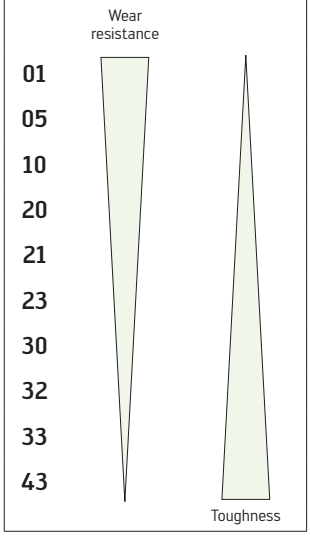
1 – Cutting tool material

D	Diamond

2 – Primary application

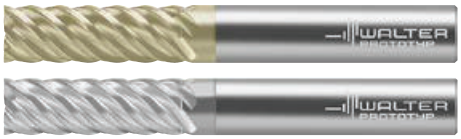
P	Steel
M	Stainless steel
K	Cast iron
N	NF metals
S	Materials with difficult cutting properties
H	Hard materials

3 – Range of applications

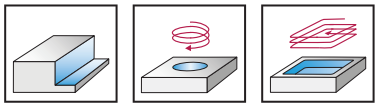


C 1

Solid carbide shoulder milling cutters
MD128 Supreme mm



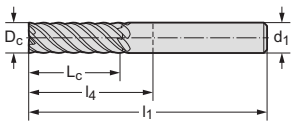
– Type N 50



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

PROTOTYP TOOLS STANDARD

Shank DIN 6535 HA

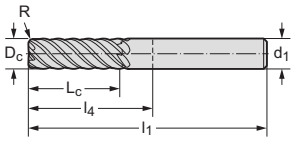


Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30RA	WJ30RD
MD128-06.0A6LJ-	6	18	65	29	6	6	☺	☺
MD128-08.0A6LJ-	8	24	68	32	8	6	☺	☺
MD128-10.0A6LJ-	10	30	80	40	10	6	☺	☺
MD128-12.0A6LJ-	12	36	93	48	12	6	☺	☺
MD128-16.0A6LJ-	16	48	115	67	16	6	☺	☺
MD128-20.0A8LJ-	20	60	125	75	20	8	☺	☺
MD128-25.0A8LJ-	25	75	150	94	25	8	☺	☺

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

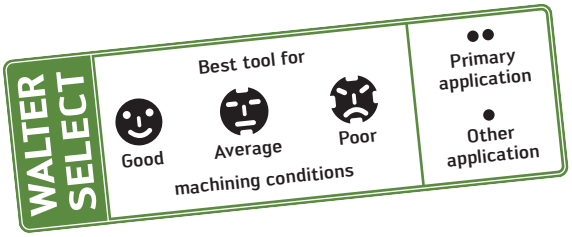
PROTOTYP TOOLS STANDARD

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	☺	☺

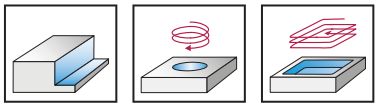
Ordering example for the WJ30RA grade: MD128-06.0A6L050J-WJ30RA

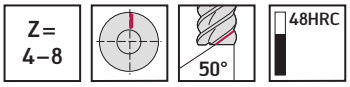


Solid carbide shoulder milling cutters
MC128 Advance mm / MC128 Advance inch



– Type N 50

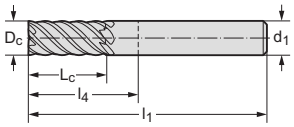




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

DIN 6527 L

Shank DIN 6535 HA

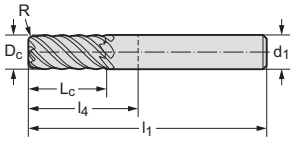


Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC128-02.0A4B-	2	7	57	21	6	4	☹
MC128-03.0A4B-	3	8	57	21	6	4	☹
MC128-04.0A4B-	4	11	57	21	6	4	☹
MC128-05.0A5B-	5	13	57	21	6	5	☹
MC128-06.0A6B-	6	13	57	21	6	6	☹
MC128-08.0A6B-	8	19	63	27	8	6	☹
MC128-10.0A6B-	10	22	72	32	10	6	☹
MC128-12.0A6B-	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

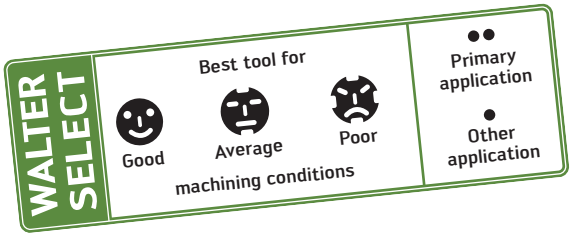
Shank DIN 6535 HA



Designation	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
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	☹

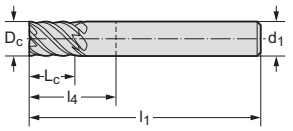
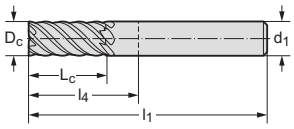
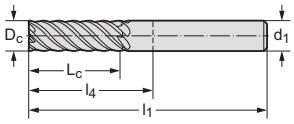
Ordering example for the WJ30TF grade: MC128-06.0A6B050-WJ30TF

Continued



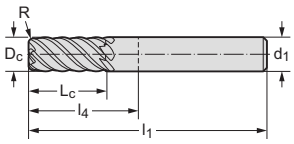
Continued

STANDARD

	Designation	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

	Designation	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	●

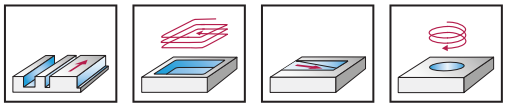
Ordering example for the WJ30TF grade: MC128.6.35A6D038-WJ30TF

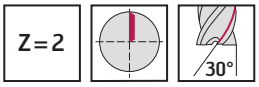
C 1

Solid carbide shoulder/slot milling cutters
MD266 Supreme mm



– Long reach





	P	M	K	N	S	H	O
WJ30UU				●●			

PROTOTYP TOOLS STANDARD

	Designation	D_c mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30UU
Shank DIN 6535 HA	MD266-02.0A2BE-	2	6	10	1,9	57	20	6	2	☺
	MD266-03.0A2BD-	3	7,5	12	2,9	57	20	6	2	☺
	MD266-04.0A2BD-	4	8	16	3,8	57	20	6	2	☺
	MD266-05.0A2LD-	5	7,5	20	4,8	65	26	6	2	☺
	MD266-05.0A2BC-	5	10	18	4,8	57	20	6	2	☺
Shank DIN 6535 HA	MD266-06.0A2LD-	6	10,5	25	5,7	65	26	6	2	☺
	MD266-08.0A2LE-	8	12	42	7,6	80	43	8	2	☺
	MD266-10.0A2LD-	10	15	48	9,5	90	49	10	2	☺
	MD266-10.0A2BC-	10	20	30	9,5	72	31	10	2	☺
	MD266-12.0A2LD-	12	18	53	11,4	100	54	12	2	☺
	MD266-16.0A2LD-	16	24	65	15,2	115	66	16	2	☺
	MD266-20.0A2LC-	20	25	73	19	125	74	20	2	☺

Ordering example for the WJ30UU grade: MD266-02.0A2BE-WJ30UU

PROTOTYP TOOLS STANDARD

	Designation	D_c mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30UU
Shank DIN 6535 HA	MD266-02.0A2B020E-	2	0,2	6	10	1,9	57	20	6	2	☺
	MD266-03.0A2B030D-	3	0,3	8	12	2,9	57	20	6	2	☺
	MD266-04.0A2B030D-	4	0,3	8	16	3,8	57	20	6	2	☺
	MD266-05.0A2L050D-	5	0,5	8	20	4,8	65	26	6	2	☺
	MD266-05.0A2B050C-	5	0,5	10	18	4,8	57	20	6	2	☺
Shank DIN 6535 HA	MD266-06.0A2L050D-	6	0,5	11	25	5,7	65	26	6	2	☺
	MD266-06.0A2L100D-	6	1	11	25	5,7	65	26	6	2	☺
	MD266-08.0A2L050E-	8	0,5	12	42	7,6	80	43	8	2	☺
	MD266-08.0A2L100E-	8	1	12	42	7,6	80	43	8	2	☺
	MD266-08.0A2L200E-	8	2	12	42	7,6	80	43	8	2	☺
	MD266-10.0A2L050D-	10	0,5	15	48	9,5	90	49	10	2	☺
	MD266-10.0A2B050C-	10	0,5	20	30	9,5	72	31	10	2	☺
	MD266-10.0A2L100D-	10	1	15	48	9,5	90	49	10	2	☺
	MD266-10.0A2B100C-	10	1	20	30	9,5	72	31	10	2	☺
	MD266-10.0A2L200D-	10	2	15	48	9,5	90	49	10	2	☺
	MD266-10.0A2B200C-	10	2	20	30	9,5	72	31	10	2	☺
	MD266-12.0A2L050D-	12	0,5	18	53	11,4	100	54	12	2	☺
	MD266-12.0A2L200D-	12	2	18	53	11,4	100	54	12	2	☺
	MD266-12.0A2L300D-	12	3	18	53	11,4	100	54	12	2	☺
	MD266-16.0A2L050D-	16	0,5	24	65	15,2	115	66	16	2	☺
	MD266-16.0A2L200D-	16	2	24	65	15,2	115	66	16	2	☺
	MD266-16.0A2L300D-	16	3	24	65	15,2	115	66	16	2	☺
	MD266-16.0A2L400D-	16	4	24	65	15,2	115	66	16	2	☺
	MD266-20.0A2L050C-	20	0,5	25	73	19	125	74	20	2	☺
	MD266-20.0A2L300C-	20	3	25	73	19	125	74	20	2	☺
	MD266-20.0A2L400C-	20	4	25	73	19	125	74	20	2	☺

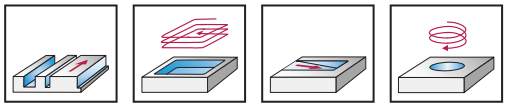
Ordering example for the WJ30UU grade: MD266-02.0A2B020E-WJ30UU

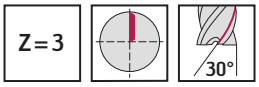
☺☺☺ / ★ New addition to the product range

Solid carbide shoulder/slot milling cutters
MD266 Supreme mm



– Long reach

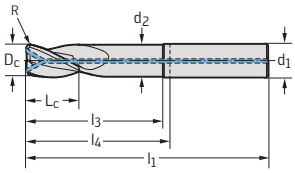




	P	M	K	N	S	H	O
WJ30UU				●●			

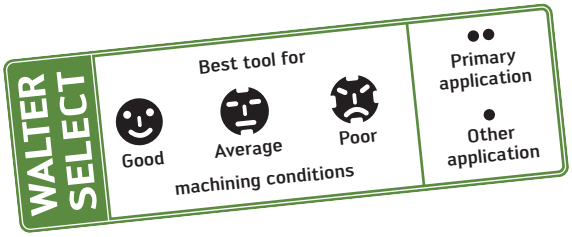
PROTOTYP TOOLS STANDARD

Shank DIN 6535 HA



Designation	D_c mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30UU
MD266-10.0A3L050D-	10	0,5	15	48	9,5	90	49	10	3	☺
MD266-10.0A3B050C-	10	0,5	20	30	9,5	72	31	10	3	☺
MD266-10.0A3L100D-	10	1	15	48	9,5	90	49	10	3	☺
MD266-10.0A3B100C-	10	1	20	30	9,5	72	31	10	3	☺
MD266-10.0A3L200D-	10	2	15	48	9,5	90	49	10	3	☺
MD266-10.0A3B200C-	10	2	20	30	9,5	72	31	10	3	☺
MD266-12.0A3X050E-	12	0,5	12	68	11,4	115	69	12	3	☺
MD266-12.0A3L050D-	12	0,5	18	53	11,4	100	54	12	3	☺
MD266-12.0A3B050C-	12	0,5	24	36	11,4	83	37	12	3	☺
MD266-12.0A3X200E-	12	2	12	68	11,4	115	69	12	3	☺
MD266-12.0A3L200D-	12	2	18	53	11,4	100	54	12	3	☺
MD266-12.0A3B200C-	12	2	24	36	11,4	83	37	12	3	☺
MD266-12.0A3X300E-	12	3	12	68	11,4	115	69	12	3	☺
MD266-12.0A3L300D-	12	3	18	53	11,4	100	54	12	3	☺
MD266-12.0A3B300C-	12	3	24	36	11,4	83	37	12	3	☺
MD266-16.0A3X050E-	16	0,5	16	80	15,2	130	81	16	3	☺
MD266-16.0A3L050D-	16	0,5	24	65	15,2	115	66	16	3	☺
MD266-16.0A3B050C-	16	0,5	32	42	15,2	92	43	16	3	☺
MD266-16.0A3X200E-	16	2	16	80	15,2	130	81	16	3	☺
MD266-16.0A3L200D-	16	2	24	65	15,2	115	66	16	3	☺
MD266-16.0A3B200C-	16	2	32	42	15,2	92	43	16	3	☺
MD266-16.0A3X300E-	16	3	16	80	15,2	130	81	16	3	☺
MD266-16.0A3L300D-	16	3	24	65	15,2	115	66	16	3	☺
MD266-16.0A3B300C-	16	3	32	42	15,2	92	43	16	3	☺
MD266-16.0A3X400E-	16	4	16	80	15,2	130	81	16	3	☺
MD266-16.0A3L400D-	16	4	24	65	15,2	115	66	16	3	☺
MD266-16.0A3B400C-	16	4	32	42	15,2	92	43	16	3	☺
MD266-20.0A3X050D-	20	0,5	20	88	19	140	89	20	3	☺
MD266-20.0A3L050C-	20	0,5	25	73	19	125	74	20	3	☺
MD266-20.0A3X300D-	20	3	20	88	19	140	89	20	3	☺
MD266-20.0A3L300C-	20	3	25	73	19	125	74	20	3	☺
MD266-20.0A3X400D-	20	4	20	88	19	140	89	20	3	☺
MD266-20.0A3L400C-	20	4	25	73	19	125	74	20	3	☺
MD266-25.0A3X050C-	25	0,5	25	92	23,8	150	93	25	3	☺
MD266-25.0A3L050B-	25	0,5	38	72	23,8	130	73	25	3	☺
MD266-25.0A3B050B-	25	0,5	44	52	23,8	110	53	25	3	☺
MD266-25.0A3X300C-	25	3	25	92	23,8	150	93	25	3	☺
MD266-25.0A3L300B-	25	3	38	72	23,8	130	73	25	3	☺
MD266-25.0A3B300B-	25	3	44	52	23,8	110	53	25	3	☺
MD266-25.0A3X400C-	25	4	25	92	23,8	150	93	25	3	☺
MD266-25.0A3L400B-	25	4	38	72	23,8	130	73	25	3	☺
MD266-25.0A3B400B-	25	4	44	52	23,8	110	53	25	3	☺

Ordering example for the WJ30UU grade: MD266-10.0A3L050D-WJ30UU

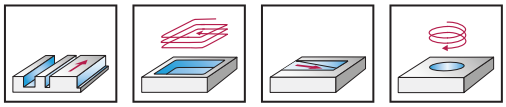


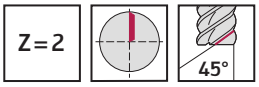
C 1

Solid carbide shoulder/slot milling cutters
MC267 Advance mm



– Type AI 45

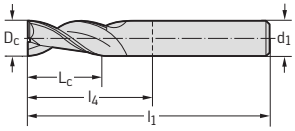




	P	M	K	N	S	H	O
WJ30UU				●●			

DIN 6527 L

Shank DIN 6535 HA

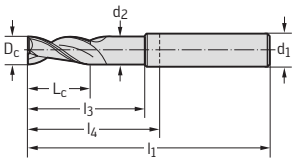


Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30UU
MC267-01.0A2B-	1	3	57	21	6	2	☺
MC267-01.5A2B-	1,5	3	57	21	6	2	☺
MC267-02.0A2B-	2	6	57	21	6	2	☺
MC267-02.5A2B-	2,5	7	57	21	6	2	☺
MC267-03.0A2B-	3	7	57	21	6	2	☺
MC267-03.5A2B-	3,5	7	57	21	6	2	☺
MC267-04.0A2B-	4	8	57	21	6	2	☺

Ordering example for the WJ30UU grade: MC267-01.0A2B-WJ30UU

DIN 6527 L

Shank DIN 6535 HA



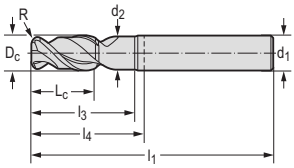
Designation	D_c mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30UU
MC267-01.0A2BC-	1	3	7	1,0	57	21	6	2	☺
MC267-01.5A2BC-	1,5	3	7	1,4	57	21	6	2	☺
MC267-02.0A2BC-	2	6	10	1,9	57	21	6	2	☺
MC267-02.5A2BC-	2,5	7	10	2,4	57	21	6	2	☺
MC267-03.0A2BC-	3	7	10	2,9	57	21	6	2	☺
MC267-03.5A2BC-	3,5	7	15	3,3	57	21	6	2	☺
MC267-04.0A2BC-	4	8	15	3,8	57	21	6	2	☺
MC267-05.0A2BC-	5	10	16	4,8	57	21	6	2	☺
MC267-06.0A2BC-	6	10	19	5,7	57	21	6	2	☺
MC267-08.0A2BC-	8	16	25	7,6	63	27	8	2	☺
MC267-10.0A2BC-	10	19	30	9,5	72	32	10	2	☺
MC267-12.0A2BC-	12	22	36	11,4	83	38	12	2	☺
MC267-16.0A2BC-	16	26	42	15,2	92	44	16	2	☺
MC267-20.0A2BC-	20	32	52	19	104	54	20	2	☺

Ordering example for the WJ30UU grade: MC267-01.0A2BC-WJ30UU

C 1

DIN 6527 L

Shank DIN 6535 HA

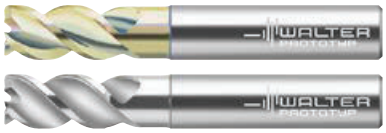


Designation	D_c mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30UU
MC267-05.0A2B050C-	5	0,5	10	16	4,8	57	21	6	2	☺
MC267-06.0A2B050C-	6	0,5	10	19	5,7	57	21	6	2	☺
MC267-08.0A2B050C-	8	0,5	16	25	7,6	63	27	8	2	☺
MC267-10.0A2B050C-	10	0,5	19	30	9,5	72	32	10	2	☺
MC267-10.0A2B100C-	10	1	19	30	9,5	72	32	10	2	☺
MC267-10.0A2B200C-	10	2	19	30	9,5	72	32	10	2	☺
MC267-12.0A2B050C-	12	0,5	22	36	11,4	83	38	12	2	☺
MC267-12.0A2B100C-	12	1	22	36	11,4	83	38	12	2	☺
MC267-12.0A2B200C-	12	2	22	36	11,4	83	38	12	2	☺
MC267-12.0A2B300C-	12	3	22	36	11,4	83	38	12	2	☺
MC267-16.0A2B050C-	16	0,5	26	42	15,2	92	44	16	2	☺
MC267-16.0A2B300C-	16	3	26	42	15,2	92	44	16	2	☺
MC267-16.0A2B400C-	16	4	26	42	15,2	92	44	16	2	☺
MC267-20.0A2B050C-	20	0,5	32	52	19	104	54	20	2	☺
MC267-20.0A2B300C-	20	3	32	52	19	104	54	20	2	☺
MC267-20.0A2B400C-	20	4	32	52	19	104	54	20	2	☺

Ordering example for the WJ30UU grade: MC267-05.0A2B050C-WJ30UU

☺☺☺ / ★ New addition to the product range

Solid carbide shoulder/slot milling cutters
MC267 Advance mm

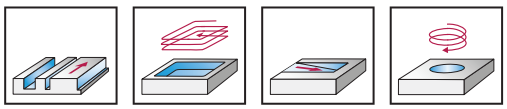


Z=3





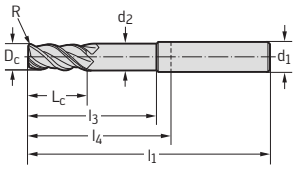
– Type Al 45



	P	M	K	N	S	H	O
WJ30CA				●●			
WJ30UU				●●			

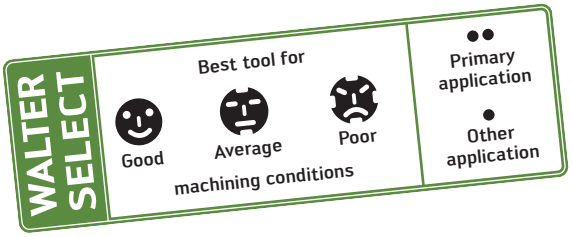
DIN 6527 L

Shank DIN 6535 HA



Designation	D_c mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30CA	WJ30UU
MC267-01.0A3B020C-	1	0,2	3	7	1,0	57	21	6	3	☺	☺
MC267-02.0A3B020C-	2	0,2	6	10	1,9	57	21	6	3	☺	☺
MC267-03.0A3B020C-	3	0,2	7	10	2,9	57	21	6	3	☺	☺
MC267-04.0A3B030C-	4	0,3	8	15	3,8	57	21	6	3	☺	☺
MC267-05.0A3B050C-	5	0,5	10	16	4,8	57	21	6	3	☺	☺
MC267-06.0A3B050C-	6	0,5	10	19	5,7	57	21	6	3	☺	☺
MC267-08.0A3B050C-	8	0,5	16	25	7,6	63	27	8	3	☺	☺
MC267-10.0A3B050C-	10	0,5	19	30	9,5	72	32	10	3	☺	☺
MC267-12.0A3B050C-	12	0,5	22	36	11,4	83	38	12	3	☺	☺
MC267-16.0A3B050C-	16	0,5	26	42	15,2	92	44	16	3	☺	☺
MC267-20.0A3B050C-	20	0,5	32	52	19	104	54	20	3	☺	☺

Ordering example for the WJ30CA grade: MC267-01.0A3B020C-WJ30CA

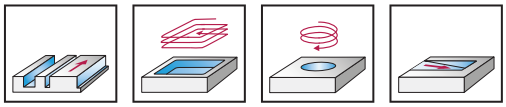


C 1

Solid carbide shoulder/slot milling cutters
MD377 Supreme mm



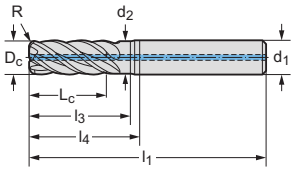
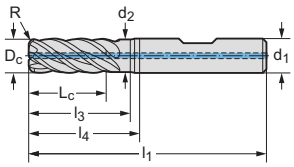
– Long reach
– Type HPC Ti40



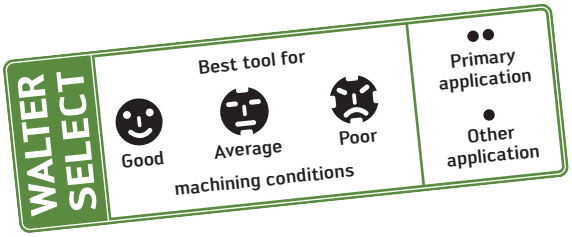


	P	M	K	N	S	H	O
WK40TZ		●			●●		

DIN 6527 L

Designation	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										
										
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	●
MD377-20.0A5B400C-	20	4	38	52	19	104	54	20	5	●
MD377-25.0A5B300C-	25	3	45	63	23,8	121	65	25	5	●
MD377-25.0A5B400C-	25	4	45	63	23,8	121	65	25	5	●
MD377-25.0A5B635C-	25	6,35	45	63	23,8	121	65	25	5	●
Shank DIN 6535 HB										
										
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	23,8	121	65	25	5	●
MD377-25.0W5B400C-	25	4	45	63	23,8	121	65	25	5	●

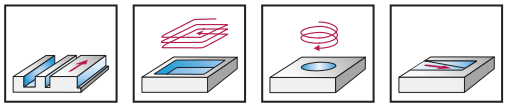
Ordering example for the WK40TZ grade: MD377-06.0A5B050C-WK40TZ

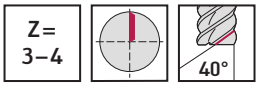


Solid carbide shoulder/slot milling cutters
MC377 Advance mm



– Long reach
– Type Ti 40

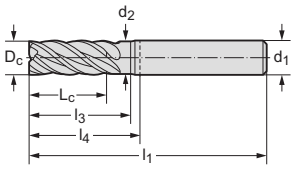




	P	M	K	N	S	H	O
WK40EA	●	●			●●		

DIN 6527 L

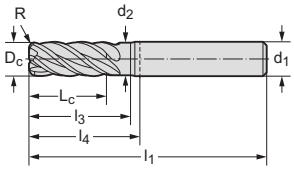
Designation	D_c h9 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40EA
Shank DIN 6535 HA									
MC377-02.0A3BC-	2	6	10	1,9	57	21	6	3	●
MC377-03.0A4BC-	3	8	10	2,9	57	21	6	4	●
MC377-04.0A4BC-	4	11	15	3,8	57	21	6	4	●
MC377-05.0A4BC-	5	13	16	4,8	57	21	6	4	●
MC377-06.0A4BC-	6	13	19	5,7	57	21	6	4	●
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	●

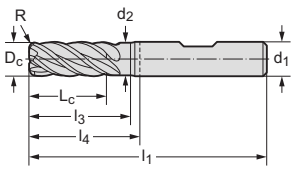


Ordering example for the WK40EA grade: MC377-02.0A3BC-WK40EA

DIN 6527 L

Designation	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										
MC377-02.0A3B020C-	2	0,2	6	10	1,9	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	4,8	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	●
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	23,8	121	65	25	4	●
MC377-25.0A4B400C-	25	4	45	63	23,8	121	65	25	4	●
Shank DIN 6535 HB										
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	23,8	121	65	25	4	●
MC377-25.0W4B400C-	25	4	45	63	23,8	121	65	25	4	●





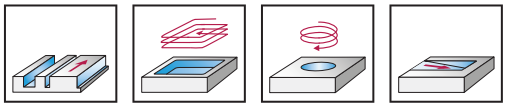
Ordering example for the WK40EA grade: MC377-02.0A3B020C-WK40EA

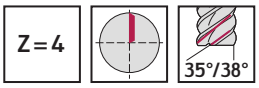
C 1

Solid carbide shoulder/slot milling cutters
MC230 Advance mm
Xill·tec™

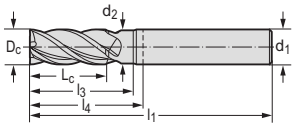
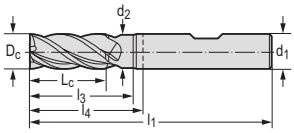


– Long reach



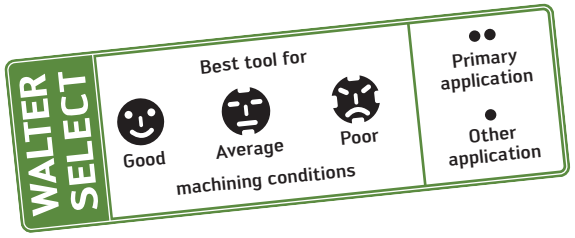


	P	M	K	N	S	H	O
WK40TF	●●	●	●	●	●		

DIN 6527 L	Designation	D_c h10 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40TF
Shank DIN 6535 HA	MC230-02.0A4BC-	2	7	11	1,9	57	21	6	4	
	MC230-02.5A4BC-	2,5	8	12	2,4	57	21	6	4	
	MC230-03.0A4BC-	3	8	12	2,9	57	21	6	4	
	MC230-03.5A4BC-	3,5	10	15	3,3	57	21	6	4	
	MC230-04.0A4BC-	4	11	15	3,8	57	21	6	4	
	MC230-04.5A4BC-	4,5	11	18	4,3	57	21	6	4	
	MC230-05.0A4BC-	5	13	18	4,8	57	21	6	4	
	MC230-05.5A4BC-	5,5	13	19	5,2	57	21	6	4	
	MC230-06.0A4BC-	6	13	19	5,7	57	21	6	4	
	MC230-06.5A4BC-	6,5	16	25	6,2	63	27	8	4	
	MC230-07.0A4BC-	7	16	25	6,7	63	27	8	4	
	MC230-08.0A4BC-	8	19	25	7,6	63	27	8	4	
	MC230-09.0A4BC-	9	19	30	8,6	72	32	10	4	
	MC230-10.0A4BC-	10	22	30	9,5	72	32	10	4	
	MC230-12.0A4BC-	12	26	36	11,4	83	38	12	4	
	MC230-14.0A4BC-	14	26	36	13,3	83	38	14	4	
	MC230-16.0A4BC-	16	32	42	15,2	92	44	16	4	
	MC230-18.0A4BC-	18	32	42	17,1	92	44	18	4	
	MC230-20.0A4BC-	20	38	52	19	104	54	20	4	
Shank DIN 6535 HB	MC230-02.0W4BC-	2	7	11	1,9	57	21	6	4	
	MC230-02.5W4BC-	2,5	8	12	2,4	57	21	6	4	
	MC230-03.0W4BC-	3	8	12	2,9	57	21	6	4	
	MC230-04.0W4BC-	4	11	15	3,8	57	21	6	4	
	MC230-05.0W4BC-	5	13	18	4,8	57	21	6	4	
	MC230-06.0W4BC-	6	13	19	5,7	57	21	6	4	
	MC230-07.0W4BC-	7	16	25	6,7	63	27	8	4	
	MC230-08.0W4BC-	8	19	25	7,6	63	27	8	4	
	MC230-09.0W4BC-	9	19	30	8,6	72	32	10	4	
	MC230-10.0W4BC-	10	22	30	9,5	72	32	10	4	
	MC230-12.0W4BC-	12	26	36	11,4	83	38	12	4	
	MC230-14.0W4BC-	14	26	36	13,3	83	38	14	4	
	MC230-16.0W4BC-	16	32	42	15,2	92	44	16	4	
	MC230-18.0W4BC-	18	32	42	17,1	92	44	18	4	
	MC230-20.0W4BC-	20	38	52	19	104	54	20	4	
	MC230-25.0W4BC-	25	45	63	23,8	121	65	25	4	

Ordering example for the WK40TF grade: MC230-02.0A4BC-WK40TF

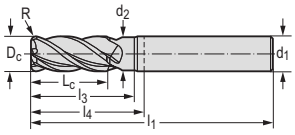
Continued



●●● / ★ New addition to the product range

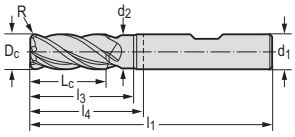
DIN 6527 L

Shank DIN 6535 HA



Designation	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	WK40TF
MC230-02.0A4B020C-	2	0,2	7	11	1,9	57	21	6	4	
MC230-03.0A4B030C-	3	0,3	8	12	2,9	57	21	6	4	
MC230-03.0A4B050C-	3	0,5	8	12	2,9	57	21	6	4	
MC230-04.0A4B020C-	4	0,2	11	15	3,8	57	21	6	4	
MC230-04.0A4B050C-	4	0,5	11	15	3,8	57	21	6	4	
MC230-05.0A4B050C-	5	0,5	13	18	4,8	57	21	6	4	
MC230-05.0A4B100C-	5	1	13	18	4,8	57	21	6	4	
MC230-06.0A4B050C-	6	0,5	13	19	5,7	57	21	6	4	
MC230-06.0A4B080C-	6	0,8	13	19	5,7	57	21	6	4	
MC230-06.0A4B100C-	6	1	13	19	5,7	57	21	6	4	
MC230-08.0A4B050C-	8	0,5	19	25	7,6	63	27	8	4	
MC230-08.0A4B080C-	8	0,8	19	25	7,6	63	27	8	4	
MC230-08.0A4B100C-	8	1	19	25	7,6	63	27	8	4	
MC230-08.0A4B150C-	8	1,5	19	25	7,6	63	27	8	4	
MC230-08.0A4B200C-	8	2	19	25	7,6	63	27	8	4	
MC230-10.0A4B050C-	10	0,5	22	30	9,5	72	32	10	4	
MC230-10.0A4B080C-	10	0,8	22	30	9,5	72	32	10	4	
MC230-10.0A4B100C-	10	1	22	30	9,5	72	32	10	4	
MC230-10.0A4B150C-	10	1,5	22	30	9,5	72	32	10	4	
MC230-10.0A4B200C-	10	2	22	30	9,5	72	32	10	4	
MC230-12.0A4B050C-	12	0,5	26	36	11,4	83	38	12	4	
MC230-12.0A4B080C-	12	0,8	26	36	11,4	83	38	12	4	
MC230-12.0A4B100C-	12	1	26	36	11,4	83	38	12	4	
MC230-12.0A4B150C-	12	1,5	26	36	11,4	83	38	12	4	
MC230-12.0A4B200C-	12	2	26	36	11,4	83	38	12	4	
MC230-12.0A4B250C-	12	2,5	26	36	11,4	83	38	12	4	
MC230-12.0A4B300C-	12	3	26	36	11,4	83	38	12	4	
MC230-16.0A4B050C-	16	0,5	32	42	15,2	92	44	16	4	
MC230-16.0A4B100C-	16	1	32	42	15,2	92	44	16	4	
MC230-16.0A4B200C-	16	2	32	42	15,2	92	44	16	4	
MC230-16.0A4B250C-	16	2,5	32	42	15,2	92	44	16	4	
MC230-16.0A4B300C-	16	3	32	42	15,2	92	44	16	4	
MC230-16.0A4B400C-	16	4	32	42	15,2	92	44	16	4	
MC230-20.0A4B050C-	20	0,5	38	52	19	104	54	20	4	
MC230-20.0A4B100C-	20	1	38	52	19	104	54	20	4	
MC230-20.0A4B200C-	20	2	38	52	19	104	54	20	4	
MC230-20.0A4B250C-	20	2,5	38	52	19	104	54	20	4	
MC230-20.0A4B300C-	20	3	38	52	19	104	54	20	4	
MC230-20.0A4B400C-	20	4	38	52	19	104	54	20	4	

