Tools for milling

The competence brands Walter and Walter Prototyp offer you the ideal solution for your workpiece and material requirements.

A wide range of milling tool types and geometries: From mini milling cutters with diameters of 0.3 mm made from solid carbide to cartridge-type face milling cutters with indexable inserts with diameters of up to 315 mm. In addition, the wide variety of available cutting tool materials, such as coated carbide, PCD, CBN or HSS, ensures a broad range of applications.

1 **MC341 Supreme**
[from page C 37]
- Solid carbide high-performance milling cutters – Specially developed for steel
- For roughing with maximum metal removal rates and for finishing

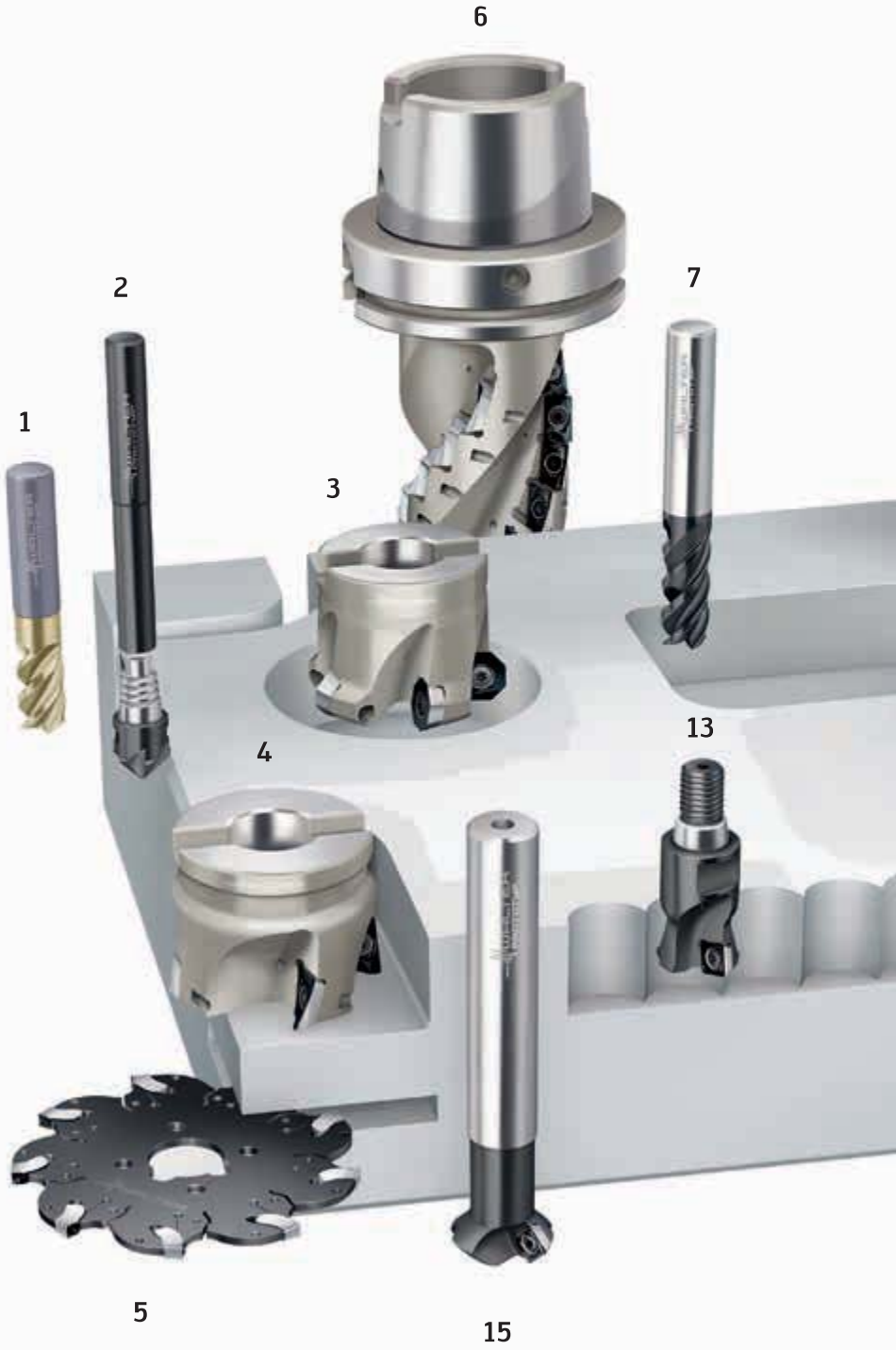
2 **ConeFit**
[from page C 128]
- Modular solid carbide milling system with maximum concentricity
- In a wide range of shank variants and geometries
- Diameter range: 10–25 mm

3 **Xtra·tec® F4080 octagon face milling cutters**
[from page C 414]
- For face milling, circular interpolation milling, ramping and pocketing
- Cost-effective eight-edge indexable insert

4 **Xtra·tec® F4042/F4042R shoulder milling cutters**
[from page C 446]
- Wide product selection: Five insert sizes, corner radii from 0.2 to 6.0 mm
- Additional geometries – adapted to suit the specific machining task

5 **Walter BLAXX F5055 slitting cutters**
[from page C 532]
- Extremely high retaining forces as a result of the optimised top clamp
- System indexable insert: Suitable for use in slitting cutters and groove turning holders

6 **Xtra·tec® F4038/F4138/F4238/F4338 porcupine milling cutters**
[from page C 470]
- For shoulder milling and trimming in a wide variety of materials
- Diameter range: 20–125 mm; Cutting lengths: Up to 124 mm
- High machining volume



7 **MC326 and MC726 Supreme**
[from page C 68]
- Very long tool edge life and high cutting data
- Walter's own coating with tough, new substrate, WK40FT grade and special cutting edge treatment

8 **Xtra·tec® F4033/F4047/F4048 face milling cutters**
[from page C 396]
- Eight-edge system inserts for wide range of approach angles
- Maximum productivity for face milling thanks to highly positive geometries and stable, negative indexable inserts

9 **MC416 Advance**
[from page C 118]
- For all forms of five-axis machining applications as well as for machines with three axes and Z constant machining
- High-performance WJ30TF grade

10 **Protostar® N50 multipurpose cutters**
[from page C 21]
- Optimum productivity in trimming applications due to large number of teeth (6, 7 or 8)
- Optimum chip removal thanks to 50° helix angle

11 **Walter BLAXX M3024 heptagon face milling cutters**
[from page C 422]
- For machining long-chipping materials and cast iron materials
- 14-edge indexable insert and highest tooth pitch for maximum machining volume

12 **Walter BLAXX F5041/F5141/F5241 shoulder milling cutters**
[from page C 458]
- Unique indexable insert design with four cutting edges per insert and exact 90° corners at the shoulder
- Tangential indexable inserts with helical cutting edges for soft, positive cutting

13 **M4002 High-feed face milling cutters**
[from page C 424]
- High degree of cost efficiency thanks to system indexable inserts which can be used universally
- Low power requirement thanks to highly positive geometries

14 **Walter BLAXX F5038/F5138 porcupine milling cutters**
[from page C 480]
- Unique indexable insert design with four cutting edges per insert and exact 90° corners at the shoulder
- System indexable insert from the Walter BLAXX shoulder milling cutter range

15 **M4574 chamfer milling cutters**
[from page C 564]
- High degree of cost efficiency thanks to system indexable inserts which can be used universally
- For chamfering and back chamfering

C – Milling catalogue

C 1: Solid carbide, PCD and HSS milling tools

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Solid carbide milling tools product range overview
Shoulder milling cutters

Machining						
Helix angle	**45°**	**50°**	**30°**	**50°**	**60°**	**45°**
Designation	**H7073417 Protostar® Ti**	**H8082228 H8083128 Protostar® Ultra**	**H3178128 Protostar® Ultra**	**H3021138 H3023138 Protostar®**	**MC129 Advance**	**MC122 Advance**
Dia. range [mm]	16–25	3–25	5–16	3–25	6–20	2–25
Z	4–5	4–8	6–16	4–8	6	4–8
Corner radius [mm]	3–4	0–4	0	0–4	0	0
Page	C 18	C 19	C 20	C 21	C 22	C 23

Machining		
Helix angle	**30°**	
Designation	**MC111 Advance MC112 Advance**	**H3058917 H404491 H4044918 Protostar®**
Dia. range [mm]	2–25	0,4–25
Z	4	2–6
Corner radius [mm]	0–2	0–0,3
Page	C 26	C 30

Solid carbide milling tools product range overview
Shoulder/slot milling cutters

Machining						
Helix angle	**50°**	**45°**	**50°**	**35°**	**35° / 38°**	
Designation	**MC341 Supreme**	**H4033217 H4036217 H4133217 Proto·max™ST**	**H4034217 H4038217 H4134217 H4138217 Proto·max™ST**	**H4135217 H4137217 Proto·max™ST**	**H2034217 H2038217 H2134217 H2138217 Proto·max™Inox**	**MC251 Advance**
Dia. range [mm]	6–20	2–20	3–20	6–25	6–20	3–20
Z	4	3	4	5	4	4
Corner radius [mm]	0	0–0,4	0–4	0–4	0–4	0–6
Page	C 37	C 38	C 39	C 41	C 42	C 44

Machining						
Helix angle	**45°**	**30°**	**25°**	**30°**		**40°**
Designation	**H602311 H6023114 H602411 H602511 H602551 Protostar®**	**H901411 H901451 Protostar®**	**H602641 H602681 H602881 H6028818 Protostar®**	**MB266 Supreme**	**MB265 Supreme**	**H608411 H608771 H608871 H618911 Protostar®**
Dia. range [mm]	1–25	2–12	2–20	12–25	16–25	6–25
Z	2–3	1–2	2	3	3	3
Corner radius [mm]	0–0,5	0	0–4	0,5–4	2–4	0
Page	C 45	C 48	C 49	C 51	C 52	C 53

Solid carbide milling tools product range overview
Shoulder/slot milling cutters

Machining						
Helix angle	**40°**	**30°**	**50°**	**50°**	**30°**	
Designation	**H7073717 Protostar® Ti**	**H3183017 Protostar® Ti**	**H3070118 H3070318 H3071118 H3071318 H3170318 ... Tough Guys**	**H3094728 Protostar® Flash**	**H4044928 H8005728 H8005828 H8005928 H8015728 ... Protostar® Ultra**	**H3027419 H4044919 H8095919 Protostar®**
Dia. range [mm]	12–20	8–16	2–20	4–20	0,4–20	0,4–16
Z	4	4	3–4	4	2–4	2–4
Corner radius [mm]	0,2–4	0	0–4	0	0,05–2	0–1
Page	C 55	C 56	C 57	C 61	C 62	C 65

Machining						
Helix angle	**50°**	**50°**	**45°**	**30°**		**35°**
Designation	**MC326 Supreme MC726 Supreme**	**H3094718 Protostar® Flash**	**MC321 Advance MC322 Advance MC324 Advance**	**MC213 Advance MC216 Advance**	**MC716 Advance**	**MC232 Perform**
Dia. range [mm]	2–25	4–20	1–20	0,6–20	1,8–20	2–20
Z	3–5	4	3–5	2–4	2–3	2–4
Corner radius [mm]	0–4	0	0–2	0–1,5	0	0
Page	C 68	C 80	C 81	C 86	C 93	C 95

Solid carbide milling tools product range overview
Shoulder/slot milling cutters

Machining					
Helix angle	**45°**	**40°**	**30°**	**40°**	**30°**
Designation	**H3185378 H3186378 Protostar® Qmax**	**H3182378 H3183378 Protostar® Qmax**	**H3187278 Protostar® Qmax**	**H4189278 H4189378 Protostar® Qmax**	**H3180278 H4180378 Protostar® Qmax**
Dia. range [mm]	12–25	5–20	6–25	5–25	6–25
Z	5–8	4	3	4	4
Corner radius [mm]	0–4	0–4	0	0	0
Page	C 97	C 98	C 99	C 100	C 101

Solid carbide milling tools product range overview
Copy milling cutters

Machining						
Helix angle	**30°**					
Designation	**H602111 Protostar®**	**H404691 H4046918 Protostar®**	**H8004028 H8004128 H8004728 H8006428 ... Protostar® Ultra**	**H4046988 H8004788 Proto·max™Ultra**	**H4046928 H4046919 H8001119 H8001919 H8006419 H8016419 Protostar®**	**MC413 Advance MC416 Advance**
Dia. range [mm]	2–16	0,3–3	0,3–16	1–12	0,3–12	1–20
Z	2	2	2–4	2	2–4	2–4
Corner radius [mm]	1–8	0,15–1,5	0,15–8	0,5–6	0,15–6	0,5–10
Page	C 104	C 105	C 106	C 111	C 113	C 118

Solid carbide milling tools product range overview
Profiling cutters

Machining					
Helix angle	**0°**				
Designation	**MC500 Advance**	**MC501 Advance**	**MC502 Advance**	**MC503 Advance**	**MC504 Advance**
Dia. range [mm]	6–10	6–12	10	6–20	6–12
Z	4	4–6	4	3–4	4–6
Type	60°	90°	120°	R0,5mm-6mm	90°
Page	C 123	C 124	C 125	C 126	C 127

Designation key – Solid carbide milling tools

Example:

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

1	2	3	4
Tool group	**Generation**	**Tool type**	**Tool type**
M Milling		**1** Shoulder milling cutters **2** Shoulder/slot/porcupine milling cutters helix angle ≤ 39° **3** Shoulder/slot/porcupine milling cutters helix angle ≥ 40° **4** Ball nose mill/ copy milling cutters **5** Profiling cutters **7** Slot drill mills/ circular interpolation mills	**00** Universal Helix angle 0°, chamfer milling cutters 60° **01** Universal Helix angle 0°, chamfer milling cutters 90° **02** Universal Helix angle 0°, chamfer milling cutters 120° **03** Universal Helix angle 0°, quadrant profiling cutters **04** Universal Helix angle 0°, forward/backward deburrers **11** Universal Helix angle 30°, type N **12** Universal Helix angle 30°, type HSC **13** Universal Helix angle 30°, type HSC, long version **16** Universal Helix angle 30°, type 30 **21** Universal Helix angle 45°, short version **22** Universal Helix angle 45°, type N **24** Universal Helix angle 45°, type 45 **26** Universal Helix angle 50°, unequal groove depth, differential pitch **29** Universal Helix angle 60°, type N, multipurpose cutter **32** Universal Helix angle 35° **41** ISO P Helix angle 50°, HPC, differential pitch **51** ISO M Helix angle 35°/38°, without internal cooling **65** ISO N Helix angle 30°, Al geometry, RAPAX G30 roughing profile, Axial internal cooling **66** ISO N Helix angle 30°, Al geometry, Axial internal cooling

5	6	7
Delimiters	**Cutting diameter**	**Shank type**
– Metric **.** Inches		**A** Parallel shank **W** Weldon shank

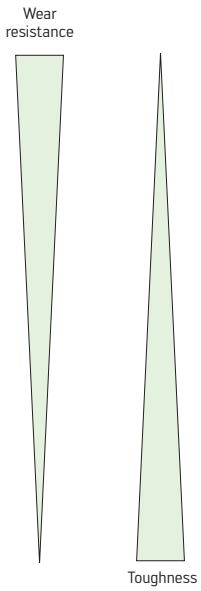
8	9	10	11
Number of teeth	**Design standard**	**Corner radius**	**Variant**
	A DIN 6527 K **B** DIN 6527 L **P** P standard **L** P standard L **X** P standard XL		**A** Neck length XS **B** Neck length S **C** Neck length M **J** Depth of cut S

Grade designation key for solid carbide and HSS cutting tool materials

Example:

W	K	40	TF
Walter	1	2	3

1	2	3
Substrate	Range of applications	Coating
Solid carbide: B, J, K HSS	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95	TF TiAlN UU Uncoated CA CrN RC TiAlN + AlTi TZ AlTiN + ZrN ED AlCRN



Walter Select – Solid carbide milling tools

Step by step to the right tool

STEP 1

Determine the **material** to be machined from page C 671 onwards.

Note the **machining group** that corresponds to your material, e.g.: P10.

Code letters	Machining groups	Groups of the materials to be machined	
P	P1–P15	**Steel**	All types of steel and steel casting, with the exception of steel with an austenitic structure
M	M1–M3	**Stainless steel**	Austenitic stainless steel, austenitic-ferritic steel and steel casting
K	K1–K7	**Cast iron**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron, cast iron with vermicular graphite
N	N1–N10	**NF metals**	Aluminium and other non-ferrous metals, non-ferrous materials
S	S1–S10	**Materials with difficult cutting properties**	Heat-resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys
H	H1–H4	**Hard materials**	Hardened steel, hardened cast iron materials, chilled cast iron
O	O1–O6	**Other**	Plastics, glass and carbon fibre reinforced plastics, graphite

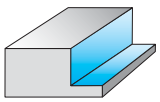
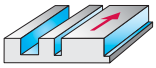
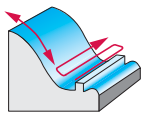
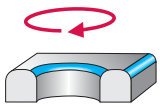
STEP 2

Select the **machining conditions**:

Machine stability, clamping system and workpiece		
very good	good	moderate
☺	😐	☹

STEP 3

Select your **machining method** based on the main categories and subcategories and then go to the relevant Walter Select product range overview (see table, e.g. page C 16).

Machining method			
			
Shoulder milling – No corner radius – With corner radius	**Shoulder/slot milling** – No corner radius – With chamfer – With corner radius – With roughing profile	**Radius copy milling**	**Profile milling** – Chamfering and deburring – Corner rounding
Page C 16	Page C 32	Page C 102	Page C 122

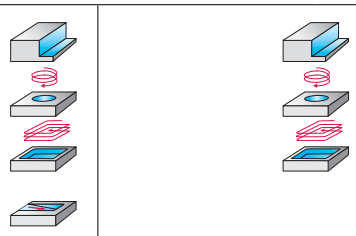
STEP 4

Select the appropriate tool for your **machining conditions** and then go to the ordering page.

Walter Select Solid carbide milling tools
Shoulder milling cutters

Machining

WALTER SELECT
●● Primary application
● Other application

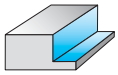


Helix angle	45°	50°	30°	50°	60°
Designation	H7073417 Protostar® Ti	H8082228 H8083128 Protostar® Ultra	H3178128 Protostar® Ultra	H3021138 H3023138 Protostar®	MC129 Advance
Dia. range [mm]	16–25	3–25	5–16	3–25	6–20
Z	4–5	4–8	6–16	4–8	6
Corner radius [mm]	3–4	0–4	0	0–4	0
Standard	P STANDARD XL	P STANDARD L			

STEP 5

Based on the **material group** to be machined, look for the appropriate **cutting speed** by referring to **a_e to D_c from page** C 222 (e.g. A) **onwards** and also the **VT feed group**.

Cutting data for solid carbide shoulder milling



Product family		λ
MC129		60°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group	Ø 6–20 mm, Z = 6, WJ30TF — Starting values for cutting speed v_c [m/min], a_e / D_c 1/2	1/4	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1		191	232	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2		261	317	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3		222	270	A
		C > 0.55%	Annealed	190	640	P4		222	270	A
		C > 0.55%	Heat-treated	300	1010	P5		157	191	A
		Free cutting steel (short-chipping)	Annealed	220	750	P6		222	270	A
	Low-alloyed steel	Annealed		175	590	P7		222	270	A
		Heat-treated		285	960	P8		138	168	A
		Heat-treated		380	1280	P9		129	157	A
		Heat-treated		430	1480	P10		109	133	A
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11		222	270	A
		Hardened and tempered		300	1010	P12		157	191	A
		Hardened and tempered		380	1280	P13		129	157	A
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14		95	116	A
				330	1110	P15				A

STEP 6

Based on the feed group, determine the correct **feed value (page** C 256 **a_e to D_c**) for your **machining conditions**.