Shank DIN 6535 HB



Designation	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	WK40TF
MC230-05.0W4B050C-	5	0,5	13	18	4,8	57	21	6	4	
MC230-06.0W4B050C-	6	0,5	13	19	5,7	57	21	6	4	
MC230-06.0W4B080C-	6	0,8	13	19	5,7	57	21	6	4	
MC230-06.0W4B100C-	6	1	13	19	5,7	57	21	6	4	
MC230-08.0W4B050C-	8	0,5	19	25	7,6	63	27	8	4	
MC230-08.0W4B080C-	8	0,8	19	25	7,6	63	27	8	4	
MC230-08.0W4B100C-	8	1	19	25	7,6	63	27	8	4	
MC230-08.0W4B150C-	8	1,5	19	25	7,6	63	27	8	4	
MC230-08.0W4B200C-	8	2	19	25	7,6	63	27	8	4	
MC230-10.0W4B050C-	10	0,5	22	30	9,5	72	32	10	4	
MC230-10.0W4B080C-	10	0,8	22	30	9,5	72	32	10	4	
MC230-10.0W4B100C-	10	1	22	30	9,5	72	32	10	4	
MC230-10.0W4B150C-	10	1,5	22	30	9,5	72	32	10	4	
MC230-10.0W4B200C-	10	2	22	30	9,5	72	32	10	4	
MC230-12.0W4B050C-	12	0,5	26	36	11,4	83	38	12	4	
MC230-12.0W4B080C-	12	0,8	26	36	11,4	83	38	12	4	
MC230-12.0W4B100C-	12	1	26	36	11,4	83	38	12	4	
MC230-12.0W4B150C-	12	1,5	26	36	11,4	83	38	12	4	
MC230-12.0W4B200C-	12	2	26	36	11,4	83	38	12	4	
MC230-12.0W4B250C-	12	2,5	26	36	11,4	83	38	12	4	
MC230-12.0W4B300C-	12	3	26	36	11,4	83	38	12	4	
MC230-16.0W4B050C-	16	0,5	32	42	15,2	92	44	16	4	

Ordering example for the WK40TF grade: MC230-02.0A4B020C-WK40TF

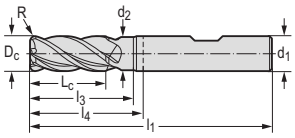
Continued

C 1

Continued

DIN 6527 L

Shank DIN 6535 HB



Designation	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	WK40TF
MC230-16.0W4B100C-	16	1	32	42	15,2	92	44	16	4	●
MC230-16.0W4B200C-	16	2	32	42	15,2	92	44	16	4	●
MC230-16.0W4B250C-	16	2,5	32	42	15,2	92	44	16	4	●
MC230-16.0W4B300C-	16	3	32	42	15,2	92	44	16	4	●
MC230-16.0W4B400C-	16	4	32	42	15,2	92	44	16	4	●
MC230-20.0W4B050C-	20	0,5	38	52	19	104	54	20	4	●
MC230-20.0W4B100C-	20	1	38	52	19	104	54	20	4	●
MC230-20.0W4B200C-	20	2	38	52	19	104	54	20	4	●
MC230-20.0W4B250C-	20	2,5	38	52	19	104	54	20	4	●
MC230-20.0W4B300C-	20	3	38	52	19	104	54	20	4	●
MC230-20.0W4B400C-	20	4	38	52	19	104	54	20	4	●
MC230-25.0W4B100C-	25	1	45	63	23,8	121	65	25	4	●
MC230-25.0W4B200C-	25	2	45	63	23,8	121	65	25	4	●
MC230-25.0W4B300C-	25	3	45	63	23,8	121	65	25	4	●
MC230-25.0W4B400C-	25	4	45	63	23,8	121	65	25	4	●

Ordering example for the WK40TF grade: MC230-02.0A4B020C-WK40TF

● / ★ New addition to the product range

Solid carbide circle segment milling cutters
MD838 Supreme mm

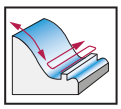


Z= 4–8





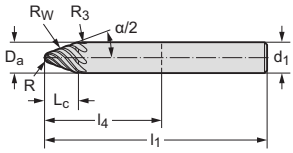
– Conical



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

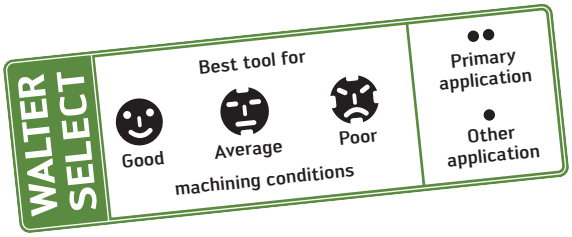
PROTOTYP TOOLS STANDARD

Shank DIN 6535 HA



Designation	α/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



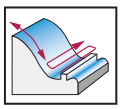
C 1

Solid carbide circle segment milling cutters
MD839 Supreme mm



Z=4 | 30°

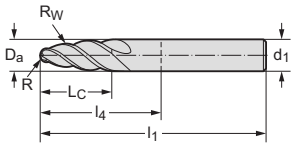
– Tangential



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

PROTOTYP TOOLS STANDARD

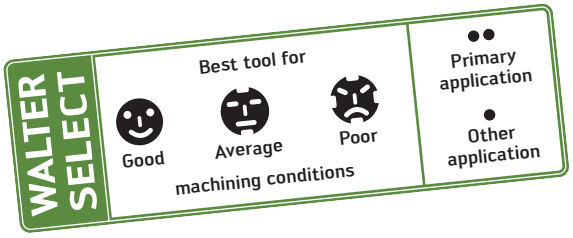
Shank DIN 6535 HA

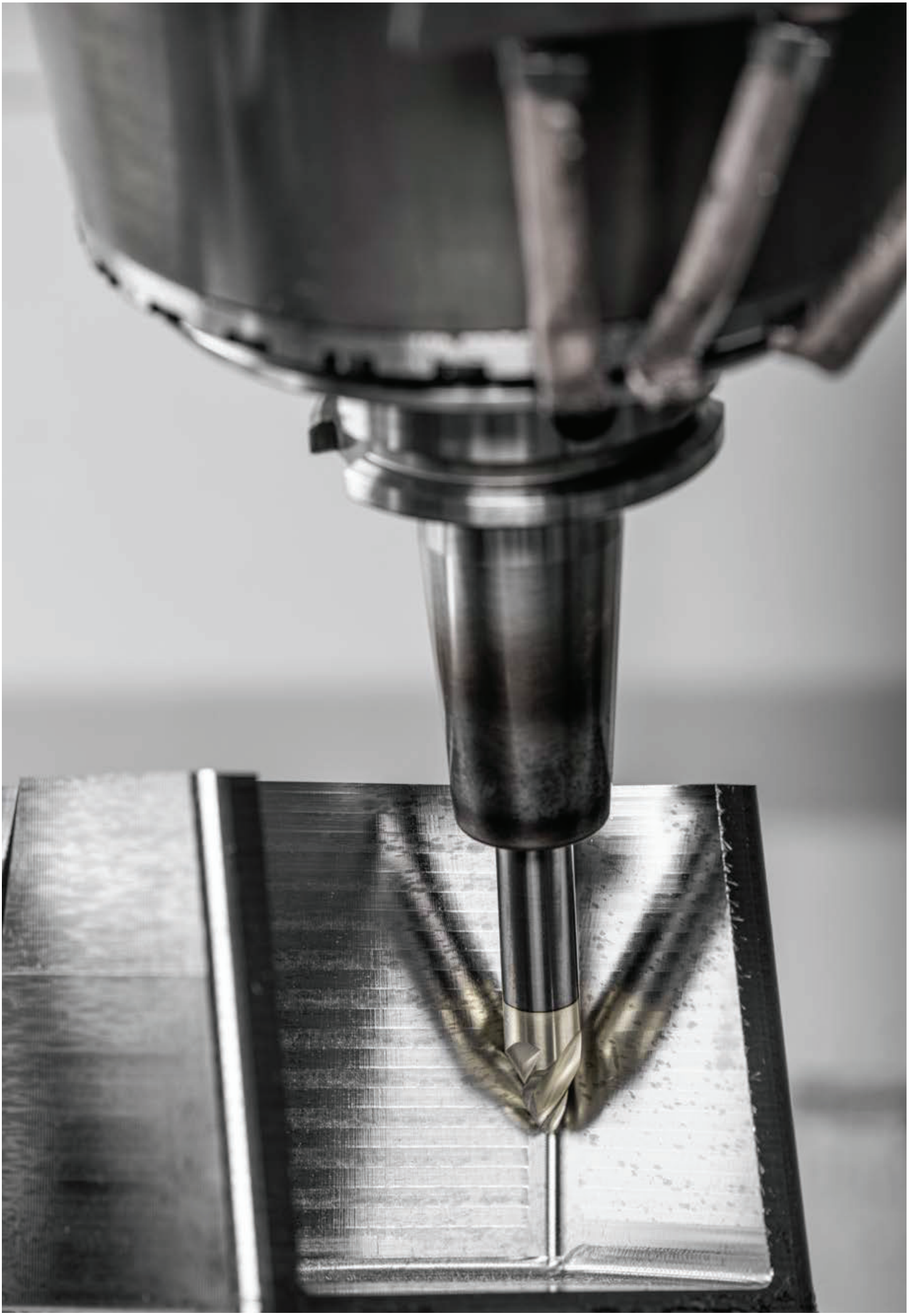


Designation	D_a mm	R mm	R_w mm	L_c mm	l_1 mm	d_1 h5 mm	Z	WJ30RA	WJ30RD
MD839-06A4P10100-	6	1	100	20,8	65	6	4	☺	☹
MD839-08A4P15100-	8	1,5	100	23,55	80	8	4	☺	☹
MD839-10A4P20100-	10	2	100	26,06	90	10	4	☺	☹
MD839-12A4P20100-	12	2	100	29,71	100	12	4	☺	☹
MD839-12A4P30100-	12	3	100	26,94	100	12	4	☺	☹
MD839-16A4P30100-	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

C 1





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	251	252
		

Circle segment milling cutters

Machining	
Helix angle	**30°**
Designation	**MD838**
Dia. range [mm]	4–8
Z	8
Corner radius [mm]	2–4
Page	253
	

C 1

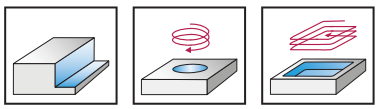
Solid carbide shoulder milling cutters
MD128 mm




Z= 6–8



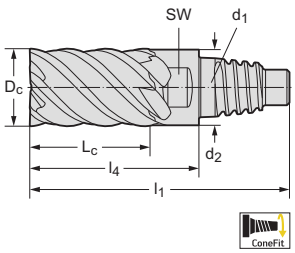
– Type N 50



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

PROTOTYP TOOLS STANDARD

ConeFit

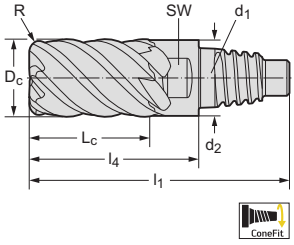


Designation	D_c h10 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z	WJ30RA	WJ30RD
MD128-10.0E6X-	10	15	9,7	33,1	21,9	8	E10	6	☺	😐
MD128-12.0E6X-	12	18	11,7	39,8	26	10	E12	6	☺	😐
MD128-16.0E6X-	16	24	15,5	51,2	34,2	12	E16	6	☺	😐
MD128-20.0E8X-	20	30	19,3	59,8	40,3	16	E20	8	☺	😐
MD128-25.0E8X-	25	37,5	24,2	73,6	49,8	20	E25	8	☺	😐

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

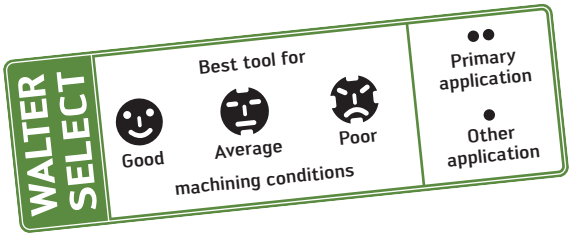
PROTOTYP TOOLS STANDARD

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	WJ30RA	WJ30RD
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

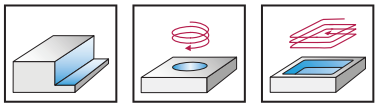


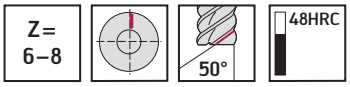
C 1

Solid carbide shoulder milling cutters
MC128 mm



– Type N 50

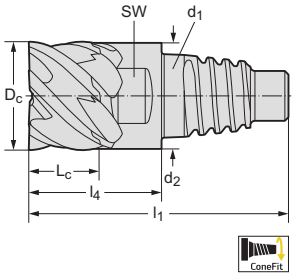




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

PROTOTYP TOOLS STANDARD

ConeFit

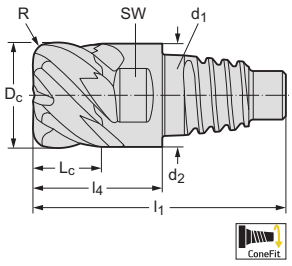


Designation	D_c h10 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z	WJ30TF
MC128-10.0E6P-	10	5,5	9,7	23,6	12,4	8	E10	6	●
MC128-12.0E6P-	12	6,5	11,7	28,3	14,5	10	E12	6	●
MC128-16.0E6P-	16	8,5	15,5	35,7	18,7	12	E16	6	●
MC128-20.0E8P-	20	11	19,3	40,8	21,3	16	E20	8	●
MC128-25.0E8P-	25	13,5	24,2	49,6	25,6	20	E25	8	●

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

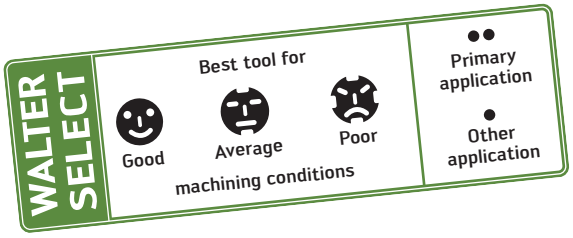
PROTOTYP TOOLS STANDARD

ConeFit

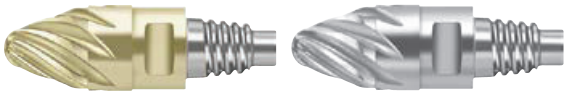


Designation	D_c h9 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z	WJ30TF
MC128-10.0E6P050-	10	0,5	5,5	9,7	23,6	12,4	8	E10	6	●
MC128-10.0E6P100-	10	1	5,5	9,7	23,6	12,4	8	E10	6	●
MC128-12.0E6P050-	12	0,5	6,5	11,7	28,3	14,5	10	E12	6	●
MC128-12.0E6P100-	12	1	6,5	11,7	28,3	14,5	10	E12	6	●
MC128-12.0E6P150-	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

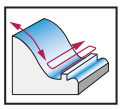


Z=8





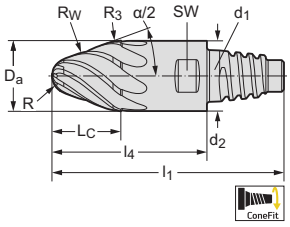
– Conical



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

PROTOTYP TOOLS STANDARD

ConeFit



Designation	α/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

C 1

Product range overview of PCD milling tools

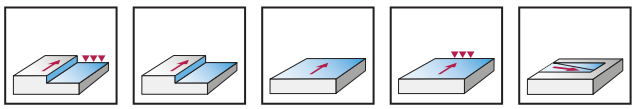
Shoulder milling cutters

Machining					
Designation	**MP260**	**MP260**	**MP160**	**MP160**	**MP060**
Dia. range [mm]	16–20	4–20	20–40	16–25	40–125
Z	2–3	2–3	4	3–4	10–22
Shank [mm]	ScrewFit	Parallel shank	ScrewFit	Parallel shank	Parallel bore
Page	255	255	256	256	257
					

C 1

PCD shoulder milling cutters
MP260 mm





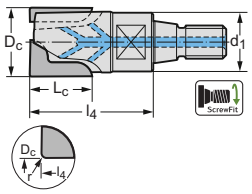
Z= 2–3



	P	M	K	N	S	H	O
WDN20				●●			●

Tool

ScrewFit

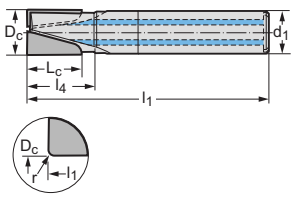


Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z	kg	WDN20
MP260-016T02P	16	15	48	30	T14	2	0,04	
MP260-016T03P	16	15	48	30	T14	3	0,03	
MP260-020T03P	20	18	51	30	T18	3	0,05	

Pre-balanced to G6.3 where n = 16,000 rpm
Ordering example for the WDN20 grade: MP260-016T02P WDN20

Tool

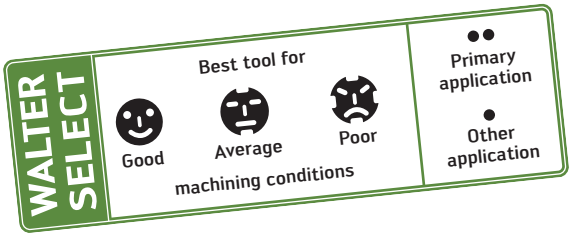
Parallel shank



Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z	kg	WDN20
MP260-004A02P	4	6	52	12	4	2	0,02	
MP260-005A02P	5	8	55	15	5	2	0,02	
MP260-006A02P	6	8	60	20	6	2	0,02	
MP260-008A02P	8	10	70	15	8	2	0,04	
MP260-010A02P	10	12	80	17	10	2	0,08	
MP260-012A02P	12	16	80	21	12	2	0,11	
MP260-016A02P	16	20	90	25	16	2	0,22	
MP260-016A03P	16	20	90	25	16	3	0,22	
MP260-020A03P	20	20	100	49	20	3	0,38	

Ordering example for the WDN20 grade: MP260-004A02P WDN20

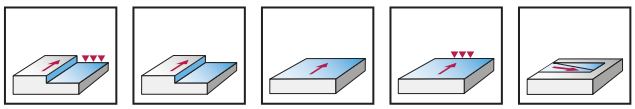
C 1



/ ★ New addition to the product range

PCD routing cutters
MP160 mm





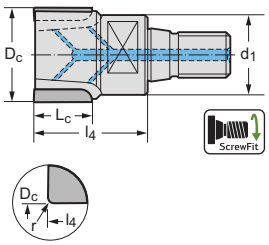
Z= 3–4



	P	M	K	N	S	H	O
WDN20				●●			●

Tool

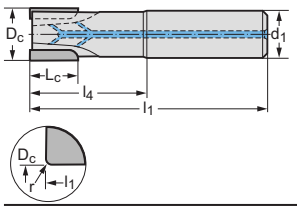
Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z	kg	WDN20
ScrewFit								
MP160-020T04P	20	18	51	30	T18	4	0,05	●
MP160-025T04P	25	20	58	35	T22	4	0,11	●
MP160-032T04P	32	20	69	40	T28	4	0,94	●
MP160-040T04P	40	20	75	40	T36	4	0,37	●



Pre-balanced to G6.3 where n = 16,000 rpm
Ordering example for the WDN20 grade: MP160-020T04P WDN20

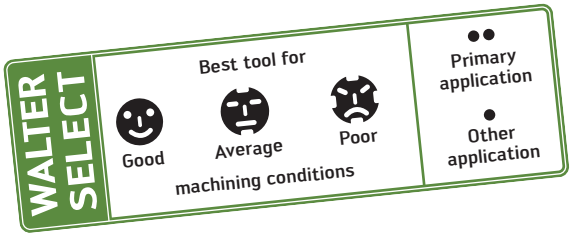
Tool

Designation	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z	kg	WDN20
Parallel shank								
MP160-016A03P	16	20	90	25	16	3	0,22	●
MP160-020A04P	20	20	100	49	20	4	0,39	●
MP160-025A04P	25	20	100	43	25	4	0,62	●



Ordering example for the WDN20 grade: MP160-016A03P WDN20

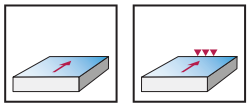
C 1



PCD face milling cutters
MP060 mm



– κ = 75° to L_c = 1.1 mm



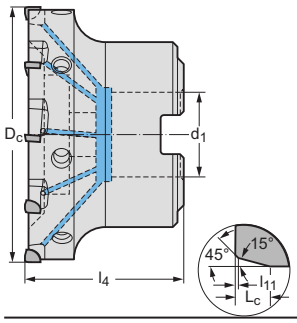
Z = 10–22



	P	M	K	N	S	H	O
WDN20				●●			●

Tool

Parallel bore
DIN 138 transverse keyway



Designation	D_c mm	l_{11} mm	L_c mm	l_4 mm	d_1 mm	Z	kg	WDN20
MP060-040B10P	40	0,1	1,1	40	16	10	0,3	●
MP060-050B12P	50	0,1	1,1	40	22	12	0,4	●
MP060-063B14P	63	0,1	1,1	40	22	14	0,5	●
MP060-080B16P	80	0,1	1,1	50	27	16	1,0	●
MP060-100B18P	100	0,1	1,1	50	32	18	1,4	●
MP060-125B22P	125	0,1	1,1	63	40	22	3,2	●

Pre-balanced to G6.3 where n = 16,000 rpm
Ordering example for the WDN20 grade: MP060-040B10P WDN20

C 1

● ● ● / ★ New addition to the product range

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] $3 \times D_c$ PHIS [°]	$3 \times D_c$ VC	f_z $3 \times D_c$ [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 C 671 onwards.

	Product family		λ	Product family			λ	Product family			λ
	MD128 Supreme MD128 ConeFit		50°	MC128 Advance MC128 ConeFit			50°	MD266 Supreme			30°
	Ø 6–25 mm			Ø 2–25 mm / [1/4–3/4 Inch]				Ø 2–25 mm			
	Z = 6–8			Z = 4–8				Z = 2–3			
	WJ30RA			WJ30TF				WJ30UU			
	Starting values for cutting speed v_c [m/min]			Starting values for cutting speed v_c [m/min]				Starting values for cutting speed v_c [m/min]			
	$3 \times D_c$		f_z $3 \times D_c$	a_e / D_c				a_e / D_c			
	PHIS [°]	VC	[mm] per tooth	1/2	1/4	1/10	VT	1/1	1/2	1/10	VT
					162	197	A				
					222	270	A				
					190	231	A				
					190	231	A				
					134	163	A				
					190	231	A				
					190	231	A				
					118	143	A				
					111	135	A				
					94	114	A				
					190	231	A				
					134	163	A				
					111	135	A				
	20	135	0,21		81	99	A				
	15	105	0,25		54	65	A				
	25	165	0,14		113	137	B				
	15	95	0,20		56	68	B				
	25	110	0,14		76	92	B				
								1590	2050	1890	C
								1590	2050	1890	C
								398	512	731	C
								398	512	731	C
								159	205	293	C
	20	85	0,18		62	75	B				
	15	50	0,19		37	45	B				
	15	85	0,19		62	75	B				
	15	55	0,19		37	45	B				
	15	50	0,12		37	45	B				
	35	70	0,12		66	80	B				
	35	70	0,12		65	79	B				
	30	40	0,14		34	42	B				
					86	104	B				
					86	104	B				

C 1

Cutting data for solid carbide shoulder/slot milling

Product family	λ
MC267 Advance	45°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 1–20 mm, Z = 2–3, WJ30CA / WJ30UU — Starting values for cutting speed v_c [m/min], a_e / D_c 1/1	1/2	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1				
		C > 0.25% to ≤ 0.55%	Annealed	190	639	P2				
		C > 0.25% to ≤ 0.55%	Heat-treated	210	708	P3				
		C > 0.55%	Annealed	190	639	P4				
		C > 0.55%	Heat-treated	300	1013	P5				
		Free-machining steel (short-chipping)	Annealed	220	745	P6				
	Low-alloy steel	Annealed		175	591	P7				
		Heat-treated		300	1013	P8				
		Heat-treated		380	1282	P9				
		Heat-treated		430	1477	P10				
	High-alloy steel and high-alloy tool steel	Annealed		200	675	P11				
		Hardened and tempered		300	1013	P12				
		Hardened and tempered		400	1361	P13				
	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				
		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	1410	1750	2240	C
		Hardenable, hardened		100	343	N2	1410	1750	2240	C
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	353	439	627	C
		≤ 12% Si, hardenable, hardened		90	314	N4	353	439	627	C
		> 12% Si, not hardenable		130	447	N5	141	175	251	C
	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 C 671 onwards.

	Product family			λ	Product family			λ	Product family			λ
	MD377 Supreme			40°	MC377 Advance			40°	MC230 Advance Xill·tec™			35°/38°
	Ø 6–25 mm				Ø 2–25 mm				Ø 2–25 mm			
	Z = 5				Z = 3–4				Z = 4			
	WK40TZ				WK40EA				WK40TF			
	Starting values for cutting speed v_c [m/min]				Starting values for cutting speed v_c [m/min]				Starting values for cutting speed v_c [m/min]			
	a_e / D_c				a_e / D_c				a_e / D_c			
	1/1	1/2	1/10	VT	1/1	1/2	1/10	VT	1/1	1/2	1/10	VT
					150	185	264	A	150	185	264	A
					206	253	363	A	206	253	363	A
					175	216	310	A	175	216	310	A
					175	216	310	A	175	216	310	A
					124	153	219	A	124	153	219	A
					175	216	310	A	175	216	310	A
					175	216	310	A	175	216	310	A
					109	135	192	A	109	135	192	A
					102	127	181	A	102	127	181	A
					87	107	153	A	87	107	153	A
					175	216	310	A	175	216	310	A
					124	153	219	A	124	153	219	A
					102	127	181	A	102	127	181	A
					60	74	106	A	60	74	106	A
					49	61	87	A	49	61	87	A
	87	112	160	B	71	87	125	B	71	87	125	B
	54	69	99	B	44	55	78	B	44	55	78	B
	73	94	135	B	61	75	107	B	61	75	107	B
									164	203	290	A
									129	159	226	A
									164	203	290	A
									138	170	243	A
									164	203	290	A
									129	159	226	A
									110	136	194	A
									579	720	1030	C
									579	720	1030	C
									417	518	740	C
									417	518	740	C
									56	70	99	C
	54	67	96	B	45	56	80	B	46	57	81	B
	32	41	59	B	27	34	49	B	29	35	50	B
	54	67	96	B	45	56	80	B	46	57	81	B
	32	41	59	B	27	34	49	B	29	35	50	B
	32	41	59	B	27	34	49	B	29	35	50	B
									49	61	87	B
	65	95	130	B	60	85	120	B	49	61	87	B
	45	55	80	B	40	50	70	B	26	32	46	B
									65	80	114	B
									65	80	114	B

Cutting data for solid carbide circle segment milling cutters

							Product family			λ
							MD838 Supreme MD838 ConeFit			30°
							Ø 6–16 mm			
							Z = 4–8			
							WJ30RD			
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Starting values for cutting speed v_c [m/min] a_e / D_c 1/5	1/20	1/50	VT
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 C 671 onwards.

	Product family			λ	Product family			λ	Product family			λ
	MD838 Supreme MD838 ConeFit			30°	MD839 Supreme			30°	MD839 Supreme			30°
	Ø 6–16 mm				Ø 6–16 mm				Ø 6–16 mm			
	Z = 4–8				Z = 4				Z = 4			
	WJ30RA				WJ30RD				WJ30RA			
	Starting values for cutting speed v_c [m/min]				Starting values for cutting speed v_c [m/min]				Starting values for cutting speed v_c [m/min]			
	a_e / D_c				a_e / D_c				a_e / D_c			
	1/5	1/20	1/50	VT	1/5	1/20	1/50	VT	1/1	1/2	1/10	VT
					230	330	390	A				
					230	310	380	A				
					210	280	310	A				
					210	280	310	A				
					170	200	220	A				
					210	280	330	A				
					210	280	330	A				
					170	200	240	A				
					140	170	200	A				
					120	150	170	A				
					210	280	330	A				
					170	200	240	A				
					120	150	170	A				
					90	110	120	A				
					70	80	100	A				
	110	150	190	B					110	150	190	B
	70	90	130	B					70	90	130	B
	100	140	180	B					100	140	180	B
					180	240	290	A				
					150	190	220	A				
					180	240	290	A				
					150	200	240	A				
					180	240	290	A				
					150	190	220	A				
					130	160	190	A				
	1000	1200	1500	C					1000	1200	1500	C
	1000	1200	1500	C					1000	1200	1500	C
	690	920	1100	C					690	920	1100	C
	690	920	1100	C					690	920	1100	C
	240	320	390	C					240	320	390	C
	800	1060	1280	C					800	1060	1280	C
	500	650	800	C					500	650	800	C
	500	650	800	C					500	650	800	C
	500	650	800	C					500	650	800	C
	80	90	110	C					80	90	110	C
	80	110	130	B					80	110	130	B
	60	70	90	B					60	70	90	B
	80	90	110	B					80	90	110	B
	60	80	110	B					60	80	110	B
	60	80	110	B					60	80	110	B
	80	110	130	B					80	110	130	B
	60	100	130	B					60	100	130	B
	60	110	130	B					60	110	130	B

Cutting data for PCD milling

							Product family			λ
							MP060 MP160 MP260			
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 6–125 mm Z = 2–22 WDN20 Starting values for cutting speed v_c [m/min] a_e / D_c			
							1/1 1/2	1/4	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	P1				
		C > 0.25% to ≤ 0.55%	Annealed	190	639	P2				
		C > 0.25% to ≤ 0.55%	Heat-treated	210	708	P3				
		C > 0.55%	Annealed	190	639	P4				
		C > 0.55%	Heat-treated	300	1013	P5				
		Free-machining steel (short-chipping)	Annealed	220	745	P6				
	Low-alloy steel	Annealed		175	591	P7				
		Heat-treated		300	1013	P8				
		Heat-treated		380	1282	P9				
		Heat-treated		430	1477	P10				
	High-alloy steel and high-alloy tool steel	Annealed		200	675	P11				
		Hardened and tempered		300	1013	P12				
		Hardened and tempered		400	1361	P13				
	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				
		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	1200	1200	1500	G
		Hardenable, hardened		100	343	N2	1000	1200	1200	G
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	1000	1000	1000	H
		≤ 12% Si, hardenable, hardened		90	314	N4	1000	1000	1000	H
		> 12% Si, not hardenable		130	447	N5	800	800	800	H
	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	400	400	400	I
	Thermosets	Without abrasive fillers				O2	500	500	500	I
	Plastic, glass-fibre-reinforced	GFRP				O3				
	Plastic, carbon-fibre-reinforced	CFRP				O4				
	Plastic, aramid-fibre-reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6	600	800	800	I

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

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

	Feed per tooth f_z [mm]									
a_e [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)

	Feed per tooth f_z [mm]									
a_e [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

Feed determination

(continued)

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

	Feed per tooth f_z [mm]									
a_e [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)

	Feed per tooth f_z [mm]									
a_e [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

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

C Material groups ISO N and ISO O

	Feed per tooth f_z [mm]									
a_e [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)

	Feed per tooth f_z [mm]									
a_e [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

Feed determination

(continued)

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

D Protostar® Flash ISO P, M, K, N, S, O

	Feed per tooth f_z [mm]										
a_e [mm]*	Ø 3 mm	Ø 4 mm	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 12 mm	Ø 14 mm	Ø 16 mm	Ø 18 mm	Ø 20 mm	Ø 25 mm
0,8	0,07	0,10									
1,5	0,07	0,10	0,16	0,25							
3	0,07	0,10	0,16	0,25	0,30						
5		0,10	0,16	0,25	0,30	0,35					
6			0,16	0,25	0,30	0,35	0,40	0,50	0,60		
8				0,25	0,30	0,35	0,40	0,50	0,60	0,70	0,70
10					0,30	0,35	0,40	0,50	0,60	0,70	0,70
12							0,40	0,50	0,60	0,70	0,70
14							0,40	0,50	0,60	0,70	0,70
16								0,50	0,60	0,70	0,70
18									0,60	0,70	0,70
20										0,70	0,70
25											0,70

E Protostar® Flash ISO H

	Feed per tooth f_z [mm]										
a_e [mm]*	Ø 3 mm	Ø 4 mm	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 12 mm	Ø 14 mm	Ø 16 mm	Ø 18 mm	Ø 20 mm	Ø 25 mm
0,8	0,06	0,08									
1,5	0,06	0,08	0,13	0,20							
3	0,06	0,08	0,13	0,20	0,24						
5		0,08	0,13	0,20	0,24	0,28					
6			0,13	0,20	0,24	0,28	0,32	0,40	0,48		
8				0,20	0,24	0,28	0,32	0,40	0,48	0,56	0,56
10					0,24	0,28	0,32	0,40	0,48	0,56	0,56
12							0,32	0,40	0,48	0,56	0,56
14							0,32	0,40	0,48	0,56	0,56
16								0,40	0,48	0,56	0,56
18									0,48	0,56	0,56
20										0,56	0,56
25											0,56

F MC341 Supreme + Proto·max™ ST

	Feed per tooth f_z [mm]												
a_e [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	Ø 14 mm	Ø 16 mm	Ø 18 mm	Ø 20 mm	Ø 25 mm
0,01	0,04	0,08	0,11	0,14	0,18	0,18	0,24						
0,05	0,03	0,05	0,09	0,12	0,14	0,18	0,24						
0,1	0,02	0,04	0,06	0,10	0,12	0,18	0,24	0,24	0,24	0,24			
0,2	0,02	0,04	0,05	0,07	0,10	0,18	0,22	0,24	0,24	0,24	0,24	0,3	
0,5	0,01	0,03	0,04	0,06	0,08	0,14	0,18	0,18	0,18	0,18	0,24	0,3	0,30
1	0,01	0,03	0,04	0,05	0,07	0,11	0,14	0,14	0,14	0,14	0,18	0,24	0,30
2		0,02	0,04	0,04	0,06	0,10	0,13	0,14	0,14	0,14	0,18	0,24	0,24
3			0,02	0,03	0,05	0,09	0,13	0,14	0,14	0,14	0,16	0,21	0,24
5				0,02	0,05	0,08	0,12	0,14	0,14	0,14	0,14	0,18	0,24
6					0,04	0,07	0,10	0,12	0,12	0,14	0,14	0,18	0,24
8						0,06	0,08	0,11	0,12	0,14	0,14	0,18	0,24
10							0,07	0,10	0,12	0,14	0,14	0,17	0,19
12								0,08	0,11	0,13	0,14	0,17	0,19
14									0,10	0,12	0,14	0,16	0,18
16										0,11	0,12	0,14	0,18
18											0,12	0,13	0,16
20												0,12	0,14
25													0,12

* Radial feed in mm

C 1

Feed determination for brazed tools

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

G Wrought aluminium alloys

	Feed per tooth f_z [mm]													
a_e / D_c	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 12 mm	Ø 16 mm	Ø 20 mm	Ø 25 mm	Ø 32 mm	Ø 40 mm	Ø 50 mm	Ø 63 mm	Ø 80 mm	Ø 100 mm	Ø 125 mm
1/50	0,08	0,07	0,09	0,09	0,12	0,12	0,12	0,15	0,15					
1/20	0,07	0,06	0,08	0,08	0,10	0,10	0,10	0,13	0,13					
1/10	0,06	0,06	0,07	0,07	0,10	0,07	0,10	0,12	0,12	0,12	0,12	0,12	0,12	0,12
1/5	0,06	0,06	0,07	0,07	0,09	0,09	0,09	0,11	0,11	0,11	0,11	0,11	0,11	0,11
1/2	0,05	0,05	0,06	0,06	0,08	0,08	0,08	0,10	0,10	0,10	0,10	0,10	0,10	0,10
1/1	0,05	0,05	0,06	0,06	0,08	0,08	0,08	0,10	0,10	0,10	0,10	0,10	0,10	0,10

H Magnesium-based alloys/copper and copper alloys

	Feed per tooth f_z [mm]													
a_e / D_c	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 12 mm	Ø 16 mm	Ø 20 mm	Ø 25 mm	Ø 32 mm	Ø 40 mm	Ø 50 mm	Ø 63 mm	Ø 80 mm	Ø 100 mm	Ø 125 mm
1/50	0,04	0,04	0,06	0,06	0,09	0,09	0,09	0,11	0,11					
1/20	0,04	0,04	0,05	0,05	0,08	0,08	0,08	0,10	0,10					
1/10	0,04	0,04	0,05	0,05	0,07	0,07	0,07	0,09	0,09	0,09	0,09	0,09	0,09	0,09
1/5	0,03	0,03	0,04	0,04	0,07	0,07	0,07	0,08	0,08	0,08	0,08	0,08	0,08	0,08
1/2	0,03	0,03	0,04	0,04	0,06	0,06	0,06	0,07	0,07	0,07	0,07	0,07	0,07	0,07
1/1	0,03	0,03	0,04	0,04	0,06	0,06	0,06	0,07	0,07	0,07	0,07	0,07	0,07	0,07

I Thermoplasts, thermosetting plastics, plastic, graphite

	Feed per tooth f_z [mm]													
a_e / D_c	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 12 mm	Ø 16 mm	Ø 20 mm	Ø 25 mm	Ø 32 mm	Ø 40 mm	Ø 50 mm	Ø 63 mm	Ø 80 mm	Ø 100 mm	Ø 125 mm
1/50	0,05	0,05	0,07	0,07	0,10	0,10	0,10	0,13	0,13					
1/20	0,05	0,05	0,06	0,06	0,09	0,09	0,09	0,11	0,11					
1/10	0,04	0,04	0,06	0,06	0,08	0,08	0,08	0,10	0,10	0,10	0,10	0,10	0,10	0,10
1/5	0,04	0,04	0,05	0,05	0,08	0,08	0,08	0,09	0,09	0,09	0,09	0,09	0,09	0,09
1/2	0,03	0,03	0,05	0,05	0,07	0,07	0,07	0,08	0,08	0,08	0,08	0,08	0,08	0,08
1/1	0,03	0,03	0,05	0,05	0,07	0,07	0,07	0,08	0,08	0,08	0,08	0,08	0,08	0,08

J Non-alloyed steel, malleable cast iron, ductile cast iron and CGI

	Feed per tooth f_z [mm]								
a_e [mm]*	Ø 16 mm	Ø 20 mm	Ø 25 mm	Ø 32 mm	Ø 40 mm	Ø 50 mm	Ø 63 mm	Ø 80 mm	Ø 100 mm
1,0	0,12	0,12	0,12	0,12	0,13				
2,0	0,12	0,12	0,12	0,12	0,12	0,20			
3,0	0,11	0,12	0,12	0,12	0,12	0,19	0,20		
4,0	0,10	0,11	0,12	0,12	0,12	0,18	0,19	0,20	
5,0	0,10	0,10	0,11	0,12	0,12	0,18	0,18	0,19	0,20
6,0	0,10	0,10	0,10	0,11	0,12	0,17	0,18	0,18	0,19
8,0	0,10	0,10	0,10	0,10	0,11	0,17	0,17	0,18	0,18
10,0	0,10	0,10	0,10	0,10	0,10	0,17	0,17	0,17	0,18
12,0	0,10	0,10	0,10	0,10	0,10	0,16	0,17	0,17	0,17
16,0	0,10	0,10	0,10	0,10	0,10	0,15	0,16	0,17	0,17
20,0		0,10	0,10	0,10	0,10	0,15	0,15	0,16	0,17
25,0			0,10	0,10	0,10	0,15	0,15	0,15	0,16
32,0				0,10	0,10	0,15	0,15	0,15	0,15
40,0					0,10	0,15	0,15	0,15	0,15
50,0						0,15	0,15	0,15	0,15
63,0							0,15	0,15	0,15
80,0								0,15	0,15
100,0									0,15

* Radial feed in mm

Feed determination for brazed tools

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

(continued)

K Grey cast iron

	Feed per tooth f_z [mm]								
a_e [mm]*	Ø 16 mm	Ø 20 mm	Ø 25 mm	Ø 32 mm	Ø 40 mm	Ø 50 mm	Ø 63 mm	Ø 80 mm	Ø 100 mm
1,0	0,13	0,13	0,13	0,14	0,15				
2,0	0,13	0,13	0,13	0,13	0,14	0,26			
3,0	0,13	0,13	0,13	0,13	0,13	0,25	0,26		
4,0	0,12	0,13	0,13	0,13	0,13	0,24	0,25	0,26	
5,0	0,12	0,12	0,13	0,13	0,13	0,24	0,24	0,25	0,26
6,0	0,12	0,12	0,12	0,13	0,13	0,23	0,24	0,24	0,25
8,0	0,12	0,12	0,12	0,12	0,13	0,22	0,23	0,24	0,24
10,0	0,12	0,12	0,12	0,12	0,12	0,22	0,22	0,23	0,24
12,0	0,12	0,12	0,12	0,12	0,12	0,21	0,22	0,22	0,23
16,0	0,12	0,12	0,12	0,12	0,12	0,20	0,21	0,22	0,22
20,0		0,12	0,12	0,12	0,12	0,20	0,20	0,21	0,22
25,0			0,12	0,12	0,12	0,20	0,20	0,20	0,21
32,0				0,12	0,12	0,20	0,20	0,20	0,20
40,0					0,12	0,20	0,20	0,20	0,20
50,0						0,20	0,20	0,20	0,20
63,0							0,20	0,20	0,20
80,0								0,20	0,20
100,0									0,20

L Low-alloy steel, high-alloy steel and high-alloy tool steel

	Feed per tooth f_z [mm]								
a_e [mm]*	Ø 16 mm	Ø 20 mm	Ø 25 mm	Ø 32 mm	Ø 40 mm	Ø 50 mm	Ø 63 mm	Ø 80 mm	Ø 100 mm
1,0	0,09	0,09	0,09	0,1	0,10				
2,0	0,09	0,09	0,09	0,09	0,10	0,17			
3,0	0,09	0,09	0,09	0,09	0,09	0,16	0,17		
4,0	0,08	0,09	0,09	0,09	0,09	0,15	0,16	0,17	
5,0	0,08	0,08	0,09	0,09	0,09	0,14	0,15	0,16	0,17
6,0	0,08	0,08	0,08	0,09	0,09	0,14	0,14	0,15	0,16
8,0	0,08	0,08	0,08	0,08	0,09	0,14	0,14	0,14	0,15
10,0	0,08	0,08	0,08	0,08	0,08	0,13	0,14	0,14	0,14
12,0	0,08	0,08	0,08	0,08	0,08	0,13	0,13	0,14	0,14
16,0	0,08	0,08	0,08	0,08	0,08	0,13	0,13	0,13	0,14
20,0		0,08	0,08	0,08	0,08	0,13	0,13	0,13	0,13
25,0			0,08	0,08	0,08	0,12	0,13	0,13	0,13
32,0				0,08	0,08	0,12	0,12	0,13	0,13
40,0					0,08	0,12	0,12	0,12	0,13
50,0						0,12	0,12	0,12	0,12
63,0							0,12	0,12	0,12
80,0								0,12	0,12
100,0									0,12

M Stainless steel (ISO P)

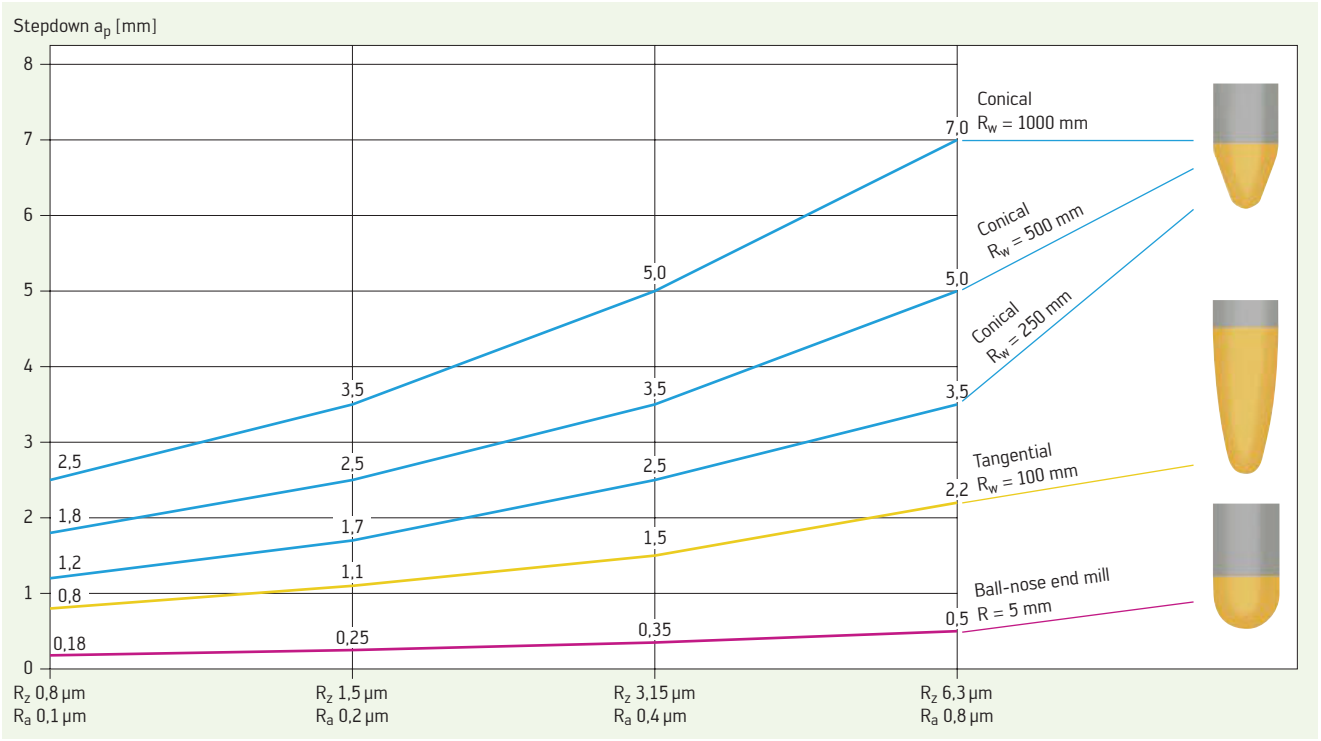
	Feed per tooth f_z [mm]								
a_e [mm]*	Ø 16 mm	Ø 20 mm	Ø 25 mm	Ø 32 mm	Ø 40 mm	Ø 50 mm	Ø 63 mm	Ø 80 mm	Ø 100 mm
1,0	0,07	0,07	0,07	0,08	0,08				
2,0	0,07	0,07	0,07	0,07	0,08	0,14			
3,0	0,07	0,07	0,07	0,07	0,07	0,13	0,14		
4,0	0,06	0,07	0,07	0,07	0,07	0,12	0,13	0,14	
5,0	0,06	0,06	0,07	0,07	0,07	0,12	0,12	0,13	0,14
6,0	0,06	0,06	0,06	0,07	0,07	0,12	0,12	0,12	0,13
8,0	0,06	0,06	0,06	0,06	0,07	0,12	0,12	0,12	0,12
10,0	0,06	0,06	0,06	0,06	0,06	0,11	0,12	0,12	0,12
12,0	0,06	0,06	0,06	0,06	0,06	0,11	0,11	0,12	0,12
16,0	0,06	0,06	0,06	0,06	0,06	0,11	0,11	0,11	0,12
20,0		0,06	0,06	0,06	0,06	0,11	0,11	0,11	0,11
25,0			0,06	0,06	0,06	0,10	0,11	0,11	0,11
32,0				0,06	0,06	0,10	0,10	0,11	0,11
40,0					0,06	0,10	0,10	0,10	0,11
50,0						0,10	0,10	0,10	0,10
63,0							0,10	0,10	0,10
80,0								0,10	0,10
100,0									0,10

* Radial feed in mm

C 1

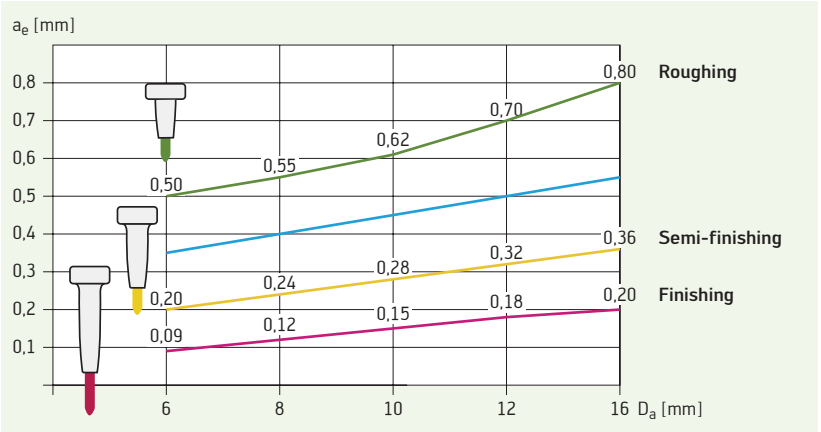
Recommendations for the use of circle segment milling cutters

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



Example using feed b_r/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

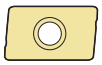
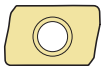
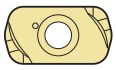
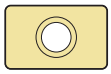


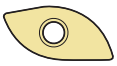
Standard values for cutting speed and feed per tooth

	Material designation	Tensile strength/ hardness	v_c [m/min]	f_z [mm]
ISO P	S2335	800 N/mm²	300	0,07
	42CrMo4	1000 N/mm²	220	0,06
		1400 N/mm²	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**	274
	**B**	Positive rhombic for **Xtra·tec® XT**	276
	**E**	Double-sided rhombic for **Xtra·tec® XT**	290
 	**L**	Double-sided rhombic for **Xtra·tec®** Tangential rhombic for **Walter BLAXX**	290 301
	**M**	Positive rhombic	277
	**O**	Positive octagonal for **Xtra·tec® XT** Double-sided octagonal	277 291
	**R**	Positive round	281
	**S**	Positive square Double-sided square for **Xtra·tec® XT**	283 292
	**T**	Double-sided triangular for **Xtra·tec® XT**	295

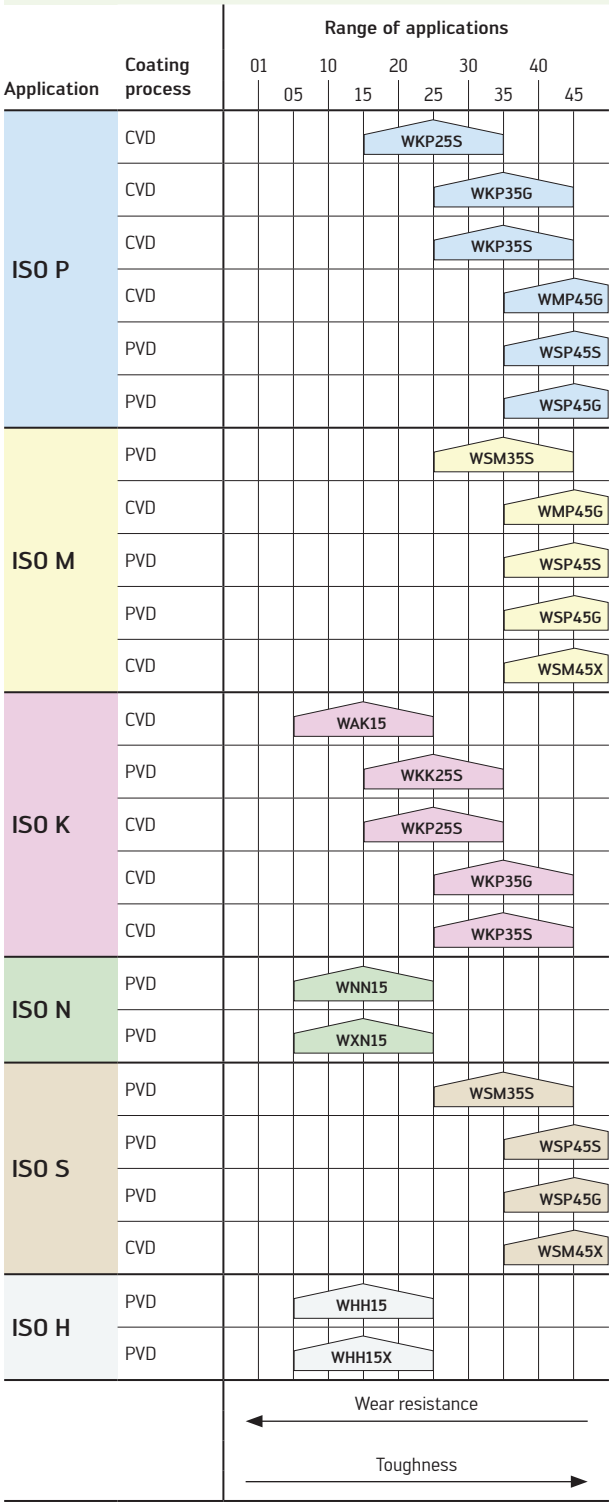
Insert shape		Description	Page
	**X**	Double-sided heptagon for **Walter BLAXX**	296
	**X**	Tangential rhombic for **Walter BLAXX**	303
	**X**	Positive form inserts for copy milling cutters	287
	P 236 . .	Double-sided triangular for **Xtra·tec®** high-feed milling cutters	291
	P 263 . .	Positive triangular for high-feed milling cutters for copy milling cutters	279
	P 32 . .	Indexable inserts for profile milling cutters	280
		Positive finishing inserts Double-sided finishing inserts Tangential finishing inserts	288

C 2

Cutting tool materials for milling product range overview

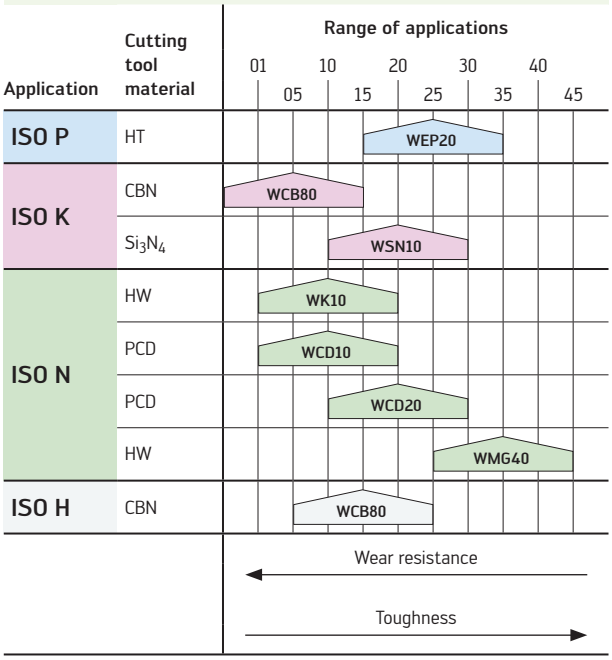
Cutting tool materials: Coated carbide

Cutting tool material applications



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

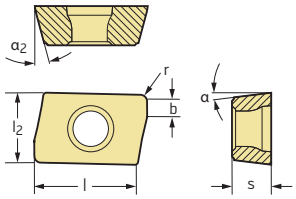
Cutting tool material applications



Si_3N_4 = Silicon nitride ceramic
HW = Uncoated carbide
HT = Cermet
CBN = Cubic boron nitride
PCD = Polycrystalline diamond

C 2

Positive rhombic
ACMT
Tiger·tec® Gold

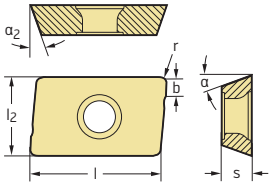


Indexable inserts

	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



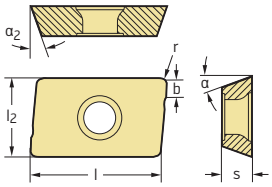
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC					M HC				K HC					S 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

C 2

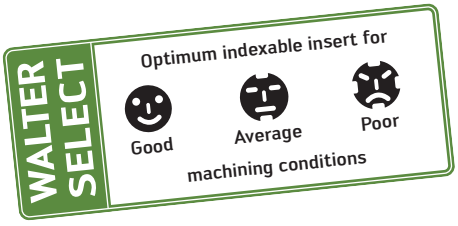
Positive rhombic
ADMT
Tiger·tec® Gold



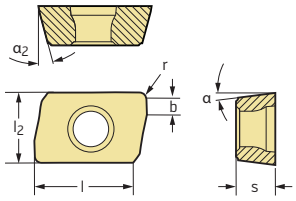
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC 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



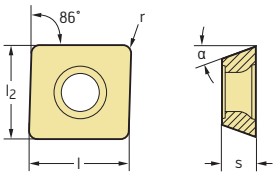
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	α_2	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	S HC WSP45G
	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														●	●			
	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	●	●	●	●			●		●	●	●	●	●				●	
	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

C 2

Positive rhombic
MPMX / MPMT
Tiger·tec® Gold

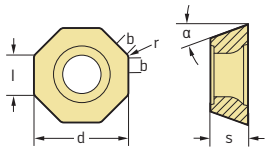


Indexable inserts

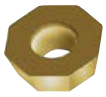
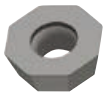
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S	S HC WSP45G
	MPMX060304-F57	M	2	6,35	6,35	3,18	11°	0,4		☺	☺		☹	☺		☹		☹	☹	☺		☹
	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

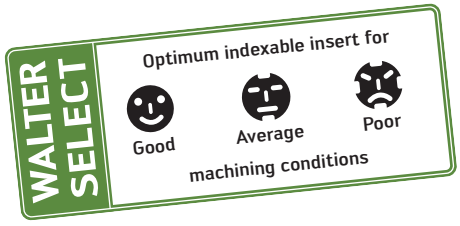
Positive octagonal
ODHW / ODHT / ODMT / ODMW
Tiger·tec® Gold



Indexable inserts

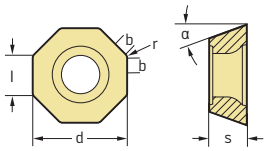
	Designation	Tolerance class	Number of cutting edges	l mm	d mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45G
	ODHW050408-A57	H	8	5,26	12,7	4,76	15°	0,8			☹									☹							
	ODHW060512-A57	H	8	6,58	15,88	5,56	15°	1,2			☹									☹							
	ODHW050412-A57	H	8	5,26	12,7	4,76	15°	1,2														☺					
	ODHW060516-A57	H	8	6,58	15,88	5,56	15°	1,6														☺					
	ODHT050408-F57	H	8	5,26	12,7	4,76	15°	0,8			☺	☺	☹			☹				☹	☹						☹
	ODHT060512-F57	H	8	6,58	15,88	5,56	15°	1,2			☺	☺	☹			☹				☹	☹						☹

HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide

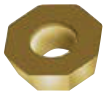
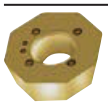


C 2

Positive octagonal
ODHW / ODHT / ODMT / ODMW
Tiger·tec® Gold



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	d mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45G
	ODHW0504ZZN-A57	H	8	5,26	12,7	4,76	15°	0,8	1,2	●	●	●					●		●	●	●							
	ODHW0605ZZN-A57	H	8	6,58	15,88	5,56	15°	0,8	1,6	●	●	●					●		●	●	●							
	ODHT0504ZZN-F57	H	8	5,26	12,7	4,76	15°	0,8	1,2	●	●	●	●	●		●			●	●	●				●		●
	ODHT0605ZZN-F57	H	8	6,58	15,88	5,56	15°	0,8	1,6	●	●	●	●	●		●			●	●	●				●		●
	ODHT0605ZZN-G88	H	8	6,58	15,88	5,56	15°	0,8	1,6														●	●			
	ODHT0504ZZN-G88	H	8	5,26	12,7	4,76	15°	0,8	1,2														●	●			
	ODMT0504ZZN-F57	M	8	5,26	12,7	4,76	15°	0,8	1,2	●	●	●	●	●		●			●	●	●				●		●
	ODMT0605ZZN-F57	M	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	●	●	●	●	●	●	●		●	●	●	●				●	●	●
	ODMW050408T-A27	M	8	5,26	12,7	4,76	15°	0,8		●	●	●						●	●	●	●						
	ODMW060508T-A27	M	8	6,58	15,88	5,56	15°	0,8		●	●	●						●	●	●	●						
	ODMW050408-A57	M	8	5,26	12,7	4,76	15°	0,8		●	●	●					●	●	●	●	●						
	ODMW060508-A57	M	8	6,58	15,88	5,56	15°	0,8		●	●	●					●	●	●	●	●						

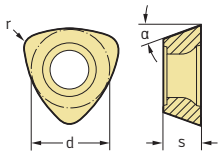
HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide

C 2

● ● ● / ★ New addition to the product range

Positive triangular
P26335 / P26339

Tiger·tec® Gold



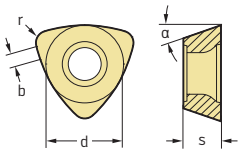
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S	S HC 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

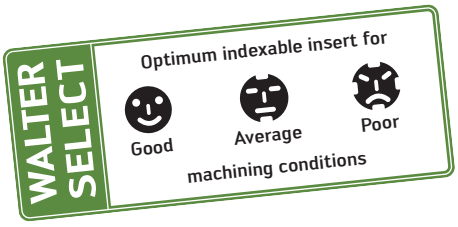
Tiger·tec® Gold



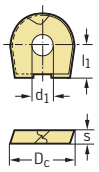
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S	S HC 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
Xtra·tec® XT



Indexable inserts

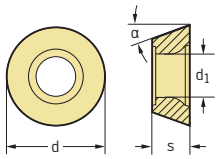
	Designation	Tolerance class	Number of cutting edges	$D_c^{-0,03}$ mm	s mm	l_1 mm	d_1 mm	P HC					M HC			K HC					S HC			H HC	
								WKP25S	WKP25	WKP35S	WKP35	WSP46	WSM35S	WSM36	WSP46	WKP25	WKP25S	WKP35S	WKP35	WSM35S	WSM36	WSP46	WHH15	WHH15X
	P3204-D07.94	H	2	7,94	2	4	3																	☺
	P3204-D08	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

C 2

☺☺☹ / ★ New addition to the product range

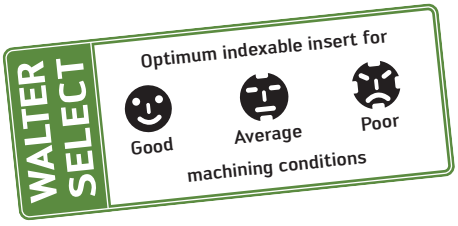
Positive round
ROHX / ROMX / ROGX
Tiger·tec® Gold



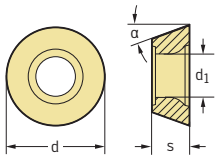
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	d_1 mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WMP45G	P HC WSP45S	P HC WSP45G	M HC WMP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC WSP45G	H HC WHH15X
	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		☹	☹		☠	☠		☹		☠	☠			☠	☠		☹		☠	☠	
	ROGX10T3M08-G88	G	8	10	3,97	11°	3,9																☺					
	ROGX1204M08-G88	G	8	12	4,76	11°	4,4																☺					
	ROHX10T3M08-A57	H	8	10	3,97	11°	3,9	☺	☺	☺									☺	☺	☹	☹						☺
	ROHX1204M08-A57	H	8	12	4,76	11°	4,4	☺	☺	☺									☺	☺	☹	☹						☺
	ROMX10T3M0T8-A27	M	8	10	3,97	11°	3,9	☺	☺	☺									☺	☺	☹	☹						
	ROMX1204M0T8-A27	M	8	12	4,76	11°	4,4	☺	☺	☺									☺	☺	☹	☹						
	ROMX10T3M08-D57	M	8	10	3,97	11°	3,9	☺	☺	☺			☠		☹			☠	☺	☺	☹	☹		☹			☠	
	ROMX1204M08-D57	M	8	12	4,76	11°	4,4	☺	☺	☺			☠		☹			☠	☺	☺	☹	☹		☹			☠	
	ROMX10T3M08-F67	M	8	10	3,97	11°	3,9						☠		☹			☠						☹			☠	
	ROMX1204M08-F67	M	8	12	4,76	11°	4,4						☠		☹			☠						☹			☠	

HC = Coated carbide
HW = Uncoated carbide



Positive round
RDMT
Tiger·tec® Gold

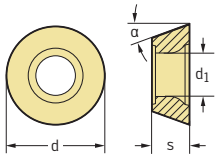


Indexable inserts

	Designation	Tolerance class	d mm	s mm	α	d_1 mm	P HC					M HC			K HC			S 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



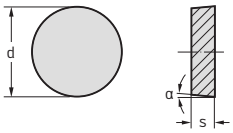
Indexable inserts

	Designation	Tolerance class	d mm	s mm	α	d_1 mm	P HC				M HC		K HC			N HW	S HC		H HC	
							WKP25S	WKP35G	WKP35S	WSP45G	WSM35S	WSP45G	WKP25S	WKP35G	WKP35S	WK10	WSM35S	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

C 2

Ceramic – Positive round
RPGN



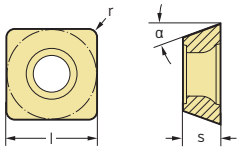
Indexable inserts

	Designation	d mm	α	P HC WKP25S	P HC WKP35S	M HC WSM35S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S CN WIS10
	RPGN090300T01020	9,53	11°							☺
	RPGN120400T01020	12,7	11°							☺

See the ISO 1832 designation key for dimensions

HC = Coated carbide
CN = Silicon nitride Si_3N_4

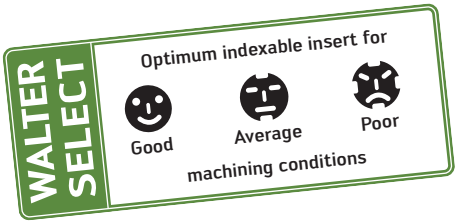
Positive square
SDMW / SDMT
Tiger·tec® Gold



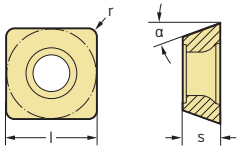
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC 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	☺	☺	☺	☹	☹	☺		☹	☹		☺	☺	☹	☹	☺		☹	☹

HC = Coated carbide



Positive square
SDMW / SDMT
Tiger·tec® Gold

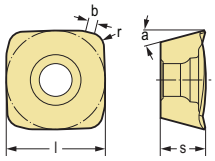


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC WSP45G
	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
SDMX
Tiger·tec® Gold



Indexable inserts

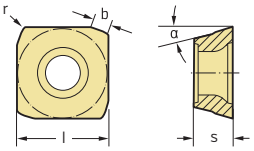
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45G	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45G
	SDMX0904ZDR-E27	M	4	9,5	4,62	15°	1	0,8		●	●	●	●	●	●		●	●	●	●	●
	SDMX1205ZDR-E27	M	4	12,7	5,84	15°	2	1,2		●	●	●	●	●	●		●	●	●	●	●

HC = Coated carbide

C 2

● ● ● / ★ New addition to the product range

Positive square
SDMT
Tiger·tec® Gold

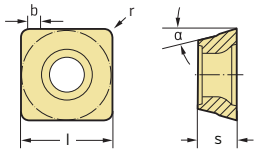


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC					M HC			K HC			S 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

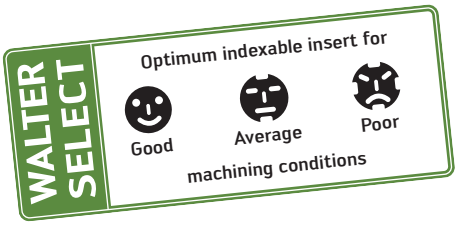
Positive square
SDGT
Tiger·tec® Gold



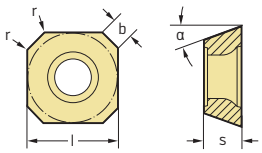
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC					M HC			K HC			S 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

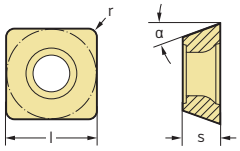


Indexable inserts

	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	WSP45S	WSP45G
	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