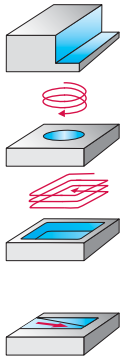
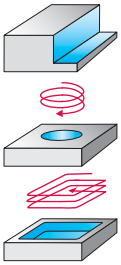
Feed determination

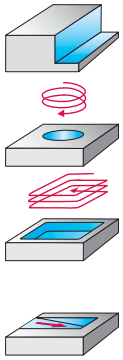
The specified feed rates are average standard v
For special applications, adjustment is recomme

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
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										

Walter Select Solid carbide milling tools
Shoulder milling cutters

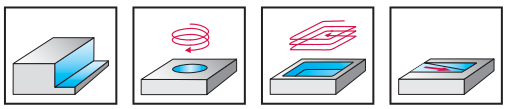
Machining WALTER SELECT ●● Primary application ● Other application						
Helix angle	**45°**	**50°**	**30°**	**50°**	**60°**	
Designation	**H7073417 Protostar® Ti**	**H8082228 H8083128 Protostar® Ultra**	**H3178128 Protostar® Ultra**	**H3021138 H3023138 Protostar®**	**MC129 Advance**	
Dia. range [mm]	16–25	3–25	5–16	3–25	6–20	
Z	4–5	4–8	6–16	4–8	6	
Corner radius [mm]	3–4	0–4	0	0–4	0	
Standard	P STANDARD XL	P STANDARD L DIN 6527 L	DIN 6527 L	DIN 6527 L	DIN 6527 L	
Shank	DIN 6535 HA	DIN 6535 HA	DIN 6535 HB	DIN 6535 HA	DIN 6535 HA	
Page	C 18	C 19	C 20	C 21	C 22	
P Steel				●●	●●	
M Stainless steel				●	●	
K Cast iron					●	
N NF metals						
S Materials with difficult cutting properties	●●			●	●	
H Hard materials		●●	●●			
O Other						

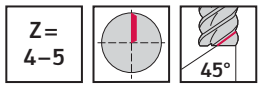


	45°	30°	
	MC122 Advance	MC111 Advance MC112 Advance	H3058917 H404491 H4044918 Protostar®
	2–25	2–25	0,4–25
	4–8	4	2–6
	0	0–2	0–0,3
	DIN 6527 L P STANDARD L P STANDARD XL	DIN 6527 K DIN 6527 L P STANDARD XL P STANDARD L	P STANDARD MINI P STANDARD S
	DIN 6535 HA DIN 6535 HB	DIN 6535 HA DIN 6535 HB	DIN 6535 HA
	C 23	C 26	C 30
	●●	●●	●●
	●	●	●
	●	●	
		●	●●
	●	●	

Solid carbide shoulder milling cutters
H7073417
Protostar® Ti

– Type Ti 45 extra long

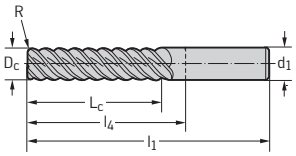




	P	M	K	N	S	H	O
ACN					●●		

P STANDARD XL

Shank DIN 6535 HA



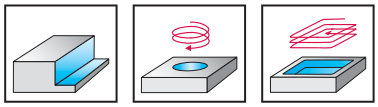
Designation ACN	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H7073417-16X50-3	16	3	50	115	67	16	4
H7073417-16X90-3	16	3	90	145	97	16	4
H7073417-16X50	16	4	50	115	67	16	4
H7073417-16X90	16	4	90	145	97	16	4
H7073417-20X55-3	20	3	55	125	75	20	4
H7073417-20X100-3	20	3	100	170	120	20	4
H7073417-20X55	20	4	55	125	75	20	4
H7073417-20X100	20	4	100	170	120	20	4
H7073417-25X90-3	25	3	90	153	97	25	5
H7073417-25X125-3	25	3	125	188	132	25	5
H7073417-25X90	25	4	90	153	97	25	5
H7073417-25X125	25	4	125	188	132	25	5

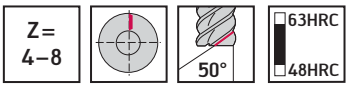
Shoulder milling $a_e \leq 0.3 \times D_c$

XIII D 1 C 222 C 264

Solid carbide shoulder milling cutters
H8083128 / H8082228
Protostar® Ultra

– Type H 50

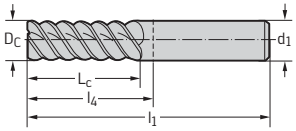




	P	M	K	N	S	H	O
TAX						●●	

P STANDARD L

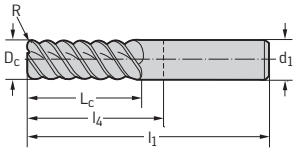
Shank DIN 6535 HA



Designation TAX	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8083128-3X8	3	8	57	21	6	4
H8083128-4X11	4	11	57	21	6	4
H8083128-5X13	5	13	57	21	6	4
H8083128-6X13	6	13	57	21	6	6
H8083128-6X26	6	26	70	34	6	6
H8083128-8X19	8	19	63	27	8	6
H8083128-8X36	8	36	80	44	8	6
H8083128-10X22	10	22	72	32	10	6
H8083128-10X46	10	46	100	60	10	6
H8083128-12X26	12	26	83	38	12	6
H8083128-12X55	12	55	110	65	12	6
H8083128-16X32	16	32	92	44	16	6
H8083128-16X66	16	66	130	82	16	6
H8083128-20X38	20	38	104	54	20	8
H8083128-20X80	20	80	145	95	20	8
H8083128-25X45	25	45	121	65	25	8
H8083128-25X90	25	90	153	97	25	8

DIN 6527 L

Shank DIN 6535 HA

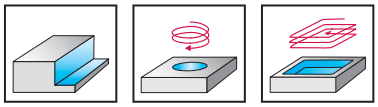


Designation TAX	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8082228-3-0.5	3	0,5	8	57	21	6	4
H8082228-4-0.5	4	0,5	11	57	21	6	4
H8082228-4-1	4	1	11	57	21	6	4
H8082228-5-0.5	5	0,5	13	57	21	6	6
H8082228-5-1	5	1	13	57	21	6	6
H8082228-6-0.5	6	0,5	13	57	21	6	6
H8082228-6-1	6	1	13	57	21	6	6
H8082228-8-0.5	8	0,5	19	63	27	8	6
H8082228-8-1	8	1	19	63	27	8	6
H8082228-8-2	8	2	19	63	27	8	6
H8082228-10-0.5	10	0,5	22	72	32	10	6
H8082228-10-1	10	1	22	72	32	10	6
H8082228-10-1.5	10	1,5	22	72	32	10	6
H8082228-10-2	10	2	22	72	32	10	6
H8082228-12-1	12	1	26	83	38	12	6
H8082228-12-1.5	12	1,5	26	83	38	12	6
H8082228-12-3	12	3	26	83	38	12	6
H8082228-16-1.5	16	1,5	32	92	44	16	6
H8082228-16-2	16	2	32	92	44	16	6
H8082228-16-4	16	4	32	92	44	16	6
H8082228-20-1.5	20	1,5	38	104	54	20	8
H8082228-20-2	20	2	38	104	54	20	8
H8082228-20-4	20	4	38	104	54	20	8

Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

Solid carbide shoulder milling cutters
H3178128
Protostar® Ultra

– Type H 30

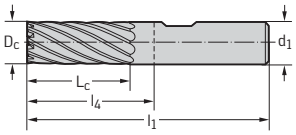


Z = 6–16

	P	M	K	N	S	H	O
TAX						●●	

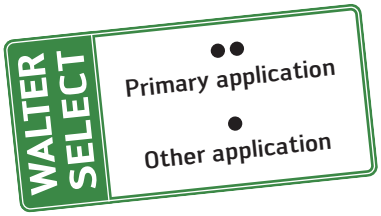
DIN 6527 L

Shank DIN 6535 HB



Designation TAX	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H3178128-5	5	13	57	21	6	6
H3178128-6	6	13	57	21	6	6
H3178128-8	8	19	63	27	8	8
H3178128-10	10	22	72	32	10	10
H3178128-12	12	26	83	38	12	12
H3178128-16	16	32	92	44	16	16

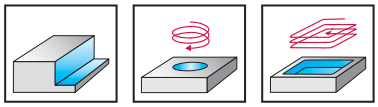
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.05 \times D_c$

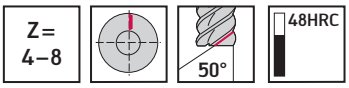


XIII D 1 C 223 C 264

Solid carbide shoulder milling cutters
H3021138 / H3023138
Protostar®

– Type N 50

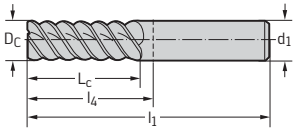




	P	M	K	N	S	H	O
TAX	●●	●			●		

DIN 6527 L

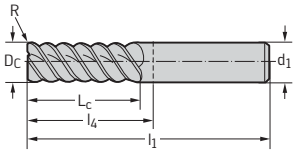
Shank DIN 6535 HA



Designation TAX	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3021138-3	3	8	57	21	6	4
H3021138-4	4	11	57	21	6	4
H3021138-5	5	13	57	21	6	5
H3021138-6	6	13	57	21	6	6
H3021138-8	8	19	63	27	8	6
H3021138-10	10	22	72	32	10	6
H3021138-12	12	26	83	38	12	6
H3021138-16	16	32	92	44	16	6
H3021138-20	20	38	104	54	20	8
H3021138-25	25	45	121	65	25	8

DIN 6527 L

Shank DIN 6535 HA



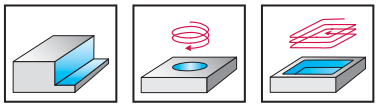
Designation TAX	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3023138-6-0.5	6	0,5	13	57	21	6	6
H3023138-8-0.5	8	0,5	19	63	27	8	6
H3023138-8-1	8	1	19	63	27	8	6
H3023138-10-0.5	10	0,5	22	72	32	10	6
H3023138-10-1	10	1	22	72	32	10	6
H3023138-10-1.5	10	1,5	22	72	32	10	6
H3023138-10-2	10	2	22	72	32	10	6
H3023138-12-0.5	12	0,5	26	83	38	12	6
H3023138-12-1	12	1	26	83	38	12	6
H3023138-12-1.5	12	1,5	26	83	38	12	6
H3023138-12-2	12	2	26	83	38	12	6
H3023138-12-3	12	3	26	83	38	12	6
H3023138-16-0.5	16	0,5	32	92	44	16	6
H3023138-16-1	16	1	32	92	44	16	6
H3023138-16-2	16	2	32	92	44	16	6
H3023138-16-3	16	3	32	92	44	16	6
H3023138-16-4	16	4	32	92	44	16	6
H3023138-20-1	20	1	38	104	54	20	8
H3023138-20-2	20	2	38	104	54	20	8
H3023138-20-3	20	3	38	104	54	20	8
H3023138-20-4	20	4	38	104	54	20	8
H3023138-25-1	25	1	45	121	65	25	8
H3023138-25-2	25	2	45	121	65	25	8
H3023138-25-4	25	4	45	121	65	25	8

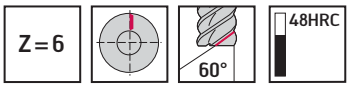
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

XIII D 1 C 223 C 264

Solid carbide shoulder milling cutters MC129 Advance

– Type N 60

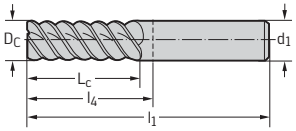




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

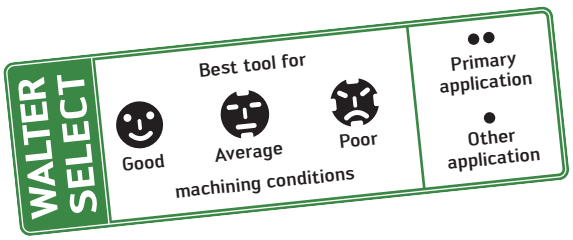
DIN 6527 L

Shank DIN 6535 HA



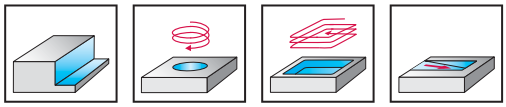
Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC129-06.0A6B-	6	13	57	21	6	6	●●
MC129-08.0A6B-	8	19	63	27	8	6	●●
MC129-10.0A6B-	10	22	72	32	10	6	●●
MC129-12.0A6B-	12	26	83	38	12	6	●●
MC129-14.0A6B-	14	26	83	38	14	6	●●
MC129-16.0A6B-	16	32	92	44	16	6	●●
MC129-20.0A6B-	20	38	104	54	20	6	●●

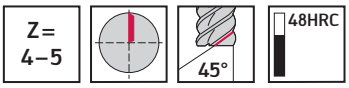
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$
Ordering example for the WJ30TF grade: MC129-06.0A6B-WJ30TF



Solid carbide shoulder milling cutters MC122 Advance

– Type N 45





	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

DIN 6527 L

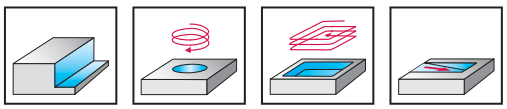
	Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
Shank DIN 6535 HA	MC122-02.0A4B-	2	7	57	21	6	4	●
	MC122-03.0A4B-	3	8	57	21	6	4	●
	MC122-04.0A4B-	4	11	57	21	6	4	●
	MC122-05.0A4B-	5	13	57	21	6	4	●
	MC122-06.0A4B-	6	13	57	21	6	4	●
	MC122-08.0A4B-	8	19	63	27	8	4	●
	MC122-10.0A4B-	10	22	72	32	10	4	●
	MC122-12.0A4B-	12	26	83	38	12	4	●
	MC122-14.0A4B-	14	26	83	38	14	4	●
	MC122-16.0A4B-	16	32	92	44	16	4	●
	MC122-18.0A5B-	18	32	92	44	18	5	●
	MC122-20.0A5B-	20	38	104	54	20	5	●
Shank DIN 6535 HB	MC122-02.0W4B-	2	7	57	21	6	4	●
	MC122-03.0W4B-	3	8	57	21	6	4	●
	MC122-04.0W4B-	4	11	57	21	6	4	●
	MC122-05.0W4B-	5	13	57	21	6	4	●
	MC122-06.0W4B-	6	13	57	21	6	4	●
	MC122-08.0W4B-	8	19	63	27	8	4	●
	MC122-10.0W4B-	10	22	72	32	10	4	●
	MC122-12.0W4B-	12	26	83	38	12	4	●
	MC122-14.0W4B-	14	26	83	38	14	4	●
	MC122-16.0W4B-	16	32	92	44	16	4	●
	MC122-20.0W5B-	20	38	104	54	20	5	●
	MC122-25.0A5B-	25	45	121	65	25	5	●

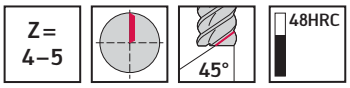
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30TF grade: MC122-02.0A4B-WJ30TF

XIII D 1 C 225 C 264

Solid carbide shoulder milling cutters MC122 Advance

– Type N 45 extra long

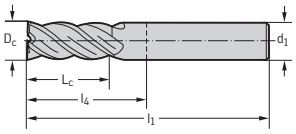


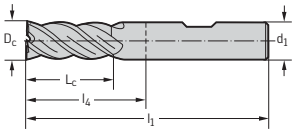


	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

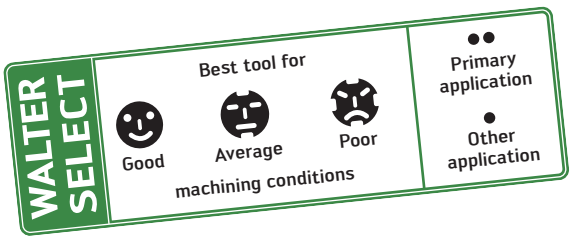
P STANDARD L

	Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
Shank DIN 6535 HA	MC122-06.0A4L-	6	22	65	29	6	4	☺
	MC122-08.0A4L-	8	28	80	44	8	4	☺
	MC122-10.0A4L-	10	32	100	60	10	4	☺
	MC122-12.0A4L-	12	40	100	55	12	4	☺
	MC122-14.0A4L-	14	50	104	59	14	4	☺
	MC122-16.0A5L-	16	50	115	67	16	5	☺
	MC122-20.0A5L-	20	55	125	75	20	5	☺
Shank DIN 6535 HB	MC122-06.0W4L-	6	22	65	29	6	4	☺
	MC122-08.0W4L-	8	28	80	44	8	4	☺
	MC122-10.0W4L-	10	32	100	60	10	4	☺
	MC122-12.0W4L-	12	40	100	55	12	4	☺
	MC122-14.0W4L-	14	50	104	59	14	4	☺
	MC122-16.0W5L-	16	50	115	67	16	5	☺
	MC122-20.0W5L-	20	55	125	75	20	5	☺





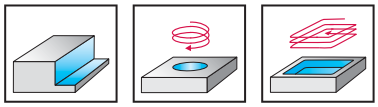
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.05 \times D_c$
Ordering example for the WJ30TF grade: MC122-10.0A4L-WJ30TF

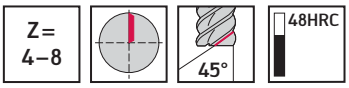


XIII D 1 C 225 C 264

Solid carbide shoulder milling cutters MC122 Advance

– Type N 45 extra long

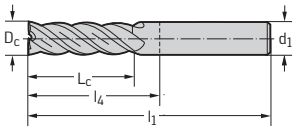




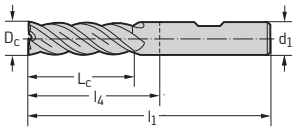
	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

P STANDARD XL

Shank DIN 6535 HA



Shank DIN 6535 HB



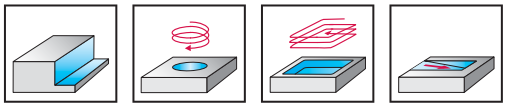
Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC122-06.0A4XK-	6	35	80	44	6	4	●
MC122-08.0A4XK-	8	45	97	61	8	4	●
MC122-10.0A4XK-	10	50	118	78	10	4	●
MC122-12.0A4XK-	12	60	120	75	12	4	●
MC122-16.0A5XK-	16	65	130	82	16	5	●
MC122-16.0A5XL-	16	80	145	97	16	5	●
MC122-20.0A6XK-	20	75	145	95	20	6	●
MC122-20.0A6XL-	20	100	170	120	20	6	●
MC122-25.0A8XK-	25	90	153	97	25	8	●
MC122-25.0A8XL-	25	125	188	132	25	8	●
MC122-04.0W4XK-	4	20	65	29	6	4	●
MC122-05.0W4XK-	5	25	65	29	6	4	●
MC122-06.0W4XK-	6	35	80	44	6	4	●
MC122-08.0W4XK-	8	45	97	61	8	4	●
MC122-10.0W4XK-	10	50	118	78	10	4	●
MC122-12.0W4XK-	12	60	120	75	12	4	●
MC122-14.0W4XK-	14	70	124	79	14	4	●
MC122-16.0W5XK-	16	65	130	82	16	5	●
MC122-16.0W5XL-	16	80	145	97	16	5	●
MC122-18.0W5XK-	18	90	155	107	18	5	●
MC122-20.0W6XK-	20	75	145	95	20	6	●
MC122-20.0W6XL-	20	100	170	120	20	6	●
MC122-25.0W8XK-	25	90	153	97	25	8	●
MC122-25.0W8XL-	25	125	188	132	25	8	●

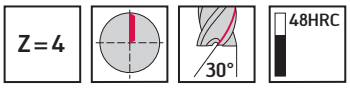
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.05 \times D_c$
Ordering example for the WJ30TF grade: MC122-10.0A4XK-WJ30TF

XIII D 1 C 225 C 264

Solid carbide shoulder milling cutters MC111 Advance

– Type N 30

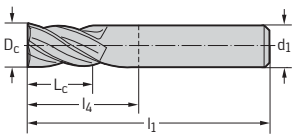


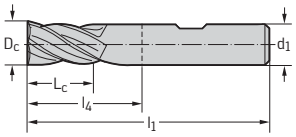


	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

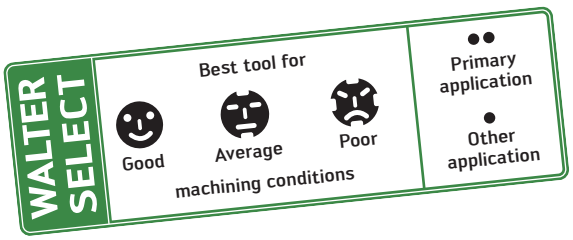
DIN 6527 K

	Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
Shank DIN 6535 HA	MC111-02.0A4A-	2	4	50	14	6	4	☺
	MC111-03.0A4A-	3	5	50	14	6	4	☺
	MC111-04.0A4A-	4	8	54	18	6	4	☺
	MC111-05.0A4A-	5	9	54	18	6	4	☺
	MC111-06.0A4A-	6	10	54	18	6	4	☺
	MC111-07.0A4A-	7	11	58	22	8	4	☺
	MC111-08.0A4A-	8	12	58	22	8	4	☺
	MC111-10.0A4A-	10	14	66	26	10	4	☺
	MC111-12.0A4A-	12	16	73	28	12	4	☺
	MC111-14.0A4A-	14	18	75	30	14	4	☺
	MC111-16.0A4A-	16	22	82	34	16	4	☺
	MC111-18.0A4A-	18	24	84	36	18	4	☺
	MC111-20.0A4A-	20	26	92	42	20	4	☺
Shank DIN 6535 HB	MC111-02.0W4A-	2	4	50	14	6	4	☺
	MC111-03.0W4A-	3	5	50	14	6	4	☺
	MC111-04.0W4A-	4	8	54	18	6	4	☺
	MC111-05.0W4A-	5	9	54	18	6	4	☺
	MC111-06.0W4A-	6	10	54	18	6	4	☺
	MC111-07.0W4A-	7	11	58	22	8	4	☺
	MC111-08.0W4A-	8	12	58	22	8	4	☺
	MC111-10.0W4A-	10	14	66	26	10	4	☺
	MC111-12.0W4A-	12	16	73	28	12	4	☺
	MC111-14.0W4A-	14	18	75	30	14	4	☺
	MC111-16.0W4A-	16	22	82	34	16	4	☺
	MC111-18.0W4A-	18	24	84	36	18	4	☺
	MC111-20.0W4A-	20	26	92	42	20	4	☺





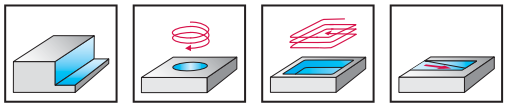
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$
Ordering example for the WJ30TF grade: MC111-10.0A4A-WJ30TF