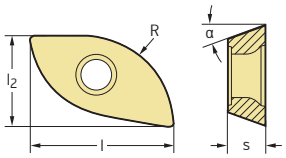
Indexable inserts

	Designation	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
	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

C 2

Positive form inserts
XDMT
Tiger·tec® Gold

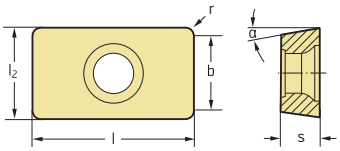


Indexable inserts

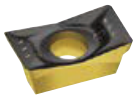
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	R mm	P HC					M HC			K HC			S HC		
									WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	WSP45G
	XDMT1303080R-F55	M	2	8,5	13,12	3	15°	8	☺	😐	😐	☹	☹	😐	☹	☹	😐	☹	☹	😐	☹	☹
	XDMT16T3100R-F55	M	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

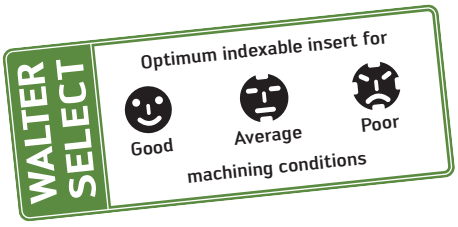
Positive rhombic
BCGX
Tiger·tec®



Indexable inserts

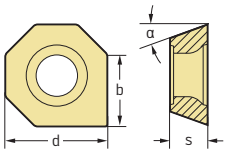
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC		M HC	K HC			S HC	H HC		O HC		
										WKP25S	WKP35S	WSM35S	WAK15	WKP25S	WKP35S	WSM35S	WHH15	WHH15X	WXM15		
	BCGX0903PDR-G55	G	2	6,3	10,3	3,21	7°	0,4	5				☺				☺	☺	☺		
	BCGX1605PDR-G55	G	2	9,9	17,3	5,81	7°	0,8	8				☺				☺	☺	☺		

HC = Coated carbide

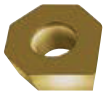
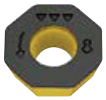


C 2

Finishing inserts
ODHX
Tiger·tec® Gold



Indexable inserts

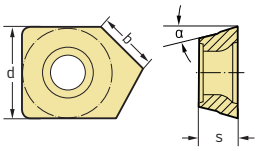
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	M HC WSM35S	K HC WAK15	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	H HC WHH15	H HC WHH15X	O HC WXM15
	ODHX0504ZZR-A57	H	1	12,7	4,76	15°	7,2		☻	☻		☻		☻	☻		☻	☻	
	ODHX0605ZZR-A57	H	1	15,88	5,56	15°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

* ZZN for κ = 45° only

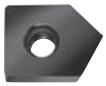
HC = Coated carbide

C 2

Positive square
SDHX
Tiger·tec®

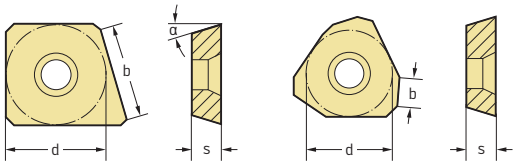


Indexable inserts

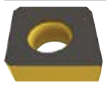
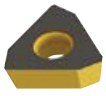
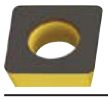
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	M HC WSM35S	K HC WAK15	K HC WKP25S	K HC WKP35S	S HC WSM35S	H HC WHH15	H HC WHH15X	O HC WXM15
	SDHX09T3AZR-A88	H	1	9,52	3,97	15°	5,6				☺				☺	☺	☺
	SDHX1204AZR-A88	H	1	12,7	4,76	15°	7,5				☺				☺	☺	☺

HC = Coated carbide

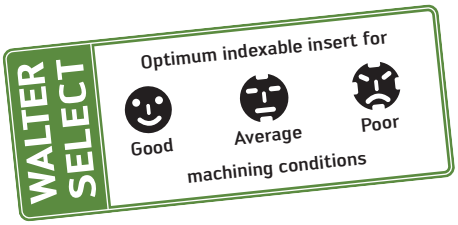
Finishing inserts
P2901 / P2903 / P2905
Tiger·tec®



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	M HC WSM35S	K HC WAK15	K HC WKP25S	K HC WKP35S	N HW WK10	S HC WSM35S	H HC WHH15	H HC WHH15X	O HC WXM15
	P2901-1R	H	1	12,7	4,76	11°	11				☺					☺	☺	☺
	P2903-2R	A	3	9,52	4,76	11°	3,5				☺			😐		☺	☺	☺
	P2905-1	F	4	12,7	4,76	11°	10				☺			😐		☺	☺	☺

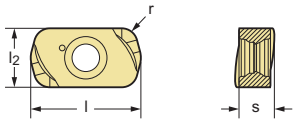
HC = Coated carbide
HW = Uncoated carbide



C 2

Negative rhombic
ENMX

Tiger·tec® Gold



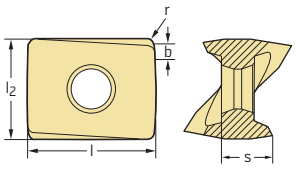
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC 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



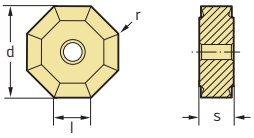
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC 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

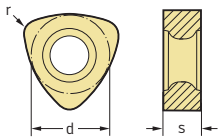


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X
	ONHF050408-F67	H	16	12,7	5,26	4,76	0,8								☺		😐							☺	☺

HC = Coated carbide
HW = Uncoated carbide

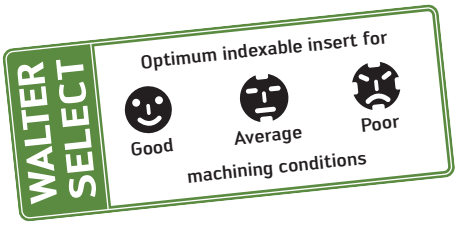
Negative triangular
P23696
Tiger·tec® Gold



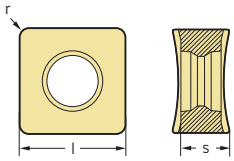
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC 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



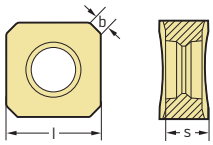
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G
	SNGX120512-F57	G	8	12,7	5,60	1,2	●	●	●	●	●	●	●	●			●	●	●			●	●	●
	SNMX120512-D27	M	8	12,7	5,55	1,2	●	●	●							●	●	●	●					
	SNMX120520-D27	M	8	12,7	5,55	2	●	●	●							●	●	●	●					
	SNMX120512-F27	M	8	12,7	5,65	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

C 2

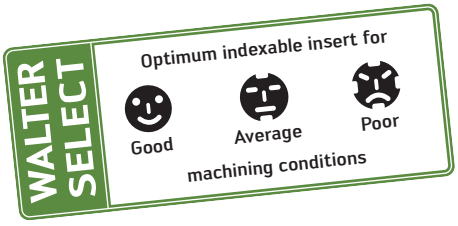
Negative square
SNGX / SNHX / SNMX
Tiger·tec® Gold



Indexable inserts

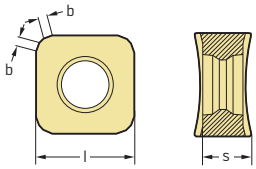
	Designation	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G
	SNGX1205ANN-F27	8	12,7	5,59	1,5	☺	😐	😐								😐	☹	☹					
	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	☺	😐	😐	☹	☹	😐	☹	☹	☺		😐	☹	☹			😐	☹	☹
	SNHX1205ANN-K88	8	12,7	5,54	1,5														😐	☺			
	SNMX1205ANN-F27	8	12,7	5,59	1,5	☺	😐	😐								😐	☹	☹					
	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



C 2

Negative square
SNGX
Tiger·tec® Gold

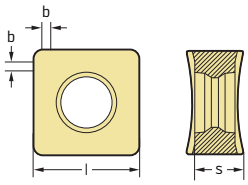


Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G
	SNGX1205ENN-F57	8	12,7	5,61	1,2	●	●	●	●	●	●	●	●		●	●	●	●			●	●	●

HC = Coated carbide
HW = Uncoated carbide

Negative square
SNGX / SNHX / SNMX
Tiger·tec® Gold



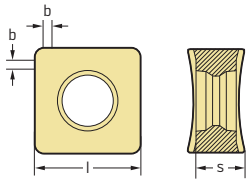
Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G
	SNGX1205ZNN-F27	8	12,7	5,77	1,2	●	●	●								●	●	●					
	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	●	●	●	●	●	●	●	●	●		●	●	●			●	●	●
	SNHX0904ZNN-K88	8	9,52	5,01	1														●	●			
	SNHX1205ZNN-K88	8	12,7	5,89	1,2														●	●			
	SNMX0904ZNN-F57	8	9,52	4,91	1	●	●	●	●	●	●	●	●			●	●	●			●	●	●
	SNMX1205ZNN-F57	8	12,7	5,77	1,2	●	●	●								●	●	●					

HC = Coated carbide
HW = Uncoated carbide

● ● ● / ★ New addition to the product range

Negative square
SNGX / SNHX / SNMX
Tiger·tec® Gold

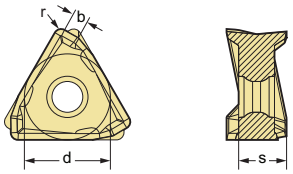


Indexable inserts

	Designation	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G
	SNMX0904ZNN-F67	8	9,52	4,93	1	☺	😐	😐	☹	☹	😐	☹	☹	☺		😐	☹	☹			😐	☹	☹

HC = Coated carbide
HW = Uncoated carbide

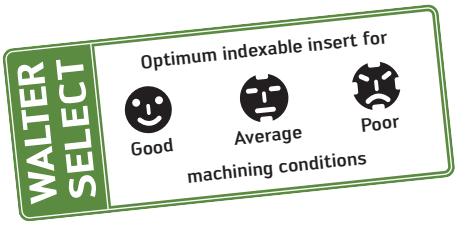
Negative triangular
TNMU
Tiger·tec® Gold



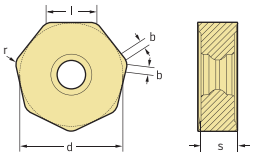
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G
	TNMU160508R-G57	M	6	9,6	5,35	1,6	0,8	☺	😐	😐	☹	☹		☹	☹			😐	☹	☹				☹	☹

HC = Coated carbide
HW = Uncoated carbide



Negative heptagonal
XNMU
Tiger·tec® Gold

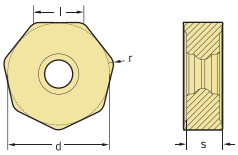


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC 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



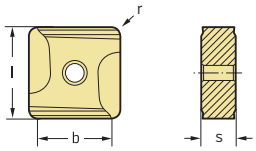
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC 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

C 2

Finishing inserts
SNEX
Tiger·tec®

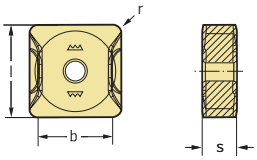


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X
	SNEX1204PNR-B67	E	4	12,7	4,76	0,8	10,8								☺									☺	☺

HC = Coated carbide
HW = Uncoated carbide

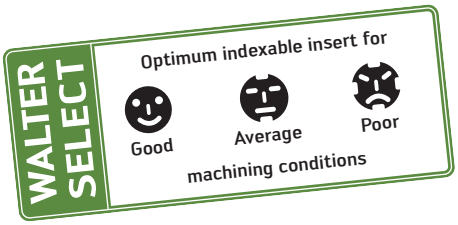
Finishing inserts
SNEX
Tiger·tec®



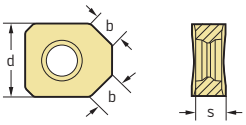
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X
	SNEX1204PNN-A27	E	4	12,7	4,76	1,2	10,3								☺									☺	☺

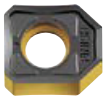
HC = Coated carbide
HW = Uncoated carbide



Finishing inserts
XNGX
Tiger·tec®

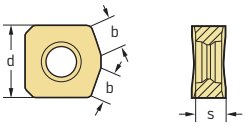


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC 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®



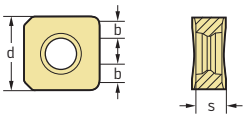
Indexable inserts

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

HC = Coated carbide
HW = Uncoated carbide

C 2

Finishing inserts
XNGX
Tiger·tec®

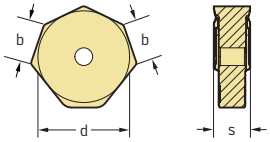


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC 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

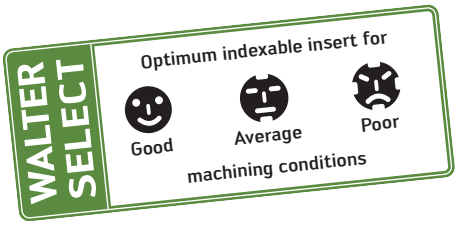
Finishing inserts
XNHX
Tiger·tec®



Indexable inserts

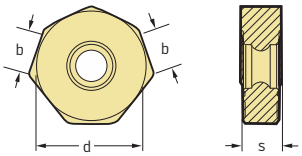
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X
	XNHX0705ANN-D67	H	2	14,5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

HC = Coated carbide
HW = Uncoated carbide



C 2

Finishing inserts
XNGX
Tiger·tec®



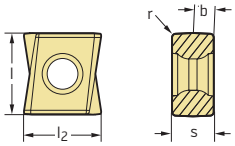
Indexable inserts

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

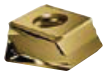
HC = Coated carbide
HW = Uncoated carbide

C 2

Tangential rhombic
LNHU / LNMU
Tiger·tec® Gold



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	S HC WSP45G
	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		😐	😐	☹		😐	☹					☹	☹			😐	☹	
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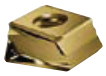
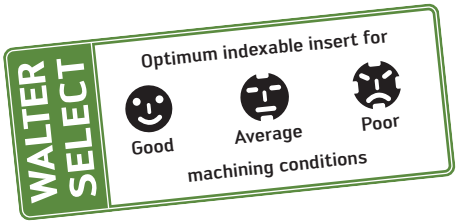
	LNHU130632R-L55T	H	4	12	13	6,8	3,2			😐	😐	☹		😐	☹					☹	☹			😐	☹	
	LNHU160708R-L55T	H	4	15,5	16	7,2	0,8	2,3	☺	😐	😐	☹	☹	😐	☹	☹		😐	😐	☹	☹			😐	☹	☹
	LNMU090404R-L55T	M	4	8,5	9	4,5	0,4	1,5	☺	😐	😐	☹	☹		☹	☹		😐	😐	☹	☹				☹	☹
	LNMU130608R-L55T	M	4	12	13	6,8	0,8	2,2	☺	😐	😐	☹	☹		☹	☹		😐	😐	☹	☹				☹	☹
	LNHU090404R-L65T	H	4	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				☹			☹										☹	

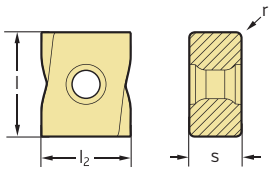
HC = Coated carbide
HW = Uncoated carbide



C 2

Tangential rhombic
LNMX

Tiger·tec® Gold



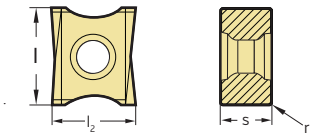
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	S HC WSP45G
	LNMX201012R-F57T	M	4	17,05	20	10	1,2	☺	😐	😐	☹	☹		☹	☹		😐	😐	☹	☹					☹

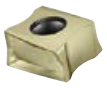
HC = Coated carbide
HW = Uncoated carbide

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 HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC WSP45G
	LNHX120604R-L65T	H	4	11	12,7	6,8	0,4																☹	☹	☹

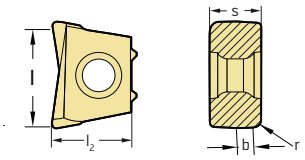
HC = Coated carbide
HW = Uncoated carbide

C 2

WALTER SELECT
Optimum indexable insert for
Good
Average
Poor
machining conditions

Tangential rhombic
XNHX

Tiger·tec® Gold



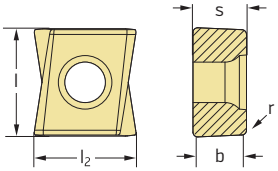
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC				M HC				K HC				N HC	N HW	S 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

C 2

Finishing inserts
LNHX
Tiger·tec®

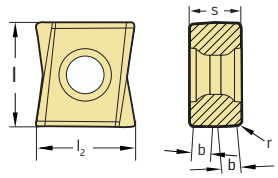


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC 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®



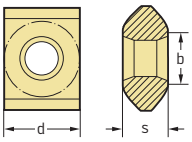
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	LNHX130608R-L55T	H	4	12	13	6,8	0,8	2,2								☺									☺	☺	☺

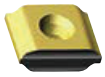
HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Optimum indexable insert for
Good
Average
Poor
machining conditions

Finishing inserts
P45420
Tiger·tec®

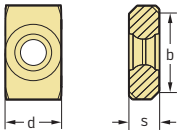


Indexable inserts

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

HC = Coated carbide
HW = Uncoated carbide

C 2

Indexable insert milling cutters product range overview

Face milling cutters

Shoulder milling cutters

Machining					
Lead angle κ	**43°**	**45°**	**88°**	**90°**	
Designation	**M5004 Xtra·tec® XT**	**M5009 Xtra·tec® XT**	**M5012 Xtra·tec® XT**	**M5130 Xtra·tec® XT**	**M5137 Xtra·tec® XT**
D_c [mm]	24–160	40–160	50–160	16–63	51–102
D_c [inch]	0,935–6,299	1,575–6,299	1,969–6,299	0,625–2,480	2,000–4,000
Page	308	318	328	332	338
					

Slot milling cutters

Copy milling cutters

Machining					
Lead angle κ	**90°**				
Designation	**M4791**	**M5468 Xtra·tec® XT**	**F2239**	**F2239B**	**F2339**
D_c [mm]	19–44	10–90	20–32	20–40	16–32
D_c [inch]	0,750–1,750	0,394–3,528	0,787–1,260	0,787–1,575	0,625–1,260
Page	340	342	350	350	352
					

Profiling cutters

Machining	
Lead angle κ	**30° + 60°**
Designation	**M4574**
D_c [mm]	8–20 mm
D_c [inch]	0.315"–0.787"
Page	356
	

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 – Tool group

M	Milling

2 – Generation

2	
3	Walter BLAXX
4	M4000
5	Xtra·tec® XT

3 – Tool type

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

4 – Type

02	High-feed milling cutter κ = 15°, radial, positive, 4 cutting edges per indexable insert
03	Face milling cutter κ = 45°, radial, positive, 4 cutting edges per indexable insert
04	Octagon face milling cutter κ = 43°, radial, positive, 8 cutting edges per indexable insert
08	High-feed milling cutter κ = 17°, radial, double-sided, 4 cutting edges per indexable insert
09	Face milling cutter κ = 45°, radial, double-sided, 8 cutting edges per indexable insert
12	Face milling cutter κ = 88°, radial, double-sided, 8 cutting edges per indexable insert
16	Heavy-duty cutter κ = 60°, tangential, double-sided, 4 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
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, 2 cutting edges per indexable insert
31	Ramping milling cutter κ = 90°, radial, positive, 2 cutting edges per indexable insert
32	Shoulder milling cutter κ = 89°45', radial, positive, 4 cutting edges per indexable insert
37	Shoulder milling cutter κ = 90°, radial, double-sided, 6 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
68	Round insert milling cutter radial, positive, four or eight cutting edges per indexable insert
74	Chamfer milling cutter κ = 30°, 45°, 60°, radial, positive, 4 cutting edges per indexable insert
75	T-slot milling cutter κ = 90°, radial, positive, 4 cutting edges per indexable insert
91	Routing cutter κ = 90°, radial, positive, 4 cutting edges per indexable insert
92	Routing cutter κ = 90°, radial, positive, two or four cutting edges per indexable insert

5 – 1. Delimiters

–	Metric
.	Inch

6 – Cutting diameter

7 – Boring bar/adaptor type

A	Parallel shank
B	Bore adaptor
T	ScrewFit
TC	Cylindrical-modular interface
W	Weldon shank
H	HSK

8 – Boring bar/adaptor size

9 – Number of teeth

10 – Depth of cut

11 – Version acc. to length or manufacturer-specific adaptors or other tool characteristics

S	Short version
L	Long version
D	Dörries Scharmann machines
MA	Makino machines

For helical milling cutters

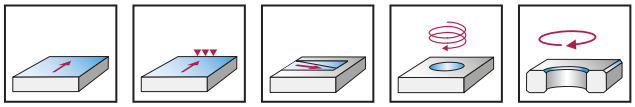
M	Modular tool design
B	Basic body
F	Front piece

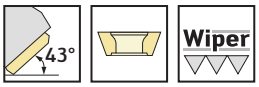
C 2

Octagon face milling cutters
M5004 mm
OD .. 0504 ..
Xtra·tec® XT

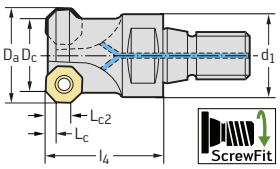
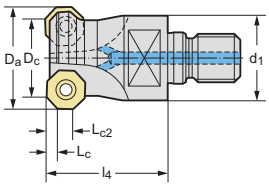
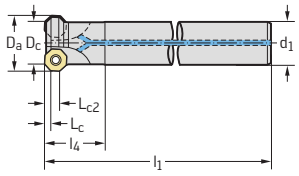


– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5004	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	L_{c2} mm	Z	kg	No. of indexable inserts	Type
ScrewFit 	★ M5004-032-T28-02-03	24	32	T28	40		3	8	2	0,2	2	OD .. 0504 .. OD .. 0504ZZ ..
	★ M5004-040-T36-03-03	32	40	T36	40		3	8	3	0,3	3	
Cylindrical, modular 	★ M5004-032-TC16-02-03	24	32	M16	40		3	8	2	0,1	2	OD .. 0504 .. OD .. 0504ZZ ..
Parallel shank 	★ M5004-032-A20-02-03	24	32	20	35	110	3	8	2	0,2	2	OD .. 0504 .. OD .. 0504ZZ ..
	★ M5004-032-A25-02-03	24	32	25	35	150	3	8	2	0,5	2	
	★ M5004-040-A20-03-03	32	40	20	35	110	3	8	3	0,3	3	
	★ M5004-040-A25-03-03	32	40	25	35	150	3	8	3	0,5	3	

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

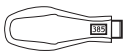
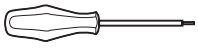
C 2

/ ★ New addition to the product range

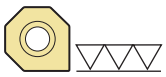
Assembly parts

	D_c [mm]	24–32
	Clamping screw for indexable insert Tightening torque	FS2119 (Torx 15IP) 3,0 Nm

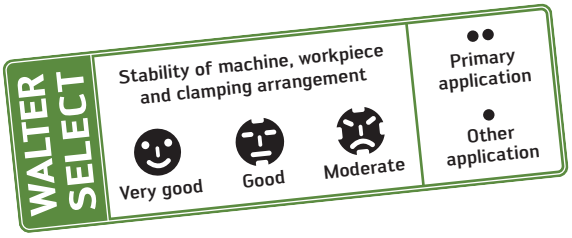
Accessories

	D_c [mm]	24–32
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	ODHX0504ZZR-A57		7,2		☺	☺							☺			☺	☺								☺	☺	☺
	ODHT050408-F57	0,8							😐												😐						
	ODHT050408-G88	0,8																	☺								
	ODHW050408-A57	0,8			😠	😠										😠	😠										
	ODHW050412-A57	1,2																☺									
	ODMT050408-D57	0,8		☺	😐	😐	😠	😠	😐		😠	😠		😐	😐	😠	😠				😐		😠	😠			
	ODMW050408-A57	0,8		😐	😠	😠							☺	😐	😐	😠	😠										
	ODMW050408T-A27	0,8		😐	😠	😠								😐	😐	😠	😠										
	ODHT0504ZZN-F57	0,8	1,2	☺	😐	😐	😠	😠	😐		😠	😠			😐	😠	😠				😐		😠	😠			
	ODHT0504ZZN-G77	0,8	1,6				😠				😠												😠				
	ODHT0504ZZN-G88	0,8	1,2																☺	😐							
	ODHW0504ZZN-A57	0,8	1,2	😐	😠	😠							☺		😐	😠	😠										
	ODMT0504ZZN-D57	0,8	1,2	☺	😐	😐	😠	😠	😐	😠	😠	😠		😐	😐	😠	😠				😐	😠	😠	😠			
	ODMT0504ZZN-F57	0,8	1,2	☺	😐	😠		😠	😐			😠			😐	😠	😠				😐			😠			

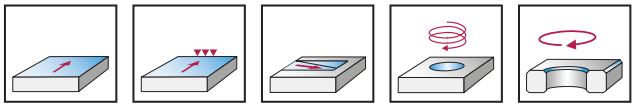
HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide

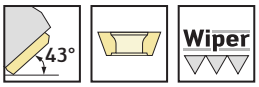


Octagon face milling cutters
M5004 mm
OD .. 0504 ..
Xtra·tec® XT



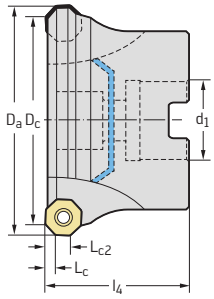
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5004	●●	●●	●●	●●	●●	●	●

Parallel bore
DIN 138 transverse keyway



Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	L_{c2} mm	Z	kg	No. of indexable inserts	Type
★ M5004-050-B16-04-03	42	50	16	40		3	8	4	0,2	4	
★ M5004-050-B16-05-03	42	50	16	40		3	8	5	0,2	5	
★ M5004-052-B22-04-03	44	52	22	40		3	8	4	0,4	4	
★ M5004-052-B22-05-03	44	52	22	40		3	8	5	0,4	5	
★ M5004-058-B16-04-03	50	58	16	40		3	8	4	0,3	4	
★ M5004-058-B16-05-03	50	58	16	40		3	8	5	0,3	5	
★ M5004-063-B22-05-03	55	63	22	40		3	8	5	0,4	5	
★ M5004-063-B22-06-03	55	63	22	40		3	8	6	0,4	6	
★ M5004-063-B22-07-03	55	63	22	40		3	8	7	0,4	7	
★ M5004-066-B27-06-03	58	66	27	50		3	8	6	0,6	6	
★ M5004-066-B27-07-03	58	66	27	50		3	8	7	0,6	7	
★ M5004-071-B22-06-03	63	71	22	40		3	8	6	0,5	6	OD .. 0504 ..
★ M5004-071-B22-07-03	63	71	22	40		3	8	7	0,5	7	OD .. 0504ZZ ..
★ M5004-080-B27-06-03	72	80	27	50		3	8	6	0,9	6	
★ M5004-080-B27-07-03	72	80	27	50		3	8	7	0,9	7	
★ M5004-080-B27-08-03	72	80	27	50		3	8	8	0,9	8	
★ M5004-088-B27-07-03	80	88	27	50		3	8	7	1,1	7	
★ M5004-088-B27-08-03	80	88	27	50		3	8	8	1,1	8	
★ M5004-100-B32-08-03	92	100	32	50		3	8	8	1,6	8	
★ M5004-100-B32-10-03	92	100	32	50		3	8	10	1,6	10	
★ M5004-108-B32-08-03	100	108	32	50		3	8	8	1,8	8	
★ M5004-108-B32-10-03	100	108	32	50		3	8	10	1,8	10	
★ M5004-125-B40-10-03	117	125	40	63		3	8	10	3,1	10	
★ M5004-125-B40-12-03	117	125	40	63		3	8	12	3,0	12	

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

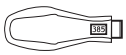
C 2

/ ★ New addition to the product range

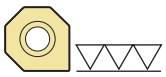
Assembly parts

	D_c [mm]	42–117
	Clamping screw for indexable insert Tightening torque	FS2119 (Torx 15IP) 3,0 Nm

Accessories

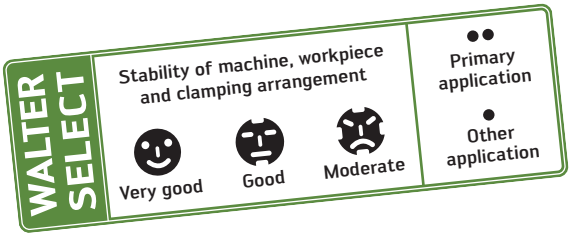
	D_c [mm]	42–117
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	ODHX0504ZZR-A57		7,2		☺	☺							☺			☺	☺								☺	☺	☺
	ODHT050408-F57	0,8							😐												😐						
	ODHT050408-G88	0,8																	☺								
	ODHW050408-A57	0,8			☹	☹										☹	☹										
	ODHW050412-A57	1,2																☺									
	ODMT050408-D57	0,8		☺	😐	😐	☹	☹	😐		☹	☹		😐	😐	☹	☹				😐		☹	☹			
	ODMW050408-A57	0,8		😐	☹	☹							☺	😐	😐	☹	☹										
	ODMW050408T-A27	0,8		😐	☹	☹								😐	😐	☹	☹										
	ODHT0504ZZN-F57	0,8	1,2	☺	😐	😐	☹	☹	😐		☹	☹			😐	☹	☹				😐		☹	☹			
	ODHT0504ZZN-G77	0,8	1,6				☹				☹												☹				
	ODHT0504ZZN-G88	0,8	1,2																☺	😐							
	ODHW0504ZZN-A57	0,8	1,2	😐	☹	☹							☺		😐	☹	☹										
	ODMT0504ZZN-D57	0,8	1,2	☺	😐	😐	☹	☹	😐	☹	☹	☹		😐	😐	☹	☹				😐	☹	☹	☹			
	ODMT0504ZZN-F57	0,8	1,2	☺	😐	☹		☹	😐			☹			😐	☹	☹				😐			☹			

HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide

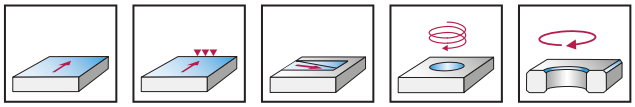
C 2

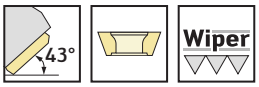


Octagon face milling cutters
M5004 inch
OD .. 0504 ..
Xtra·tec® XT

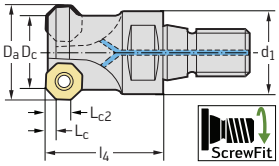
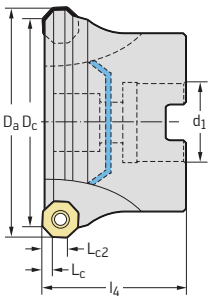


– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5004	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c inch	D_a inch	d_1 inch	l_4 inch	L_c inch	L_{c2} inch	Z	lbs	No. of indexable inserts	Type
ScrewFit 	★ M5004.031-T28-02-03	0,935	1,250	T28	1,575	0,118	0,315	2	0,4	2	OD .. 0504 .. OD .. 0504ZZ ..
	★ M5004.038-T36-03-03	1,185	1,500	T36	1,575	0,118	0,315	3	0,6	3	
Parallel bore DIN 138 transverse keyway 	★ M5004.059-B19-04-03	2,000	2,315	0,750	1,575	0,118	0,315	4	0,8	4	OD .. 0504 .. OD .. 0504ZZ ..
	★ M5004.059-B19-05-03	2,000	2,315	0,750	1,575	0,118	0,315	5	0,8	5	
	★ M5004.072-B19-06-03	2,500	2,815	0,750	1,575	0,118	0,315	6	1,1	6	
	★ M5004.072-B19-07-03	2,500	2,815	0,750	1,575	0,118	0,315	7	1,0	7	
	★ M5004.084-B26-07-03	3,000	3,315	1,000	1,575	0,118	0,315	7	1,6	7	
	★ M5004.084-B26-08-03	3,000	3,315	1,000	1,575	0,118	0,315	8	1,7	8	

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

C 2

● ● ● / ★ New addition to the product range

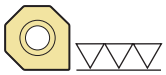
Assembly parts

	D_c [inch]	0,935–1,185	2,000–2,500	3,000
	Clamping screw for indexable insert Tightening torque	FS2119 (Torx 15IP) 3,0 Nm	FS2119 (Torx 15IP) 3,0 Nm	FS2119 (Torx 15IP) 3,0 Nm
	Clamping screw for arbour-mounted tools		FS1518	FS1519

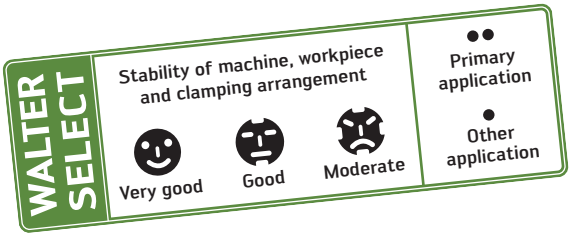
Accessories

	D_c [inch]	0,935–3,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	ODHX0504ZZR-A57		7,2		●●	●●							●●			●●	●●							●●	●●	●●
	ODHT050408-F57	0,8							●												●					
	ODHT050408-G88	0,8																●●								
	ODHW050408-A57	0,8			○	○										○	○									
	ODHW050412-A57	1,2																●●								
	ODMT050408-D57	0,8		●●	●●	●●	○	○	●		○	○		●	●●	○	○				●		○	○			
	ODMW050408-A57	0,8		●	○	○							●●	●	●●	○	○										
	ODMW050408T-A27	0,8		●	○	○								●	●●	○	○										
	ODHT0504ZZN-F57	0,8	1,2	●●	●●	●●	○	○	●		○	○			●●	○	○				●		○	○			
	ODHT0504ZZN-G77	0,8	1,6				○				○												○				
	ODHT0504ZZN-G88	0,8	1,2																●●	●●							
	ODHW0504ZZN-A57	0,8	1,2	●	○	○							●●		●●	○	○										
	ODMT0504ZZN-D57	0,8	1,2	●●	●●	●●	○	○	●	○	○	○		●	●●	○	○				●	○	○	○			
	ODMT0504ZZN-F57	0,8	1,2	●	●	○		○	●			○			●	○	○				●			○			

HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide

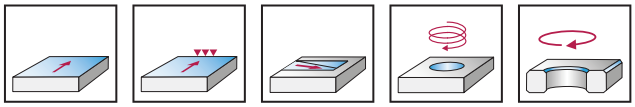


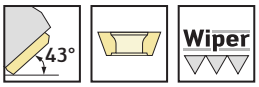
C 2

Octagon face milling cutters
M5004 mm
OD .. 0605 ..
Xtra·tec® XT



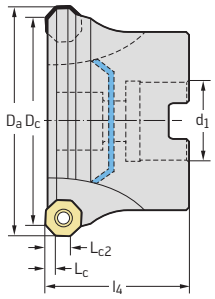
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5004	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	L_{c2} mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5004-050-B16-03-04	40	50	16	40	4	10	3	0,2	3	OD .. 0605 .. ODHX0605ZZR
	★ M5004-052-B22-03-04	42	52	22	45	4	10	3	0,3	3	
	★ M5004-060-B16-03-04	50	60	16	40	4	10	3	0,3	3	
	★ M5004-063-B22-04-04	53	63	22	40	4	10	4	0,4	4	
	★ M5004-063-B22-05-04	53	63	22	40	4	10	5	0,3	5	
	★ M5004-063-B22-06-04	53	63	22	40	4	10	6	0,3	6	
	★ M5004-066-B27-05-04	56	66	27	50	4	10	5	0,6	5	
	★ M5004-066-B27-06-04	56	66	27	50	4	10	6	0,6	6	
	★ M5004-073-B22-05-04	63	73	22	40	4	10	5	0,5	5	
	★ M5004-073-B22-06-04	63	73	22	40	4	10	6	0,5	6	
	★ M5004-080-B27-05-04	70	80	27	50	4	10	5	0,8	5	
	★ M5004-080-B27-06-04	70	80	27	50	4	10	6	0,8	6	
	★ M5004-080-B27-07-04	70	80	32	50	4	10	7	0,8	7	
	★ M5004-090-B27-06-04	80	90	27	50	4	10	6	1	6	
	★ M5004-090-B27-07-04	80	90	27	50	4	10	7	1,0	7	
	★ M5004-100-B32-07-04	90	100	32	50	4	10	7	1,4	7	
	★ M5004-100-B32-09-04	90	100	32	50	4	10	9	1,4	9	
	★ M5004-110-B32-07-04	100	110	32	50	4	10	7	1,6	7	
	★ M5004-110-B32-09-04	100	110	32	50	4	10	9	1,7	9	
	★ M5004-125-B40-08-04	115	125	40	63	4	10	8	2,8	8	
	★ M5004-125-B40-10-04	115	125	40	63	4	10	10	2,8	10	
	★ M5004-135-B40-08-04	125	135	40	63	4	10	8	3,2	8	
	★ M5004-135-B40-10-04	125	135	40	63	4	10	10	3,1	10	



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

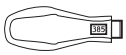
C 2

/ ★ New addition to the product range

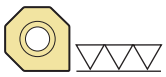
Assembly parts

	D_c [mm]	40–125
	Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm

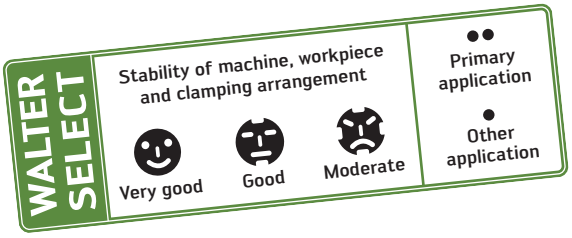
Accessories

	D_c [mm]	40–125
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2015 (Torx 20IP)
	Screwdriver	FS1486 (Torx 20IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	ODHX0605ZZR-A57		9,4		☺	☺							☺			☺	☺							☺	☺	☺
	ODHT060512-F57	1,2			😐	😐	😣	😣			😣	😣				😣	😣						😣	😣			
	ODHW060512-A57	1,2			😣	😣										😣	😣										
	ODHW060516-A57	1,6																☺									
	ODMT060512-D57	1,2		☺	😐	😐	😣	😣	😐		😣	😣		😐	😐	😣	😣				😐		😣	😣			
	ODMW060508-A57	0,8		😐	😣	😣							☺	😐	😐	😣	😣										
	ODMW060508T-A27	0,8		😐	😣	😣								😐	😐	😣	😣										
	ODHT0605ZZN-F57	0,8	1,6	☺	😐	😐	😣	😣	😐		😣	😣			😐	😣	😣				😐		😣	😣			
	ODHT0605ZZN-G77	0,8	1,6				😣				😣												😣				
	ODHT0605ZZN-G88	0,8	1,6															☺	😐								
	ODHW0605ZZN-A57	0,8	1,6	😐	😣	😣							☺		😐	😣	😣										
	ODMT0605ZZN-D57	0,8	1,6	☺	😐	😐	😣	😣	😐	😣	😣	😣		😐	😐	😣	😣				😐	😣	😣	😣			
	ODMT0605ZZN-F57	0,8	1,6	☹	☹	😣		☹	☹			☹			☹	☹	☹				☹			☹			

HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide

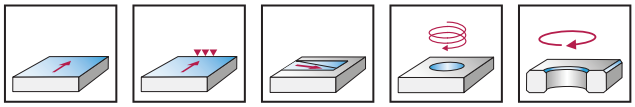


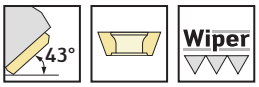
C 2

Octagon face milling cutters
M5004 mm
OD .. 0605 ..
Xtra·tec® XT



– Eight cutting edges per indexable insert

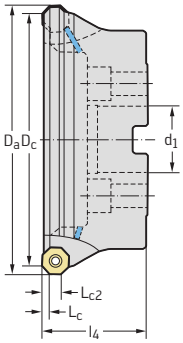




	P	M	K	N	S	H	O
M5004	●●	●●	●●	●●	●●	●	●

Tool

Parallel bore
DIN 138 transverse keyway



Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	L_{c2} mm	Z	kg	No. of indexable inserts	Type
★ M5004-160-B40-09-04	150	160	40/40 B	63	4	10	9	4,2	9	OD .. 0605 .. ODHX0605ZZR
★ M5004-160-B40-11-04	150	160	40/40 B	63	4	10	11	4,2	11	
★ M5004-170-B40-09-04	160	170	40/40 B	63	4	10	9	4,7	9	
★ M5004-170-B40-11-04	160	170	40/40 B	63	4	10	11	4,7	11	

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

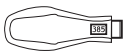
C 2

/ ★ New addition to the product range

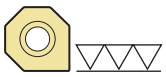
Assembly parts

	D_c [mm]	150–160
	Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm

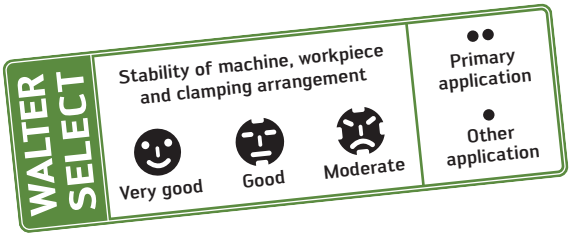
Accessories

	D_c [mm]	150–160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2015 (Torx 20IP)
	Screwdriver	FS1486 (Torx 20IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	ODHX0605ZZR-A57		9,4		☻	☻							☻			☻	☻								☻	☻	☻
	ODHT060512-F57	1,2			☹	☹	☒	☒			☒	☒				☒	☒						☒	☒			
	ODHW060512-A57	1,2			☒	☒										☒	☒										
	ODHW060516-A57	1,6																☻									
	ODMT060512-D57	1,2		☻	☹	☹	☒	☒	☹		☒	☒		☹	☹	☒	☒				☹		☒	☒			
	ODMW060508-A57	0,8		☹	☒	☒							☻	☹	☹	☒	☒										
	ODMW060508T-A27	0,8		☹	☒	☒								☹	☹	☒	☒										
	ODHT0605ZZN-F57	0,8	1,6	☻	☹	☹	☒	☒	☹		☒	☒			☹	☒	☒				☹		☒	☒			
	ODHT0605ZZN-G77	0,8	1,6				☒				☒												☒				
	ODHT0605ZZN-G88	0,8	1,6															☹	☹								
	ODHW0605ZZN-A57	0,8	1,6	☹	☒	☒							☻		☹	☒	☒										
	ODMT0605ZZN-D57	0,8	1,6	☻	☹	☹	☒	☒	☹	☒	☒	☒		☹	☹	☒	☒				☹	☒	☒	☒			
	ODMT0605ZZN-F57	0,8	1,6	☺	☹	☒		☒	☹			☒			☹	☒	☒				☹			☒			

HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide

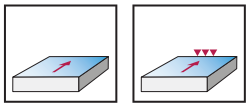


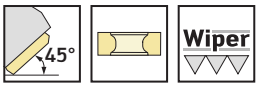
C 2

Face milling cutters
M5009 mm
SN . X1205 ..
Xtra·tec® XT



– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5009	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5009-050-B22-06-06	50	22	40	6	6	0,4	6	SN . X1205 .. SN . X1205ANN XNGX1205ANN
	★ M5009-063-B22-08-06	63	22	40	6	8	0,5	8	
	★ M5009-063-B27-08-06	63	27	50	6	8	0,8	8	
	★ M5009-080-B27-10-06	80	27	50	6	10	1,1	10	
	★ M5009-100-B32-12-06	100	32	50	6	12	1,8	12	
Parallel bore DIN 138 transverse keyway	★ M5009-125-B40-16-06	125	40	63	6	16	3,3	16	SN . X1205 .. SN . X1205ANN XNGX1205ANN
	★ M5009-160-B40-20-06	160	40/40 B	63	6	20	5,0	20	

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

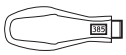
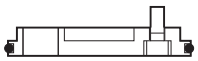
C 2

★ New addition to the product range

Assembly parts

	D_c [mm]	50–160
	Clamping screw for indexable insert Tightening torque	FS1459 (Torx 15IP) 4,0 Nm

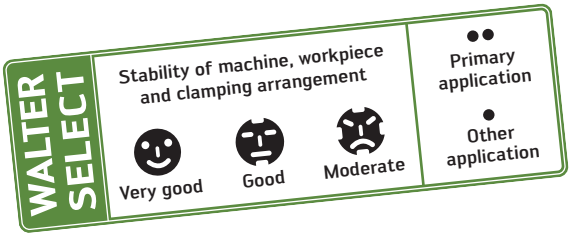
Accessories

	D_c [mm]	50–125	160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
	Key for screw for shim	ISO2936-4 (SW 4)	ISO2936-4 (SW 4)
	Sealing disc set (incl. gasket and screws)		FS936 COMPLETE SET
	Gasket		O-R 96X4

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	SNHX1205ANN-K88		1,5														●●	●						
	SNGX1205ANN-F57		1,5	●	●●	●●	○	○	●●	○	○		●●	●●	○	○			●●	○	○			
	SNGX1205ANN-F67		1,5	●	●●	●●	○	○	●●	○	○	●		●●	○	○			●●	○	○			
	SNMX1205ANN-F57		1,5	●	●●	●●							●●	●●	○	○								
	SNMX1205ANN-F67		1,5	●	●●	●●						●		●●	○	○								
	SNGX1205ANN-F27		1,5	●	●●	●●								●●	○	○								
	SNMX1205ANN-F27		1,5	●	●●	●●								●●	○	○								
	SNMX120512-F57	1,2		●	●●	●●	○	○	●●	○	○		●●	●●	○	○			●●	○	○			
	SNMX120520-F57	2		●	●●	●●	○	○	●●	○	○		●●	●●	○	○			●●	○	○			
	SNMX120512-D27	1,2		●	●●	●●							●●	●●	○	○								
	SNMX120520-D27	2		●	●●	●●							●●	●●	○	○								
	SNGX120512-F57	1,2		●	●●	●●	○	○	●●	○	○			●●	○	○			●●	○	○			
	SNMX120512-F67	1,2		●	●●	●●	○		●●	○		●		●●	○	○			●●	○				
	SNMX120512-F27	1,2		●	●●	●●								●●	○	○								
	XNGX1205ANN-F67		4,7									●										●●	●●	●●

HC = Coated carbide
HW = Uncoated carbide



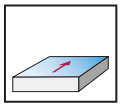
C 2

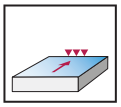
Face milling cutters
M5009 mm
SN . X1205 ..
Xtra·tec® XT





– Eight cutting edges per indexable insert





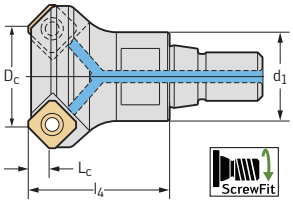


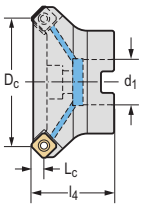




	P	M	K	N	S	H	O
M5009	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
ScrewFit	★ M5009-040-T36-04-06-AP	40	T36	40	6	4	0,4	4	SN . X1205 .. SN . X1205ANN XNGX1205ANN
Parallel bore DIN 138 transverse keyway	★ M5009-050-B22-04-06-AP	50	22	40	6	4	0,4	4	SN . X1205 .. SN . X1205ANN XNGX1205ANN
	★ M5009-063-B22-06-06-AP	63	22	40	6	6	0,5	6	
	★ M5009-063-B27-06-06-AP	63	27	50	6	6	0,8	6	
	★ M5009-080-B27-05-06-AP	80	27	50	6	5	1,2	5	
	★ M5009-080-B27-07-06-AP	80	27	50	6	7	1,2	7	
	★ M5009-100-B32-06-06-AP	100	32	50	6	6	1,9	6	
	★ M5009-100-B32-08-06-AP	100	32	50	6	8	1,8	8	





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

C 2

★ New addition to the product range

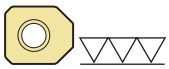
Assembly parts

	D_c [mm]	40–100
	Shim for indexable insert	AP800-SN1205 H81
	Clamping screw for shim	FS2069 (SW 4)
	Clamping screw for indexable insert Tightening torque	FS2617 (Torx 15IP) 4,0 Nm

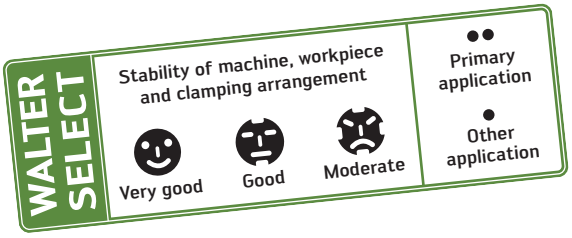
Accessories

	D_c [mm]	40–100
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)
	Key for screw for shim	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	SNHX1205ANN-K88		1,5														●●	●						
	SNGX1205ANN-F57		1,5	●	●●	●●	○	○	●●	○	○		●●	●●	○	○			●●	○	○			
	SNGX1205ANN-F67		1,5	●	●●	●●	○	○	●●	○	○	●		●●	○	○			●●	○	○			
	SNMX1205ANN-F57		1,5	●	●●	●●							●●	●●	○	○								
	SNMX1205ANN-F67		1,5	●	●●	●●						●		●●	○	○								
	SNGX1205ANN-F27		1,5	●	●●	●●								●●	○	○								
	SNMX1205ANN-F27		1,5	●	●●	●●								●●	○	○								
	SNMX120512-F57	1,2		●	●●	●●	○	○	●●	○	○		●●	●●	○	○			●●	○	○			
	SNMX120520-F57	2		●	●●	●●	○	○	●●	○	○		●●	●●	○	○			●●	○	○			
	SNMX120512-D27	1,2		●	●●	●●							●●	●●	○	○								
	SNMX120520-D27	2		●	●●	●●							●●	●●	○	○								
	SNGX120512-F57	1,2		●	●●	●●	○	○	●●	○	○			●●	○	○			●●	○	○			
	SNMX120512-F67	1,2		●	●●	●●	○		●●	○		●		●●	○	○			●●	○				
	SNMX120512-F27	1,2		●	●●	●●								●●	○	○								
	XNGX1205ANN-F67		4,7									●										●	●	●

HC = Coated carbide
HW = Uncoated carbide

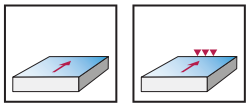


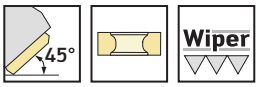
C 2

Face milling cutters
M5009 mm
SN . X1205 ..
Xtra·tec® XT



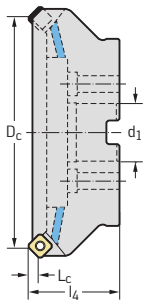
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5009	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5009-125-B40-07-06-AP	125	40	63	6	7	3,5	7	SN . X1205 .. SN . X1205ANN XNGX1205ANN
	★ M5009-125-B40-10-06-AP	125	40	63	6	10	3,4	10	
	★ M5009-160-B40-08-06-AP	160	40/40 B	63	6	8	5,2	8	
	★ M5009-160-B40-12-06-AP	160	40/40 B	63	6	12	5,1	12	



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

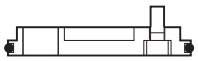
C 2

●●● / ★ New addition to the product range

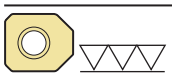
Assembly parts

	D_c [mm]	125–160
	Shim for indexable insert	AP800-SN1205 H81
	Clamping screw for shim	FS2069 (SW 4)
	Clamping screw for indexable insert Tightening torque	FS2617 (Torx 15IP) 4,0 Nm

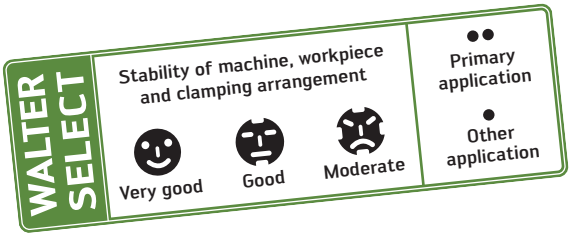
Accessories

	D_c [mm]	125	160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
	Key for screw for shim	ISO2936-4 (SW 4)	ISO2936-4 (SW 4)
	Sealing disc set (incl. gasket and screws)		FS936 COMPLETE SET
	Gasket		O-R 96X4

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	SNHX1205ANN-K88		1,5														●●	●						
	SNGX1205ANN-F57		1,5	●	●●	●●	●●	●●	●●	●●	●●		●●	●●	●●	●●			●●	●●	●●			
	SNGX1205ANN-F67		1,5	●	●●	●●	●●	●●	●●	●●	●●	●		●●	●●	●●			●●	●●	●●			
	SNMX1205ANN-F57		1,5	●	●●	●●							●●	●●	●●	●●								
	SNMX1205ANN-F67		1,5	●	●●	●●						●		●●	●●	●●								
	SNGX1205ANN-F27		1,5	●	●●	●●								●●	●●	●●								
	SNMX1205ANN-F27		1,5	●	●●	●●								●●	●●	●●								
	SNMX120512-F57	1,2		●	●●	●●	●●	●●	●●	●●	●●		●●	●●	●●	●●			●●	●●	●●			
	SNMX120520-F57	2		●	●●	●●	●●	●●	●●	●●	●●		●●	●●	●●	●●			●●	●●	●●			
	SNMX120512-D27	1,2		●	●●	●●							●●	●●	●●	●●								
	SNMX120520-D27	2		●	●●	●●							●●	●●	●●	●●								
	SNGX120512-F57	1,2		●	●●	●●	●●	●●	●●	●●	●●			●●	●●	●●			●●	●●	●●			
	SNMX120512-F67	1,2		●	●●	●●	●●		●●	●●		●		●●	●●	●●			●●	●●				
	SNMX120512-F27	1,2		●	●●	●●								●●	●●	●●								
	XNGX1205ANN-F67		4,7									●										●	●	●

HC = Coated carbide
HW = Uncoated carbide

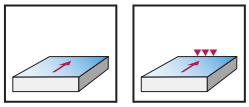


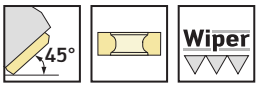
C 2

Face milling cutters
M5009 inch
SN . X1205 ..
Xtra·tec® XT



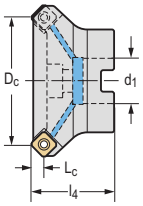
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5009	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c inch	d_1 inch	l_4 inch	L_c inch	Z	lbs	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5009.051-B19-06-06	2,000	0,750	1,500	0,236	6	0,9	6	SN . X1205 .. SN . X1205ANN XNGX1205ANN
	★ M5009.064-B26-08-06	2,500	1,000	2,000	0,236	8	1,8	8	
	★ M5009.076-B26-09-06	3,000	1,000	2,000	0,236	9	2,4	9	
	★ M5009.102-B38-12-06	4,000	1.500	2,500	0,236	12	6,1	12	
	★ M5009.127-B38-16-06	5,000	1.500	2,500	0,236	16	8,1	16	
	★ M5009.152-B38-19-06	6,000	1.500	2,500	0,236	19	10,3	19	



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

C 2

/ ★ New addition to the product range

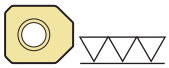
Assembly parts

	D_c [inch]	2,000	2,500–3,000	4,000–6,000
	Clamping screw for indexable insert Tightening torque	FS1459 (Torx 15IP) 4,0 Nm	FS1459 (Torx 15IP) 4,0 Nm	FS1459 (Torx 15IP) 4,0 Nm
	Clamping screw for arbour-mounted tools	FS1518	FS1519	FS1583

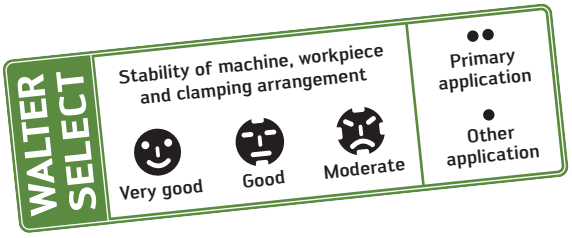
Accessories

	D_c [inch]	2,000–6,000
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)
	Key for screw for shim	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	SNHX1205ANN-K88		1,5														●	●						
	SNGX1205ANN-F57		1,5	☺	●	●	☹	☹	●	☹	☹		●	●	☹	☹			●	☹	☹			
	SNGX1205ANN-F67		1,5	☺	●	●	☹	☹	●	☹	☹	☺		●	☹	☹			●	☹	☹			
	SNMX1205ANN-F57		1,5	☺	●	●							●	●	☹	☹								
	SNMX1205ANN-F67		1,5	☺	●	●						☺		●	☹	☹								
	SNGX1205ANN-F27		1,5	☺	●	●								●	☹	☹								
	SNMX1205ANN-F27		1,5	☺	●	●								●	☹	☹								
	SNMX120512-F57	1,2		☺	●	●	☹	☹	●	☹	☹		●	●	☹	☹			●	☹	☹			
	SNMX120520-F57	2		☺	●	●	☹	☹	●	☹	☹		●	●	☹	☹			●	☹	☹			
	SNMX120512-D27	1,2		☺	●	●							●	●	☹	☹								
	SNMX120520-D27	2		☺	●	●							●	●	☹	☹								
	SNGX120512-F57	1,2		☺	●	●	☹	☹	●	☹	☹			●	☹	☹			●	☹	☹			
	SNMX120512-F67	1,2		☺	●	●	☹		●	☹		☺		●	☹	☹			●	☹				
	SNMX120512-F27	1,2		☺	●	●								●	☹	☹								
	XNGX1205ANN-F67		4,7									☺										☺	☺	☺

HC = Coated carbide
HW = Uncoated carbide

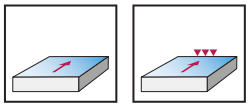


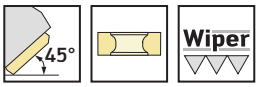
C 2

Face milling cutters
M5009 inch
SN . X1205 ..
Xtra·tec® XT



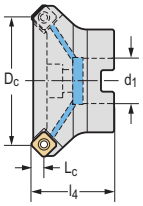
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5009	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c inch	d_1 inch	l_4 inch	L_c inch	Z	lbs	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5009.051-B19-04-06-AP	2,000	0,750	1,500	0,236	4	0,9	4	SN . X1205 .. SN . X1205ANN XNGX1205ANN
	★ M5009.064-B26-06-06-AP	2,500	1,000	2,000	0,236	6	1,8	6	
	★ M5009.076-B26-07-06-AP	3,000	1,000	2,000	0,236	7	2,4	7	
	★ M5009.102-B38-08-06-AP	4,000	1.500	2,500	0,236	8	6,1	8	
	★ M5009.127-B38-10-06-AP	5,000	1.500	2,500	0,236	10	8,2	10	
	★ M5009.152-B38-12-06-AP	6,000	1.500	2,500	0,236	12	10,3	12	

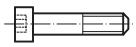


Bodies and assembly parts are included in the scope of delivery.

C 2

/ ★ New addition to the product range

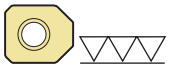
Assembly parts

	D_c [inch]	2,000	2,500–3,000	4,000–6,000
	Shim for indexable insert	AP800-SN1205 H81	AP800-SN1205 H81	AP800-SN1205 H81
	Clamping screw for shim	FS2069 (SW 4)	FS2069 (SW 4)	FS2069 (SW 4)
	Clamping screw for indexable insert Tightening torque	FS2617 (Torx 15IP) 4,0 Nm	FS2617 (Torx 15IP) 4,0 Nm	FS2617 (Torx 15IP) 4,0 Nm
	Clamping screw for arbour-mounted tools	FS1518	FS1519	FS1583

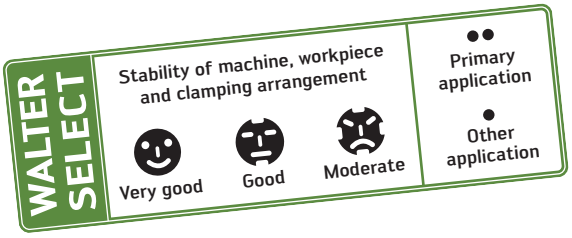
Accessories

	D_c [inch]	2,000–6,000
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)
	Key for screw for shim	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	SNHX1205ANN-K88		1,5														●●	●						
	SNGX1205ANN-F57		1,5	●	●●	●●	●●	●●	●●	●●	●●		●●	●●	●●	●●			●●	●●	●●			
	SNGX1205ANN-F67		1,5	●	●●	●●	●●	●●	●●	●●	●●	●		●●	●●	●●			●●	●●	●●			
	SNMX1205ANN-F57		1,5	●	●●	●●							●●	●●	●●	●●								
	SNMX1205ANN-F67		1,5	●	●●	●●						●		●●	●●	●●								
	SNGX1205ANN-F27		1,5	●	●●	●●								●●	●●	●●								
	SNMX1205ANN-F27		1,5	●	●●	●●								●●	●●	●●								
	SNMX120512-F57	1,2		●	●●	●●	●●	●●	●●	●●	●●		●●	●●	●●	●●			●●	●●	●●			
	SNMX120520-F57	2		●	●●	●●	●●	●●	●●	●●	●●		●●	●●	●●	●●			●●	●●	●●			
	SNMX120512-D27	1,2		●	●●	●●							●●	●●	●●	●●								
	SNMX120520-D27	2		●	●●	●●							●●	●●	●●	●●								
	SNGX120512-F57	1,2		●	●●	●●	●●	●●	●●	●●	●●			●●	●●	●●			●●	●●	●●			
	SNMX120512-F67	1,2		●	●●	●●	●●		●●	●●		●		●●	●●	●●			●●	●●				
	SNMX120512-F27	1,2		●	●●	●●								●●	●●	●●								
	XNGX1205ANN-F67		4,7									●										●	●	●

HC = Coated carbide
HW = Uncoated carbide

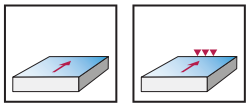


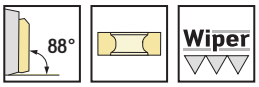
C 2

Face milling cutters
M5012 mm
SN . X1205 ..
Xtra·tec® XT



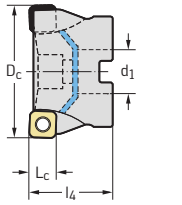
– Eight cutting edges per indexable insert

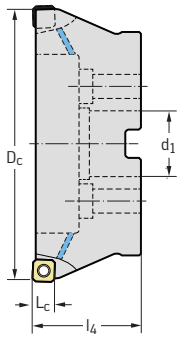




	P	M	K	N	S	H	O
M5012	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5012-063-B22-07-10	63	22	40	10	7	0,4	7	SN . X1205 .. XNGX1205ZNN
	★ M5012-063-B27-07-10	63	27	50	10	7	0,7	7	
	★ M5012-080-B27-09-10	80	27	50	10	9	1,0	9	
	★ M5012-100-B32-11-10	100	32	50	10	11	1,7	11	
	★ M5012-125-B40-14-10	125	40	63	10	14	3,2	14	
Parallel bore DIN 138 transverse keyway	★ M5012-160-B40-18-10	160	40/40 B	63	10	18	4,7	18	SN . X1205 .. XNGX1205ZNN





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

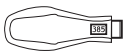
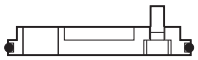
C 2

★ New addition to the product range

Assembly parts

	D_c [mm]	63–160
	Clamping screw for indexable insert Tightening torque	FS1459 (Torx 15IP) 4,0 Nm

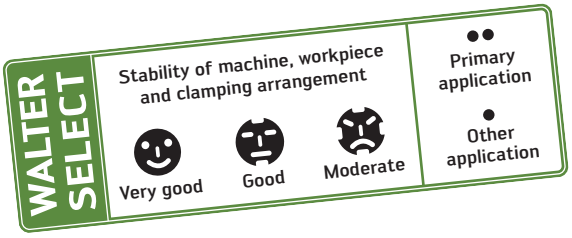
Accessories

	D_c [mm]	63–125	160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
	Sealing disc set		FS936 COMPLETE SET
	Gasket		O-R 96X4

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	SNGX1205ZNN-F27		1,2	●●	●●	●●								●●	●●	●●								
	SNGX1205ZNN-F57		1,2	●●	●●	●●	●	●	●●	●	●		●●	●●	●	●			●●	●	●			
	SNMX1205ZNN-F57		1,2	●●	●●	●●								●●	●	●								
	SNGX1205ZNN-F67		1,2	●●	●●	●●	●	●	●●	●	●	●●		●●	●	●			●●	●	●			
	SNHX1205ZNN-K88		1,2														●●	●●						
	SNMX120512-F57	1,2		●●	●●	●●	●	●	●●	●	●		●●	●●	●	●			●●	●	●			
	SNMX120520-F57	2		●●	●●	●●	●	●	●●	●	●		●●	●●	●	●			●●	●	●			
	SNMX120512-D27	1,2		●●	●●	●●							●●	●●	●	●								
	SNMX120520-D27	2		●●	●●	●●							●●	●●	●	●								
	SNGX120512-F57	1,2		●●	●●	●●	●	●	●●	●	●			●●	●	●			●●	●	●			
	SNMX120512-F67	1,2		●●	●●	●●	●		●●	●		●●		●●	●	●			●●	●				
	SNMX120512-F27	1,2		●●	●●	●●								●●	●	●								
	XNGX1205ZNN-F67		4	●								●										●	●	●

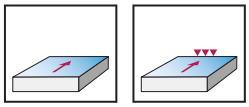
HC = Coated carbide
HW = Uncoated carbide

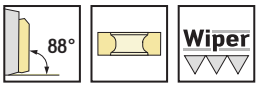


Face milling cutters
M5012 mm
SN . X1205 ..
Xtra·tec® XT



– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
M5012	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel bore DIN 138 transverse keyway	★ M5012-050-B22-04-10-AP	50	22	40	10	4	0,3	4	SN . X1205 .. XNGX1205ZNN
	★ M5012-063-B22-05-10-AP	63	22	40	10	5	0,4	5	
	★ M5012-063-B27-05-10-AP	63	27	50	10	5	0,7	5	
	★ M5012-080-B27-07-10-AP	80	27	50	10	7	1,0	7	
	★ M5012-100-B32-08-10-AP	100	32	50	10	8	1,7	8	
	★ M5012-125-B40-10-10-AP	125	40	63	10	10	3,3	10	
Parallel bore DIN 138 transverse keyway	★ M5012-160-B40-12-10-AP	160	40/40 B	63	10	12	4,8	12	SN . X1205 .. XNGX1205ZNN

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

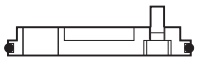
C 2

/ ★ New addition to the product range

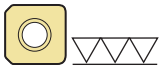
Assembly parts

	D_c [mm]	50–160
	Shim for indexable insert	AP800-SN1205 H81
	Clamping screw for shim	FS2069 (SW 4)
	Clamping screw for indexable insert Tightening torque	FS2617 (Torx 15IP) 4,0 Nm

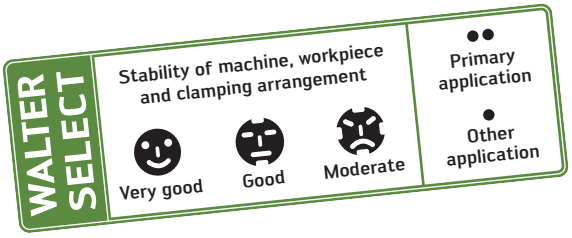
Accessories

	D_c [mm]	50–125	160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
	Key for screw for shim	ISO2936-4 (SW 4)	ISO2936-4 (SW 4)
	Sealing disc set		FS936 COMPLETE SET
	Gasket		O-R 96X4

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	N HC WXN15	S HC WSM35S	S HC WSP45S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC WXM15
	SNGX1205ZNN-F27		1,2	●●	●●	●●								●●	●●	●●								
	SNGX1205ZNN-F57		1,2	●●	●●	●●	●	●	●●	●	●		●●	●●	●	●			●●	●	●			
	SNMX1205ZNN-F57		1,2	●	●	●								●	●	●								
	SNGX1205ZNN-F67		1,2	●●	●●	●●	●	●	●●	●	●	●		●●	●	●			●●	●	●			
	SNHX1205ZNN-K88		1,2														●	●						
	SNMX120512-F57	1,2		●●	●●	●●	●	●	●●	●	●		●●	●●	●	●			●●	●	●			
	SNMX120520-F57	2		●●	●●	●●	●	●	●●	●	●		●●	●●	●	●			●●	●	●			
	SNMX120512-D27	1,2		●●	●●	●●							●●	●●	●	●								
	SNMX120520-D27	2		●●	●●	●●							●●	●●	●	●								
	SNGX120512-F57	1,2		●●	●●	●●	●	●	●●	●	●			●●	●	●			●●	●	●			
	SNMX120512-F67	1,2		●●	●●	●●	●		●●	●		●		●●	●	●			●●	●				
	SNMX120512-F27	1,2		●●	●●	●●								●●	●	●								
	XNGX1205ZNN-F67		4	●								●										●	●	●

HC = Coated carbide
HW = Uncoated carbide



C 2

Shoulder milling cutters

M5130 mm

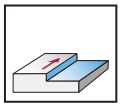
BC .. 0903 .. R

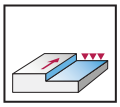
Xtra·tec® XT

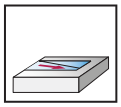


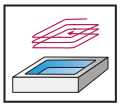


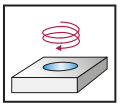
– Two cutting edges per indexable insert

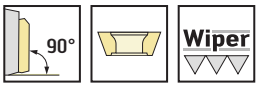




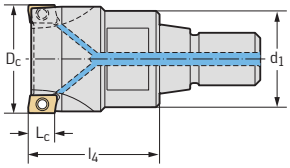
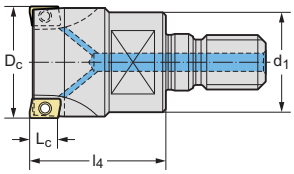
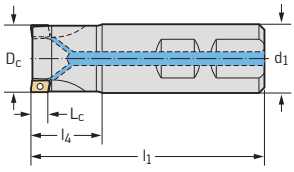
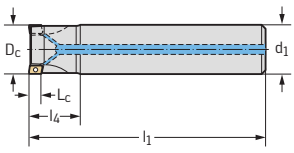








	P	M	K	N	S	H	O
M5130	●●	●●	●●	●●	●●	●	●

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	
	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	BC .. 0903 .. R
	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	
	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	BC .. 0903 .. R
	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	
	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	BC .. 0903 .. R
	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	
	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	BC .. 0903 .. R
	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	

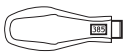
Bodies and assembly parts are included in the scope of delivery.

C 2

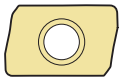
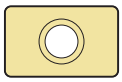
Assembly parts

	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 HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45G	M HC WSM35S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC 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

C 2

WALTER SELECT
Stability of machine, workpiece and clamping arrangement
Very good ☺ Good 😐 Moderate ☹
●● Primary application
● Other application

Shoulder milling cutters

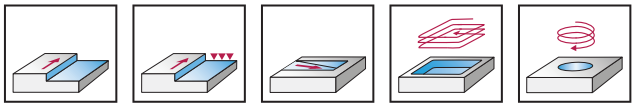
M5130 mm

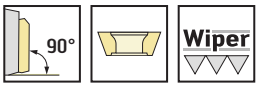
BC .. 0903 .. R

Xtra·tec® XT



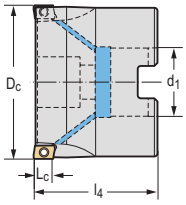
– Two cutting edges per indexable insert





	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
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	



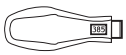
Bodies and assembly parts are included in the scope of delivery.

C 2

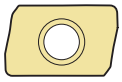
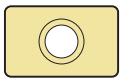
Assembly parts

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

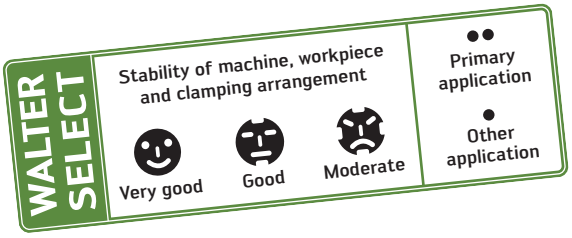
Accessories

	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 HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45G	M HC WSM35S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC 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



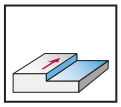
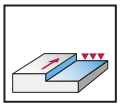
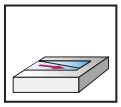
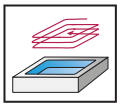
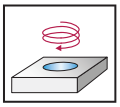
C 2

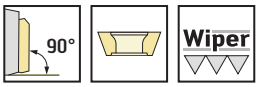
Shoulder milling cutters
M5130 inch
BC .. 0903 .. R
Xtra·tec® XT





– Two cutting edges per indexable insert



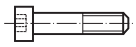
	P	M	K	N	S	H	O
M5130	●●	●●	●●	●●	●●	●	●

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	7,000	0,354	2	0,5	2	BC .. 0903 .. R
	M5130.019-A19-02-09	0,750	0,750	1,630	8,000	0,354	2	0,9	2	
	M5130.026-A26-03-09	1,000	1,000	1,750	8,000	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.

C 2

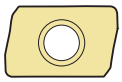
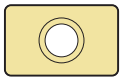
Assembly parts

	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

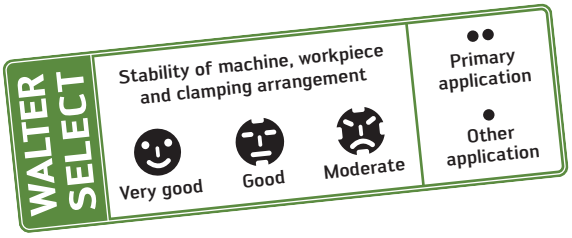
Accessories

	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 HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45G	M HC WSM35S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45G	H HC WHH15	H HC WHH15X	O HC 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

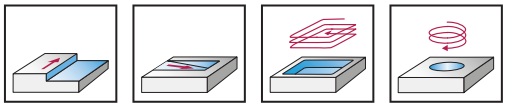


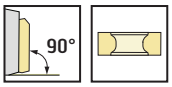
C 2

Shoulder milling cutters
M5137 inch
TNMU160508R
Xtra·tec® XT



– Six cutting edges per indexable insert



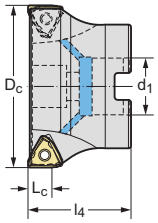


	P	M	K	N	S	H	O
M5137	●●	●●	●●		●●		

Tool

Designation	D_c inch	d_1 inch	l_4 inch	L_c inch	Z	lbs	No. of indexable inserts	Type
M5137.051-B19-04-08	2,000	0,750	1,500	0,315	4	0,64	4	TNMU160508R
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	

Parallel bore
DIN 138 transverse keyway



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

C 2

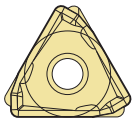
Assembly parts

	D_c [inch]	2,000	2,500–3,000	4,000
	Clamping screw for indexable insert Tightening torque	FS2079 (Torx 9IP) 2,0 Nm	FS2079 (Torx 9IP) 2,0 Nm	FS2079 (Torx 9IP) 2,0 Nm
	Clamping screw for arbour-mounted tools	FS1518	FS1519	FS1583

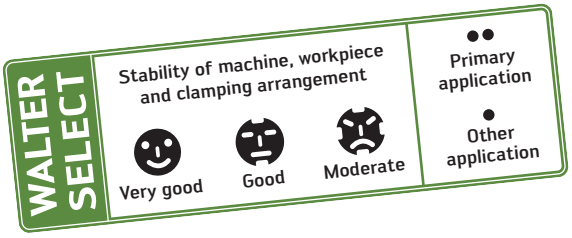
Accessories

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

HC = Coated carbide
HW = Uncoated carbide

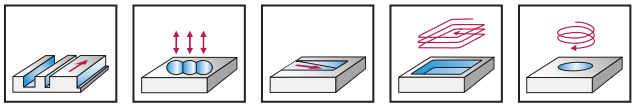


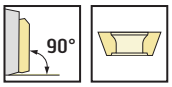
C 2

Routing cutters
M4791 inch



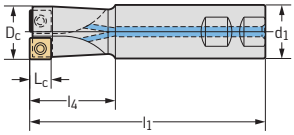
– Four cutting edges per indexable insert





	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	SD .. 120408
	M4791.035-W31-01-12	1,375	1.250	1,500	3,820	0,457	1	1,0	2	
	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	



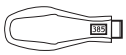
Bodies and assembly parts are included in the scope of delivery.

C 2

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

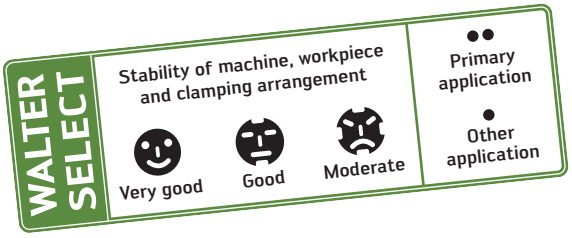
Accessories

	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 HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC WSP45G
	SDHT06T204-G88	0,4															☺	😐				
	SDMT06T204-D51	0,4	☺	😐	😐	☹	☹			☹	☹			😐	☹	☹					☹	☹
	SDMT06T204-D57	0,4	☺	😐	😐	☹	☹	😐		☹	☹		😐	😐	☹	☹			😐		☹	☹
	SDMT06T204-F57	0,4	☺	😐	😐	☹	☹	😐	☹	☹	☹	☺		😐	☹	☹			😐	☹	☹	☹
	SDMW06T204-A57	0,4	😐	☹	☹									😐	☹	☹						
	SDHT09T304-G88	0,4															☺	😐				
	SDHT09T308-G88	0,8															☺	😐				
	SDMT09T308-D51	0,8	☺	😐	😐	☹	☹			☹	☹			😐	☹	☹					☹	☹
	SDMT09T308-D57	0,8	☺	😐	😐	☹	☹	😐		☹	☹		😐	😐	☹	☹			😐		☹	☹
	SDMT09T308-F57	0,8	☺	😐	😐	☹	☹	😐	☹	☹	☹	☺		😐	☹	☹			😐	☹	☹	☹
	SDMW09T308-A57	0,8	😐	☹	☹									😐	☹	☹						
	SDHT120408-G88	0,8															☺	😐				
	SDMT120408-D51	0,8	☺	😐	😐	☹	☹			☹	☹			😐	☹	☹					☹	☹
	SDMT120408-D57	0,8	☺	😐	😐	☹	☹	😐		☹	☹		😐	😐	☹	☹			😐		☹	☹
	SDMT120408-F57	0,8	☺	😐	😐	☹	☹	😐	☹	☹	☹	☺		😐	☹	☹			😐	☹	☹	☹
	SDMW120408-A57	0,8	😐	☹	☹									😐	☹	☹						

HC = Coated carbide
HW = Uncoated carbide



C 2

Round insert milling cutters

M5468 mm

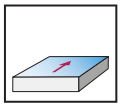
RO . X10T3M0 ..

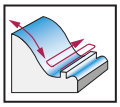
Xtra·tec® XT

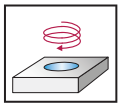


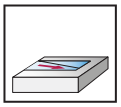


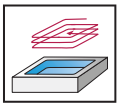
– With indexing surfaces
– Eight cutting edges per indexable insert





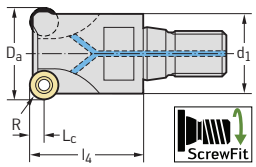
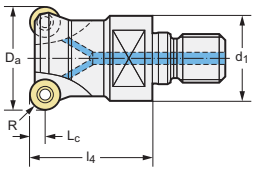
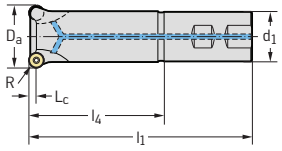
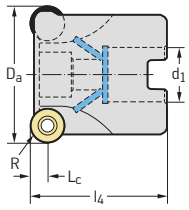








	P	M	K	N	S	H	O
M5468	●●	●●	●●	●●	●●	●	●

Tool	Designation	R mm	D_a mm	d_1 mm	l_4 mm	L_c mm	l_1 mm	Z	kg	No. of indexable inserts	Type
ScrewFit 	★ M5468-020-T18-02-05	5	20	T18	30	5		2	0,05	2	RO . X10T3 M08/M0T8 ..
	★ M5468-025-T22-03-05	5	25	T22	35	5		3	0,09	3	
	★ M5468-030-T28-04-05	5	30	T28	40	5		4	0,16	4	
	★ M5468-032-T28-04-05	5	32	T28	40	5		4	0,17	4	
	★ M5468-035-T28-05-05	5	35	T28	40	5		5	0,19	5	
	★ M5468-040-T36-05-05	5	40	T36	40	5		5	0,31	5	
Cylindrical, modular 	★ M5468-020-TC10-02-05	5	20	M10	30	5		2	0,05	2	RO . X10T3 M08/M0T8 ..
	★ M5468-025-TC12-03-05	5	25	M12	35	5		3	0,08	3	
	★ M5468-030-TC16-04-05	5	30	M16	40	5		4	0,15	4	
	★ M5468-032-TC16-04-05	5	32	M16	40	5		4	0,16	4	
	★ M5468-035-TC16-05-05	5	35	M16	40	5		5	0,18	5	
	★ M5468-040-TC16-05-05	5	40	M16	40	5		5	0,19	5	
Shank DIN 1835 B 	★ M5468-020-W20-02-05	5	20	20	59	5	110	2	0,21	2	RO . X10T3 M08/M0T8 ..
	★ M5468-032-W32-04-05	5	32	32	114	5	175	4	0,89	4	
Parallel bore DIN 138 transverse keyway 	★ M5468-040-B16-05-05	5	40	16	40	5		5	0,14	5	RO . X10T3 M08/M0T8 ..
	★ M5468-050-B22-06-05	5	50	22	50	5		6	0,33	6	
	★ M5468-052-B22-06-05	5	52	22	50	5		6	0,38	6	

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

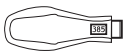
C 2

● ● ● / ★ New addition to the product range

Assembly parts

	D_a [mm]	20–52
	Clamping screw for indexable insert Tightening torque	FS2181 (Torx 15IP) 3,0 Nm

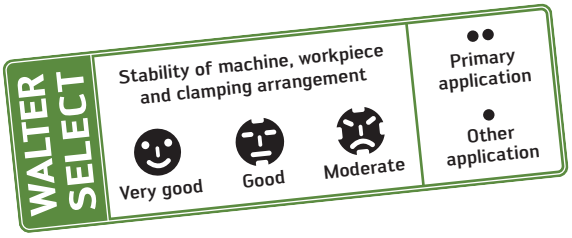
Accessories

	D_a [mm]	20–52
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	d mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45G	M HC WSM35S	M HC WSP45G	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	S HC WSM35S	S HC WSP45G	H HC WHH15X
	ROGX10T3M08-G88	10											●●			
	ROHX10T3M08-A57	10	●●	●●	●●				●●	●●	●	●				●●
	ROMX10T3M08-D57	10	●●	●●	●●	●	●●	●	●●	●●	●	●		●●	●	
	ROMX10T3M08-F67	10				●	●●	●						●●	●	
	ROMX10T3M0T8-A27	10	●●	●●	●●				●●	●●	●	●				

HC = Coated carbide
HW = Uncoated carbide



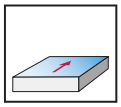
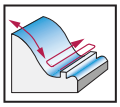
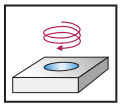
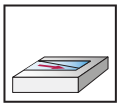
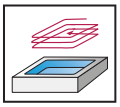
C 2

Round insert milling cutters
M5468 inch
RO . X10T3M0 ..
Xtra·tec® XT





– With indexing surfaces
– Eight cutting edges per indexable insert



	P	M	K	N	S	H	O
M5468	●●	●●	●●	●●	●●	●	●

Tool	Designation	R inch	D_a inch	d_1 inch	l_4 inch	L_c inch	Z	lbs	No. of indexable inserts	Type
Shank DIN 1835 B	★ M5468.026-W26-03-05	0,197	1,000	1,000	2,500	0,197	3	0,8	3	RO . X10T3 M08/M0T8 ..
	★ M5468.031-W31-04-05	0,197	1,250	1.250	2,500	0,197	4	1,3	4	
	★ M5468.038-W31-05-05	0,197	1,500	1.250	2,500	0,197	5	1,4	5	
Parallel bore DIN 138 transverse keyway	★ M5468.051-B19-06-05	0,197	2,000	0,750	1,750	0,197	6	0,6	6	RO . X10T3 M08/M0T8 ..

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

C 2

Assembly parts

	D_a [inch]	1,000–1,500	2,000
	Clamping screw for indexable insert Tightening torque	FS2181 (Torx 15IP) 3,0 Nm	FS2181 (Torx 15IP) 3,0 Nm
	Clamping screw for arbour-mounted tools		FS1518

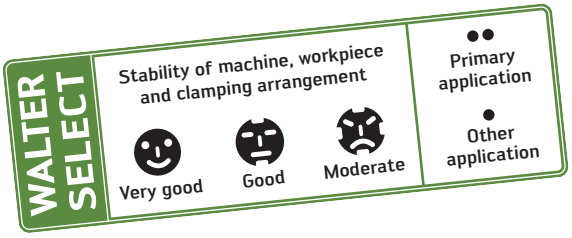
Accessories

	D_a [inch]	1,000–2,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	d mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45G	M HC WSM35S	M HC WSP45G	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	S HC WSM35S	S HC WSP45G	H HC WHH15X
	ROGX10T3M08-G88	10											●●			
	ROHX10T3M08-A57	10	●●	●●	●●				●●	●●	●	●				●●
	ROMX10T3M08-D57	10	●●	●●	●●	●	●●	●	●●	●●	●	●		●●	●	
	ROMX10T3M08-F67	10				●	●●	●						●●	●	
	ROMX10T3M0T8-A27	10	●●	●●	●●				●●	●●	●	●				

HC = Coated carbide
HW = Uncoated carbide



C 2

Round insert milling cutters

M5468 mm

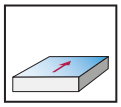
RO . X1204M0 ..

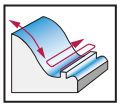
Xtra·tec® XT

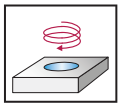


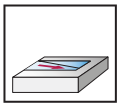


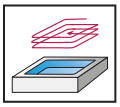
– With indexing surfaces
– Eight cutting edges per indexable insert













	P	M	K	N	S	H	O
M5468	●●	●●	●●	●●	●●	●	●

Tool	Designation	R mm	D_a mm	d_1 mm	l_4 mm	L_c mm	l_1 mm	Z	kg	No. of indexable inserts	Type
ScrewFit	★ M5468-024-T22-02-06	6	24	T22	35	6		2	0,08	2	
	★ M5468-032-T28-03-06	6	32	T28	40	6		3	0,17	3	RO . X1204 M08/M0T8 ..
	★ M5468-040-T36-05-06	6	40	T36	40	6		5	0,30	5	
	★ M5468-042-T36-05-06	6	42	T36	40	6		5	0,31	5	
Cylindrical, modular	★ M5468-024-TC12-02-06	6	24	M12	35	6		2	0,07	2	
	★ M5468-032-TC16-03-06	6	32	M16	40	6		3	0,16	3	RO . X1204 M08/M0T8 ..
	★ M5468-040-TC16-05-06	6	40	M16	40	6		5	0,18	5	
	★ M5468-042-TC16-05-06	6	42	M16	40	6		5	0,19	5	
Shank DIN 1835 B	★ M5468-024-W25-02-06	6	24	25	73	6	130	2	0,36	2	RO . X1204 M08/M0T8 ..
Parallel bore DIN 138 transverse keyway	★ M5468-040-B16-04-06	6	40	16	40	6		4	0,13	4	
	★ M5468-040-B16-05-06	6	40	16	40	6		5	0,13	5	
	★ M5468-042-B16-05-06	6	42	16	40	6		5	0,15	5	
	★ M5468-050-B22-05-06	6	50	22	50	6		5	0,31	5	
	★ M5468-050-B22-06-06	6	50	22	50	6		6	0,31	6	
	★ M5468-052-B22-05-06	6	52	22	50	6		5	0,35	5	
	★ M5468-052-B22-06-06	6	52	22	50	6		6	0,35	6	RO . X1204 M08/M0T8 ..
	★ M5468-063-B22-06-06	6	63	22	50	6		6	0,52	6	
	★ M5468-063-B22-07-06	6	63	22	50	6		7	0,51	7	
	★ M5468-066-B27-06-06	6	66	27	50	6		6	0,63	6	
	★ M5468-066-B27-07-06	6	66	27	50	6		7	0,62	7	
	★ M5468-080-B27-07-06	6	80	27	50	6		7	0,87	7	
	★ M5468-080-B27-08-06	6	80	27	50	6		8	0,87	8	
	★ M5468-100-B32-08-06	6	100	32	50	6		8	1,53	8	

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

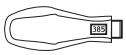
C 2

● ● ● / ★ New addition to the product range

Assembly parts

	D_a [mm]	24–80	100
	Clamping screw for indexable insert Tightening torque	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

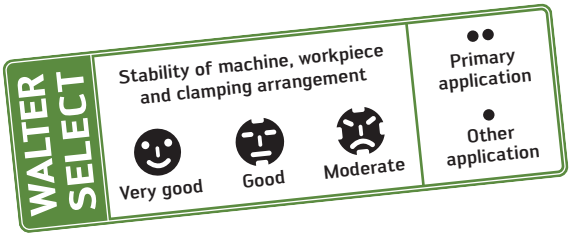
Accessories

	D_a [mm]	24–100
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	d mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45G	M HC WSM35S	M HC WSP45G	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	S HC WSM35S	S HC WSP45G	H HC WHH15X
	ROGX1204M08-G88	12											●●			
	ROHX1204M08-A57	12	●●	●●	●●				●●	●●	●	●				●●
	ROMX1204M08-D57	12	●●	●●	●●	○	●●	●	●●	●●	●	●		●●	●	
	ROMX1204M08-F67	12				○	●●	●						●●	●	
	ROMX1204M0T8-A27	12	●●	●●	●●				●●	●●	●	●				

HC = Coated carbide
HW = Uncoated carbide



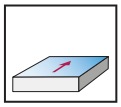
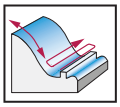
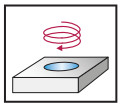
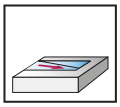
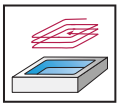
C 2

Round insert milling cutters
M5468 inch
RO . X1204M0 ..
Xtra·tec® XT





– With indexing surfaces
– Eight cutting edges per indexable insert



	P	M	K	N	S	H	O
M5468	●●	●●	●●	●●	●●	●	●

Tool	Designation	R inch	D_a inch	d_1 inch	l_4 inch	L_c inch	Z	lbs	No. of indexable inserts	Type
Shank DIN 1835 B	★ M5468.038-W31-04-06	0,236	1,500	1.250	2,500	0,236	6	1,4	6	RO . X1204 M08/M0T8 ..
Parallel bore DIN 138 transverse keyway	★ M5468.051-B19-06-06	0,236	2,000	0,750	1,750	0,236	6	0,6	6	RO . X1204 M08/M0T8 ..
	★ M5468.064-B26-07-06	0,236	2,500	1,000	2,000	0,236	7	1,1	7	
	★ M5468.076-B26-08-06	0,236	3,000	1,000	2,000	0,236	8	1,7	8	
	★ M5468.102-B38-08-06	0,236	4,000	1,500	2,500	0,236	8	4,2	8	

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

C 2

● ● ● / ★ New addition to the product range

Assembly parts

	D_a [inch]	1,500	2,000	2,500–3,000	4,000
	Clamping screw for indexable insert Tightening torque	FS2080 (Torx 15IP) 2,5 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS2080 (Torx 15IP) 2,5 Nm	FS2080 (Torx 15IP) 2,5 Nm
	Clamping screw for arbour-mounted tools		FS1518	FS1519	FS1583

Accessories

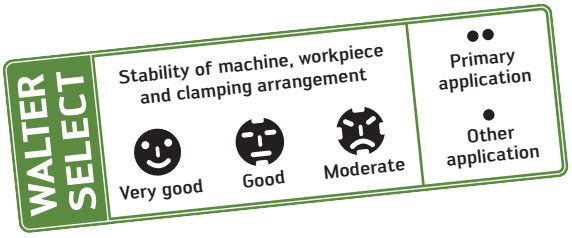
	D_a [inch]	1,500–4,000
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	d mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45G	M HC WSM35S	M HC WSP45G	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HW WK10	S HC WSM35S	S HC WSP45G	H HC WHH15X
	ROGX1204M08-G88	12											●●			
	ROHX1204M08-A57	12	●●	●●	●●				●●	●●	●	●				●●
	ROMX1204M08-D57	12	●●	●●	●●	●	●●	●	●●	●●	●	●		●●	●	
	ROMX1204M08-F67	12				●	●●	●						●●	●	
	ROMX1204M0T8-A27	12	●●	●●	●●				●●	●●	●	●				

HC = Coated carbide
HW = Uncoated carbide

C 2

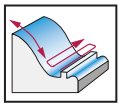


Copy milling cutters
F2239 / F2239B mm

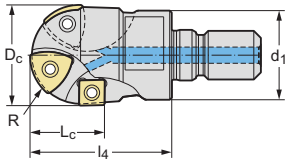
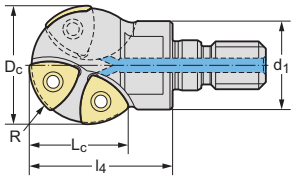


– With peripheral cutting edges
– Three or four cutting edges per indexable insert





	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	0,04	1 2	SP .. 060304 P26315R10
	F2239.TC12.025.Z01.18	25	12,5	M12	35	18	1	0,08	1 2	SP .. 060304 P26315R12
	F2239.TC16.030.Z01.23	30	15	M16	40	23	1	0,13	1 2	SP .. 09T308 P26315R15
	F2239.TC16.032.Z01.24	32	16	M16	40	24	1	0,14	1 2	SP .. 09T308 P26315R16
Cylindrical, modular 	F2239B.TC08.020.Z01.10	20	10	M8	25	15	1	0,03	3	P26315R10
	F2239B.TC10.025.Z01.12	25	12,5	M10	30	20	1	0,05	3	P26315R12
	F2239B.TC12.030.Z01.15	30	15	M12	40	24	1	0,09	3	P26315R15
	F2239B.TC12.032.Z01.16	32	16	M12	40	26	1	0,09	3	P26315R16
	F2239B.TC16.040.Z01.20	40	20	M16	45	32	1	0,18	3	P26315R20

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

C 2

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

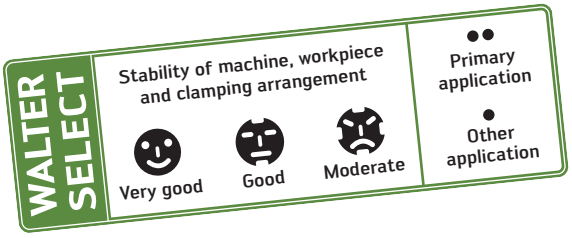
Accessories

	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 HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	S HC WSP45G
	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	☹		☹							☹		☹					

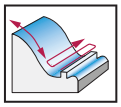
HC = Coated carbide
HW = Uncoated carbide



Copy milling cutters
F2339 mm



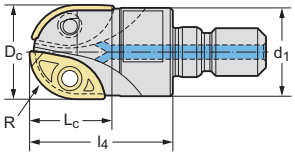
– With anti-twist protection
– Two cutting edges per indexable insert





	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	0,02	2	XD . T1303080R
	F2339.TC10.020.Z02.15	20	10	M10	30	15	2	0,04	2	XD . T16T3100R
	F2339.TC12.025.Z02.20	25	12,5	M12	35	20	2	0,07	2	XD . T2004125R
	F2339.TC16.030.Z02.24	30	15	M16	40	24	2	0,12	2	XD . T2405150R
	F2339.TC16.032.Z02.25	32	16	M16	40	25	2	0,13	2	XD . T2506160R



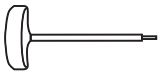
Bodies and assembly parts are included in the scope of delivery.

C 2

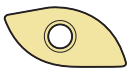
Assembly parts

	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

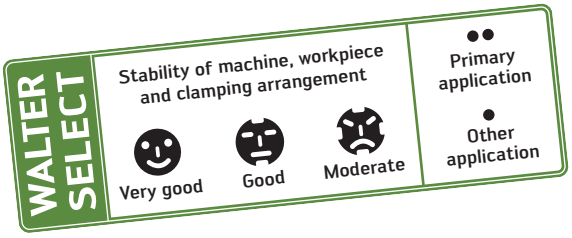
Accessories

	D_c [mm]	16	20	25	30–32
	Handle key 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 HC					M HC			K HC			S HC		
			WKP25S	WKP35G	WKP35S	WSP45S	WSP45G	WSM35S	WSP45S	WSP45G	WKP25S	WKP35G	WKP35S	WSM35S	WSP45S	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

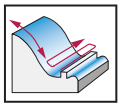


C 2

Copy milling cutters
F2339 inch

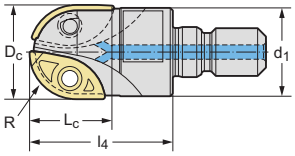


– With anti-twist protection
– Two cutting edges per indexable insert





	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

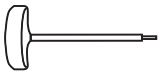
Bodies and assembly parts are included in the scope of delivery.

C 2

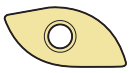
Assembly parts

	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

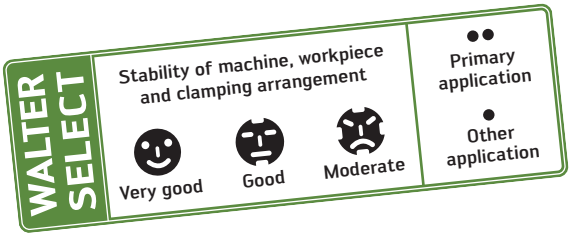
Accessories

	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 HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WKP25S	K HC WKP35G	K HC WKP35S	S HC WSM35S	S HC WSP45S
	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



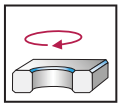
C 2

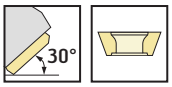
Chamfer milling cutters
M4574 mm



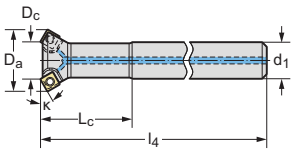
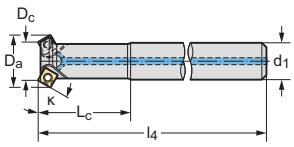


– Four cutting edges per indexable insert





	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

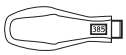
Bodies and assembly parts are included in the scope of delivery.

C 2

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

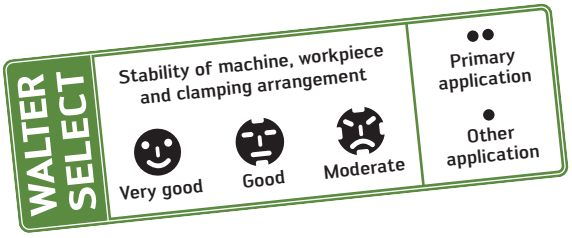
Accessories

	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 HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC 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



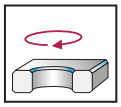
C 2

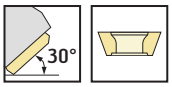
Chamfer milling cutters
M4574 inch
SD .. 09T308



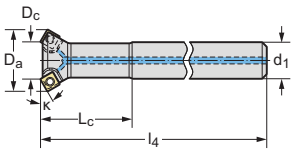
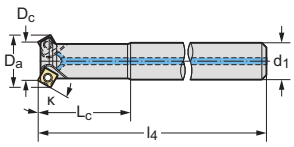


– Four cutting edges per indexable insert





	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

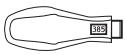
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

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

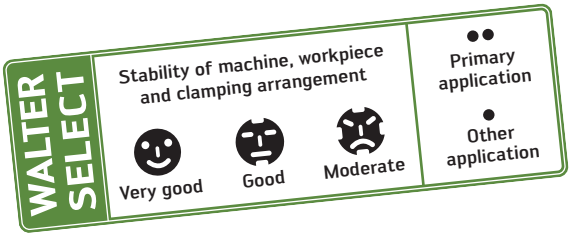
Accessories

	D_c [inch]	0,750
	Torque screwdriver, analogue Tightening torque	FS2004 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2268 (Torx 10IP)
	Screwdriver	FS2267 (Torx 10IP)

Indexable inserts

	Designation	r mm	P HC WKP25S	P HC WKP35G	P HC WKP35S	P HC WSP45S	P HC WSP45G	M HC WSM35S	M HC WSM45X	M HC WSP45S	M HC WSP45G	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35G	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S	S HC 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

= Cutting data for wet machining
= Dry machining is possible

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]			Cutting material grades	
									Starting values for cutting speed v_c [m/min]	
									HC Face/shoulder milling	
									WSP45G a_e / 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	145
		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	●●			
	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	●●		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 General Catalogue 2017.
* a_e/D_c = 1/10, v_c = 10% higher than 1/5
[3] Water-miscible coolants must not be used when machining magnesium-based alloys.