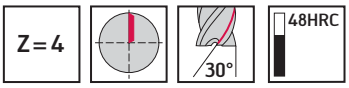


XIII D 1 C 225 C 264

Solid carbide shoulder milling cutters
MC111 Advance

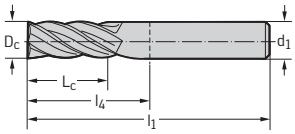
– Type N 30

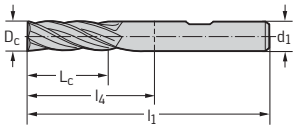




	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

DIN 6527 L





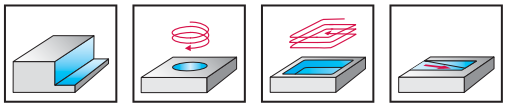
	Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
Shank DIN 6535 HA	MC111-02.0A4B-	2	7	57	21	6	4	●
	MC111-02.5A4B-	2,5	8	57	21	6	4	●
	MC111-03.0A4B-	3	8	57	21	6	4	●
	MC111-03.5A4B-	3,5	10	57	21	6	4	●
	MC111-04.0A4B-	4	11	57	21	6	4	●
	MC111-04.5A4B-	4,5	11	57	21	6	4	●
	MC111-05.0A4B-	5	13	57	21	6	4	●
	MC111-05.5A4B-	5,5	13	57	21	6	4	●
	MC111-06.0A4B-	6	13	57	21	6	4	●
	MC111-06.5A4B-	6,5	16	63	27	8	4	●
	MC111-07.0A4B-	7	16	63	27	8	4	●
	MC111-08.0A4B-	8	19	63	27	8	4	●
	MC111-09.0A4B-	9	19	72	32	10	4	●
	MC111-10.0A4B-	10	22	72	32	10	4	●
	MC111-12.0A4B-	12	26	83	38	12	4	●
	MC111-14.0A4B-	14	26	83	38	14	4	●
	MC111-16.0A4B-	16	32	92	44	16	4	●
	MC111-18.0A4B-	18	32	92	44	18	4	●
	MC111-20.0A4B-	20	38	104	54	20	4	●
Shank DIN 6535 HB	MC111-02.0W4B-	2	7	57	21	6	4	●
	MC111-02.5W4B-	2,5	8	57	21	6	4	●
	MC111-03.0W4B-	3	8	57	21	6	4	●
	MC111-04.0W4B-	4	11	57	21	6	4	●
	MC111-05.0W4B-	5	13	57	21	6	4	●
	MC111-06.0W4B-	6	13	57	21	6	4	●
	MC111-07.0W4B-	7	16	63	27	8	4	●
	MC111-08.0W4B-	8	19	63	27	8	4	●
	MC111-09.0W4B-	9	19	72	32	10	4	●
	MC111-10.0W4B-	10	22	72	32	10	4	●
	MC111-12.0W4B-	12	26	83	38	12	4	●
	MC111-14.0W4B-	14	26	83	38	14	4	●
	MC111-16.0W4B-	16	32	92	44	16	4	●
	MC111-18.0W4B-	18	32	92	44	18	4	●
	MC111-20.0W4B-	20	38	104	54	20	4	●
	MC111-25.0W4B-	25	45	121	65	25	4	●

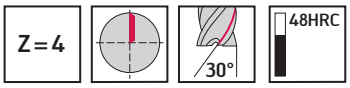
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WJ30TF grade: MC111-10.0A4B-WJ30TF

XIII D 1 C 225 C 264

Solid carbide shoulder milling cutters MC112 Advance

– Long reach
– Type HSC 30

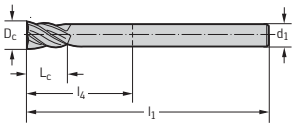




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

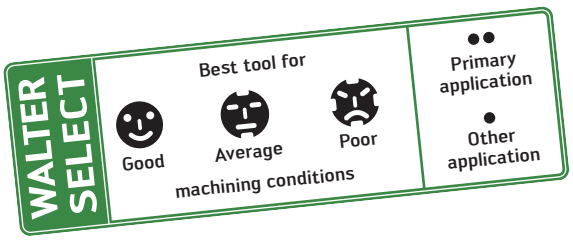
P STANDARD XL

Shank DIN 6535 HA



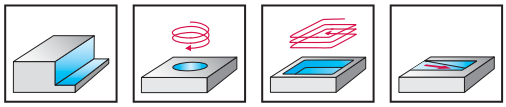
Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WJ30TF
MC112-06.3A4X-	6,3	6	100	64	6	4	●●
MC112-08.3A4X-	8,3	8	100	64	8	4	●●
MC112-10.3A4X-	10,3	10	150	110	10	4	●●
MC112-12.5A4X-	12,5	12	150	105	12	4	●●
MC112-14.5A4X-	14,5	14	150	105	14	4	●●
MC112-16.5A4X-	16,5	16	150	102	16	4	●●

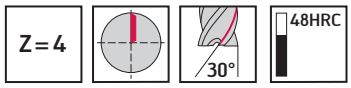
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Shank tolerance h6 with shank diameter $d_1 > 10$ mm
Ordering example for the WJ30TF grade: MC112-10.3A4X-WJ30TF



Solid carbide shoulder milling cutters MC112 Advance

– Long reach
– Type HSC 30

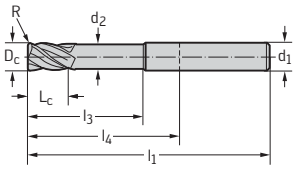




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

P STANDARD 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 h6 mm	Z	WJ30TF
MC112-04.0A4L050-	4	0,5	4	20	3,8	57	22	6	4	●
MC112-05.0A4L050-	5	0,5	5	20	4,75	57	21	6	4	●
MC112-06.0A4L100-	6	1	6	24	5,7	63	27	8	4	●
MC112-08.0A4L100-	8	1	8	29	7,6	72	32	10	4	●
MC112-10.0A4L150-	10	1,5	10	35	9,5	83	38	12	4	●
MC112-12.0A4L150-	12	1,5	12	36	11,4	83	38	12	4	●
MC112-16.0A4L200-	16	2	16	42	15,2	92	44	16	4	●

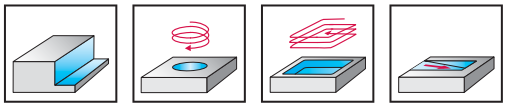
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WJ30TF grade: MC112-10.0A4L150-WJ30TF

XIII D 1 C 225 C 264

Solid carbide shoulder milling cutters
H4044918 / H404491
Protostar®

Z=2 | 30° | 48HRC

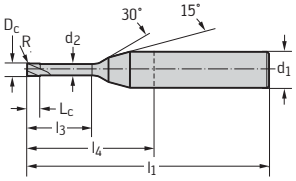
– Long reach
– Type Mini HSC 30



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

P STANDARD MINI

Shank DIN 6535 HA



Designation TAX	Designation Uncoated	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H4044918-0.4-1	H404491-0.4-1	0,4	0,05	0,4	1	0,37	38	10	3	2
H4044918-0.4-2	H404491-0.4-2	0,4	0,05	0,4	2	0,37	38	10	3	2
H4044918-0.4-4	H404491-0.4-4	0,4	0,05	0,4	4	0,37	38	10	3	2
H4044918-0.5-1.25	H404491-0.5-1.25	0,5	0,05	0,5	1,25	0,47	38	10	3	2
H4044918-0.5-2.5	H404491-0.5-2.5	0,5	0,05	0,5	2,5	0,47	38	10	3	2
H4044918-0.5-5	H404491-0.5-5	0,5	0,05	0,5	5	0,47	38	10	3	2
H4044918-0.6-1.5	H404491-0.6-1.5	0,6	0,05	0,6	1,5	0,57	38	10	3	2
H4044918-0.6-3	H404491-0.6-3	0,6	0,05	0,6	3	0,57	38	10	3	2
H4044918-0.6-4.5	H404491-0.6-4.5	0,6	0,05	0,6	4,5	0,57	38	10	3	2
H4044918-0.6-6	H404491-0.6-6	0,6	0,05	0,6	6	0,57	38	10	3	2
H4044918-0.6-9	H404491-0.6-9	0,6	0,05	0,6	9	0,57	38	10	3	2
H4044918-0.8-2	H404491-0.8-2	0,8	0,05	0,8	2	0,77	38	10	3	2
H4044918-0.8-4	H404491-0.8-4	0,8	0,05	0,8	4	0,77	38	10	3	2
H4044918-0.8-6	H404491-0.8-6	0,8	0,05	0,8	6	0,77	38	10	3	2
H4044918-0.8-8	H404491-0.8-8	0,8	0,05	0,8	8	0,77	38	10	3	2
H4044918-0.8-12	H404491-0.8-12	0,8	0,05	0,8	12	0,77	60	32	3	2
H4044918-1-2.5	H404491-1-2.5	1	0,1	1	2,5	0,97	38	10	3	2
H4044918-1-5	H404491-1-5	1	0,1	1	5	0,97	60	32	3	2
H4044918-1-7.5	H404491-1-7.5	1	0,1	1	7,5	0,97	60	32	3	2
H4044918-1-10	H404491-1-10	1	0,1	1	10	0,97	60	32	3	2
H4044918-1-15	H404491-1-15	1	0,1	1	15	0,97	60	32	3	2
H4044918-1-20	H404491-1-20	1	0,1	1	20	0,97	60	32	3	2
H4044918-1.5-7.5	H404491-1.5-7.5	1,5	0,15	1,5	7,5	1,47	60	32	3	2
H4044918-1.5-15	H404491-1.5-15	1,5	0,15	1,5	15	1,47	60	32	3	2
H4044918-2-10	H404491-2-10	2	0,2	2	10	1,97	60	32	3	2
H4044918-2-15	H404491-2-15	2	0,2	2	15	1,97	60	32	3	2
H4044918-2-20	H404491-2-20	2	0,2	2	20	1,97	60	32	3	2
H4044918-2-30	H404491-2-30	2	0,2	2	30	1,97	60	32	3	2
H4044918-2.5-12.5	H404491-2.5-12.5	2,5	0,25	2,5	12,5	2,47	60	32	3	2
H4044918-2.5-25	H404491-2.5-25	2,5	0,25	2,5	25	2,47	60	32	3	2
H4044918-3-15	H404491-3-15	3	0,3	3	15	2,97	60	32	3	2
H4044918-3-22.5	H404491-3-22.5	3	0,3	3	22,5	2,97	60	32	3	2
H4044918-3-30	H404491-3-30	3	0,3	3	30	2,97	60	32	3	2

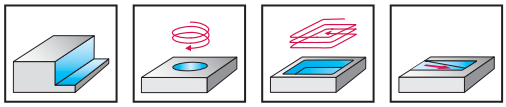
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.05 \times D_c$

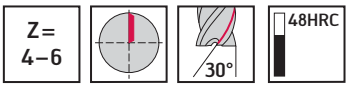
WALTER SELECT
●● Primary application
● Other application

XIII | D 1 | C 225 | C 264

Solid carbide shoulder milling cutters
H3058917
Protostar®

– Type N 30

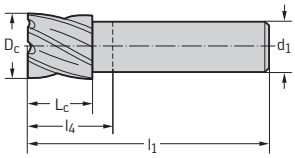




	P	M	K	N	S	H	O
TAX	●●	●					

P STANDARD S

Shank DIN 6535 HA



Designation TAX	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3058917-8	8	10	50	14	6	4
H3058917-10	10	12	50	14	8	4
H3058917-12	12	15	60	20	10	4
H3058917-14	14	15	60	20	10	4
H3058917-16	16	15	60	20	10	4
H3058917-20	20	18	65	20	12	5
H3058917-25	25	20	75	27	16	6

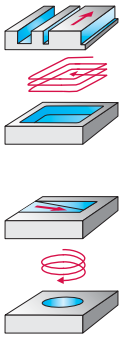
With reduced clamping diameter
For CNC automatic lathes
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

XIII D 1 C 225 C 264

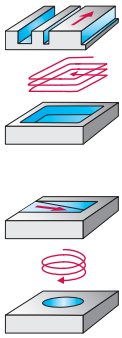
Walter Select Solid carbide milling tools
Shoulder/slot milling cutters

Machining

WALTER SELECT
●● Primary application
● Other application

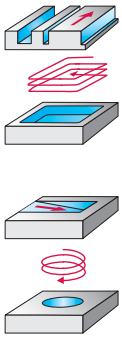
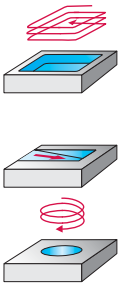
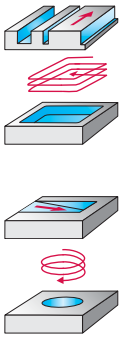


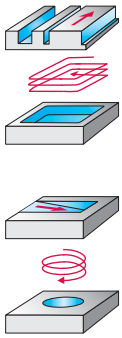
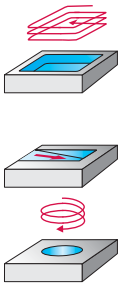
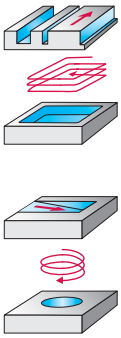
Helix angle	50°	45°	50°	35°	38°	
Designation	**MC341 Supreme**	**H4033217 H4036217 H4133217 Proto·max™ST**	**H4034217 H4038217 H4134217 H4138217 Proto·max™ST**	**H4135217 H4137217 Proto·max™ST**	**H2034217 H2038217 H2134217 H2138217 Proto·max™Inox**	
Dia. range [mm]	6–20	2–20	3–20	6–25	6–20	
Z	4	3	4	5	4	
Corner radius [mm]	0	0–0,4	0–4	0–4	0–4	
Standard	P STANDARD	P STANDARD	P STANDARD	DIN 6527 L	DIN 6527 L	
Shank	DIN 6535 HA	DIN 6535 HA DIN 6535 HB	DIN 6535 HA DIN 6535 HB	DIN 6535 HB	DIN 6535 HA DIN 6535 HB	
Page	C 37	C 38	C 39	C 41	C 42	
P Steel	●●	●●	●●	●●		
M Stainless steel	●	●	●	●	●●	
K Cast iron						
N NF metals						
S Materials with difficult cutting properties					●	
H Hard materials						
O Other						



	38°	45°	30°	25°	30°		40°
	MC251 Advance	H602311 H6023114 H602411 H602511 H602551 Protostar®	H901411 H901451 Protostar®	H602641 H602681 H602881 H6028818 Protostar®	MB266 Supreme	MB265 Supreme	H608411 H608771 H608871 H618911 Protostar®
	3–20	1–25	2–12	2–20	12–25	16–25	6–25
	4	2–3	1–2	2	3	3	3
	0–6	0–0,5	0	0–4	0,5–4	2–4	0
	DIN 6527 L	DIN 6527 L P STANDARD L	DIN 6527 L	P STANDARD L	P STANDARD XL	P STANDARD XL	DIN 6527 L P STANDARD L
	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA DIN 6535 HB
	C 44	C 45	C 48	C 49	C 51	C 52	C 53
				●●			
	●●						
		●●	●●	●●	●●	●●	●●
	●						

Walter Select Solid carbide milling tools
Shoulder/slot milling cutters

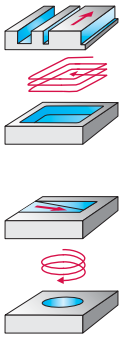
Machining WALTER SELECT ●● Primary application ● Other application						
Helix angle	**40°**	**30°**	**50°**	**50°**	**30°**	
Designation	**H7073717 Protostar® Ti**	**H3183017 Protostar® Ti**	**H3070118 H3070318 H3071118 H3071318 H3170318 ... Tough Guys**	**H3094728 Protostar® Flash**	**H4044928 H8005728 H8005828 H8005928 H8015728 ... Protostar® Ultra**	
Dia. range [mm]	12–20	8–16	2–20	4–20	0,4–20	
Z	4	4	3–4	4	2–4	
Corner radius [mm]	0,2–4	0	0–4	0	0,05–2	
Standard	DIN 6527 L	DIN 6527 L	P STANDARD L DIN 6527 L	DIN 6527 L	DIN 6527 L P STANDARD L P STANDARD MINI	
Shank	DIN 6535 HA	DIN 6535 HB	DIN 6535 HA DIN 6535 HB	DIN 6535 HA	DIN 6535 HA	
Page	C 55	C 56	C 57	C 61	C 62	
P Steel			●			
M Stainless steel						
K Cast iron						
N NF metals						
S Materials with difficult cutting properties	●●	●●				
H Hard materials			●●	●●	●●	
O Other						

							
	30°	50°	50°	45°	30°		35°
	H3027419 H4044919 H8095919 Protostar®	MC326 Supreme MC726 Supreme	H3094718 Protostar® Flash	MC321 Advance MC322 Advance MC324 Advance	MC213 Advance MC216 Advance	MC716 Advance	MC232 Perform
	0,4–16	2–25	4–20	1–20	0,6–20	1,8–20	2–20
	2–4	3–5	4	3–5	2–4	2–3	2–4
	0–1	0–4	0	0–2	0–1,5	0	0
	P STANDARD L P STANDARD XL P STANDARD MINI	P STANDARD L DIN 6527 L DIN 6527 K	P STANDARD L	DIN 6527 K P STANDARD S DIN 6527 L	DIN 6527 L P STANDARD L P STANDARD XL	DIN 6527 K	DIN 6527 L
	DIN 6535 HA	DIN 6535 HA DIN 6535 HB	DIN 6535 HA	DIN 6535 HA DIN 6535 HB	DIN 6535 HA	DIN 6535 HB	DIN 6535 HA DIN 6535 HB
	C 65	C 68	C 80	C 81	C 86	C 93	C 95
		●●	●●	●●	●●	●●	●●
		●	●	●	●	●	●
		●	●	●	●	●	●
		●	●	●	●	●	
	●●						

Walter Select Solid carbide milling tools
Shoulder/slot milling cutters

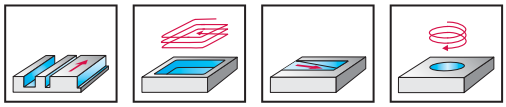
Machining

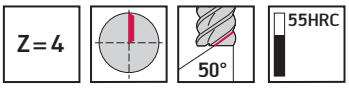
WALTER SELECT
●● Primary application
● Other application



Helix angle	45°	40°	30°	40°	30°
Designation	**H3185378 H3186378 Protostar® Qmax**	**H3182378 H3183378 Protostar® Qmax**	**H3187278 Protostar® Qmax**	**H4189278 H4189378 Protostar® Qmax**	**H3180278 H4180378 Protostar® Qmax**
Dia. range [mm]	12–25	5–20	6–25	5–25	6–25
Z	5–8	4	3	4	4
Corner radius [mm]	0–4	0–4	0	0	0
Standard	DIN 6527 L	DIN 6527 L	DIN 6527 K	DIN 6527 L DIN 6527 K	DIN 6527 K DIN 6527 L
Shank	DIN 6535 HB	DIN 6535 HB	DIN 6535 HB	DIN 6535 HB	DIN 6535 HB
Page	C 97	C 98	C 99	C 100	C 101
P Steel	●●	●	●	●	●●
M Stainless steel	●	●●	●●	●●	●●
K Cast iron	●	●	●		●
N NF metals			●		●
S Materials with difficult cutting properties					
H Hard materials					
O Other					

Solid carbide shoulder/slot milling cutters MC341 Supreme

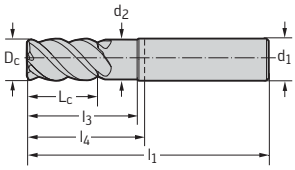




	P	M	K	N	S	H	O
WK40TZ	●●	●					

P STANDARD

Shank DIN 6535 HA



Designation	D_c h9 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WK40TZ
MC341-06.0A4P-	6	10	16	5,5	57	21	6	4	☻
MC341-08.0A4P-	8	13	22	7,6	63	27	8	4	☻
MC341-10.0A4P-	10	16	28	9,5	72	32	10	4	☻
MC341-12.0A4P-	12	19	33	11,4	83	38	12	4	☻
MC341-16.0A4P-	16	26	42	15,2	92	44	16	4	☻
MC341-20.0A4P-	20	32	52	19	104	54	20	4	☻

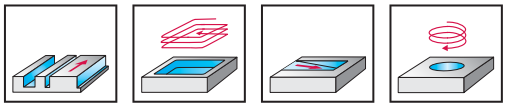
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WK40TZ grade: MC341-06.0A4P-WK40TZ

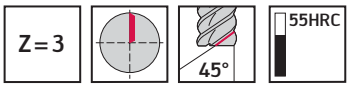
XIII D 1 C 226 C 264

Solid carbide shoulder/slot milling cutters H4033217 / H4133217 / H4036217

Proto·max™ ST

– Long reach

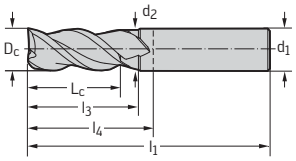




	P	M	K	N	S	H	O
TAZ	●●	●					

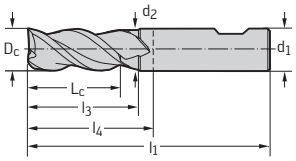
P STANDARD

Shank DIN 6535 HA



Designation TAZ	D_c h9 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H4033217-2	2	5	7,5	1,92	57	21	6	3
H4033217-3	3	7	10,5	2,9	57	21	6	3
H4033217-4	4	9	15	3,8	57	21	6	3
H4033217-5	5	11	16	4,75	57	21	6	3
H4033217-6	6	13	19	5,5	57	21	6	3
H4033217-8	8	18	25	7,6	63	27	8	3
H4033217-10	10	22	30	9,5	72	32	10	3
H4033217-12	12	26	36	11,4	83	38	12	3
H4033217-16	16	34	42	15,2	92	44	16	3
H4033217-20	20	42	52	19	104	54	20	3

Shank DIN 6535 HB

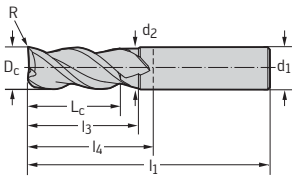


H4133217-10	10	22	30	9,5	72	32	10	3
H4133217-12	12	26	36	11,4	83	38	12	3
H4133217-16	16	34	42	15,2	92	44	16	3
H4133217-20	20	42	52	19	104	54	20	3

Slot milling $a_p \leq 2.0 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

P STANDARD

Shank DIN 6535 HA



Designation TAZ	D_c e8 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H4036217-2	2	0,08	5	7,5	1,92	57	21	6	3
H4036217-3	3	0,08	7	10,5	2,9	57	21	6	3
H4036217-4	4	0,08	9	15	3,8	57	21	6	3
H4036217-5	5	0,16	11	16	4,75	57	21	6	3
H4036217-6	6	0,16	13	19	5,7	57	21	6	3
H4036217-8	8	0,16	18	25	7,6	63	27	8	3
H4036217-10	10	0,25	22	30	9,5	72	32	10	3
H4036217-12	12	0,25	26	36	11,4	83	38	12	3
H4036217-16	16	0,25	34	42	15,2	92	44	16	3
H4036217-20	20	0,4	42	52	19	104	54	20	3