C 2

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

Cutting material grades

Starting values for cutting speed v_c [m/min]

HC

Face/shoulder milling		Shoulder milling with full effective helical milling cutters		Slot milling with half effective helical milling cutters		Circular interpolation milling		Slot milling with slotting cutters		Copy milling					
WHH15X		WSP45G		WSP45G		WSP45G		WSP45G		WSP45G			WWH15X		
a_e / D_c*		a_e / D_c*		a_e / D_c*		a_e / D_c*		a_e / D_c		a_e / D_c			a_e / D_c		
1/1 1/2	1/5	1/2	1/5	1/1 1/2	1/5	1/1 1/2	1/5	1/4*	1/10	1/1	1/5	1/10	1/1 1/2	1/5	1/20
170	215	185	230	185	230	210	260	185	230	230	290	365	170	225	305
150	195	150	200	150	200	170	220	150	200	190	250	315	150	200	270
120	155	130	165	130	165	160	210	135	170	155	200	250	120	160	220
105	140	150	200	150	200	170	220	135	170	145	170	215	105	140	190
80	100	105	115	105	115	120	130	105	125	130	145	180	80	105	145
120	155	125	160	125	160	160	210	140	180	190	250	315	120	160	220
140	175	150	190	150	190	170	210	150	190	190	240	300	140	185	250
110	125	105	115	105	115	125	150	105	115	145	170	215	120	160	220
110	120	60	70	60	70	85	95	75	85	130	145	180	110	150	200
110	125	60	70	50	60	60	65	65	75	100	110	140	105	140	190
		90	110	90	110	100	130	90	110	115	140	175	105	140	190
		65	70	65	70	75	90	60	70	75	90	115	100	130	180
		60	70	50	60	65	75	55	65	65	80	100	80	100	140
		90	110	90	110	100	120	90	110	115	140	175	120	160	220
		60	70	60	70	55	65	60	80	90	110	140	100	130	180
		85	100	85	100	90	100	85	100	110	130	165			
		70	80	75	90	70	80	70	85	90	110	140			
		75	90	75	90	80	90	75	90	100	120	150			
105	125												105	140	190
90	110												90	120	160
110	120												110	150	200
90	105												90	120	160
110	120												110	150	200
90	105												90	130	180
80	100												80	110	150
		50	55	50	55	60	65	55	60	65	70	90			
		35	40	35	40	40	45	40	45	45	50	65			
		40	45	40	45	45	50	45	50	50	55	70			
		25	30	25	30	25	30	30	35	30	35	45			
		30	35	30	35	35	40	35	40	40	45	55			
		50	65	50	65	65	80	55	60	65	80	100			
		30	35	30	35	40	45	30	35	40	45	55			
		25	30	25	30	35	40	25	30	35	40	50			
		30	35	30	35	40	45	30	35	40	45	55			
		25	30	25	30	35	40	25	30	40	45	55			
50	60												50	65	85
35	45												35	50	70
													35	45	60
40	50												40	55	80
700	400	400	400	400	400	400	400	400	400	500	600	700	700	800	900
600	600	300	300	300	300	300	300	300	300	400	500	600	600	700	800
600	600												600	700	800

C 2

Cutting data for semi-finishing and finishing WSP45G/WHH15X

= Cutting data for wet machining
= Dry machining is possible

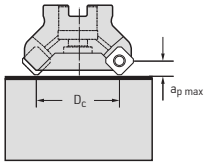
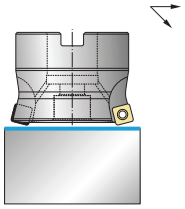
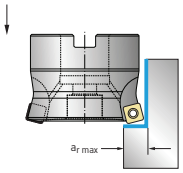
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]			Cutting material grades: Starting values for cutting speed v_c [m/min] HC Copy milling WSP45G a_e / D_c* 1/1	WSP45G a_e / D_c* 1/5	WSP45G a_e / D_c* 1/20	WHH15X a_e / D_c* 1/1 1/2	WHH15X a_e / D_c* 1/5	WHH15X a_e / D_c* 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]							
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	N7	●●							
		Brass, bronze, red brass		90	310	N8	●●							
		Cu alloys, short-chipping		110	380	N9	●●							
		High tensile, Ampco		300	1010	N10	●●							
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●		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			
	Molybdenum alloys			300	1010	S10	●●		70	80	100			
H	Hardened steel	Hardened and tempered		50 HRC	–	H1		●●				60	80	110
		Hardened and tempered		55 HRC	–	H2		●●				40	50	70
		Hardened and tempered		60 HRC	–	H3		●●				40	45	60
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4		●●				50	70	90
O	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								
	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 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

C 2

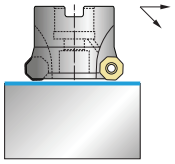
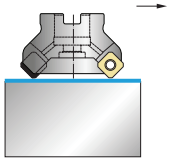
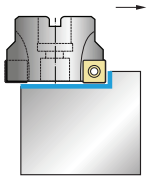
Feed determination (starting values)
Face milling cutters

Material group	Cutter type		M4002		M4002	
	Feed per tooth f_{Z0} for $a_e = D_c$ $a_p = a_{p\,max} = L_c$		 For face milling operations		 For plunging	
	Lead angle κ		15°		75°	
			f_{Z0} [mm]		f_{Z0} [mm]	
	Tool diameter or diameter range [mm]		25–66	50–125	25–66	50–125
	Maximum depth of cut $a_{p\,max} = L_c$ [mm]		1,5	2	a_r max = 8,4	a_r max = 11,4
P	Non-alloyed steel [1]		1,80	2,40	0,28	0,33
P	Low-alloy steel		1,68	2,16	0,24	0,28
P	High-alloy steel and tool steel		1,44	1,92	0,18	0,24
P	Stainless steel		0,96	1,20	0,13	0,17
M	Stainless steel [2]		0,60	0,96	0,13	0,17
K	Malleable cast iron		0,60	0,96	0,24	0,31
K	Grey cast iron		1,68	1,92	0,28	0,33
K	Cast iron with spheroidal graphite		1,44	1,68	0,24	0,31
K	GGV (CGI)		1,44	1,68	0,24	0,31
N	Wrought aluminium alloys					
N	Cast aluminium alloys					
N	Magnesium-based alloys					
N	Copper and copper alloys (bronze/brass)					
S	Heat-resistant alloys		0,72	0,96	0,11	0,13
S	Titanium alloys		0,72	0,96	0,11	0,13
S	Tungsten alloys		0,72	0,96	0,11	0,13
S	Molybdenum alloys		0,72	0,96	0,11	0,13
H	Hardened steel		0,60	0,96	0,11	0,13
H	Hardened cast iron		0,62	0,98	0,13	0,15
O	Thermoplastics					
O	Plastic, carbon-fibre-reinforced					
O	Graphite (technical)					
	Indexable insert types		SDMX0904ZDR	SDMX1205ZDR	SDMX0904ZDR	SDMX1205ZDR
	Correction factor **Ka_e** For the feed per tooth depending on the ratio of width of cut a_e to milling cutter diameter D_c	$a_e / D_c =$ 1/1–1/2	1,0	1,0		
		1/5	1,4	1,4		
		1/10	1,8	1,8		
		1/20				
		1/50				
	Correction factor **Ka_p** for the feed per tooth depending on the depth of cut a_p	$a_p =$ 1				
		2				
		3				
		4				
		6				
		8				
	$f_Z = f_{Z0} \cdot Ka_e \cdot Ka_p$	$a_{p\,max} = L_c$				
	Correction factor **K**	$1 < (L : D_c) =$ ≤ 2	1,4	1,4	1,0	1,0
		$2 < (L : D_c) =$ ≤ 4	1,0	1,0	0,7	0,7
	$f_Z = f_{Z0} \cdot Ka_e \cdot Ka_p \cdot K$	$4 < (L : D_c) =$ ≤ 6	0,7	0,7	0,5	0,5

[1] and steel casting
[2] and austenitic/ferritic

C 2

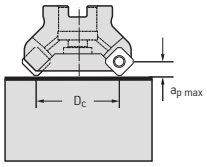
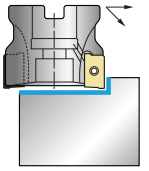
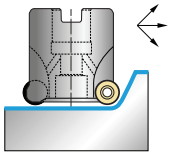
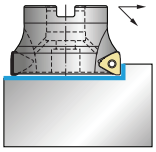
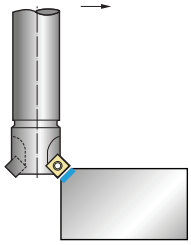
The specified feed rates are average standard values.
For specific applications, adjustment is recommended.

	M5004		M5009	M5009...-AP	M5012	M5012...-AP
						
	Xtra·tec® XT		Xtra·tec® XT		Xtra·tec® XT	
	43°		45°		88°	
	f_{z0} [mm]		f_{z0} [mm]		f_{z0} [mm]	
	50–160		50–160		50–160	
	3	4	6	6	6	6
	0,45	0,50	0,25	0,30	0,20	0,24
	0,40	0,45	0,20	0,24	0,18	0,22
	0,30	0,35	0,20	0,24	0,18	0,22
	0,20	0,25	0,15	0,18	0,12	0,14
	0,15	0,15	0,12	0,14	0,10	0,12
	0,40	0,45	0,25	0,30	0,20	0,24
	0,50	0,55	0,30	0,36	0,22	0,26
	0,40	0,45	0,25	0,30	0,20	0,24
	0,25	0,25	0,20	0,24	0,18	0,22
	0,25	0,25	0,15	0,18	0,12	0,14
	0,20	0,20	0,15	0,18	0,12	0,14
	0,15	0,15	0,12	0,14	0,10	0,12
	0,15	0,15	0,12	0,14	0,10	0,12
	0,15	0,15	0,12	0,14	0,08	0,10
	0,15	0,15	0,12	0,14	0,08	0,10
	0,15	0,15	0,12	0,14	0,08	0,10
	0,15	0,15	0,12	0,14	0,08	0,10
	0,15	0,15	0,12	0,14	0,08	0,10
	0,17	0,17	0,14	0,17	0,10	0,12
	0,20	0,20	0,15	0,18	0,12	0,14
	0,15	0,15	0,15	0,18	0,12	0,14
	OD..0504..	OD..0605..	SN.X1205ANN SN.X120512.. SN.X120520..	SN.X1205ANN SN.X120512.. SN.X120520..	SN.X1205ZNN SN.X120512.. SN.X120520..	SN.X1205ZNN SN.X120512.. SN.X120520..
	1,0	1,0	1,0	1,0	1,0	1,0
	1,1	1,1	1,1	1,1	1,1	1,1
	1,2	1,2	1,2	1,2	1,2	1,2
	1,3	1,3	1,3	1,3	1,3	1,3
	1,0	1,0				
	1,0	1,0				
	1,0	1,0				
	0,6	1,0				
	0,6	0,6				
	0,6	0,6				
	0,6	0,6				

C 2

Feed determination (starting values)
Shoulder milling cutters/chamfer milling cutters

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

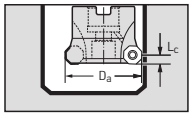
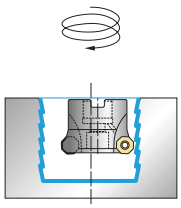
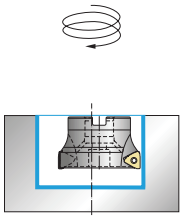
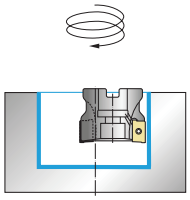
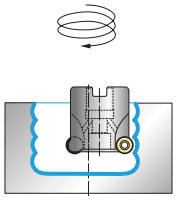
Material group	Cutter type		M5130	M5468		M5137		M4574		
	Feed per tooth f_{Z0} for $a_e = D_c$ $a_p = a_{p\,max} = L_c$			 Shoulder milling cutters		 Shoulder milling cutters		 Chamfer milling cutters		
	Lead angle κ		90°	–		90°		30° / 45° / 60°		
			f_{Z0} [mm]	f_{Z0} [mm]		f_{Z0} [mm]		f_{Z0} [mm]		
	Tool diameter or diameter range [mm]		16–50	20–52	24–100	25–63		12-16	20-40	32-40
	Maximum depth of cut $a_{p\,max} = L_c$ [mm]		9,0	5,0	6,0	5	8	3	5	7
P	Non-alloyed steel [1]		0,16	0,17	0,22	0,15	0,20	0,15	0,20	0,25
P	Low-alloy steel		0,11	0,13	0,15	0,11	0,15	0,12	0,15	0,20
P	High-alloy steel and tool steel		0,11	0,13	0,15	0,11	0,15	0,12	0,15	0,20
P	Stainless steel		0,08	0,09	0,11	0,09	0,12	0,10	0,12	0,15
M	Stainless steel [2]		0,08	0,09	0,11	0,08	0,10	0,08	0,10	0,12
K	Malleable cast iron		0,13	0,17	0,22	0,15	0,20	0,15	0,20	0,25
K	Grey cast iron		0,16	0,22	0,28	0,19	0,25	0,20	0,25	0,30
K	Cast iron with spheroidal graphite		0,13	0,17	0,22	0,15	0,20	0,15	0,20	0,25
K	GGV (CGI)		0,11	0,17	0,22	0,11	0,15	0,15	0,20	0,25
N	Wrought aluminium alloys		0,11	0,12	0,14			0,10	0,12	0,15
N	Cast aluminium alloys		0,13	0,12	0,14			0,10	0,12	0,15
N	Magnesium-based alloys		0,11	0,12	0,14			0,08	0,10	0,12
N	Copper and copper alloys (bronze/brass)		0,08	0,10	0,12			0,08	0,10	0,12
S	Heat-resistant alloys		0,08	0,09	0,11	0,09	0,12	0,08	0,10	0,12
S	Titanium alloys		0,08	0,09	0,11	0,09	0,12	0,08	0,10	0,12
S	Tungsten alloys		0,08	0,09	0,11	0,09	0,12	0,08	0,10	0,12
S	Molybdenum alloys		0,08	0,09	0,11	0,09	0,12	0,08	0,10	0,12
H	Hardened steel		0,08	0,06	0,06					
H	Hardened cast iron		0,11	0,07	0,07					
O	Thermoplastics		0,13	0,10	0,15			0,10	0,12	0,15
O	Plastic, carbon-fibre-reinforced									0,15
O	Graphite (technical)		0,11	0,10	0,15			0,10	0,12	0,15
	Indexable insert types		BC..0903..	RO.X 10T3M08..	RO.X 1204M08..	TNMU 11T304R	TNMU 160408R	SD.. 06T2	SD.. 09T3..	SD.. 1204..
	Correction factor **Ka_e**	$a_e / D_c =$ 1/1–1/2	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
		1/5	1,1	1,2	1,2	1,1	1,1	1,1	1,1	1,1
	For the feed per tooth depending on the ratio of width of cut a_e to milling cutter diameter D_c	1/10	1,2	1,5	1,5	1,2	1,2	1,2	1,2	1,2
		1/20	1,3	1,8	1,8	1,3	1,3	1,3	1,3	1,3
		1/50		2	2			1,5	1,5	1,5
	Correction factor **Ka_p**	$a_p =$ 1		1,5	1,6					
	for the feed per tooth depending on the depth of cut a_p	2		1,2	1,3					
		3		1,0	1,1					
		4		1,0	1,0					
		6			1,0					
	$f_Z = f_{Z0} \cdot Ka_e \cdot Ka_p$	8								
		10								

[1] and steel casting
[2] and austenitic/ferritic

C 2

Feed determination (starting values)
Circular interpolation cutters

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

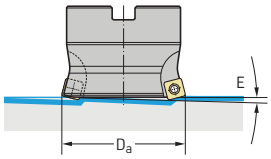
Material group	Cutter type		M5004		M5137	M5130	M5468	
	Feed per tooth f_{z0} for $a_e = D_c$ $a_p = a_{p\,max} = L_c$							
					Xtra·tec® XT	Xtra·tec® XT		
	Lead angle κ		43°		90°	90°	–	
	Tool diameter or diameter range [mm]		f_{z0} [mm] 50–160		f_{z0} [mm] 25–63	f_{z0} [mm] 16–50	f_{z0} [mm] 20–52	24–100
	Maximum depth of cut $a_{p\,max} = L_c$ [mm]		3	4	8	9	5	6
P	Non-alloyed steel [1]		0,40	0,45	0,19	0,14	0,17	0,22
P	Low-alloy steel		0,36	0,40	0,14	0,10	0,13	0,15
P	High-alloy steel and tool steel		0,27	0,32	0,14	0,10	0,13	0,15
P	Stainless steel		0,18	0,32	0,12	0,09	0,09	0,11
M	Stainless steel [2]		0,13	0,13	0,09	0,11	0,09	0,11
K	Malleable cast iron		0,32	0,36	0,18	0,12	0,17	0,22
K	Grey cast iron		0,40	0,45	0,20	0,14	0,22	0,28
K	Cast iron with spheroidal graphite		0,32	0,36	0,18	0,12	0,17	0,22
K	GGV (CGI)		0,32	0,36	0,18	0,12	0,17	0,22
N	Wrought aluminium alloys		0,22	0,22		0,10	0,12	0,14
N	Cast aluminium alloys		0,22	0,22		0,10	0,12	0,14
N	Magnesium-based alloys		0,13	0,13		0,09	0,12	0,14
N	Copper and copper alloys (bronze/brass)		0,13	0,13		0,07	0,10	0,12
S	Heat-resistant alloys		0,13	0,13	0,11	0,08	0,09	0,11
S	Titanium alloys		0,13	0,13	0,11	0,08	0,09	0,11
S	Tungsten alloys		0,13	0,13	0,11	0,08	0,09	0,11
S	Molybdenum alloys		0,13	0,13	0,11	0,08	0,09	0,11
H	Hardened steel						0,06	0,06
H	Hardened cast iron						0,06	0,06
O	Thermoplastics		0,20	0,20		0,13	0,10	0,15
O	Plastic, carbon-fibre-reinforced							
O	Graphite (technical)		0,15	0,15		0,10	0,10	0,15
	Indexable insert types		OD..0504..	OD..0605..	TNMU160408R	BC..0903..	RO.X10T3M08..	RO.X1204M08..
	Correction factor **Ka_e** For the feed per tooth depending on the ratio of width of cut a_e to milling cutter diameter D_c	$a_e / D_c =$ 1/1–1/2	1,0	1,0	1,0	1,0	1,0	1,0
		1/5	1,1	1,1	1,1	1,2	1,2	1,2
		1/10	1,2	1,2	1,2	1,5	1,5	1,5
		1/20	1,3	1,3	1,3	1,8	1,8	1,8
		1/50				2,0	2,0	2,0
	Correction factor **Ka_p** for the feed per tooth depending on the depth of cut a_p $f_z = f_{z0} \cdot Ka_e \cdot Ka_p$	$a_p =$ 1						
		2						
		3						
		4						
		6						
		8						
		$a_{p\,max} = L_c$						
	Correction factor **K** $f_z = f_{z0} \cdot Ka_e \cdot Ka_p \cdot K$	$1 < (L : D_c) =$ ≤ 2						
		$2 < (L : D_c) =$ ≤ 4						
		$4 < (L : D_c) =$ ≤ 6						

[1] and steel casting
[2] and austenitic/ferritic

C 2

Application information for the M4002 high-feed face milling cutter

Ramping



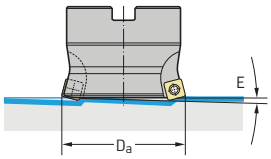
Maximum feed angle E [°]

D_a [mm]	SD..06T2.. r = 0,4	r = 0,8	r = 1,2	r = 1,6	r = 2,0	r = 2,5	ZDR	
20	3,7	2,9	2,2				1,5	
25	2,2	1,8	1,4				0,6	
32	1,3	1	0,7				0,4	
35	1,2	1	0,7				0,5	
40	1,1	0,9	0,7				0,3	
42	0,8	0,7	0,5				0,3	
50	0,8	0,7	0,5				0,3	
52	0,7	0,6	0,5				0,3	
63	0,6	0,4	0,3				0,2	
66	0,5	0,4	0,3				0,2	

D_a [mm]	SD..09T3.. r = 0,4	r = 0,8	r = 1,2	r = 1,6	r = 2,0	r = 2,5	ZDR	SDMX0904ZDR
25	4,3	3,5	2,8	2,3	1,2		1,2	2
32	3,6	3,1	2,7	2,3	1,9		1,8	2,1
35	2,9	2,5	2,2	1,9	1,5		1,6	1,7
40	2,2	1,9	1,6	1,4	1,2		1,2	1,3
42	2	1,7	1,5	1,3	1		1	0,9
50	1,5	1,3	1,1	1	0,8		0,8	0,9
52	1,3	1,2	1	0,8	0,7		0,7	0,8
63	1	0,8	0,7	0,6	0,5		0,5	0,5
66	0,9	0,8	0,7	0,6	0,4		0,4	0,4

D_a [mm]	SD..120408.. r = 0,4	r = 0,8	r = 1,2	r = 1,6	r = 2,0	r = 2,5	ZDR	SDMX1205ZDR
50		1,9	1,7	1,5	1,3	1	1	1,5
52		1,8	1,6	1,4	1,2	0,9	0,9	1,4
63		1,2	1,1	0,9	0,8	0,6	0,6	1
66		1,1	1	0,9	0,7	0,6	0,6	0,9
80		0,8	0,7	0,6	0,5	0,4	0,4	0,6
85		0,7	0,7	0,6	0,5	0,4	0,3	0,6
100		0,5	0,4	0,4	0,3	0,2	0,2	0,4
125		0,4	0,4	0,3	0,3	0,2	0,2	0,3

Ramping



Maximum feed angle E [°]

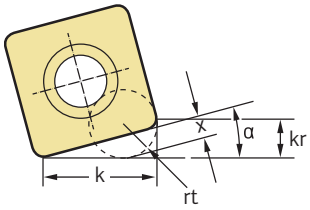
D_a [inch]	SD..06T2.. r = 0.016	r = 0.031	r = 0.047	r = 0.063	r = 0.079	r = 0.098	ZDR	
0.750	4,2	3,3	2,5				1,5	
1.000	2,2	1,6	1,2				0,7	
1.250	1,4	1,1	0,8				0,5	
1.500	1,2	0,9	0,7				0,3	
2.000	0,7	0,6	0,4				0,3	
2.500	0,4	0,3	0,2				0,1	

D_a [inch]	SD..09T3.. r = 0.016	r = 0.031	r = 0.047	r = 0.063	r = 0.079	r = 0.098	ZDR	SDMX0904ZDR
1.000	4	3,3	2,6	1,9	1,3		1,2	1,5
1.250	3,6	3,2	2,8	2,3	2		2	2,2
1.500	2,4	2,1	1,8	1,5	1,3		1,3	1,4
2.000	1,4	1,2	1	0,9	0,7		0,7	0,8
2.500	1	0,8	0,7	0,6	0,5		0,5	0,5

D_a [inch]	SD..1204.. r = 0.0157	r = 0.0315	r = 0.0472	r = 0.0623	r = 0.0787	r = 0.0984	ZDR	SDMX1205ZDR
2.000		1,9	1,6	1,4	1,2	1,0	1,0	1
2.500		1,2	1,1	0,9	0,8	0,6	0,6	0,7
3.000		0,9	0,8	0,7	0,6	0,5	0,4	0,4
4.000		0,5	0,4	0,3	0,3	0,2	0,2	1,5

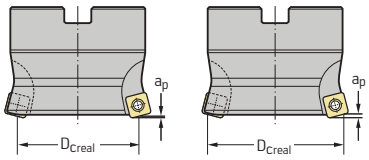
C 2

Programming information



Indexable insert	α [°]	rt		x		kr		k	
		[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]
SD . . 06T212	15	2,1	0.083	0,68	0.027	2,2	0.087	4,86	0.191
SD . . 06T2ZDR	15	1,3	0.051	0,72	0.028	2,63	0.104	4,29	0.169
SD . . 06T204	15	1,7	0.067	1	0.039	1,83	0.072	5,7	0.224
SD . . 09T320	15	3,3	0.130	0,94	0.037	3,41	0.134	7,07	0.278
SD . . 09T3ZDR	15	2,4	0.094	1,09	0.043	3,65	0.144	6,9	0.272
SD . . 09T308	15	2,7	0.106	1,43	0.056	2,83	0.111	8,37	0.330
SD . . 120425	15	4,3	0.169	1,32	0.052	4,46	0.176	9,61	0.378
SD . . 1204ZDR	15	3,1	0.122	1,58	0.062	4,85	0.191	9,31	0.367
SD . . 120408	15	3,5	0.138	2,02	0.080	3,65	0.144	11,44	0.450
SD . . 1205ZDR	15	3,9	0,153	1,4	0.055	3,9	0.153	10,8	0.425
SD . . 0904ZDR	15	2,8	0.11	1,2	0.04724	2,8	0.11	8,3	0.327

Increase in productivity



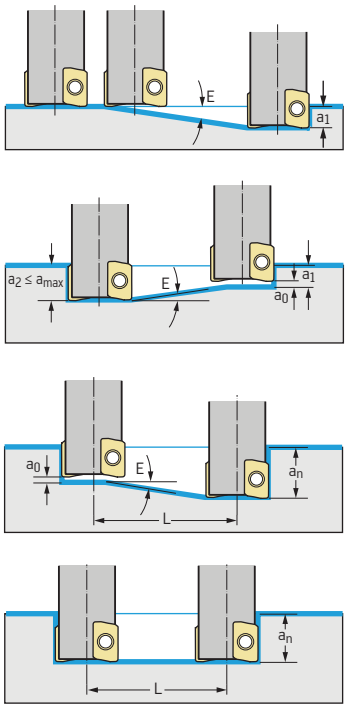
$D_{c\,real} \approx D_c + 8 \cdot a_p$

– In order to achieve an increase in productivity, it is recommended to use the $D_{c\,real}$ when calculating the cutting data.
– The $D_{c\,real}$ depends on the depth of cut a_p (see figure).

C 2

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

Ramping and circular plunging into solid material

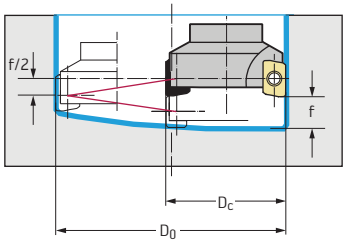


Plunging angle E_{max} [°]

Milling cutter dia.	BC..0903.. $a_{p\ max}$ = 9 mm			
D_c [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
	$a_{p\ max}$ = 0,354 inch			
D_c [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

C 2

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				

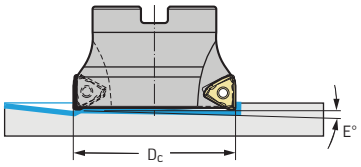
Max. axial feed per tool revolution ("thread pitch") f [inch]

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						

Application information for M5137 shoulder milling cutter

Ramping and circular plunging into solid material

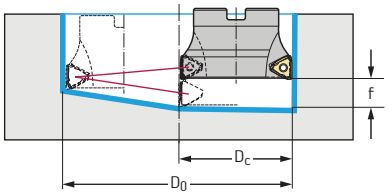
Plunging angle E_{max} [°]



Milling cutter dia.	TNMU160508R.. $a_{p\ max}$ = 0,315 inch				
D_c [inch]	E_{max} [°]	$D_{0\ min}$ [inch]	$D_{0\ max}$ [inch]	a_0 [inch]	
2,000	1,3	3,646	4,000	0,039	
2,500	1,0	4,646	5,000	0,039	
3,000	0,8	5,646	6,000	0,039	
4,000	0,6	7,646	8,000	0,039	

Circular interpolation of a hole into solid material

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



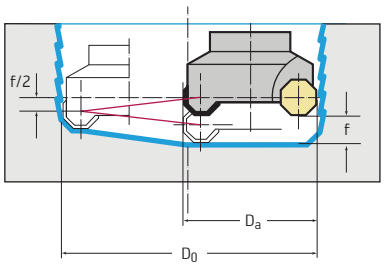
Machined bore diameter D_0 [inch]	TNMU160508R.. D_c [inch]				
	50	63	80	100	
,937	0,142				
4,724	0,197	0,122			
5,906	0,307	0,209	0,138		
7,087	0,315	0,252	0,173		
7,874	0,315	0,295	0,209	0,130	
9,843	0,315	0,315	0,295	0,193	
11,811	0,315	0,315	0,315	0,260	
13,780	0,315				
15,748					

C 2

Application information for the Xtra·tec® XT M5004 octagon cutter

Ramping and circular plunging into solid material

M5004



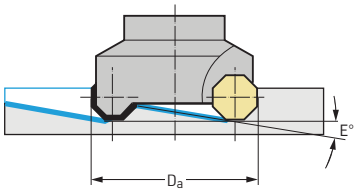
Plunging with the Xtra·tec® XT M5004 octagon cutters [mm]

	Indexable insert OD . . 0504 . . $a_{p\,max}$ = 3 mm			Indexable insert OD . . 0605 . . $a_{p\,max}$ = 4 mm		
D_a [mm]	$D_{0\,min}$ [mm]	$D_{0\,max}$ [mm]	f_{max} [mm]	$D_{0\,min}$ [mm]	$D_{0\,max}$ [mm]	f_{max} [mm]
32	46	64	4,5			
40	62	80	4,5			
50	82	100	4,5	77,2	100	5,8
52	86	104	4,5	81,2	104	5,8
58	98	116	4,5			
60				97,2	120	5,8
63	108	126	4,5	103,2	126	5,8
66	114	132	4,5	109,2	132	5,8
71	124	142	4,5			
73				123,2	146	5,8
80	142	160	4,5	137,2	160	5,8
88	158	176	4,5			
90				157,2	180	5,8
100	182	200	4,5	177,2	200	5,8
108	198	216	4,5			
110				197,2	220	5,8
125	232	250	4,5	227,2	250	5,8
135				247,2	270	5,8
160				297,2	320	5,8
170				317,2	340	5,8

Plunging with the Xtra·tec® XT M5004 octagon cutters [inch]

	Indexable insert OD . . 0504 . . $a_{p\,max}$ = 3 mm		
D_a [inch]	$D_{0\,min}$ [inch]	$D_{0\,max}$ [inch]	f_{max} [inch]
1.250	1.791	2.500	0.177
1.500	2.291	3.000	0.177
2.315	3.921	4.630	0.177
2.815	4.921	5.630	0.177
3.315	5.921	6.630	0.177

Ramping



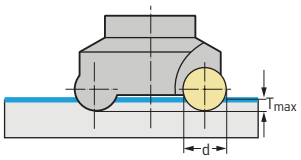
Maximum feed angle E [°]

D_a [mm]	OD . . 0504 . .	OD . . 0605 . .	D_a [mm]	OD . . 050408	OD . . 0605 . .	D_a [inch]	OD . . 0504 . .
32	14,0		80	2,7	4,3	1.250	13,2
40	8,3		88	2,4		1.500	8,0
50	5,5	9,6	90		4,0	2.315	3,8
52	5,1	8,9	100	2,0	3,1	2.815	2,7
58	4,6		108	2,0		3.315	2,3
60		7,7	110		3,1		
63	3,8	6,2	125	1,5			
66	3,5	5,8	135		2,3		
71	3,2		160		1,7		
73		5,4	170		1,7		

C 2

Application information for the Xtra·tec® XT M5468 copy milling cutter

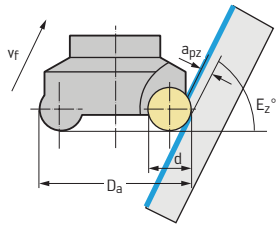
Vertical plunging



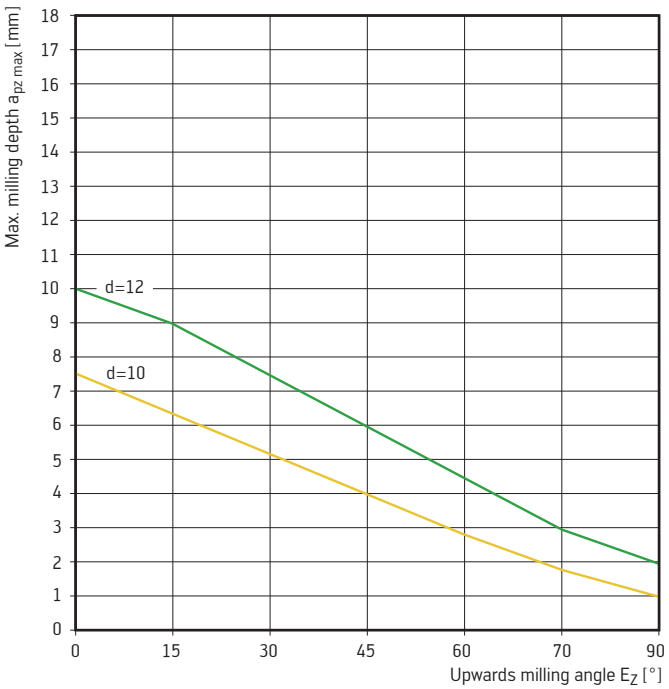
Max. plunging depth T_{max} [mm]

	Indexable insert diameter d [mm]	
	RO . X10T3M08 . . d = 10	RO . X1204M08 . . d = 12
T_{max} [mm]	2,5	D_a < 40 = 3,5 D_a ≥ 40 = 4,5

Milling upwards on inclined surfaces



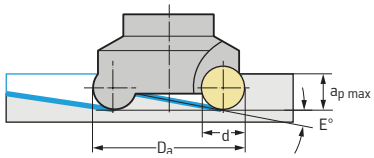
Max. plunging depth T_{max} [mm]



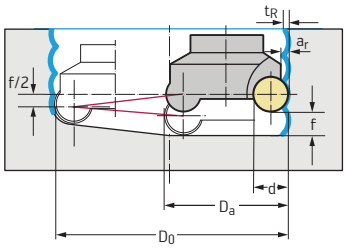
C 2

Ramping and circular plunging into solid material

Ramping



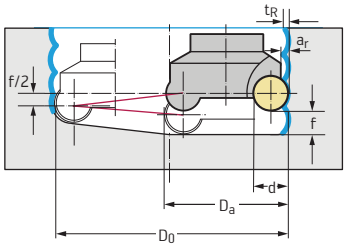
Circular interpolation of a hole into solid material



Plunging

	Indexable insert diameter d [mm]					
	RO . X10T3M08 . . $a_{p\ max}$ = 5 mm			RO . X1204M08 . . $a_{p\ max}$ = 6 mm		
D_a [mm]	E_{max} [°]	$D_{0\ min}$ [mm]	$D_{0\ max}$ [mm]	E_{max} [°]	$D_{0\ min}$ [mm]	$D_{0\ max}$ [mm]
20	11	20	40			
24				15	24	48
25	17,3	31	50			
30	11,8	41	60			
32	10,5	45	64	14,4	41	64
35	8,9	51	70			
40	8,3	61	80	14,5	57	80
42				13,4	61	84
50	6,0	81	100	10,1	77	100
52	5,6	85	104	9,5	81	104
63				7,2	103	126
66				6,7	109	132
80				5,2	137	160
100				3,9	177	200
D_a [inch]	E_{max} [°]	$D_{0\ min}$ [inch]	$D_{0\ max}$ [inch]	E_{max} [°]	$D_{0\ min}$ [inch]	$D_{0\ max}$ [inch]
0.750						
1,000	16,7	31,8	50,8			
1,250	10,6	44,5	63			
1,500	9,0	57,2	76,2	15,9	53,2	76,2
2,000	5,8	82,6	101,6	9,8	78,6	101,6
2,500				7,1	104,0	127,0
3,000				5,6	129,4	152,4
4,000				3,9	180,2	203,2

Groove depth on the wall of the bore t_R [mm]



Axial feed per revolution f [mm]	Indexable insert diameter d [mm]		
	RO . X10T3M08 . . d = 10	RO . X1204M08 . . d = 12	
1	0,025	0,020	
2	0,100	0,080	
3	0,230	0,190	
4	0,417	0,340	
5	0,670	0,540	
6	(1,000)	0,800	
7	(1.429)	(1,120)	
8		(1,530)	
$a_{r\ max}$	1,5	2,0	

The values in brackets only apply to short bores.