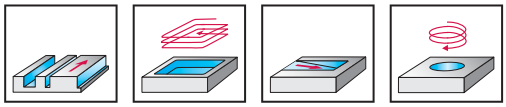
Slot milling $a_p \leq 2.0 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

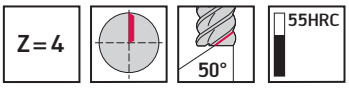
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 227 C 264

Solid carbide shoulder/slot milling cutters
H4034217 / H4134217
Proto·max™ST

– Long reach

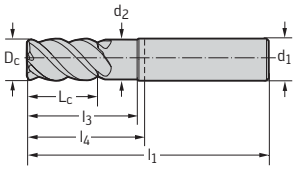


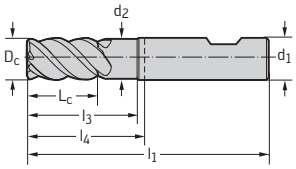


	P	M	K	N	S	H	O
TAZ	●●	●					

P STANDARD

	Designation TAZ	D_c h9 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
Shank DIN 6535 HA	H4034217-3	3	5	8,5	2,9	57	21	6	4
	H4034217-4	4	7	11	3,8	57	21	6	4
	H4034217-5	5	8	14	4,75	57	21	6	4
	H4034217-6	6	10	16	5,5	57	21	6	4
	H4034217-8	8	13	22	7,6	63	27	8	4
	H4034217-10	10	16	28	9,5	72	32	10	4
	H4034217-12	12	19	33	11,4	83	38	12	4
	H4034217-14	14	22	36	13,3	83	38	14	4
	H4034217-16	16	26	42	15,2	92	44	16	4
	H4034217-18	18	29	42	17,1	92	44	18	4
	H4034217-20	20	32	52	19	104	54	20	4
Shank DIN 6535 HB	H4134217-10	10	16	28	9,5	72	32	10	4
	H4134217-12	12	19	33	11,4	83	38	12	4
	H4134217-14	14	22	36	13,3	83	38	14	4
	H4134217-16	16	26	42	15,2	92	44	16	4
	H4134217-18	18	29	42	17,1	92	44	18	4
	H4134217-20	20	32	52	19	104	54	20	4



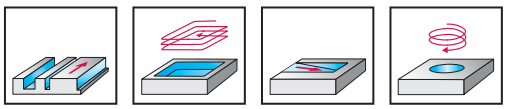


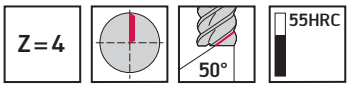
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

XIII D 1 C 227 C 264

Solid carbide shoulder/slot milling cutters
H4038217 / H4138217
Proto·max™ ST

– Long reach

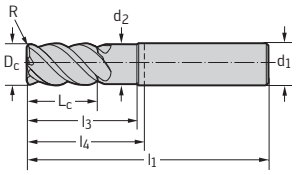




	P	M	K	N	S	H	O
TAZ	●●	●					

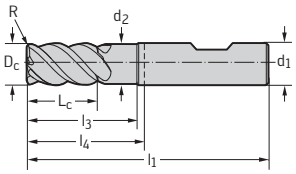
P STANDARD

Shank DIN 6535 HA



Designation TAZ	D_c h9 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H4038217-3-0.2	3	0,2	5	8,5	2,9	57	21	6	4
H4038217-3-0.5	3	0,5	5	8,5	2,9	57	21	6	4
H4038217-4-0.2	4	0,2	7	11	3,8	57	21	6	4
H4038217-4-0.5	4	0,5	7	11	3,8	57	21	6	4
H4038217-5-0.5	5	0,5	8	14	4,75	57	21	6	4
H4038217-5-1	5	1	8	14	4,75	57	21	6	4
H4038217-6-0.5	6	0,5	10	16	5,7	57	21	6	4
H4038217-6-1	6	1	10	16	5,7	57	21	6	4
H4038217-8-0.5	8	0,5	13	22	7,6	63	27	8	4
H4038217-8-1	8	1	13	22	7,6	63	27	8	4
H4038217-8-2	8	2	13	22	7,6	63	27	8	4
H4038217-10-0.5	10	0,5	16	28	9,5	72	32	10	4
H4038217-10-1	10	1	16	28	9,5	72	32	10	4
H4038217-10-2	10	2	16	28	9,5	72	32	10	4
H4038217-12-0.5	12	0,5	19	33	11,4	83	38	12	4
H4038217-12-1	12	1	19	33	11,4	83	38	12	4
H4038217-12-2	12	2	19	33	11,4	83	38	12	4
H4038217-16-0.5	16	0,5	26	42	15,2	92	44	16	4
H4038217-16-1	16	1	26	42	15,2	92	44	16	4
H4038217-16-2	16	2	26	42	15,2	92	44	16	4
H4038217-20-1	20	1	32	52	19	104	54	20	4
H4038217-20-2	20	2	32	52	19	104	54	20	4
H4038217-20-4	20	4	32	52	19	104	54	20	4

Shank DIN 6535 HB



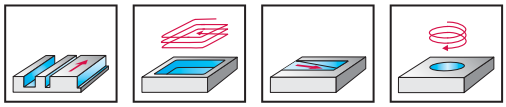
Designation TAZ	D_c h9 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H4138217-10-0.5	10	0,5	16	28	9,5	72	32	10	4
H4138217-10-1	10	1	16	28	9,5	72	32	10	4
H4138217-10-2	10	2	16	28	9,5	72	32	10	4
H4138217-12-0.5	12	0,5	19	33	11,4	83	38	12	4
H4138217-12-1	12	1	19	33	11,4	83	38	12	4
H4138217-12-2	12	2	19	33	11,4	83	38	12	4
H4138217-16-0.5	16	0,5	26	42	15,2	92	44	16	4
H4138217-16-1	16	1	26	42	15,2	92	44	16	4
H4138217-16-2	16	2	26	42	15,2	92	44	16	4
H4138217-20-1	20	1	32	52	19	104	54	20	4
H4138217-20-2	20	2	32	52	19	104	54	20	4
H4138217-20-4	20	4	32	52	19	104	54	20	4

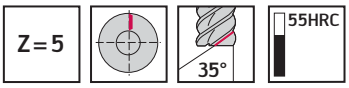
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 227 C 264

Solid carbide shoulder/slot milling cutters
H4135217 / H4137217
Proto·max™ST

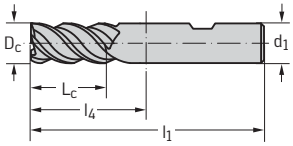




	P	M	K	N	S	H	O
TAZ	●●	●					

DIN 6527 L

Shank DIN 6535 HB

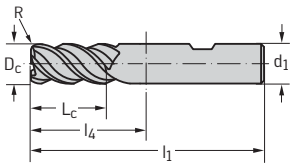


Designation TAZ	D_c h9 mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H4135217-6	6	13	57	21	6	5
H4135217-8	8	19	63	27	8	5
H4135217-10	10	22	72	32	10	5
H4135217-12	12	26	83	38	12	5
H4135217-16	16	32	92	44	16	5
H4135217-20	20	38	104	54	20	5
H4135217-25	25	45	121	65	25	5

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

DIN 6527 L

Shank DIN 6535 HB



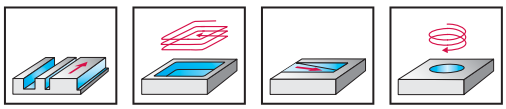
Designation TAZ	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H4137217-6-0.5	6	0,5	13	57	21	6	5
H4137217-6-1	6	1	13	57	21	6	5
H4137217-8-0.5	8	0,5	19	63	27	8	5
H4137217-8-1	8	1	19	63	27	8	5
H4137217-8-2	8	2	19	63	27	8	5
H4137217-10-0.5	10	0,5	22	72	32	10	5
H4137217-10-1	10	1	22	72	32	10	5
H4137217-10-2	10	2	22	72	32	10	5
H4137217-12-0.5	12	0,5	26	83	38	12	5
H4137217-12-1	12	1	26	83	38	12	5
H4137217-12-2	12	2	26	83	38	12	5
H4137217-16-0.5	16	0,5	32	92	44	16	5
H4137217-16-1	16	1	32	92	44	16	5
H4137217-16-2	16	2	32	92	44	16	5
H4137217-20-1	20	1	38	104	54	20	5
H4137217-20-2	20	2	38	104	54	20	5
H4137217-20-4	20	4	38	104	54	20	5
H4137217-25-1	25	1	45	121	65	25	5
H4137217-25-2	25	2	45	121	65	25	5
H4137217-25-4	25	4	45	121	65	25	5

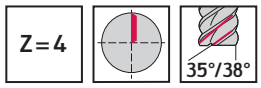
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 227 C 264

Solid carbide shoulder/slot milling cutters H2034217 / H2134217

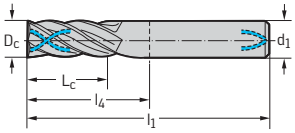
Proto·max™ Inox

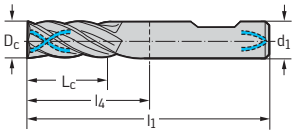




	P	M	K	N	S	H	O
TAA		●●			●		

DIN 6527 L	Designation TAA	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
Shank DIN 6535 HA	H2034217-6	6	13	57	21	6	4
	H2034217-8	8	19	63	27	8	4
	H2034217-10	10	22	72	32	10	4
	H2034217-12	12	26	83	38	12	4
	H2034217-14	14	26	83	38	14	4
	H2034217-16	16	32	92	44	16	4
	H2034217-18	18	32	92	44	18	4
	H2034217-20	20	38	104	54	20	4
Shank DIN 6535 HB	H2134217-10	10	22	72	32	10	4
	H2134217-12	12	26	83	38	12	4
	H2134217-14	14	26	83	38	14	4
	H2134217-16	16	32	92	44	16	4
	H2134217-18	18	32	92	44	18	4
	H2134217-20	20	38	104	54	20	4





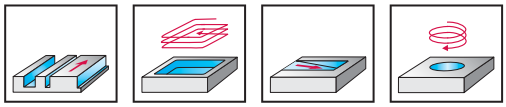
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

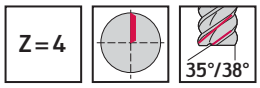
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 227 C 264

Solid carbide shoulder/slot milling cutters H2038217 / H2138217

Proto·max™ Inox

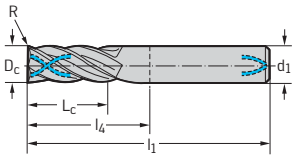


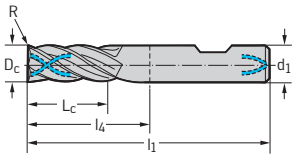


	P	M	K	N	S	H	O
TAA		●●			●		

DIN 6527 L

	Designation TAA	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
Shank DIN 6535 HA	H2038217-6-0.5	6	0,5	13	57	21	6	4
	H2038217-6-1	6	1	13	57	21	6	4
	H2038217-8-0.5	8	0,5	19	63	27	8	4
	H2038217-8-1	8	1	19	63	27	8	4
	H2038217-8-2	8	2	19	63	27	8	4
	H2038217-10-0.5	10	0,5	22	72	32	10	4
	H2038217-10-1	10	1	22	72	32	10	4
	H2038217-10-2	10	2	22	72	32	10	4
	H2038217-10-3	10	3	22	72	32	10	4
	H2038217-12-0.5	12	0,5	26	83	38	12	4
	H2038217-12-1	12	1	26	83	38	12	4
	H2038217-12-2	12	2	26	83	38	12	4
	H2038217-12-3	12	3	26	83	38	12	4
	H2038217-16-0.5	16	0,5	32	92	44	16	4
	H2038217-16-1	16	1	32	92	44	16	4
	H2038217-16-2	16	2	32	92	44	16	4
	H2038217-16-3	16	3	32	92	44	16	4
	H2038217-20-1	20	1	38	104	54	20	4
	H2038217-20-2	20	2	38	104	54	20	4
	H2038217-20-3	20	3	38	104	54	20	4
	H2038217-20-4	20	4	38	104	54	20	4
Shank DIN 6535 HB	H2138217-10-0.5	10	0,5	22	72	32	10	4
	H2138217-10-1	10	1	22	72	32	10	4
	H2138217-10-2	10	2	22	72	32	10	4
	H2138217-10-3	10	3	22	72	32	10	4
	H2138217-12-0.5	12	0,5	26	83	38	12	4
	H2138217-12-1	12	1	26	83	38	12	4
	H2138217-12-2	12	2	26	83	38	12	4
	H2138217-12-3	12	3	26	83	38	12	4
	H2138217-16-0.5	16	0,5	32	92	44	16	4
	H2138217-16-1	16	1	32	92	44	16	4
	H2138217-16-2	16	2	32	92	44	16	4
	H2138217-16-3	16	3	32	92	44	16	4
	H2138217-20-1	20	1	38	104	54	20	4
	H2138217-20-2	20	2	38	104	54	20	4
	H2138217-20-3	20	3	38	104	54	20	4
	H2138217-20-4	20	4	38	104	54	20	4

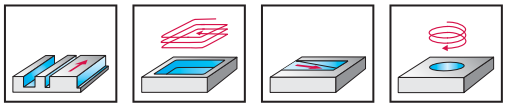


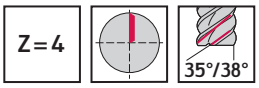


Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 227 C 264

Solid carbide shoulder/slot milling cutters MC251 Advance

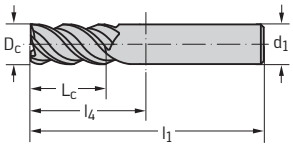




	P	M	K	N	S	H	O
WK40RC		●●			●		

DIN 6527 L

Shank DIN 6535 HA

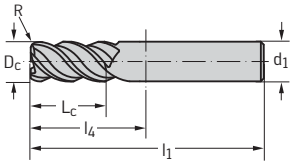


Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40RC
MC251-03.0-A4B-	3	8	57	21	6	4	●
MC251-04.0-A4B-	4	11	57	21	6	4	●
MC251-05.0-A4B-	5	13	57	21	6	4	●
MC251-06.0-A4B-	6	13	57	21	6	4	●
MC251-08.0-A4B-	8	19	63	27	8	4	●
MC251-10.0-A4B-	10	22	72	32	10	4	●
MC251-12.0-A4B-	12	26	83	38	12	4	●
MC251-16.0-A4B-	16	32	92	44	16	4	●
MC251-20.0-A4B-	20	38	104	54	20	4	●

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WK40RC grade: MC251-03.0-A4B-WK40RC

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 h5 mm	Z	WK40RC
MC251-03.0-A4B020-	3	0,2	8	57	21	6	4	●
MC251-03.0-A4B050-	3	0,5	8	57	21	6	4	●
MC251-04.0-A4B020-	4	0,2	11	57	21	6	4	●
MC251-04.0-A4B050-	4	0,5	11	57	21	6	4	●
MC251-05.0-A4B050-	5	0,5	13	57	21	6	4	●
MC251-05.0-A4B100-	5	1	13	57	21	6	4	●
MC251-06.0-A4B050-	6	0,5	13	57	21	6	4	●
MC251-06.0-A4B100-	6	1	13	57	21	6	4	●
MC251-08.0-A4B050-	8	0,5	19	63	27	8	4	●
MC251-08.0-A4B100-	8	1	19	63	27	8	4	●
MC251-08.0-A4B200-	8	2	19	63	27	8	4	●
MC251-10.0-A4B050-	10	0,5	22	72	32	10	4	●
MC251-10.0-A4B100-	10	1	22	72	32	10	4	●
MC251-10.0-A4B200-	10	2	22	72	32	10	4	●
MC251-10.0-A4B300-	10	3	22	72	32	10	4	●
MC251-12.0-A4B050-	12	0,5	26	83	38	12	4	●
MC251-12.0-A4B100-	12	1	26	83	38	12	4	●
MC251-12.0-A4B165-	12	1,65	26	83	38	12	4	●
MC251-12.0-A4B200-	12	2	26	83	38	12	4	●
MC251-12.0-A4B300-	12	3	26	83	38	12	4	●
MC251-16.0-A4B050-	16	0,5	32	92	44	16	4	●
MC251-16.0-A4B100-	16	1	32	92	44	16	4	●
MC251-16.0-A4B200-	16	2	32	92	44	16	4	●
MC251-20.0-A4B100-	20	1	38	104	54	20	4	●
MC251-20.0-A4B165-	20	1,65	38	104	54	20	4	●
MC251-20.0-A4B200-	20	2	38	104	54	20	4	●
MC251-20.0-A4B400-	20	4	38	104	54	20	4	●
MC251-20.0-A4B600-	20	6	38	104	54	20	4	●

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WK40RC grade: MC251-03.0-A4B020-WK40RC

XIII D 1 C 228 C 264

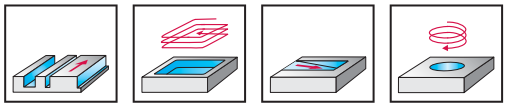
Solid carbide shoulder/slot milling cutters H6023114 / H602311

Protostar®

– Long reach
– Type AI 45

Z = 3

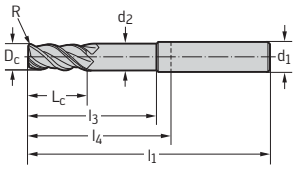
45°



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

DIN 6527 L

Shank DIN 6535 HA



Designation CRN	Designation Uncoated	D_c h9 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H6023114-1	H602311-1	1	0,2	3	6,5	0,96	57	21	6	3
H6023114-2	H602311-2	2	0,2	6	9,5	1,92	57	21	6	3
H6023114-3	H602311-3	3	0,3	7	10	2,9	57	21	6	3
H6023114-4	H602311-4	4	0,5	8	15	3,8	57	21	6	3
H6023114-5	H602311-5	5	0,5	10	16	4,75	57	21	6	3
H6023114-6	H602311-6	6	0,5	10	19	5,7	57	21	6	3
H6023114-8	H602311-8	8	0,5	16	25	7,6	63	27	8	3
H6023114-10	H602311-10	10	0,5	19	30	9,5	72	32	10	3
H6023114-12	H602311-12	12	0,5	22	36	11,4	83	38	12	3
H6023114-14	H602311-14	14	0,5	22	36	13,3	83	38	14	3
H6023114-16	H602311-16	16	0,5	26	42	15,2	92	44	16	3
H6023114-18	H602311-18	18	0,5	26	42	17,1	92	44	18	3
H6023114-20	H602311-20	20	0,5	32	52	19	104	54	20	3
H6023114-25	H602311-25	25	0,5	45	63	23,75	121	65	25	3

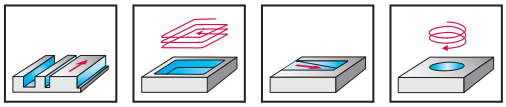
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

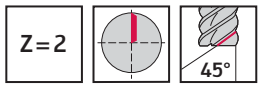
XIII D 1 C 229 C 264

Solid carbide shoulder/slot milling cutters H602411 / H602511

Protostar®

– Long reach
– Type AI 45

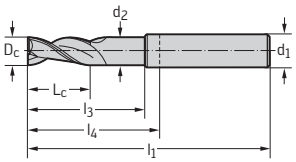




	P	M	K	N	S	H	O
Uncoated				●●			

DIN 6527 L

Shank DIN 6535 HA

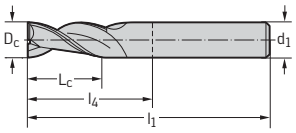


Designation Uncoated	D_c h10 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H602411-1	1	3	6,5	0,96	57	21	6	2
H602411-1.5	1,5	3	6,5	1,44	57	21	6	2
H602411-2	2	6	9,5	1,92	57	21	6	2
H602411-3	3	7	10	2,9	57	21	6	2
H602411-4	4	8	15	3,8	57	21	6	2
H602411-5	5	10	16	4,75	57	21	6	2
H602411-6	6	10	19	5,7	57	21	6	2
H602411-8	8	16	25	7,6	63	27	8	2
H602411-10	10	19	30	9,5	72	32	10	2
H602411-12	12	22	36	11,4	83	38	12	2
H602411-16	16	26	42	15,2	92	44	16	2
H602411-20	20	32	52	19	104	54	20	2

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

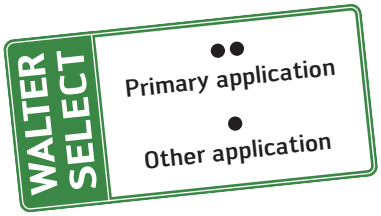
DIN 6527 L

Shank DIN 6535 HA



Designation Uncoated	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H602511-1	1	3	57	21	6	2
H602511-1.5	1,5	3	57	21	6	2
H602511-2	2	6	57	21	6	2
H602511-2.5	2,5	7	57	21	6	2
H602511-3	3	7	57	21	6	2
H602511-3.5	3,5	7	57	21	6	2
H602511-4	4	8	57	21	6	2
H602511-4.5	4,5	8	57	21	6	2
H602511-5	5	10	57	21	6	2
H602511-5.5	5,5	10	57	21	6	2
H602511-6	6	10	57	21	6	2
H602511-8	8	16	63	27	8	2
H602511-10	10	19	72	32	10	2
H602511-12	12	22	83	38	12	2
H602511-14	14	22	83	38	14	2
H602511-16	16	26	92	44	16	2
H602511-18	18	26	92	44	18	2
H602511-20	20	32	104	54	20	2

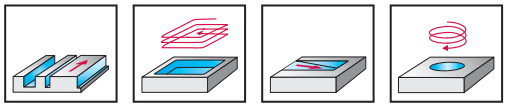
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

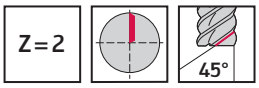


XIII D 1 C 229 C 264

Solid carbide shoulder/slot milling cutters
H602551
Protostar®

– Type AI 45 long

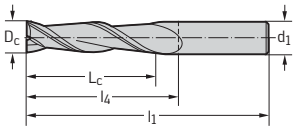




	P	M	K	N	S	H	O
Uncoated				●●			

P STANDARD L

Shank DIN 6535 HA



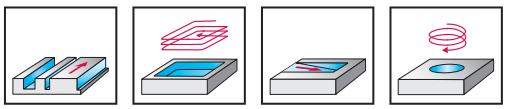
Designation Uncoated	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H602551-6	6	35	80	44	6	2
H602551-8	8	45	97	61	8	2
H602551-10	10	50	118	78	10	2
H602551-12	12	60	120	75	12	2
H602551-16	16	65	130	82	16	2
H602551-20	20	75	145	95	20	2

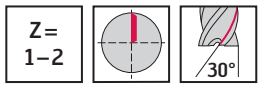
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

XIII D 1 C 229 C 264

Solid carbide shoulder/slot milling cutters
H901451 / H901411
Protostar®

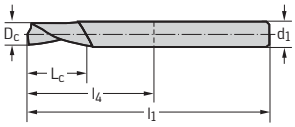
– Type AI 30





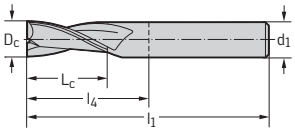
	P	M	K	N	S	H	O
Uncoated				●●			

DIN 6527 L	Designation Uncoated	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
Shank DIN 6535 HA	H901451-3	3	7	57	21	6	1
	H901451-4	4	8	57	21	6	1
	H901451-5	5	10	57	21	6	1
	H901451-6	6	10	57	21	6	1
	H901451-8	8	16	63	27	8	1
	H901451-10	10	19	72	32	10	1

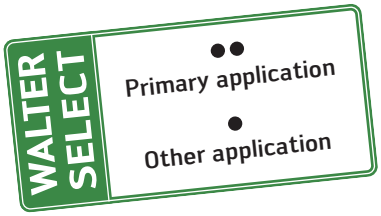


Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

DIN 6527 L	Designation Uncoated	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
Shank DIN 6535 HA	H901411-2	2	6	57	21	6	2
	H901411-3	3	7	57	21	6	2
	H901411-4	4	8	57	21	6	2
	H901411-5	5	10	57	21	6	2
	H901411-6	6	10	57	21	6	2
	H901411-8	8	16	63	27	8	2
	H901411-10	10	19	72	32	10	2
	H901411-12	12	22	83	38	12	2



Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

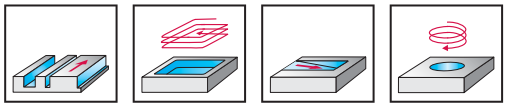


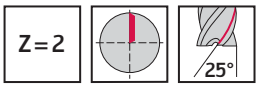
XIII D 1 C 229 C 264

Solid carbide shoulder/slot milling cutters H602641 / H602681

Protostar®

– Type AI 25

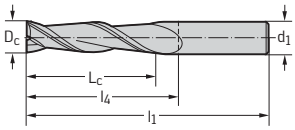




	P	M	K	N	S	H	O
Uncoated				●●			

P STANDARD L

Shank DIN 6535 HA

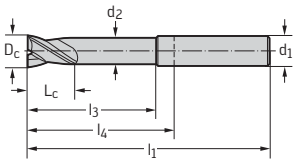


Designation Uncoated	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H602641-2	2	8	38	11	3	2
H602641-3	3	12	38	10	3	2
H602641-4	4	14	50	22	4	2
H602641-5	5	16	57	21	6	2
H602641-6	6	22	65	29	6	2
H602641-8	8	28	80	44	8	2
H602641-10	10	32	90	50	10	2
H602641-12	12	38	100	55	12	2
H602641-16	16	50	115	67	16	2
H602641-20	20	50	125	75	20	2

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

P STANDARD L

Shank DIN 6535 HA



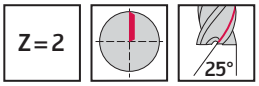
Designation Uncoated	D_c h10 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H602681-2	2	3	9	1,92	38	10	3	2
H602681-3	3	4	12	2,9	38	12	3	2
H602681-4	4	6	14	3,8	50	22	4	2
H602681-5	5	8	16	4,75	57	21	6	2
H602681-6	6	10	28	5,7	65	29	6	2
H602681-8	8	12	35	7,6	80	44	8	2
H602681-10	10	14	45	9,5	90	50	10	2
H602681-12	12	16	50	11,4	100	55	12	2
H602681-16	16	20	63	15,2	115	67	16	2
H602681-20	20	20	70	19	125	75	20	2

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

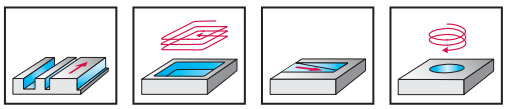
XIII D 1 C 229 C 264

Solid carbide shoulder/slot milling cutters H6028818 / H602881

Protostar®



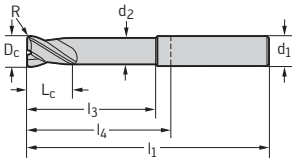
– Long reach
– Type AI 25



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

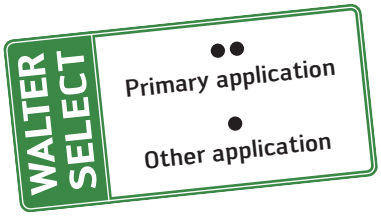
P STANDARD L

Shank DIN 6535 HA



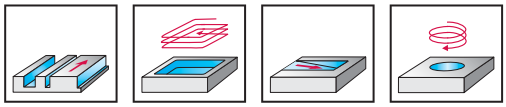
Designation TAX	Designation Uncoated	D_c h9 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H6028818-6-0.5	H602881-6-0.5	6	0,5	10	28	5,7	65	29	6	2
H6028818-6-1	H602881-6-1	6	1	10	28	5,7	65	29	6	2
H6028818-8-1	H602881-8-1	8	1	12	35	7,6	80	44	8	2
H6028818-8-2	H602881-8-2	8	2	12	35	7,6	80	44	8	2
H6028818-10-1	H602881-10-1	10	1	14	45	9,5	90	50	10	2
H6028818-10-2	H602881-10-2	10	2	14	45	9,5	90	50	10	2
H6028818-12-1.5	H602881-12-1.5	12	1,5	16	50	11,4	100	55	12	2
H6028818-12-3	H602881-12-3	12	3	16	50	11,4	100	55	12	2
H6028818-16-2	H602881-16-2	16	2	20	63	15,2	115	67	16	2
H6028818-16-4	H602881-16-4	16	4	20	63	15,2	115	67	16	2
H6028818-20-2	H602881-20-2	20	2	20	70	19	125	75	20	2
H6028818-20-4	H602881-20-4	20	4	20	70	19	125	75	20	2

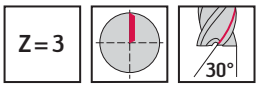
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$



Solid carbide shoulder/slot milling cutters MB266 Supreme

– Long reach

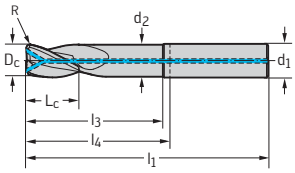




	P	M	K	N	S	H	O
WJ30UU				●●			

P STANDARD XL

Shank DIN 6535 HA

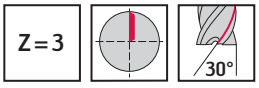


Designation	D_c h9 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WJ30UU
MB266-12.0A3X050A-	12	0,5	12	68	11,5	115	70	12	3	●
MB266-12.0A3X050B-	12	0,5	18	53	11,5	100	55	12	3	●
MB266-12.0A3X050C-	12	0,5	24	36	11,5	83	38	12	3	●
MB266-12.0A3X200A-	12	2	12	68	11,5	115	70	12	3	●
MB266-12.0A3X200B-	12	2	18	53	11,5	100	55	12	3	●
MB266-12.0A3X200C-	12	2	24	36	11,5	83	38	12	3	●
MB266-16.0A3X050A-	16	0,5	16	80	15,2	130	82	16	3	●
MB266-16.0A3X050B-	16	0,5	24	65	15,2	115	67	16	3	●
MB266-16.0A3X050C-	16	0,5	32	42	15,2	92	44	16	3	●
MB266-16.0A3X200A-	16	2	16	80	15,2	130	82	16	3	●
MB266-16.0A3X200B-	16	2	24	65	15,2	115	67	16	3	●
MB266-16.0A3X200C-	16	2	32	42	15,2	92	44	16	3	●
MB266-16.0A3X300B-	16	3	24	65	15,2	115	67	16	3	●
MB266-16.0A3X400A-	16	4	16	80	15,2	130	82	16	3	●
MB266-16.0A3X400C-	16	4	32	42	15,2	92	44	16	3	●
MB266-20.0A3X050A-	20	0,5	20	88	19	140	90	20	3	●
MB266-20.0A3X050B-	20	0,5	30	73	19	125	75	20	3	●
MB266-20.0A3X300A-	20	3	20	88	19	140	90	20	3	●
MB266-20.0A3X300B-	20	3	30	73	19	125	75	20	3	●
MB266-20.0A3X400B-	20	4	30	73	19	125	75	20	3	●
MB266-25.0A3X050C-	25	0,5	37	72	23,75	130	74	25	3	●
MB266-25.0A3X400A-	25	4	25	92	23,75	150	94	25	3	●
MB266-25.0A3X400C-	25	4	37	72	23,75	130	74	25	3	●

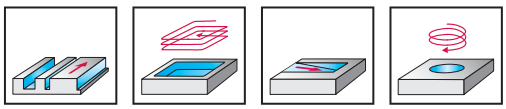
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30UU grade: MB266-12.0A3X050A-WJ30UU

XIII D 1 C 229 C 264

Solid carbide shoulder/slot milling cutters MB265 Supreme



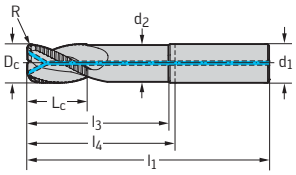
– Long reach



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

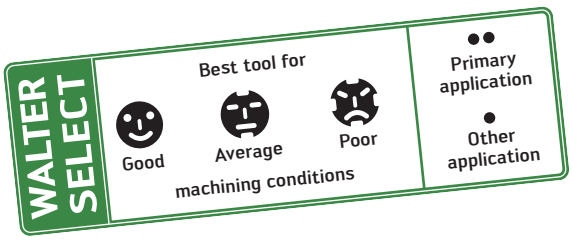
P STANDARD XL

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	WJ30CA	WJ30UU
MB265-16.0A3X200A-	16	2	20	65	15,2	115	67	16	3	●	●
MB265-16.0A3X200B-	16	2	24	42	15,2	92	44	16	3	●	●
MB265-16.0A3X300A-	16	3	20	65	15,2	115	67	16	3		●
MB265-20.0A3X200A-	20	2	20	88	19	140	90	20	3	●	●
MB265-20.0A3X200B-	20	2	25	73	19	125	75	20	3	●	●
MB265-20.0A3X400B-	20	4	25	73	19	125	75	20	3		●
MB265-25.0A3X200A-	25	2	25	92	23,75	150	94	25	3		●
MB265-25.0A3X200B-	25	2	30	72	23,75	130	74	25	3		●
MB265-25.0A3X200C-	25	2	37	52	23,75	110	54	25	3	●	
MB265-25.0A3X300B-	25	3	30	72	23,75	130	74	25	3		●
MB265-25.0A3X400A-	25	4	25	92	23,75	150	94	25	3		●
MB265-25.0A3X400B-	25	4	30	72	23,75	130	74	25	3	●	●
MB265-25.0A3X400C-	25	4	37	52	23,75	110	54	25	3		●

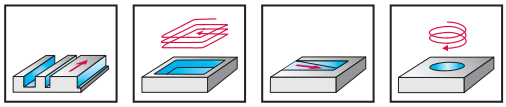
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30CA grade: MB265-16.0A3X200A-WJ30CA

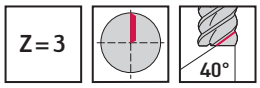


Solid carbide shoulder/slot milling cutters H608411 / H608771

Protostar®

– Type Al Kordel G 40
– With V cutting edge

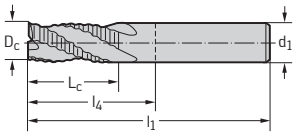




	P	M	K	N	S	H	O
Uncoated				●●			

DIN 6527 L

Shank DIN 6535 HA

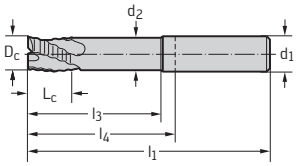


Designation Uncoated	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H608411-6	6	13	57	21	6	3
H608411-8	8	19	63	27	8	3
H608411-10	10	22	72	32	10	3
H608411-12	12	26	83	38	12	3
H608411-14	14	26	83	38	14	3
H608411-16	16	32	92	44	16	3
H608411-20	20	38	104	54	20	3

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

P STANDARD L

Shank DIN 6535 HA



Designation Uncoated	D_c h12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H608771-6	6	10	24	5,5	63	27	8	3
H608771-8	8	12	29	7,5	72	32	10	3
H608771-10	10	14	35	9,5	83	38	12	3
H608771-12	12	16	50	11,4	100	55	12	3
H608771-16	16	20	63	15,2	115	67	16	3
H608771-20	20	20	70	19	125	75	20	3
H608771-25	25	25	75	23,75	135	79	25	3

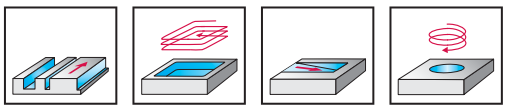
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

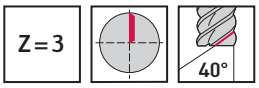
XIII D 1 C 231 C 264

Solid carbide shoulder/slot milling cutters H608871 / H618911

Protostar®

– Long reach
– With V cutting edge and Al Kordel G 40

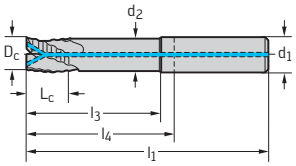




	P	M	K	N	S	H	O
Uncoated				●●			

P STANDARD L

Shank DIN 6535 HA

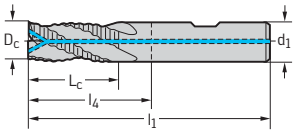


Designation Uncoated	D_c h12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H608871-6	6	10	24	5,5	63	27	8	3
H608871-8	8	12	29	7,5	72	32	10	3
H608871-10	10	14	35	9,5	83	38	12	3
H608871-12	12	16	50	11,4	100	55	12	3
H608871-16	16	20	63	15,2	115	67	16	3
H608871-20	20	20	70	19	125	75	20	3
H608871-25	25	25	75	23,75	135	79	25	3

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

DIN 6527 L

Shank DIN 6535 HB



Designation Uncoated	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H618911-6	6	13	57	21	6	3
H618911-8	8	19	63	27	8	3
H618911-10	10	22	72	32	10	3
H618911-12	12	26	83	38	12	3
H618911-14	14	26	83	38	14	3
H618911-16	16	32	92	44	16	3
H618911-20	20	38	104	54	20	3

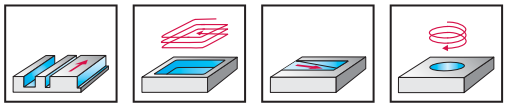
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

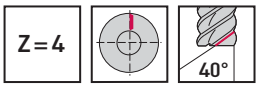
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 231 C 264

Solid carbide shoulder/slot milling cutters
H7073717
Protostar® Ti

– Long reach
– Type Ti 40

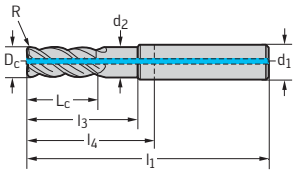




	P	M	K	N	S	H	O
ACN					●●		

DIN 6527 L

Shank DIN 6535 HA

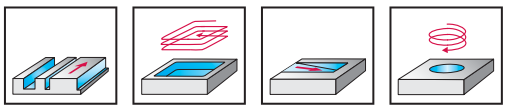


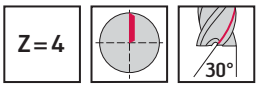
Designation ACN	D_c h9 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H7073717-12-0.2	12	0,2	19	36	11,4	83	38	12	4
H7073717-12-2	12	2	19	36	11,4	83	38	12	4
H7073717-12-2.5	12	2,5	19	36	11,4	83	38	12	4
H7073717-16-0.2	16	0,2	26	42	15,2	92	44	16	4
H7073717-16-2	16	2	26	42	15,2	92	44	16	4
H7073717-16-2.5	16	2,5	26	42	15,2	92	44	16	4
H7073717-16-3	16	3	26	42	15,2	92	44	16	4
H7073717-16-4	16	4	26	42	15,2	92	44	16	4
H7073717-20-0.2	20	0,2	32	52	19	104	54	20	4
H7073717-20-2	20	2	32	52	19	104	54	20	4
H7073717-20-2.5	20	2,5	32	52	19	104	54	20	4
H7073717-20-3	20	3	32	52	19	104	54	20	4
H7073717-20-4	20	4	32	52	19	104	54	20	4

Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

Solid carbide shoulder/slot milling cutters
H3183017
Protostar® Ti

– Type NS 30

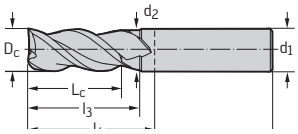




	P	M	K	N	S	H	O
ACN					●●		

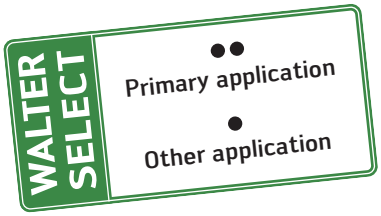
DIN 6527 L

Shank DIN 6535 HB



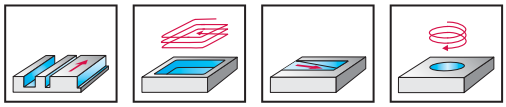
Designation ACN	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3183017-8	8	19	63	27	8	4
H3183017-10	10	22	72	32	10	4
H3183017-12	12	26	83	38	12	4
H3183017-14	14	26	83	38	14	4
H3183017-16	16	32	92	44	16	4

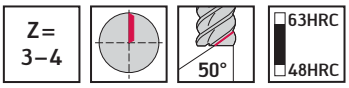
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$



Solid carbide shoulder/slot milling cutters
H3071118
Tough Guys

– Type H 50

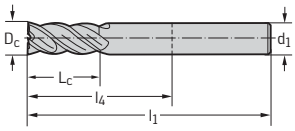




	P	M	K	N	S	H	O
TAX	●					●●	

P STANDARD L

Shank DIN 6535 HA



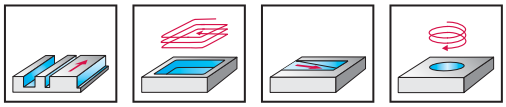
Designation TAX	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3071118-2	2	7	57	21	6	3
H3071118-3	3	8	57	21	6	3
H3071118-4	4	11	57	21	6	3
H3071118-5	5	13	57	21	6	3
H3071118-6	6	13	65	29	6	4
H3071118-8	8	19	80	44	8	4
H3071118-10	10	22	100	60	10	4
H3071118-12	12	26	100	55	12	4
H3071118-14	14	26	104	59	14	4
H3071118-16	16	32	115	67	16	4
H3071118-20	20	38	125	75	20	4

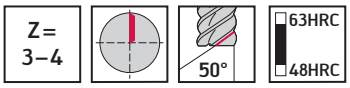
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

XIII D 1 C 231 C 264

Solid carbide shoulder/slot milling cutters
H3070118
Tough Guys

– Type H 50

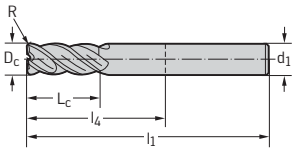




	P	M	K	N	S	H	O
TAX						●●	

P STANDARD L

Shank DIN 6535 HA



Designation TAX	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3070118-2	2	0,5	7	57	21	6	3
H3070118-3	3	0,5	8	57	21	6	3
H3070118-4-0.5	4	0,5	11	57	21	6	3
H3070118-4	4	1	11	57	21	6	3
H3070118-5-0.5	5	0,5	13	57	21	6	3
H3070118-5	5	1	13	57	21	6	3
H3070118-6-0.5	6	0,5	13	65	29	6	4
H3070118-6	6	1	13	65	29	6	4
H3070118-8-0.5	8	0,5	19	80	44	8	4
H3070118-8-1	8	1	19	80	44	8	4
H3070118-8	8	2	19	80	44	8	4
H3070118-10-0.5	10	0,5	22	100	60	10	4
H3070118-10-1	10	1	22	100	60	10	4
H3070118-10	10	2	22	100	60	10	4
H3070118-12-0.5	12	0,5	26	100	55	12	4
H3070118-12-1	12	1	26	100	55	12	4
H3070118-12-2	12	2	26	100	55	12	4
H3070118-12	12	3	26	100	55	12	4
H3070118-14-0.5	14	0,5	26	104	59	14	4
H3070118-14-1	14	1	26	104	59	14	4
H3070118-14-2	14	2	26	104	59	14	4
H3070118-14	14	3	26	104	59	14	4
H3070118-16-0.5	16	0,5	32	115	67	16	4
H3070118-16-1	16	1	32	115	67	16	4
H3070118-16-2	16	2	32	115	67	16	4
H3070118-16	16	4	32	115	67	16	4
H3070118-20-0.5	20	0,5	38	125	75	20	4
H3070118-20-1	20	1	38	125	75	20	4
H3070118-20-2	20	2	38	125	75	20	4
H3070118-20	20	4	38	125	75	20	4

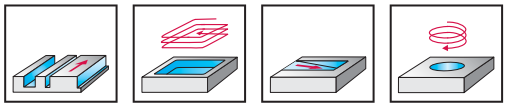
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