C 2

Notes on high-speed cutting

1. Maximum permissible speeds:
   The limit values specified in the tables should not be exceeded. Otherwise correct operation and/or reliability are no longer guaranteed.
2. Only use original Walter indexable inserts and assembly parts (screws, etc.). New screws should be used after having replaced the indexable inserts five times at the most.
3. Observe the tightening torques specified in the catalogue.
4. Balancing:
   Balancing in two steps is required when milling at fast speeds (> 6000 rpm) or at circumferential speeds of > 1000 m/min:
   a. Basic balancing of the tool body including indexable inserts (can be carried out by Walter if required). In this case, tool adaptors that have been balanced separately beforehand must be used.
   b. Fine balancing of the tool when fully mounted on the adaptor. The fine balancing operation is strongly recommended, as even the smallest concentricity fault can seriously affect the balance status.
5. Short projection lengths reduce concentricity faults 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 ≤ 2.2 × 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 24**	**Ø 25**	**Ø 28**	**Ø 30**	
M5130	AC.T0602..	D_c	40.000	40.000	40.000	40.000	40.000	40.000	40.000		40.000			
	BC.T0903..	D_c				40.000	40.000	40.000	38.700		36.000			
	BC.T1204..	D_c									28.100			
	BC.T1605..	D_c									22.300	20.900		
M5009	SN.X1205..	D_c												
M5009...-AP	SN.X1205..	D_c												
M5012	SN.X1205..	D_c												
M5012...-AP	SN.X1205..	D_c												
M5004	OD..0504..	D_a												
	OD..0605..	D_a												
M5468	RO..10T3M08..	D_c				40.000					40.000		38.400	
	RO..1204M08..	D_c								36.400				

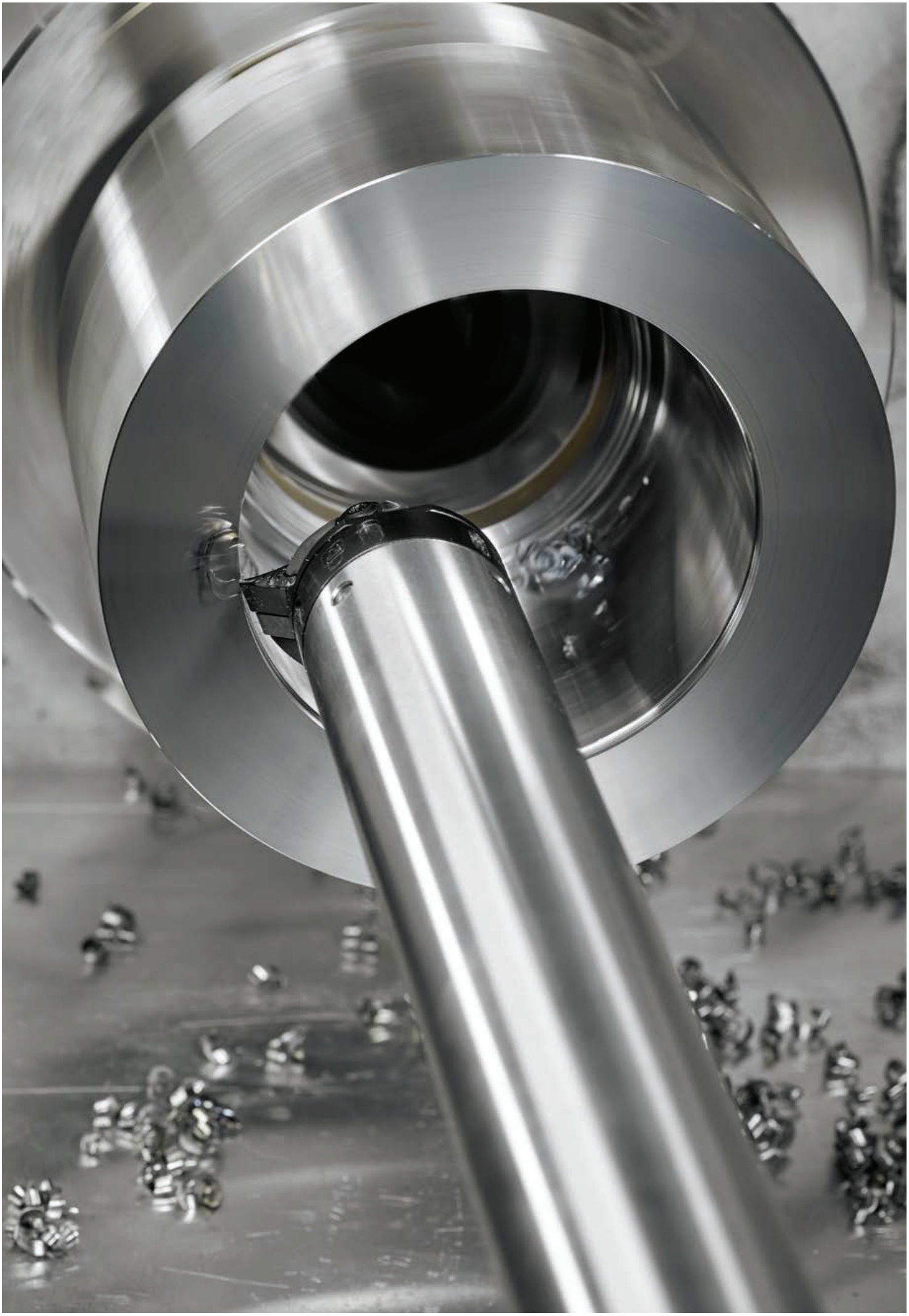
Part 2: Inch

			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.T0903..	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
M5137	TNMU160508R	D_c							
M5009	SN.X1205..	D_c							
M5009...-AP	SN.X1205..	D_c							
M5004	OD..0504..	D_a						29.400	26.300
M5468	RO..10T3M08..	D_c					40,000	37.300	34,000
	RO..1204M08..	D_c							28,900

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 32	Ø 35	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
	36.600		32.500		28.900		25.700									
	31.300		27.700		24.600		21.800									
	24.400															
	19.300	18.300														
			20.000		17.900		16.000		14.100		12.600	11.300	10.000			
					15.300		13.700		12.100		10.800	9.700	8.500			
					16.800		15.000		13.300		11.900	10.600	9.400			
					14.500		13.000		11.500		10.300	9.200	8.100			
	29.400		26.300		23.500		21.000		18.600		16.600	14.900				
					19.600		17.500		15.500		13.800	12.400	10.900	9.800		
	37.100	35.500	33.200		29.700	29.100	26.500									
	31.500		28.200	27.500	25.200	24.700	22.500	21.900	19.900		17.800					

	n_{max} [rpm] with D											
	Ø 2,000	Ø 2,315	Ø 2,500	Ø 2,815	Ø 3,000	Ø 3,315	Ø 4,000	Ø 5,000	Ø 6,000	Ø 8,000	Ø 10,000	Ø 12,000
	28,700		25,500									
	24,000											
	18,900		13,100		15,200							
	14,800		13,100		11,900		10,200	9,100	8,200			
	10,600		9,500		8,700		7,500					
	17,800		15,900		14,500		12,500	11,200	10,200			
	15,200		13,600		12,400		10,700	9,600	8,800			
		23,500		21,000		18,600						
	29,500											
	25,000		22,400		20,400		17,700					



D – Boring bars/adaptors

Stationary boring bars/adaptors – D1

Boring bars/adaptors	Product range overview	380
	Accure·tec – vibration-damped boring bars/adaptors	381
Accessories for boring bars/adaptors	Boring bar/adaptor	389
	QuadFit Large intermediate adaptor	390

Rotating boring bars/adaptors – D2

Tool adaptors	Product range overview	392
	Accure·tec – vibration-damped end mill adaptors	393
Technical information	Application information for Accure·tec	397

Product range overview of stationary boring bars/adaptors

Walter Capto™ tool adaptors

Designation	A3000-C
Tool type	Accure·tec boring bars/adaptors
Machine-side	Walter Capto™ in acc. with ISO 26623
Tool-side	QuadFit
Alignment	Straight
Page	385
	

Accure·tec vibration-damped boring bars/adaptors

Designation	A3000	A3001	A3000-C	A3001-C	A3000-HSK-T	A3001-HSK-T
Tool type	Accure·tec boring bars/adaptors					
Machine-side	Parallel shank	Parallel shank	Walter Capto™ in acc. with ISO 26623	Walter Capto™ in acc. with ISO 26623	HSK-T DIN 69893-7	HSK-T DIN 69893-7
Tool-side	QuadFit	QuadFit	QuadFit	QuadFit	QuadFit	QuadFit
Alignment	Straight	Straight	Straight	Straight	Straight	Straight
Page	381	382	385	386	387	388
						

Boring bar/adaptor

Designation	A2140-W
Tool type	Boring bars/adaptors
Machine-side	Parallel shank with flat
Tool-side [mm]	6–25
Page	389
	

Intermediate adaptor – QuadFit Large

Designation	A2201
Machine-side	QuadFit Large
Tool-side	QuadFit
Page	390
	

D 1

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 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

Plain cylindrical adaptor – vibration-damped

A3001 mm

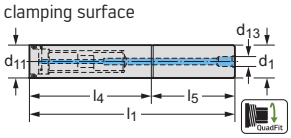
Accure·tec



– For A2201 intermediate adaptor with QuadFit interface
– With preset vibration damping

Tool

Parallel shank without clamping surface



Designation	d_1 mm	d_{11}	l_4 mm	l_5 mm	l_1 mm	d_{13}	kg
★ A3001-60-QL60-301	60	QL60	301	240	541	G 3/4	12,5
★ A3001-60-QL60-541	60	QL60	541	240	781	G 3/4	18,1
★ A3001-80-QL80-421	80	QL80	421	320	741	G 3/4	30,2
★ A3001-80-QL80-741	80	QL80	741	320	1061	G 3/4	43,4
★ A3001-100-QL100-939	100	QL100	939	500	1439	G 3/4	84,7

QuadFit exchangeable heads – see the "Turning" section
A2201 intermediate adaptor – see the "Boring bars/adaptors" section
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

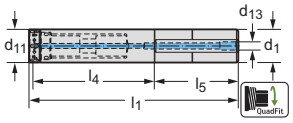
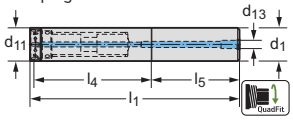
	d_{11}	QL60	QL80	QL100
	Threaded plug Tightening torque	FS2609 11 Nm	FS2610 16 Nm	FS2611 23 Nm
	Allen key	ISO2936-4 (SW 4)	ISO2936-5 (SW 5)	ISO2936-6 (SW 6)

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

D 1

Plain cylindrical adaptor – vibration-damped

A3001 inch

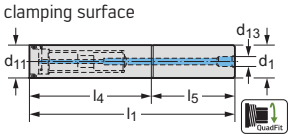
Accure·tec



– For A2201 intermediate adaptor with QuadFit interface
– With preset vibration damping

Tool

Parallel shank without clamping surface



Designation	d_1 inch	d_{11}	l_4 inch	l_5 inch	l_1 inch	d_{13}	lbs
★ A3001.40-QL64-318	2,500	QL64	12,500	10,000	22,500	G 3/4	32,41
★ A3001.40-QL64-572	2,500	QL64	22,500	10,000	32,500	G 3/4	46,74
★ A3001.48-QL76-394	3,000	QL74	15,500	12,000	27,500	G 3/4	57,32
★ A3001.48-QL76-699	3,000	QL74	27,500	12,000	39,500	G 3/4	83,11
★ A3001.64-QL100-953	4,000	QL100	37,500	20,000	57,500	G 3/4	195,55

QuadFit exchangeable heads – see the "Turning" section
A2201 intermediate adaptor – see the "Boring bars/adaptors" section
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

d_{11}	QL64	QL74	QL100
 Threaded plug Tightening torque	FS2609 11 Nm	FS2610 16 Nm	FS2611 23 Nm
 Allen key	ISO2936-4 (SW 4)	ISO2936-5 (SW 5)	ISO2936-6 (SW 6)

D 1

Walter Capto™ boring bar/adaptor – vibration-damped

A3000-C mm

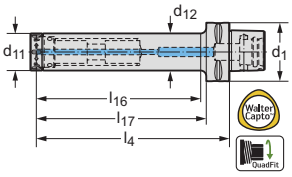
Accure·tec



– For QuadFit exchangeable heads
– With preset vibration damping

Tool

Walter Capto™ in acc. with ISO 26623



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

D 1

Walter Capto™ boring bar/adaptor – vibration-damped

A3001-C mm

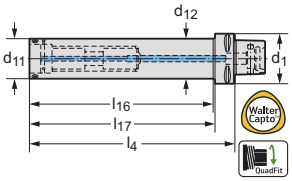
Accure·tec



– For A2201 intermediate adaptor with QuadFit interface
– With preset vibration damping

Tool

Walter Capto™ in acc. with ISO 26623



Designation	d_1	d_{11}	d_{12} mm	l_4 mm	l_{16} mm	l_{17} mm	n_{max}	kg
★ A3001-C6-QL60-301	C6	QL60	60	301	273	276	4000	7,8
★ A3001-C6-QL60-421	C6	QL60	60	421	393	396	3000	10,6
★ A3001-C8-QL60-301	C8	QL60	60	301	263	268	4000	8,6
★ A3001-C8-QL60-421	C8	QL60	60	421	383	388	3000	11,4
★ A3001-C8-QL60-541	C8	QL60	60	541	503	508	2000	14
★ A3001-C8-QL80-421	C8	QL80	80	421	383	388	3000	18,8
★ A3001-C8-QL80-581	C8	QL80	80	581	543	548	2000	25,1

QuadFit exchangeable heads – see the "Turning" section
A2201 intermediate adaptor – see the "Boring bars/adaptors" section
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	d_{11}	QL60	QL80
	Threaded plug Tightening torque	FS2609 11 Nm	FS2610 16 Nm
	Allen key	ISO2936-4 (SW 4)	ISO2936-5 (SW 5)

D 1

/ ★ New addition to the product range

HSK-T boring bar/adaptor – vibration-damped

A3000-HSK-T mm

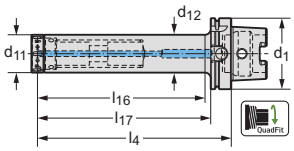
Accure·tec



– For QuadFit exchangeable heads
– With preset vibration damping

Tool

HSK-T DIN 69893-7



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

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

D 1

HSK-T boring bar/adaptor – vibration-damped

A3001-HSK-T mm

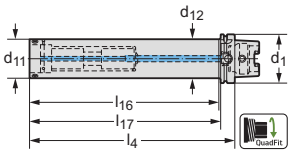
Accure·tec



– For A2201 intermediate adaptor with QuadFit interface
– With preset vibration damping

Tool

HSK-T DIN 69893-7



Designation	d_1 mm	d_{11}	d_{12} mm	l_4 mm	l_{16} mm	l_{17} mm	n_{max}	kg
★ A3001-H100T-QL60-301	100	QL60	60	301	267	272	4000	8,9
★ A3001-H100T-QL60-421	100	QL60	60	421	387	392	3000	11,8
★ A3001-H100T-QL60-541	100	QL60	60	541	507	512	2000	14,5
★ A3001-H100T-QL80-421	100	QL80	80	421	387	392	3000	19,4
★ A3001-H100T-QL80-581	100	QL80	80	581	547	552	2000	26,2

QuadFit exchangeable heads – see the "Turning" section
A2201 intermediate adaptor – see the "Boring bars/adaptors" section
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	d_{11}	QL60	QL80
	Threaded plug Tightening torque	FS2609 11 Nm	FS2610 16 Nm
	Allen key	ISO2936-4 (SW 4)	ISO2936-5 (SW 5)

D 1

/ ★ New addition to the product range

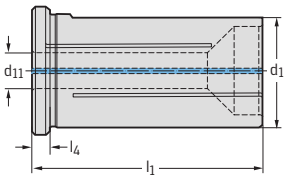
Boring bar/adaptor
A2140-W mm



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

Tool

Parallel shank with flat
in acc. with ISO 9766



Designation	d_1 mm	d_{11} mm	l_1 mm	l_4 mm	kg
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	0,0
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-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)

QuadFit Large intermediate adaptor

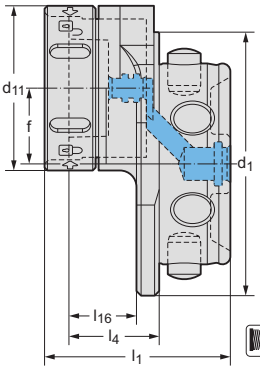
A2201 mm

Accure·tec



– QuadFit
– For A3001 Accure·tec boring bars

Tool



Designation	d_{11}	d_1	f mm	l_1 mm	l_4 mm	l_{16} mm	kg
★ A2201-QL60-05-27-Q50	Q50	QL60	5	50,4	27	21,5	0,6
★ A2201-QL60-10-27-Q50	Q50	QL60	10	50,4	27	21,5	0,6
★ A2201-QL80-15-27-Q50	Q50	QL80	15	56,4	27	21,5	0,9
★ A2201-QL80-23-27-Q50	Q50	QL80	23	56,4	27	21,5	0,9
★ A2201-QL100-28-29-Q50	Q50	QL100	28	61,4	29	21,5	1,5
★ A2201-QL100-38-29-Q50	Q50	QL100	38	61,4	29	21,5	1,5

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

Assembly parts



	d_{11}	Q50
	Hook wrench Tightening torque	SD9000-Q50 55 Nm

Accessories





	d_{11}	Q50
	Torque wrench with hook Tightening torque	SD4000-Q50-55 55 Nm
	Hook for torque wrench	SD6000-Q50

D 1

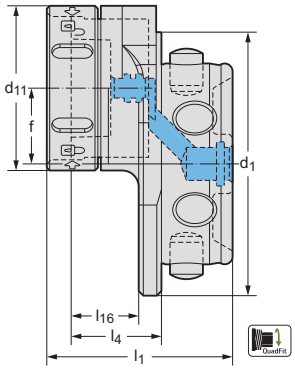
★ New addition to the product range

QuadFit Large intermediate adaptor
A2201 inch
Accure·tec



– QuadFit
– For A3001 Accure·tec boring bars

Tool



Designation	d_{11}	d_1	f inch	l_1 inch	l_4 inch	l_{16} inch	lbs
★ A2201.QL64-07-27-Q50	Q50	QL64	0,266	1,988	1,063	0,846	2,2
★ A2201.QL64-12-27-Q50	Q50	QL64	0,463	1,988	1,063	0,846	2,2
★ A2201.QL76-13-27-Q50	Q50	QL76	0,516	2,228	1,063	0,846	2,2
★ A2201.QL76-21-27-Q50	Q50	QL76	0,831	2,228	1,063	0,846	2,2

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

Assembly parts

	d_{11}	Q50
	Hook wrench Tightening torque	SD9000-Q50 55 Nm

Accessories

	d_{11}	Q50
	Torque wrench with hook Tightening torque	SD4000-Q50-55 55 Nm
	Hook for torque wrench	SD6000-Q50

D 1

Product range overview of rotating boring bars/adaptors

ScrewFit boring bars/adaptors for front pieces

Designation	AC060-C	AC060-H	AC060-S	AC060-J
Tool type	Accure·tec boring bars/adaptors			
Machine-side	Walter Capto™ in acc. with ISO 26623	HSK DIN 69893-1 A	SK DIN 69871 AD/B	JIS B 6339 AD/B
Tool-side	T18 / T22 / T28			
Page	394	394	395	395
				

One-piece boring bars/adaptors – HSK, SK

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	393	393
		

Accure·tec vibration-damped end mill adaptors

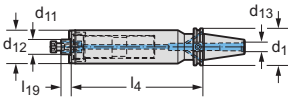
Designation	AC001.K	AC001.K	AC060-C	AC060-H	AC060-S	AC060-J
Tool type	Accure·tec boring bars/adaptors					
Machine-side	ASME B 5.50	ASME B 5.50	Walter Capto™ in acc. with ISO 26623	HSK DIN 69893-1 A	SK DIN 69871 AD/B	JIS B 6339 AD/B
Tool-side	B19 / B26 / B38	B19 / B26	T18 / T22 / T28			
Page	393	393	394	394	395	395
						

D 2

CAT-V boring bar/adaptor – vibration-damped
AC001.K inch



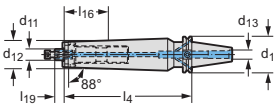
– For milling tools with parallel bore according to DIN 138
– With preset vibration damping

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

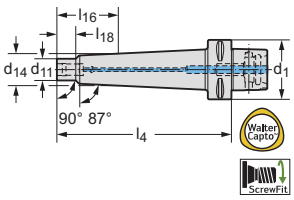
Walter Capto™ boring bar/adaptor – vibration-damped
AC060-C mm



– For ScrewFit front pieces
– With preset vibration damping

Tool

Walter Capto™ in acc. with ISO 26623



Designation	d_1	d_{11}	d_{14} mm	l_4 mm	l_{16} mm	l_{18} mm	kg
★ AC060-C6-T18-185	C6	T18	18,5	185	24	20	2
★ AC060-C6-T22-185	C6	T22	22	185	24	19,5	2,1
★ AC060-C6-T28-185	C6	T28	28	185	24	18,75	2,8
★ AC060-C6-T28-235	C6	T28	28	235	24	18,75	3,6

For the tightening torques of screw-fit front pieces, see "Rotating boring bars/adaptors/Assembly parts and accessories"

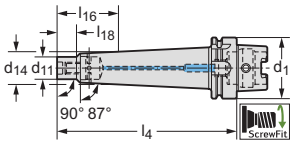
HSK boring bar/adaptor – vibration-damped
AC060-H mm



– For ScrewFit front pieces
– With preset vibration damping

Tool

HSK DIN 69893-1 A



Designation	d_1	d_{11}	d_{14} mm	l_4 mm	l_{16} mm	l_{18} mm	kg
★ AC060-H63-T18-185	HSK-A63	T18	18,5	185	24	20	1,51
★ AC060-H63-T22-185	HSK-A63	T22	22	185	24	19,5	1,9
★ AC060-H63-T28-185	HSK-A63	T28	28	185	24	18,75	2,59
★ AC060-H63-T28-235	HSK-A63	T28	28	235	24	18,75	3,5
★ AC060-H100-T22-235	HSK-A100	T22	22	235	24	19,5	4
★ AC060-H100-T28-235	HSK-A100	T28	28	235	24	18,75	4,8
★ AC060-H100-T28-285	HSK-A100	T28	28	285	24	18,75	5,9

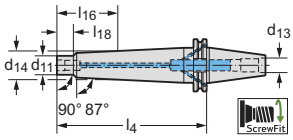
For accessories for HSK, see "Assembly parts and accessories"
For the tightening torques of screw-fit front pieces, see "Rotating boring bars/adaptors/Assembly parts and accessories"

SK boring bar/adaptor – vibration-damped
AC060-S mm



– For ScrewFit front pieces
– With preset vibration damping

Tool	Designation	d_1	d_{11}	d_{14} mm	l_4 mm	l_{16} mm	l_{18} mm	d_{13}	kg
SK DIN 69871 AD/B	★ AC060-S40-T18-185	SK40	T18	18,5	185	24	20	M16	2,2
	★ AC060-S40-T22-185	SK40	T22	22	185	24	20	M16	2,2
	★ AC060-S40-T28-185	SK40	T28	28	185	24	20	M16	2,8
	★ AC060-S40-T28-235	SK40	T28	28	235	24	20	M16	3,7
	★ AC060-S50-T22-235	SK50	T22	22	235	24	19,5	M24	5,5
	★ AC060-S50-T28-235	SK50	T28	28	235	24	18,75	M24	5,5
	★ AC060-S50-T28-285	SK50	T28	28	285	24	18,75	M24	6,6



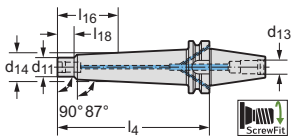
For pull studs for steep tapers, see "Assembly parts and accessories/Steep taper pull studs"
For the tightening torques of screw-fit front pieces, see "Rotating boring bars/adaptors/Assembly parts and accessories"

MAS-BT boring bar/adaptor – vibration-damped
AC060-J mm



– For ScrewFit front pieces
– With preset vibration damping

Tool	Designation	d_1	d_{11}	d_{14} mm	l_4 mm	l_{16} mm	l_{18} mm	d_{13}	kg
JIS B 6339 AD/B	★ AC060-J40-T18-185	BT40	T18	18,5	185	24	20	M16	2,2
	★ AC060-J40-T22-185	BT40	T22	22	185	24	19,5	M16	2,2
	★ AC060-J40-T28-185	BT40	T28	28	185	24	18,75	M16	2,8
	★ AC060-J40-T28-235	BT40	T28	30	235	24	18,75	M16	3,7
	★ AC060-J50-T22-235	BT50	T22	22	235	24	19,5	M24	6
	★ AC060-J50-T28-235	BT50	T28	28	235	24	18,75	M24	6,1
	★ AC060-J50-T28-285	BT50	T28	28	285	24	18,75	M24	7,2



For pull studs for steep tapers, see "Assembly parts and accessories/Steep taper pull studs"
For the tightening torques of screw-fit front pieces, see "Rotating boring bars/adaptors/Assembly parts and accessories"

D 2

/ ★ New addition to the product range

Application information:
Accure·tec AC060 – vibration-damped boring bars/adaptors for ScrewFit exchangeable heads

The Accure·tec boring bars/adaptors for ScrewFit exchangeable heads feature dynamic passive vibration damping in order to increase the dynamic rigidity of milling tools with a long projection length. They enable higher cutting parameters than conventional boring bars/adaptors with ScrewFit exchangeable heads.
For optimal use of Accure·tec boring bars/adaptors, please ensure you follow the operating instructions below.

Note: Vibration-damped Accure·tec boring bars/adaptors for ScrewFit exchangeable heads are instantly ready for use. No adjustments are required.



1. Installation recommendations

The Accure·tec AC060 boring bar/adaptor is a "Plug and Play" system. The integrated damping system is ready for immediate use and is set to provide optimal results.

We strongly recommend that you do not fit any extensions/reducers as this may lead to a loss of the damping effect.

1.1



1.2



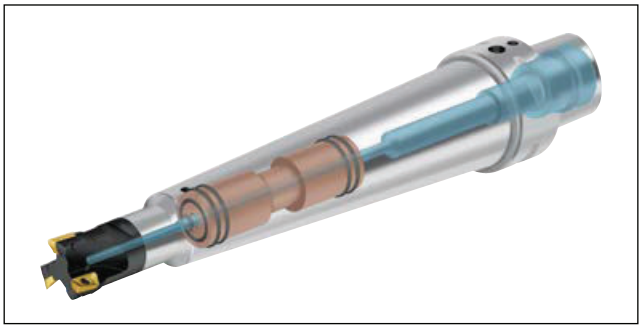
2. Walter ScrewFit exchangeable head system

Due to the high cutting conditions that can be achieved, the ScrewFit exchangeable head must be reliably secured in the Accure·tec boring bar/adaptor.

We advise you to use a torque wrench to tighten the ScrewFit exchangeable head to the recommended torque (see Table A below).

A Tightening torque

Connecting thread		T 9	T 14	T 18	T 22	T 28	T 36	T 45
Key size for installation [SW]		8	12	14	17	21	30	36
Tightening torque	Nm	6	25	50	80	150	200	200
	ft lb	4	19	37	59	11	148	148



3. Recommended machining parameters

Make sure that you never exceed the maximum speed of the boring bar/adaptor (specified on the boring bar/adaptor and in Table B below).

B Maximum speed (rpm*)

A Length of the boring bar/adaptor (mm)	≤ 185	> 185 ≤ 235	> 235 ≤ 285
Max. rpm	10.000	8.000	6.000

* Depending on the rigidity of the spindle, it may be necessary to reduce the maximum speed specified above. Improper cutting conditions may cause the complete tool to vibrate, which would prevent the damper from working efficiently and may potentially damage the components of the boring bar/adaptor. Adapt the cutting conditions for vibration-free operation.

4. Optimisation of the cutting conditions

To optimise the cutting conditions, take the following steps:

1. Cutting speed v_c and feed per tooth f_z:
Select the starting values depending on the milling cutter and indexable insert (see Walter General Catalogue or Walter GPS tool navigation system).

2. Select values for maximum depth of cut a_p and cutting width a_e.
The width and depth of cut can be increased, bearing in mind the specified recommendations for milling cutters and indexable inserts, so long as no vibration occurs.

Take care:
In contrast to the use of conventional long boring bars/adaptors, the machining process cannot be stabilised using additional radial forces (e.g. by increasing the feed).

5. Maximum temperature in use

The temperature of the Accure·tec boring bar/adaptor when in use must not exceed the maximum permissible temperature (see Table C), as this would damage the damping system.

C Maximum temperature in use

80 °C / 176 °F

D 2

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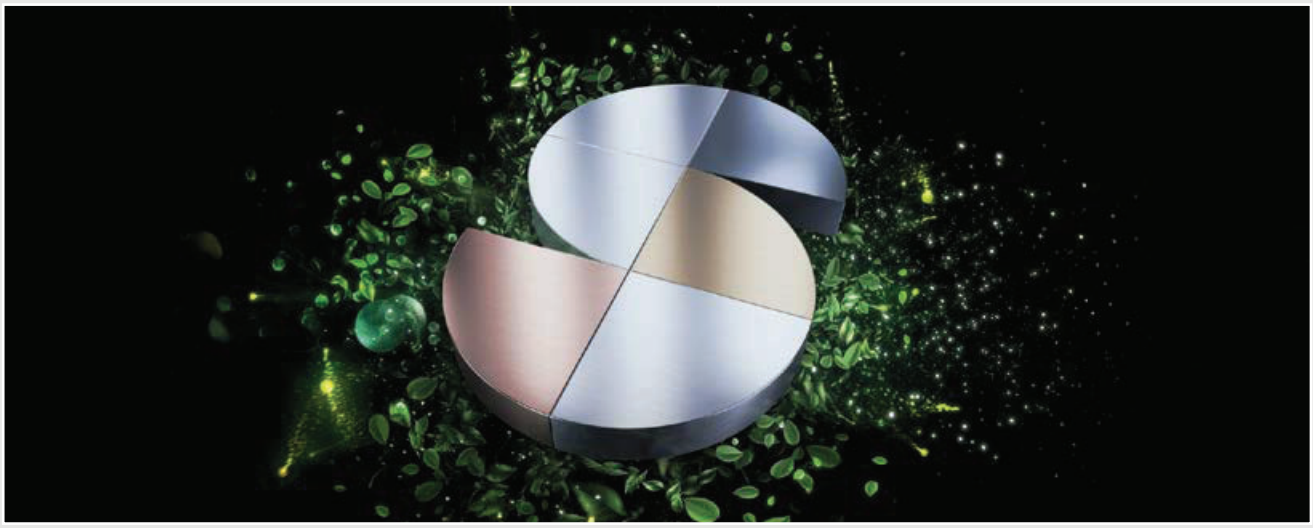

Sustainable products and services – certified and transparent

Walter is a company that takes responsibility for people and the environment. Sustainability is a central component of our corporate strategy. It pervades our products and business divisions and is reviewed and certified by independent third parties on a regular basis.

Proven to be produced to high standards

All processes, procedures, methods and instruments that we use are checked and certified by an independent body according to strict criteria. Occupational health and safety, quality assurance and environmentally friendly actions (for example through resource-saving, energy-efficient and CO_2-offset production) are examples of this. Our social commitment shows that Walter has a broader definition of responsibility.

Transparency throughout the entire process chain – for your peace of mind

The integrated management system at Walter includes the sustainable use of resources and production equipment as well as of people – our customers, partners and employees. So that you can count on all of our products meeting these requirements throughout the entire process chain, we apply our own benchmarks to our suppliers too.

Certification

The integrated management system at Walter includes certification in accordance with:

- ISO 9001 (Quality management)
- VDA 6.4 (Production equipment for the automotive industry)
- ISO 14001 (Environmental management)
- ISO 45001 (Occupational health and safety management)
- ISO 50001 (Energy management)

You can find more information on Walter certification here:



Occupational health and safety
Walter protects its employees against health hazards. To prevent accidents, we continuously review our processes and take proactive measures as a precaution.



Environmental and energy management
Environmental protection is an important company objective for Walter. We use energy efficiently and deploy practical methods to sustainably reduce the consumption of energy, water and resources.



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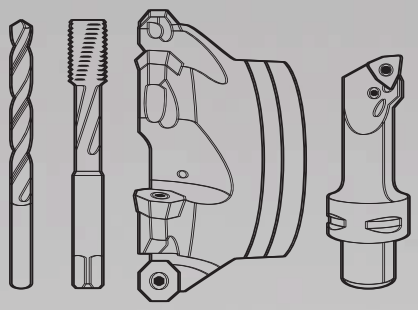

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