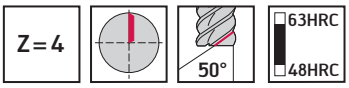
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 231 C 264

Solid carbide shoulder/slot milling cutters
H3071318 / H3171318
Tough Guys

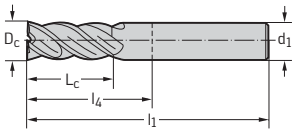
– Type H 50

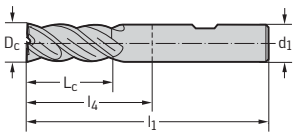




	P	M	K	N	S	H	O
TAX	●					●●	

DIN 6527 L	Designation TAX	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
Shank DIN 6535 HA	H3071318-6	6	13	57	21	6	4
	H3071318-8	8	19	63	27	8	4
	H3071318-10	10	22	72	32	10	4
	H3071318-12	12	26	83	38	12	4
	H3071318-14	14	26	83	38	14	4
	H3071318-16	16	32	92	44	16	4
	H3071318-20	20	38	104	54	20	4
Shank DIN 6535 HB	H3171318-6	6	13	57	21	6	4
	H3171318-8	8	19	63	27	8	4
	H3171318-10	10	22	72	32	10	4
	H3171318-12	12	26	83	38	12	4
	H3171318-14	14	26	83	38	14	4
	H3171318-16	16	32	92	44	16	4
	H3171318-20	20	38	104	54	20	4



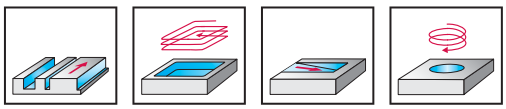


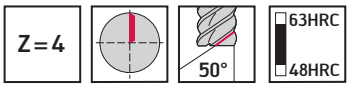
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

XIII D 1 C 231 C 264

Solid carbide shoulder/slot milling cutters
H3070318 / H3170318
Tough Guys

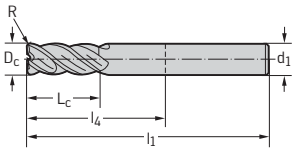
– Type H 50

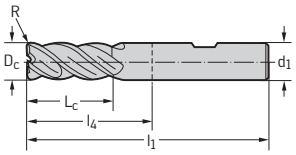




	P	M	K	N	S	H	O
TAX						●●	

DIN 6527 L	Designation TAX	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
Shank DIN 6535 HA	H3070318-6-0.5	6	0,5	13	57	21	6	4
	H3070318-6-1	6	1	13	57	21	6	4
	H3070318-8-0.5	8	0,5	19	63	27	8	4
	H3070318-8-1	8	1	19	63	27	8	4
	H3070318-8-2	8	2	19	63	27	8	4
	H3070318-10-0.5	10	0,5	22	72	32	10	4
	H3070318-10-1	10	1	22	72	32	10	4
	H3070318-10-2	10	2	22	72	32	10	4
	H3070318-12-0.5	12	0,5	26	83	38	12	4
	H3070318-12-1	12	1	26	83	38	12	4
	H3070318-12-2	12	2	26	83	38	12	4
	H3070318-12-3	12	3	26	83	38	12	4
	H3070318-14-0.5	14	0,5	26	83	38	14	4
	H3070318-14-1	14	1	26	83	38	14	4
	H3070318-14-2	14	2	26	83	38	14	4
	H3070318-14-3	14	3	26	83	38	14	4
	H3070318-16-0.5	16	0,5	32	92	44	16	4
	H3070318-16-1	16	1	32	92	44	16	4
	H3070318-16-2	16	2	32	92	44	16	4
	H3070318-16-4	16	4	32	92	44	16	4
	H3070318-20-0.5	20	0,5	38	104	54	20	4
	H3070318-20-1	20	1	38	104	54	20	4
	H3070318-20-2	20	2	38	104	54	20	4
	H3070318-20-4	20	4	38	104	54	20	4
Shank DIN 6535 HB	H3170318-6-0.5	6	0,5	13	57	21	6	4
	H3170318-6	6	1	13	57	21	6	4
	H3170318-8-0.5	8	0,5	19	63	27	8	4
	H3170318-8-1	8	1	19	63	27	8	4
	H3170318-8	8	2	19	63	27	8	4
	H3170318-10-0.5	10	0,5	22	72	32	10	4
	H3170318-10-1	10	1	22	72	32	10	4
	H3170318-10	10	2	22	72	32	10	4
	H3170318-12-0.5	12	0,5	26	83	38	12	4
	H3170318-12-1	12	1	26	83	38	12	4
	H3170318-12-2	12	2	26	83	38	12	4
	H3170318-12	12	3	26	83	38	12	4
	H3170318-14-0.5	14	0,5	26	83	38	14	4
	H3170318-14-1	14	1	26	83	38	14	4
	H3170318-14-2	14	2	26	83	38	14	4
	H3170318-14	14	3	26	83	38	14	4
	H3170318-16-0.5	16	0,5	32	92	44	16	4
	H3170318-16-1	16	1	32	92	44	16	4
	H3170318-16-2	16	2	32	92	44	16	4
	H3170318-16	16	4	32	92	44	16	4
	H3170318-20-0.5	20	0,5	38	104	54	20	4
	H3170318-20-1	20	1	38	104	54	20	4
	H3170318-20-2	20	2	38	104	54	20	4
	H3170318-20	20	4	38	104	54	20	4



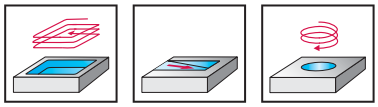


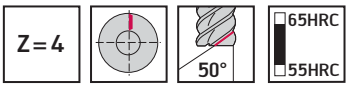
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

XIII D 1 C 231 C 264

Solid carbide shoulder/slot milling cutters
H3094728
Protostar® Flash

– Long reach
– Type Flash H 50

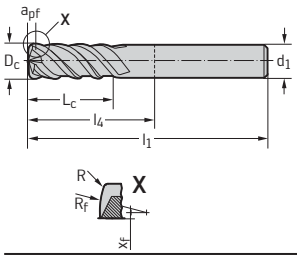




	P	M	K	N	S	H	O
TAX						●●	

DIN 6527 L

Shank DIN 6535 HA



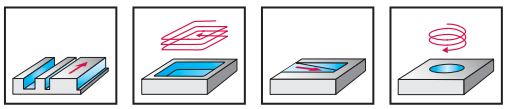
Designation TAX	D_c h9 mm	a_{pf}	x_f mm	R_f	R_{ers} mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H3094728-4	4	0,12	0,6	4	0,618	0,5	11	57	21	6	4
H3094728-5	5	0,15	0,7	6	0,656	0,5	13	57	21	6	4
H3094728-6	6	0,2	0,7	9	0,693	0,5	15	57	21	6	4
H3094728-8	8	0,25	0,78	12	1,226	1	20	63	27	8	4
H3094728-10	10	0,3	0,8	15	1,773	1,5	26	72	32	10	4
H3094728-12	12	0,4	1	18	1,875	1,5	30	83	38	12	4
H3094728-16	16	0,5	1,5	24	2,465	2	36	92	44	16	4
H3094728-20	20	0,65	2,2	30	2,607	2	45	104	54	20	4

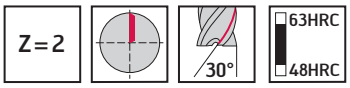
Shoulder milling $a_e \leq 0.5 \times D_c$

XIII D 1 C 232 C 264

Solid carbide shoulder/slot milling cutters
H8005728 / H8005928
Protostar® Ultra

– Long reach
– Type HSC 30

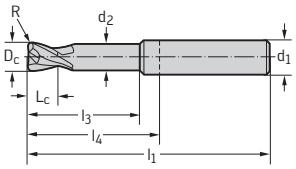




	P	M	K	N	S	H	O
TAX						●●	

DIN 6527 L

Shank DIN 6535 HA

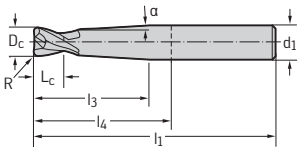


Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8005728-5	5	0,5	5	20	4,9	57	21	6	2
H8005728-6	6	1	6	24	5,9	63	27	8	2
H8005728-8	8	1	8	29	7,85	72	32	10	2
H8005728-10	10	1,5	10	35	9,85	83	38	12	2
H8005728-12	12	1,5	12	36	11,8	83	38	12	2

Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

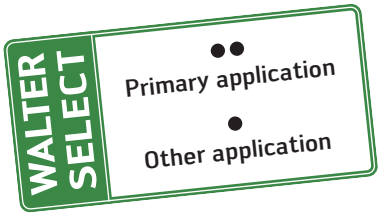
P STANDARD L

Shank DIN 6535 HA



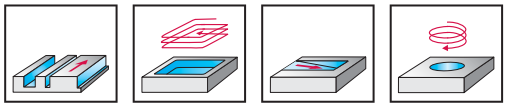
Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	α	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8005928-2-0.5	2	0,5	2	18	4°	57	21	6	2
H8005928-3-0.5-19	3	0,5	3	19	4°	57	21	6	2
H8005928-3-0.5-37	3	0,5	3	37	1°	80	44	6	2
H8005928-4-0.5-20	4	0,5	4	20	4°	57	21	6	2
H8005928-4-0.5-50	4	0,5	4	50	1°	90	54	6	2
H8005928-6-0.5	6	0,5	6	52	1°	100	64	8	2
H8005928-6-1	6	1	6	52	1°	100	64	8	2

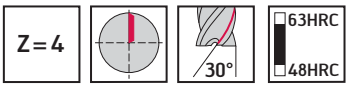
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$



Solid carbide shoulder/slot milling cutters
H8015728 / H8015828
Protostar® Ultra

– Long reach
– Type HSC 30

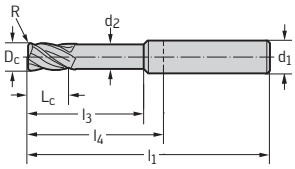




	P	M	K	N	S	H	O
TAX						●●	

P STANDARD L

Shank DIN 6535 HA

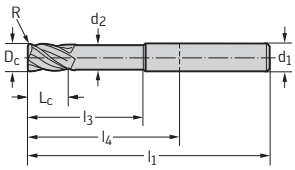


Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8015728-6	6	1	6	24	5,9	63	27	8	4
H8015728-8	8	1	8	29	7,85	72	32	10	4
H8015728-10	10	1,5	10	35	9,85	83	38	12	4
H8015728-12	12	1,5	12	36	11,8	83	38	12	4
H8015728-16	16	2	16	42	15,8	92	44	16	4
H8015728-20	20	2	20	52	19,75	104	54	20	4

Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

P STANDARD L

Shank DIN 6535 HA



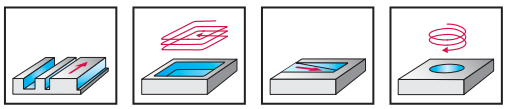
Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8015828-4-0.4-16	4	0,4	4	16	3,9	75	39	6	4
H8015828-4-0.4-24	4	0,4	4	24	3,9	75	39	6	4
H8015828-5-0.5-20	5	0,5	5	20	4,9	75	39	6	4
H8015828-5-0.5-30	5	0,5	5	30	4,9	75	39	6	4
H8015828-6-0.2-24	6	0,2	6	24	5,9	75	39	6	4
H8015828-6-0.2-35	6	0,2	6	35	5,9	75	39	6	4
H8015828-6-0.5-24	6	0,5	6	24	5,9	75	39	6	4
H8015828-6-0.5-35	6	0,5	6	35	5,9	75	39	6	4
H8015828-8-0.5-29	8	0,5	8	29	7,85	80	44	8	4
H8015828-8-0.5-43	8	0,5	8	43	7,85	80	44	8	4
H8015828-8-1.0-29	8	1	8	29	7,85	80	44	8	4
H8015828-8-1.0-43	8	1	8	43	7,85	80	44	8	4
H8015828-8-1.5-29	8	1,5	8	29	7,85	80	44	8	4
H8015828-10-0.3-35	10	0,3	10	35	9,85	100	60	10	4
H8015828-10-0.5-35	10	0,5	10	35	9,85	100	60	10	4
H8015828-10-0.5-59	10	0,5	10	59	9,85	100	60	10	4
H8015828-10-1.0-35	10	1	10	35	9,85	100	60	10	4
H8015828-10-1.0-59	10	1	10	59	9,85	100	60	10	4
H8015828-10-1.5-35	10	1,5	10	35	9,85	100	60	10	4
H8015828-10-1.5-59	10	1,5	10	59	9,85	100	60	10	4
H8015828-12-0.5-36	12	0,5	12	36	11,8	100	55	12	4
H8015828-12-0.5-54	12	0,5	12	54	11,8	100	55	12	4
H8015828-12-1.0-36	12	1	12	36	11,8	100	55	12	4
H8015828-12-1.0-54	12	1	12	54	11,8	100	55	12	4
H8015828-12-1.5-36	12	1,5	12	36	11,8	100	55	12	4
H8015828-12-1.5-54	12	1,5	12	54	11,8	100	55	12	4
H8015828-12-2.0-36	12	2	12	36	11,8	100	55	12	4
H8015828-12-2.0-54	12	2	12	54	11,8	100	55	12	4
H8015828-16-2.0-42	16	2	16	42	15,8	115	67	16	4

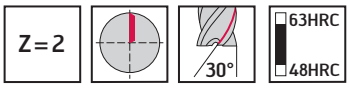
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters H4044928 / H8005828 Protostar® Ultra

– Long reach
– Type Mini HSC 30

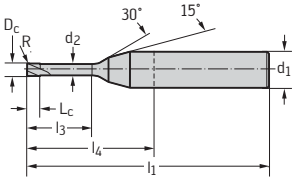




	P	M	K	N	S	H	O
TAX						●●	

P STANDARD MINI

Shank DIN 6535 HA

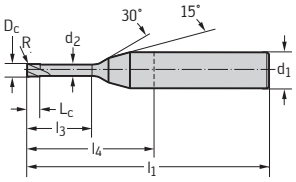


Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H4044928-0.4-1	0,4	0,05	0,4	1	0,37	38	10	3	2
H4044928-0.4-2	0,4	0,05	0,4	2	0,37	38	10	3	2
H4044928-0.5-1.25	0,5	0,05	0,5	1,25	0,47	38	10	3	2
H4044928-0.5-2.5	0,5	0,05	0,5	2,5	0,47	38	10	3	2
H4044928-0.5-3.75	0,5	0,05	0,5	3,75	0,47	38	10	3	2
H4044928-0.6-1.5	0,6	0,05	0,6	1,5	0,57	38	10	3	2
H4044928-0.6-3	0,6	0,05	0,6	3	0,57	38	10	3	2
H4044928-0.6-4.5	0,6	0,05	0,6	4,5	0,57	38	10	3	2
H4044928-0.8-2	0,8	0,05	0,8	2	0,77	38	10	3	2
H4044928-0.8-4	0,8	0,05	0,8	4	0,77	38	10	3	2
H4044928-0.8-6	0,8	0,05	0,8	6	0,77	38	10	3	2
H4044928-1-2.5	1	0,1	1	2,5	0,97	38	10	3	2
H4044928-1-5	1	0,1	1	5	0,97	60	32	3	2
H4044928-1-7.5	1	0,1	1	7,5	0,97	60	32	3	2
H4044928-1.5-4	1,5	0,15	1,5	4	1,47	38	10	3	2
H4044928-1.5-7.5	1,5	0,15	1,5	7,5	1,47	60	32	3	2
H4044928-1.5-12	1,5	0,15	1,5	12	1,47	60	32	3	2
H4044928-2-5	2	0,2	2	5	1,97	38	10	3	2
H4044928-2-10	2	0,2	2	10	1,97	60	32	3	2
H4044928-2-15	2	0,2	2	15	1,97	60	32	3	2
H4044928-2.5-6	2,5	0,25	2	6	2,47	38	10	3	2
H4044928-2.5-12.5	2,5	0,25	2	12,5	2,47	60	32	3	2
H4044928-2.5-20	2,5	0,25	2	20	2,47	60	32	3	2
H4044928-3-7.5	3	0,3	2	7,5	2,97	38	10	3	2
H4044928-3-15	3	0,3	2	15	2,97	60	32	3	2
H4044928-3-22.5	3	0,3	2	22,5	2,97	60	32	3	2

Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

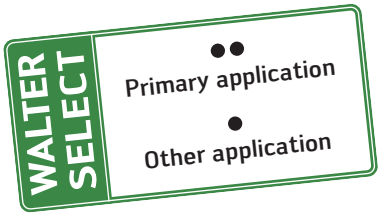
P STANDARD MINI

Shank DIN 6535 HA



Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8005828-0.6	0,6	0,06	0,6	2,4	0,57	54	18	6	2
H8005828-0.8	0,8	0,08	0,8	3,2	0,77	54	18	6	2
H8005828-1	1	0,1	1	4	0,97	65	29	6	2
H8005828-1.2	1,2	0,12	1,2	4,8	1,17	65	29	6	2
H8005828-1.5	1,5	0,15	1,5	6	1,47	65	29	6	2
H8005828-2-0.2	2	0,2	2	8	1,97	75	39	6	2
H8005828-2-0.5	2	0,5	2	8	1,97	75	39	6	2
H8005828-3-0.2	3	0,2	3	12	2,97	75	39	6	2
H8005828-3-0.3	3	0,3	3	12	2,97	75	39	6	2

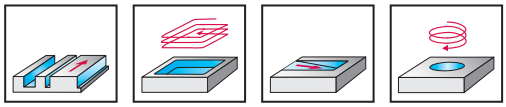
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

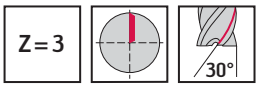


XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters
H3027419
Protostar®

– Type 30

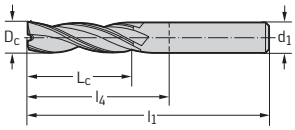




	P	M	K	N	S	H	O
DIA							●●

P STANDARD L

Shank DIN 6535 HA



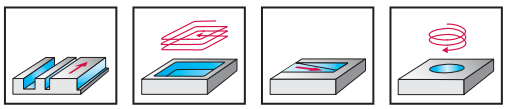
Designation DIA	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3027419-1	1	4	38	10	3	3
H3027419-1.5	1,5	6	38	10	3	3
H3027419-2	2	8	38	11	3	3
H3027419-3	3	12	38	12	3	3
H3027419-4	4	14	50	22	4	3
H3027419-5	5	16	57	21	6	3
H3027419-6	6	22	65	29	6	3
H3027419-8	8	28	80	44	8	3
H3027419-10	10	32	100	60	10	3
H3027419-12	12	38	100	55	12	3
H3027419-16	16	50	115	67	16	3

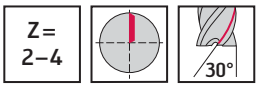
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters
H8095919
Protostar®

– Long reach
– Type HSC 30

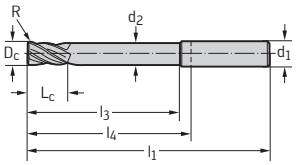




	P	M	K	N	S	H	O
DIA							●●

P STANDARD XL

Shank DIN 6535 HA



Designation DIA	D_c h8 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8095919-4-20	4	0,5	4	20	3,9	100	64	6	2
H8095919-4-30	4	0,5	4	30	3,9	100	64	6	2
H8095919-4-40	4	0,5	4	40	3,9	100	64	6	2
H8095919-5-25	5	0,5	5	25	4,9	100	64	6	2
H8095919-5-50	5	0,5	5	50	4,9	100	64	6	2
H8095919-6-30	6	0,5	6	30	5,9	100	64	6	4
H8095919-6-45	6	0,5	6	45	5,9	100	64	6	4
H8095919-6-60	6	0,5	6	60	5,9	100	64	6	4
H8095919-8-40	8	0,5	8	40	7,85	120	84	8	4
H8095919-8-60	8	0,5	8	60	7,85	120	84	8	4
H8095919-8-80	8	0,5	8	80	7,85	120	84	8	4
H8095919-10-50	10	1	10	50	9,85	150	110	10	4
H8095919-10-75	10	1	10	75	9,85	150	110	10	4
H8095919-12-60	12	1	12	60	11,8	150	105	12	4
H8095919-12-90	12	1	12	90	11,8	150	105	12	4

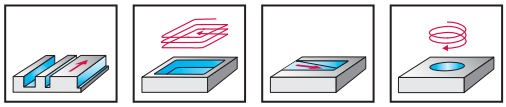
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters
H4044919
Protostar®

– Long reach
– Type Mini HSC 30



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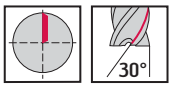
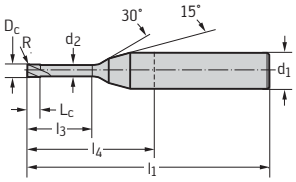


	P	M	K	N	S	H	O
DIA							●●

P STANDARD MINI

Shank DIN 6535 HA



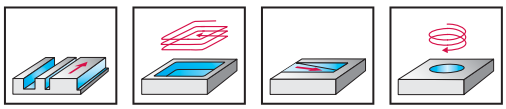
Designation DIA	D_c h8 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H4044919-0.4-1	0,4	0,05	0,4	1	0,37	38	10	3	2
H4044919-0.4-2	0,4	0,05	0,4	2	0,37	38	10	3	2
H4044919-0.4-4	0,4	0,05	0,4	4	0,37	38	10	3	2
H4044919-0.5-1.25	0,5	0,05	0,5	1,25	0,47	38	10	3	2
H4044919-0.5-2.5	0,5	0,05	0,5	2,5	0,47	38	10	3	2
H4044919-0.5-5	0,5	0,05	0,5	5	0,47	38	10	3	2
H4044919-0.6-1.5	0,6	0,05	0,6	1,5	0,57	38	10	3	2
H4044919-0.6-3	0,6	0,05	0,6	3	0,57	38	10	3	2
H4044919-0.6-4.5	0,6	0,05	0,6	4,5	0,57	38	10	3	2
H4044919-0.6-6	0,6	0,05	0,6	6	0,57	38	10	3	2
H4044919-0.6-9	0,6	0,05	0,6	9	0,57	38	10	3	2
H4044919-0.8-2	0,8	0,05	0,8	2	0,77	38	10	3	2
H4044919-0.8-4	0,8	0,05	0,8	4	0,77	38	10	3	2
H4044919-0.8-6	0,8	0,05	0,8	6	0,77	38	10	3	2
H4044919-0.8-8	0,8	0,05	0,8	8	0,77	38	10	3	2
H4044919-0.8-12	0,8	0,05	0,8	12	0,77	60	32	3	2
H4044919-1-2.5	1	0,1	1	2,5	0,97	38	10	3	2
H4044919-1-5	1	0,1	1	5	0,97	60	32	3	2
H4044919-1-7.5	1	0,1	1	7,5	0,97	60	32	3	2
H4044919-1-10	1	0,1	1	10	0,97	60	32	3	2
H4044919-1-15	1	0,1	1	15	0,97	60	32	3	2
H4044919-1-20	1	0,1	1	20	0,97	60	32	3	2
H4044919-1.5-7.5	1,5	0,15	1,5	7,5	1,47	60	32	3	2
H4044919-1.5-15	1,5	0,15	1,5	15	1,47	60	32	3	2
H4044919-2-10	2	0,2	2	10	1,97	60	32	3	2
H4044919-2-15	2	0,2	2	15	1,97	60	32	3	2
H4044919-2-20	2	0,2	2	20	1,97	60	32	3	2
H4044919-2-30	2	0,2	2	30	1,97	60	32	3	2
H4044919-2.5-12.5	2,5	0,25	2,5	12,5	2,47	60	32	3	2
H4044919-2.5-25	2,5	0,25	2,5	25	2,47	60	32	3	2
H4044919-3-15	3	0,3	3	15	2,97	60	32	3	2
H4044919-3-22.5	3	0,3	3	22,5	2,97	60	32	3	2
H4044919-3-30	3	0,3	3	30	2,97	60	32	3	2

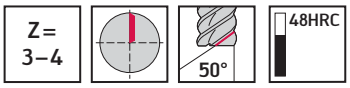
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.05 \times D_c$

XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters MC326 Supreme

– Type N 50

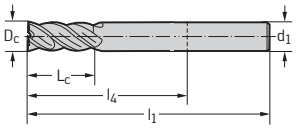




	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

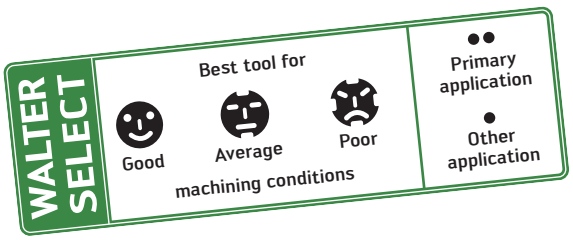
P STANDARD L

Shank DIN 6535 HA



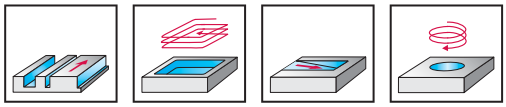
Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40TF
MC326-02.0A3L-	2	7	57	21	6	3	☺
MC326-02.5A3L-	2,5	8	57	21	6	3	☺
MC326-03.0A3L-	3	8	57	21	6	3	☺
MC326-03.5A3L-	3,5	10	57	21	6	3	☺
MC326-04.0A3L-	4	11	57	21	6	3	☺
MC326-04.5A3L-	4,5	11	57	21	6	3	☺
MC326-05.0A3L-	5	13	57	21	6	3	☺
MC326-06.0A4L-	6	13	65	29	6	4	☺
MC326-07.0A4L-	7	16	80	44	8	4	☺
MC326-08.0A4L-	8	19	80	44	8	4	☺
MC326-09.0A4L-	9	19	100	60	10	4	☺
MC326-10.0A4L-	10	22	100	60	10	4	☺
MC326-11.0A4L-	11	26	100	55	12	4	☺
MC326-12.0A4L-	12	26	100	55	12	4	☺
MC326-14.0A4L-	14	26	104	59	14	4	☺
MC326-16.0A4L-	16	32	115	67	16	4	☺
MC326-20.0A4L-	20	38	125	75	20	4	☺

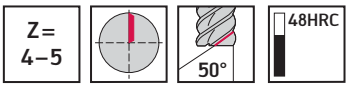
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-02.0A3L-WK40TF



Solid carbide shoulder/slot milling cutters MC326 Supreme

– Type N 50

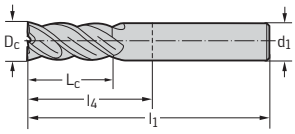


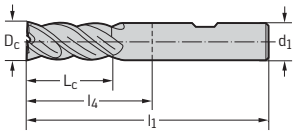


	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

DIN 6527 L

	Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40TF
Shank DIN 6535 HA	MC326-06.0A4B-	6	13	57	21	6	4	☺
	MC326-08.0A4B-	8	19	63	27	8	4	☺
	MC326-10.0A4B-	10	22	72	32	10	4	☺
	MC326-12.0A4B-	12	26	83	38	12	4	☺
	MC326-14.0A4B-	14	26	83	38	14	4	☺
	MC326-16.0A4B-	16	32	92	44	16	4	☺
	MC326-18.0A4B-	18	32	92	44	18	4	☺
	MC326-20.0A4B-	20	38	104	54	20	4	☺
	MC326-25.0A5B-	25	45	121	65	25	5	☺
Shank DIN 6535 HB	MC326-06.0W4B-	6	13	57	21	6	4	☺
	MC326-08.0W4B-	8	19	63	27	8	4	☺
	MC326-10.0W4B-	10	22	72	32	10	4	☺
	MC326-12.0W4B-	12	26	83	38	12	4	☺
	MC326-14.0W4B-	14	26	83	38	14	4	☺
	MC326-16.0W4B-	16	32	92	44	16	4	☺
	MC326-18.0W4B-	18	32	92	44	18	4	☺
	MC326-20.0W4B-	20	38	104	54	20	4	☺
	MC326-25.0W5B-	25	45	121	65	25	5	☺



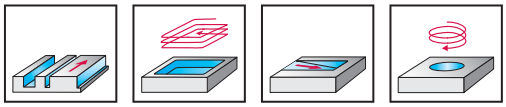


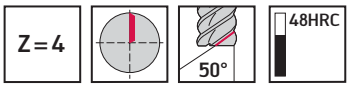
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-06.0A4B-WK40TF

XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters MC326 Supreme

– Long reach
– Type N 50

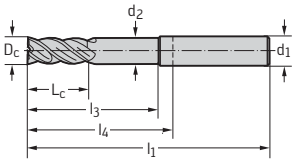


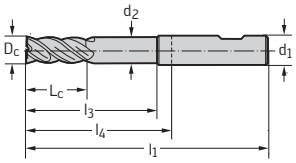


	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

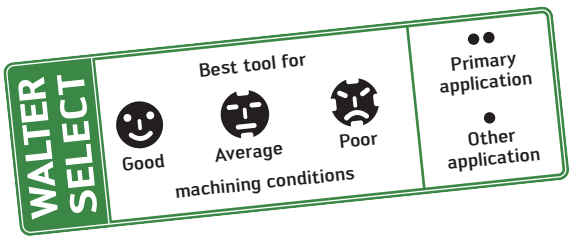
DIN 6527 L

	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	MC326-06.0A4BC-	6	13	19	5,7	57	21	6	4	☺
	MC326-08.0A4BC-	8	19	25	7,6	63	27	8	4	☺
	MC326-10.0A4BC-	10	22	30	9,5	72	32	10	4	☺
	MC326-12.0A4BC-	12	26	36	11,4	83	38	12	4	☺
	MC326-14.0A4BC-	14	26	36	13,3	83	38	14	4	☺
	MC326-16.0A4BC-	16	32	42	15,2	92	44	16	4	☺
	MC326-20.0A4BC-	20	38	52	19	104	54	20	4	☺
Shank DIN 6535 HB	MC326-06.0W4BC-	6	13	19	5,7	57	21	6	4	☺
	MC326-08.0W4BC-	8	19	25	7,6	63	27	8	4	☺
	MC326-10.0W4BC-	10	22	30	9,5	72	32	10	4	☺
	MC326-12.0W4BC-	12	26	36	11,4	83	38	12	4	☺
	MC326-14.0W4BC-	14	26	36	13,3	83	38	14	4	☺
	MC326-16.0W4BC-	16	32	42	15,2	92	44	16	4	☺
	MC326-20.0W4BC-	20	38	52	19	104	54	20	4	☺



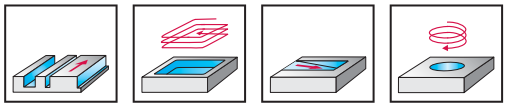


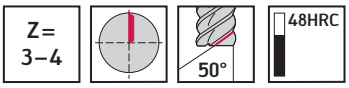
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-06.0A4BC-WK40TF



Solid carbide shoulder/slot milling cutters MC326 Supreme

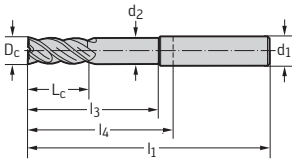
– Long reach
– Type N 50 long

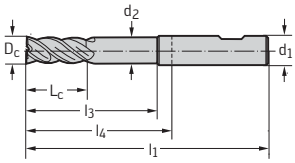




	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

P STANDARD L





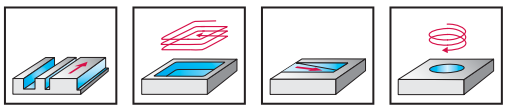
	Designation	D_c h10 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40TF
Shank DIN 6535 HA	MC326-04.0A3LC-	4	11	15	3,8	57	21	6	3	☺
	MC326-05.0A3LC-	5	13	16	4,75	57	21	6	3	☺
	MC326-06.0A4LC-	6	13	27	5,7	65	29	6	4	☺
	MC326-08.0A4LC-	8	19	42	7,6	80	44	8	4	☺
	MC326-10.0A4LC-	10	22	58	9,5	100	60	10	4	☺
	MC326-12.0A4LC-	12	26	53	11,4	100	55	12	4	☺
	MC326-14.0A4LC-	14	26	57	13,3	104	59	14	4	☺
	MC326-16.0A4LC-	16	32	65	15,2	115	67	16	4	☺
	MC326-20.0A4LC-	20	38	73	19	125	75	20	4	☺
Shank DIN 6535 HB	MC326-04.0W3LC-	4	11	15	3,8	57	21	6	3	☺
	MC326-05.0W3LC-	5	13	16	4,75	57	21	6	3	☺
	MC326-06.0W4LC-	6	13	27	5,7	65	29	6	4	☺
	MC326-08.0W4LC-	8	19	42	7,6	80	44	8	4	☺
	MC326-10.0W4LC-	10	22	58	9,5	100	60	10	4	☺
	MC326-12.0W4LC-	12	26	53	11,4	100	55	12	4	☺
	MC326-14.0W4LC-	14	26	57	13,3	104	59	14	4	☺
	MC326-16.0W4LC-	16	32	65	15,2	115	67	16	4	☺
	MC326-20.0W4LC-	20	38	73	19	125	75	20	4	☺

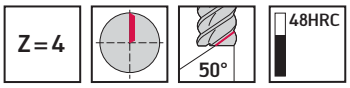
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-04.0A3LC-WK40TF

XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters MC326 Supreme

– Long reach
– Type N 50



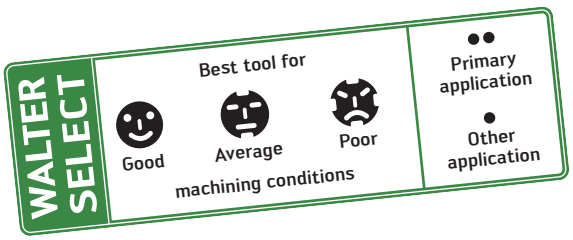


	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

DIN 6527 L

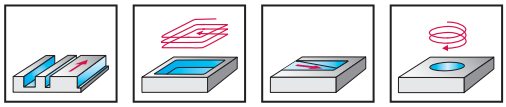
	Designation	D_c h10 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40TF
Shank DIN 6535 HA	MC326-06.0A4BCJ-	6	6	19	5,7	57	21	6	4	☺
	MC326-08.0A4BCJ-	8	8	25	7,6	63	27	8	4	☺
	MC326-10.0A4BCJ-	10	10	30	9,5	72	32	10	4	☺
	MC326-12.0A4BCJ-	12	12	36	11,4	83	38	12	4	☺
	MC326-14.0A4BCJ-	14	14	36	13,3	83	38	14	4	☺
	MC326-16.0A4BCJ-	16	16	42	15,2	92	44	16	4	☺
Shank DIN 6535 HB	MC326-06.0W4BCJ-	6	6	19	5,7	57	21	6	4	☺
	MC326-08.0W4BCJ-	8	8	25	7,6	63	27	8	4	☺
	MC326-10.0W4BCJ-	10	10	30	9,5	72	32	10	4	☺
	MC326-12.0W4BCJ-	12	12	36	11,4	83	38	12	4	☺
	MC326-14.0W4BCJ-	14	14	36	13,3	83	38	14	4	☺
	MC326-16.0W4BCJ-	16	16	42	15,2	92	44	16	4	☺

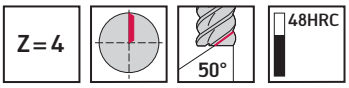
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-06.0A4BCJ-WK40TF



Solid carbide shoulder/slot milling cutters MC326 Supreme

– Type N 50

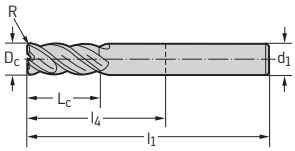


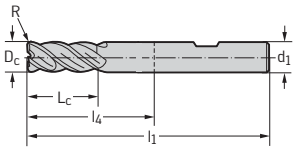


	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

DIN 6527 L

	Designation	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40TF
Shank DIN 6535 HA	MC326-06.0A4B100-	6	1	13	57	21	6	4	☺
	MC326-08.0A4B200-	8	2	19	63	27	8	4	☺
	MC326-10.0A4B200-	10	2	22	72	32	10	4	☺
	MC326-12.0A4B300-	12	3	26	83	38	12	4	☺
	MC326-14.0A4B300-	14	3	26	83	38	14	4	☺
	MC326-16.0A4B300-	16	3	32	92	44	16	4	☺
	MC326-16.0A4B400-	16	4	32	92	44	16	4	☺
	MC326-20.0A4B300-	20	3	38	104	54	20	4	☺
	MC326-20.0A4B400-	20	4	38	104	54	20	4	☺
Shank DIN 6535 HB	MC326-06.0W4B100-	6	1	13	57	21	6	4	☺
	MC326-08.0W4B200-	8	2	19	63	27	8	4	☺
	MC326-10.0W4B200-	10	2	22	72	32	10	4	☺
	MC326-12.0W4B300-	12	3	26	83	38	12	4	☺
	MC326-14.0W4B300-	14	3	26	83	38	14	4	☺
	MC326-16.0W4B300-	16	3	32	92	44	16	4	☺
	MC326-16.0W4B400-	16	4	32	92	44	16	4	☺
	MC326-20.0W4B300-	20	3	38	104	54	20	4	☺
	MC326-20.0W4B400-	20	4	38	104	54	20	4	☺



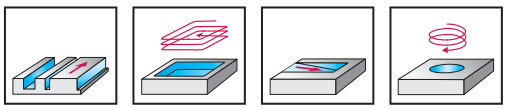


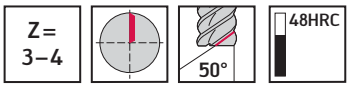
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-06.0A4B100-WK40TF

XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters MC326 Supreme

– Type N 50

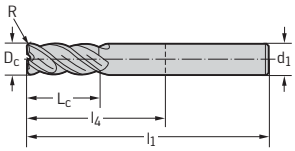




	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

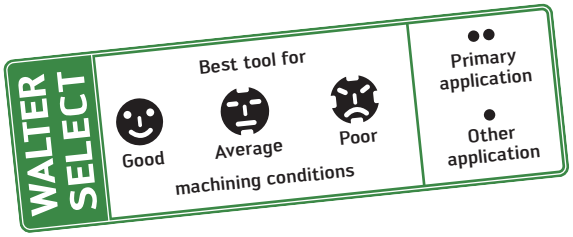
P STANDARD L

Shank DIN 6535 HA



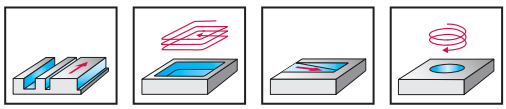
Designation	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40TF
MC326-04.0A3L100-	4	1	11	57	21	6	3	☺
MC326-05.0A3L100-	5	1	13	57	21	6	3	☺
MC326-06.0A4L100-	6	1	13	65	29	6	4	☺
MC326-08.0A4L200-	8	2	19	80	44	8	4	☺
MC326-10.0A4L200-	10	2	22	100	60	10	4	☺
MC326-12.0A4L300-	12	3	26	100	55	12	4	☺
MC326-14.0A4L300-	14	3	26	104	59	14	4	☺
MC326-16.0A4L300-	16	3	32	115	67	16	4	☺
MC326-16.0A4L400-	16	4	32	115	67	16	4	☺
MC326-20.0A4L300-	20	3	38	125	75	20	4	☺
MC326-20.0A4L400-	20	4	38	125	75	20	4	☺

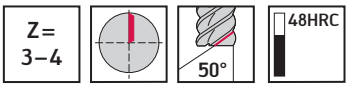
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-04.0A3L100-WK40TF



Solid carbide shoulder/slot milling cutters MC326 Supreme

– Long reach
– Type N 50

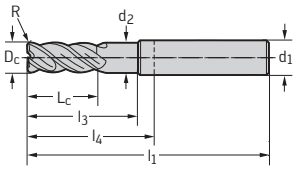




	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

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
MC326-02.0A3B020C-	2	0,2	7	9,5	1,92	57	21	6	3	☺
MC326-03.0A3B030C-	3	0,3	8	10	2,9	57	21	6	3	☺
MC326-04.0A3B050C-	4	0,5	11	15	3,8	57	21	6	3	☺
MC326-05.0A3B050C-	5	0,5	13	16	4,75	57	21	6	3	☺
MC326-06.0A4B050C-	6	0,5	13	19	5,7	57	21	6	4	☺
MC326-06.0A4B080C-	6	0,8	13	19	5,7	57	21	6	4	☺
MC326-06.0A4B100C-	6	1	13	19	5,7	57	21	6	4	☺
MC326-08.0A4B050C-	8	0,5	19	25	7,6	63	27	8	4	☺
MC326-08.0A4B080C-	8	0,8	19	25	7,6	63	27	8	4	☺
MC326-08.0A4B100C-	8	1	19	25	7,6	63	27	8	4	☺
MC326-08.0A4B150C-	8	1,5	19	25	7,6	63	27	8	4	☺
MC326-08.0A4B200C-	8	2	19	25	7,6	63	27	8	4	☺
MC326-10.0A4B050C-	10	0,5	22	30	9,5	72	32	10	4	☺
MC326-10.0A4B080C-	10	0,8	22	30	9,5	72	32	10	4	☺
MC326-10.0A4B100C-	10	1	22	30	9,5	72	32	10	4	☺
MC326-10.0A4B150C-	10	1,5	22	30	9,5	72	32	10	4	☺
MC326-10.0A4B200C-	10	2	22	30	9,5	72	32	10	4	☺
MC326-12.0A4B050C-	12	0,5	26	36	11,4	83	38	12	4	☺
MC326-12.0A4B080C-	12	0,8	26	36	11,4	83	38	12	4	☺
MC326-12.0A4B100C-	12	1	26	36	11,4	83	38	12	4	☺
MC326-12.0A4B150C-	12	1,5	26	36	11,4	83	38	12	4	☺
MC326-12.0A4B200C-	12	2	26	36	11,4	83	38	12	4	☺
MC326-12.0A4B250C-	12	2,5	26	36	11,4	83	38	12	4	☺
MC326-12.0A4B300C-	12	3	26	36	11,4	83	38	12	4	☺
MC326-14.0A4B100C-	14	1	26	36	13,3	83	38	14	4	☺
MC326-14.0A4B150C-	14	1,5	26	36	13,3	83	38	14	4	☺
MC326-14.0A4B200C-	14	2	26	36	13,3	83	38	14	4	☺
MC326-14.0A4B300C-	14	3	26	36	13,3	83	38	14	4	☺
MC326-16.0A4B050C-	16	0,5	32	42	15,2	92	44	16	4	☺
MC326-16.0A4B100C-	16	1	32	42	15,2	92	44	16	4	☺
MC326-16.0A4B200C-	16	2	32	42	15,2	92	44	16	4	☺
MC326-16.0A4B250C-	16	2,5	32	42	15,2	92	44	16	4	☺
MC326-16.0A4B300C-	16	3	32	42	15,2	92	44	16	4	☺
MC326-16.0A4B400C-	16	4	32	42	15,2	92	44	16	4	☺
MC326-20.0A4B050C-	20	0,5	38	52	19	104	54	20	4	☺
MC326-20.0A4B100C-	20	1	38	52	19	104	54	20	4	☺
MC326-20.0A4B200C-	20	2	38	52	19	104	54	20	4	☺
MC326-20.0A4B250C-	20	2,5	38	52	19	104	54	20	4	☺
MC326-20.0A4B300C-	20	3	38	52	19	104	54	20	4	☺
MC326-20.0A4B400C-	20	4	38	52	19	104	54	20	4	☺

Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-02.0A3B020C-WK40TF

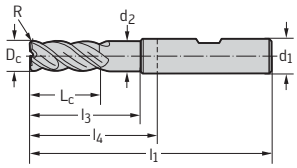
Continued

XIII D 1 C 233 C 264

Continued

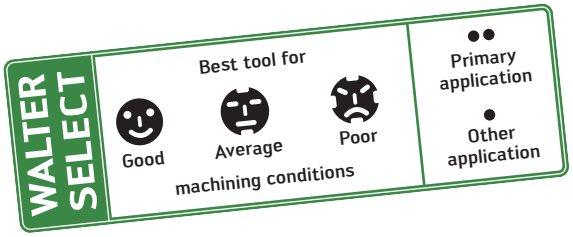
DIN 6527 L

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
MC326-02.0W3B020C-	2	0,2	7	9,5	1,92	57	21	6	3	☺
MC326-03.0W3B030C-	3	0,3	8	10	2,9	57	21	6	3	☺
MC326-04.0W3B050C-	4	0,5	11	15	3,8	57	21	6	3	☺
MC326-05.0W3B050C-	5	0,5	13	16	4,75	57	21	6	3	☺
MC326-06.0W4B050C-	6	0,5	13	19	5,7	57	21	6	4	☺
MC326-06.0W4B100C-	6	1	13	19	5,7	57	21	6	4	☺
MC326-08.0W4B050C-	8	0,5	19	25	7,6	63	27	8	4	☺
MC326-08.0W4B100C-	8	1	19	25	7,6	63	27	8	4	☺
MC326-08.0W4B150C-	8	1,5	19	25	7,6	63	27	8	4	☺
MC326-08.0W4B200C-	8	2	19	25	7,6	63	27	8	4	☺
MC326-10.0W4B050C-	10	0,5	22	30	9,5	72	32	10	4	☺
MC326-10.0W4B100C-	10	1	22	30	9,5	72	32	10	4	☺
MC326-10.0W4B150C-	10	1,5	22	30	9,5	72	32	10	4	☺
MC326-10.0W4B200C-	10	2	22	30	9,5	72	32	10	4	☺
MC326-12.0W4B050C-	12	0,5	26	36	11,4	83	38	12	4	☺
MC326-12.0W4B100C-	12	1	26	36	11,4	83	38	12	4	☺
MC326-12.0W4B150C-	12	1,5	26	36	11,4	83	38	12	4	☺
MC326-12.0W4B200C-	12	2	26	36	11,4	83	38	12	4	☺
MC326-12.0W4B250C-	12	2,5	26	36	11,4	83	38	12	4	☺
MC326-12.0W4B300C-	12	3	26	36	11,4	83	38	12	4	☺
MC326-14.0W4B100C-	14	1	26	36	13,3	83	38	14	4	☺
MC326-14.0W4B150C-	14	1,5	26	36	13,3	83	38	14	4	☺
MC326-14.0W4B200C-	14	2	26	36	13,3	83	38	14	4	☺
MC326-14.0W4B300C-	14	3	26	36	13,3	83	38	14	4	☺
MC326-16.0W4B050C-	16	0,5	32	42	15,2	92	44	16	4	☺
MC326-16.0W4B100C-	16	1	32	42	15,2	92	44	16	4	☺
MC326-16.0W4B200C-	16	2	32	42	15,2	92	44	16	4	☺
MC326-16.0W4B250C-	16	2,5	32	42	15,2	92	44	16	4	☺
MC326-16.0W4B300C-	16	3	32	42	15,2	92	44	16	4	☺
MC326-16.0W4B400C-	16	4	32	42	15,2	92	44	16	4	☺
MC326-20.0W4B050C-	20	0,5	38	52	19	104	54	20	4	☺
MC326-20.0W4B100C-	20	1	38	52	19	104	54	20	4	☺
MC326-20.0W4B200C-	20	2	38	52	19	104	54	20	4	☺
MC326-20.0W4B250C-	20	2,5	38	52	19	104	54	20	4	☺
MC326-20.0W4B300C-	20	3	38	52	19	104	54	20	4	☺
MC326-20.0W4B400C-	20	4	38	52	19	104	54	20	4	☺

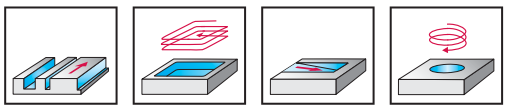
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-02.0A3B020C-WK40TF

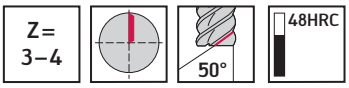


XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters MC326 Supreme

– Long reach
– Type N 50 long

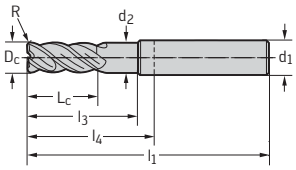




	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

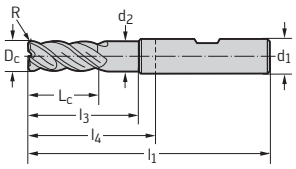
P STANDARD L

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
MC326-04.0A3L100C-	4	1	11	15	3,8	57	21	6	3	☺
MC326-05.0A3L100C-	5	1	13	16	4,75	57	21	6	3	☺
MC326-06.0A4L050C-	6	0,5	13	27	5,7	65	29	6	4	☺
MC326-06.0A4L100C-	6	1	13	27	5,7	65	29	6	4	☺
MC326-08.0A4L050C-	8	0,5	19	42	7,6	80	44	8	4	☺
MC326-08.0A4L100C-	8	1	19	42	7,6	80	44	8	4	☺
MC326-08.0A4L200C-	8	2	19	42	7,6	80	44	8	4	☺
MC326-10.0A4L050C-	10	0,5	22	58	9,5	100	60	10	4	☺
MC326-10.0A4L100C-	10	1	22	58	9,5	100	60	10	4	☺
MC326-10.0A4L200C-	10	2	22	58	9,5	100	60	10	4	☺
MC326-12.0A4L050C-	12	0,5	26	53	11,4	100	55	12	4	☺
MC326-12.0A4L100C-	12	1	26	53	11,4	100	55	12	4	☺
MC326-12.0A4L300C-	12	3	26	53	11,4	100	55	12	4	☺
MC326-14.0A4L050C-	14	0,5	26	57	13,3	104	59	14	4	☺
MC326-14.0A4L100C-	14	1	26	57	13,3	104	59	14	4	☺
MC326-14.0A4L300C-	14	3	26	57	13,3	104	59	14	4	☺
MC326-16.0A4L050C-	16	0,5	32	65	15,2	115	67	16	4	☺
MC326-16.0A4L100C-	16	1	32	65	15,2	115	67	16	4	☺
MC326-16.0A4L200C-	16	2	32	65	15,2	115	67	16	4	☺
MC326-16.0A4L300C-	16	3	32	65	15,2	115	67	16	4	☺
MC326-16.0A4L400C-	16	4	32	65	15,2	115	67	16	4	☺
MC326-20.0A4L100C-	20	1	38	73	19	125	75	20	4	☺
MC326-20.0A4L200C-	20	2	38	73	19	125	75	20	4	☺
MC326-20.0A4L300C-	20	3	38	73	19	125	75	20	4	☺
MC326-20.0A4L400C-	20	4	38	73	19	125	75	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
MC326-04.0W3L100C-	4	1	11	15	3,8	57	21	6	3	☺
MC326-05.0W3L100C-	5	1	13	16	4,75	57	21	6	3	☺
MC326-06.0W4L050C-	6	0,5	13	27	5,7	65	29	6	4	☺
MC326-06.0W4L100C-	6	1	13	27	5,7	65	29	6	4	☺
MC326-08.0W4L050C-	8	0,5	19	42	7,6	80	44	8	4	☺
MC326-08.0W4L100C-	8	1	19	42	7,6	80	44	8	4	☺
MC326-08.0W4L200C-	8	2	19	42	7,6	80	44	8	4	☺
MC326-10.0W4L050C-	10	0,5	22	58	9,5	100	60	10	4	☺
MC326-10.0W4L100C-	10	1	22	58	9,5	100	60	10	4	☺
MC326-10.0W4L200C-	10	2	22	58	9,5	100	60	10	4	☺
MC326-12.0W4L050C-	12	0,5	26	53	11,4	100	55	12	4	☺
MC326-12.0W4L100C-	12	1	26	53	11,4	100	55	12	4	☺
MC326-12.0W4L300C-	12	3	26	53	11,4	100	55	12	4	☺
MC326-14.0W4L050C-	14	0,5	26	57	13,3	104	59	14	4	☺
MC326-14.0W4L100C-	14	1	26	57	13,3	104	59	14	4	☺
MC326-14.0W4L300C-	14	3	26	57	13,3	104	59	14	4	☺
MC326-16.0W4L050C-	16	0,5	32	65	15,2	115	67	16	4	☺
MC326-16.0W4L100C-	16	1	32	65	15,2	115	67	16	4	☺
MC326-16.0W4L200C-	16	2	32	65	15,2	115	67	16	4	☺
MC326-16.0W4L300C-	16	3	32	65	15,2	115	67	16	4	☺
MC326-16.0W4L400C-	16	4	32	65	15,2	115	67	16	4	☺

Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-04.0A3L100C-WK40TF

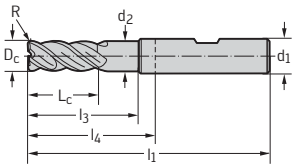
Continued

XIII D 1 C 233 C 264

Continued

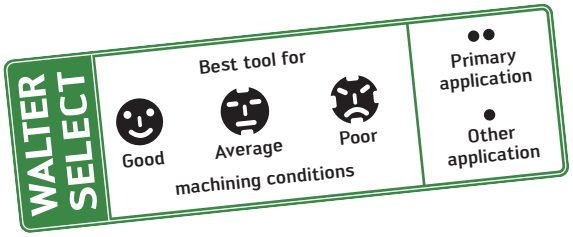
P STANDARD L

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
MC326-20.0W4L100C-	20	1	38	73	19	125	75	20	4	☺
MC326-20.0W4L200C-	20	2	38	73	19	125	75	20	4	☺
MC326-20.0W4L300C-	20	3	38	73	19	125	75	20	4	☺
MC326-20.0W4L400C-	20	4	38	73	19	125	75	20	4	☺

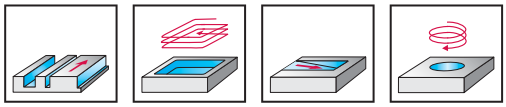
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC326-04.0A3L100C-WK40TF

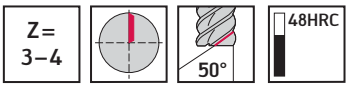


XIII D 1 C 233 C 264

Solid carbide routing cutters
MC726 Supreme

– Type N 50

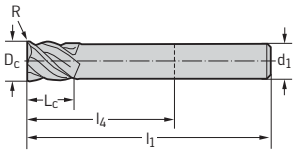


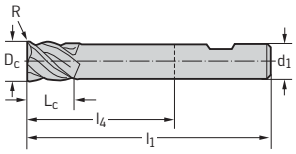


	P	M	K	N	S	H	O
WK40TF	●●	●	●		●		

DIN 6527 K

	Designation	D_c e8 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WK40TF
Shank DIN 6535 HA	MC726-02.8A3A008J-	2,8	0,08	3	50	14	6	3	☺
	MC726-03.0A3A008J-	3	0,08	3	50	14	6	3	☺
	MC726-03.8A3A008J-	3,8	0,08	4	54	18	6	3	☺
	MC726-04.0A3A008J-	4	0,08	4	54	18	6	3	☺
	MC726-04.8A3A016J-	4,8	0,16	5	54	18	6	3	☺
	MC726-05.0A3A016J-	5	0,16	5	54	18	6	3	☺
	MC726-05.8A4A016J-	5,75	0,16	6	54	18	6	4	☺
	MC726-06.0A4A016J-	6	0,16	6	54	18	6	4	☺
	MC726-07.8A4A016J-	7,75	0,16	8	58	22	8	4	☺
	MC726-08.0A4A016J-	8	0,16	8	58	22	8	4	☺
	MC726-09.7A4A025J-	9,7	0,25	10	66	26	10	4	☺
	MC726-10.0A4A025J-	10	0,25	10	66	26	10	4	☺
	MC726-12.0A4A025J-	12	0,25	12	73	28	12	4	☺
	MC726-14.0A4A025J-	14	0,25	14	75	30	14	4	☺
	MC726-16.0A4A025J-	16	0,25	16	82	34	16	4	☺
Shank DIN 6535 HB	MC726-02.8W3A008J-	2,8	0,08	3	50	14	6	3	☺
	MC726-03.0W3A008J-	3	0,08	3	50	14	6	3	☺
	MC726-03.8W3A008J-	3,8	0,08	4	54	18	6	3	☺
	MC726-04.0W3A008J-	4	0,08	4	54	18	6	3	☺
	MC726-04.8W3A016J-	4,8	0,16	5	54	18	6	3	☺
	MC726-05.0W3A016J-	5	0,16	5	54	18	6	3	☺
	MC726-05.8W4A016J-	5,75	0,16	6	54	18	6	4	☺
	MC726-06.0W4A016J-	6	0,16	6	54	18	6	4	☺
	MC726-07.8W4A016J-	7,75	0,16	8	58	22	8	4	☺
	MC726-08.0W4A016J-	8	0,16	8	58	22	8	4	☺
	MC726-09.7W4A025J-	9,7	0,25	10	66	26	10	4	☺
	MC726-10.0W4A025J-	10	0,25	10	66	26	10	4	☺
	MC726-12.0W4A025J-	12	0,25	12	73	28	12	4	☺
	MC726-14.0W4A025J-	14	0,25	14	75	30	14	4	☺
	MC726-16.0W4A025J-	16	0,25	16	82	34	16	4	☺



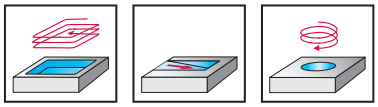


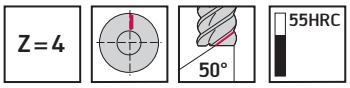
Slot milling $a_p \leq 0.9 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WK40TF grade: MC726-02.8A3A008J-WK40TF

XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters
H3094718
Protostar® Flash

– Long reach
– Type Flash N 50

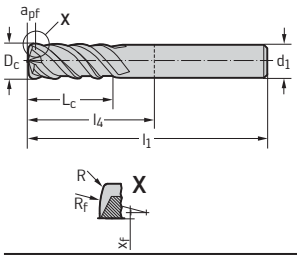




	P	M	K	N	S	H	O
TAX	●●	●	●		●		

P STANDARD L

Shank DIN 6535 HA



Designation TAX	D_c h9 mm	a_{pf}	x_f mm	R_f	R_{ers} mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3094718-4	4	0,2	0,8	2	0,673	0,5	11	57	21	6	4
H3094718-5	5	0,25	1,1	2,5	0,714	0,5	13	57	21	6	4
H3094718-6	6	0,3	1,4	3	0,755	0,5	15	57	21	6	4
H3094718-6-100	6	0,3	1,4	3	0,755	0,5	15	100	64	6	4
H3094718-8	8	0,5	1,54	4	1,379	1	20	63	27	8	4
H3094718-8-120	8	0,5	1,54	4	1,379	1	20	120	84	8	4
H3094718-10	10	0,7	1,7	5	1,998	1,5	26	72	32	10	4
H3094718-10-150	10	0,7	1,7	5	1,998	1,5	26	150	110	10	4
H3094718-12	12	0,8	2,25	6	2,103	1,5	30	83	38	12	4
H3094718-16	16	1	3,1	8	2,747	2	36	92	44	16	4
H3094718-20	20	1,3	4	10	3,072	2	45	104	54	20	4

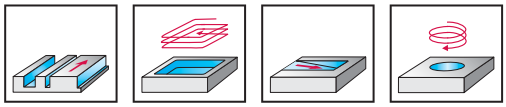
Shoulder milling $a_e \leq 0.5 \times D_c$

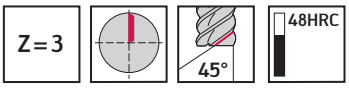
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 233 C 264

Solid carbide shoulder/slot milling cutters MC321 Advance

– Type N 45

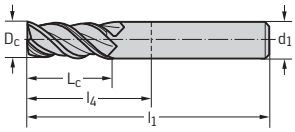




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

DIN 6527 K

Shank DIN 6535 HA

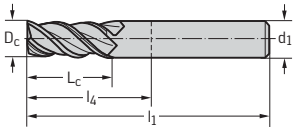


Designation	D_c h11 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC321-02.0A3A-	2	6	50	14	6	3	●
MC321-03.0A3A-	3	7	50	14	6	3	●
MC321-04.0A3A-	4	8	54	18	6	3	●
MC321-05.0A3A-	5	10	54	18	6	3	●
MC321-06.0A3A-	6	10	54	18	6	3	●
MC321-08.0A3A-	8	16	58	22	8	3	●
MC321-10.0A3A-	10	19	66	26	10	3	●
MC321-12.0A3A-	12	22	73	28	12	3	●

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30TF grade: MC321-02.0A3A-WJ30TF

P STANDARD S

Shank DIN 6535 HA



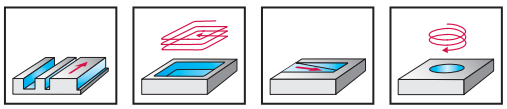
Designation	D_c h11 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC321-02.0A3S-	2	3	39	8	6	3	●
MC321-03.0A3S-	3	4	39	9	6	3	●
MC321-04.0A3S-	4	5	39	11	6	3	●
MC321-05.0A3S-	5	6	39	12	6	3	●
MC321-06.0A3S-	6	7	39	12	6	3	●
MC321-08.0A3S-	8	9	44	17	8	3	●
MC321-10.0A3S-	10	11	51	20	10	3	●
MC321-12.0A3S-	12	13	56	22	12	3	●

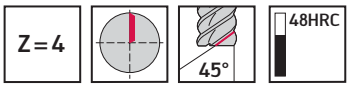
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30TF grade: MC321-02.0A3S-WJ30TF

XIII D 1 C 234 C 264

Solid carbide shoulder/slot milling cutters MC321 Advance

– Type N 45

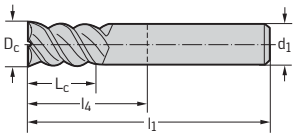




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

DIN 6527 K

Shank DIN 6535 HA

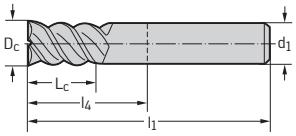


Designation	D_c h11 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC321-02.0A4A-	2	6	50	14	6	4	☹
MC321-03.0A4A-	3	7	50	14	6	4	☹
MC321-04.0A4A-	4	8	54	18	6	4	☹
MC321-05.0A4A-	5	10	54	18	6	4	☹
MC321-06.0A4A-	6	10	54	18	6	4	☹
MC321-08.0A4A-	8	16	58	22	8	4	☹
MC321-10.0A4A-	10	19	66	26	10	4	☹
MC321-12.0A4A-	12	22	73	28	12	4	☹

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30TF grade: MC321-02.0A4A-WJ30TF

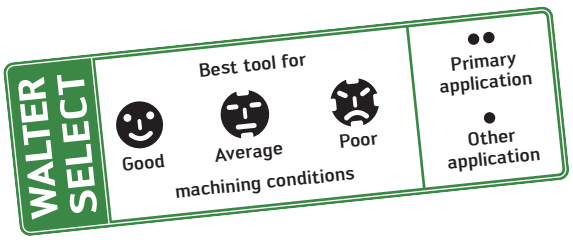
P STANDARD S

Shank DIN 6535 HA



Designation	D_c h11 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC321-02.0A4S-	2	3	39	8	6	4	☹
MC321-03.0A4S-	3	4	39	9	6	4	☹
MC321-04.0A4S-	4	5	39	11	6	4	☹
MC321-05.0A4S-	5	6	39	12	6	4	☹
MC321-06.0A4S-	6	7	39	12	6	4	☹
MC321-08.0A4S-	8	9	44	17	8	4	☹
MC321-10.0A4S-	10	11	51	20	10	4	☹
MC321-12.0A4S-	12	13	56	22	12	4	☹

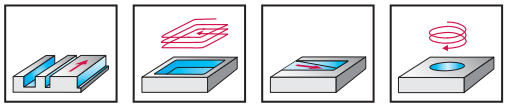
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30TF grade: MC321-02.0A4S-WJ30TF

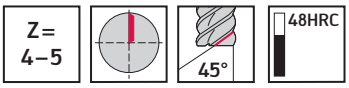


XIII D 1 C 234 C 264

Solid carbide shoulder/slot milling cutters MC322 Advance

– Type N 45 extra short

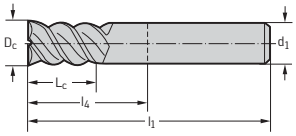




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

DIN 6527 K

Shank DIN 6535 HA



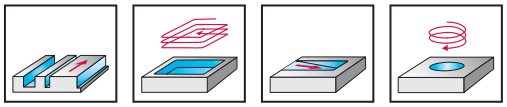
Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC322-06.0A4A-	6	10	54	18	6	4	●
MC322-08.0A4A-	8	12	58	22	8	4	●
MC322-10.0A4A-	10	14	66	26	10	4	●
MC322-12.0A4A-	12	16	73	28	12	4	●
MC322-16.0A4A-	16	22	82	34	16	4	●
MC322-20.0A5A-	20	26	92	42	20	5	●

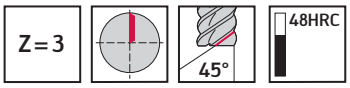
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30TF grade: MC322-10.0A4A-WJ30TF

XIII D 1 C 234 C 264

Solid carbide shoulder/slot milling cutters MC324 Advance

– Type 45

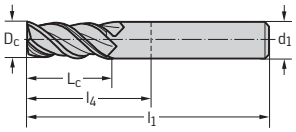


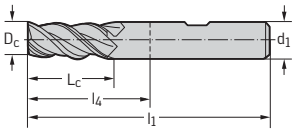


	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

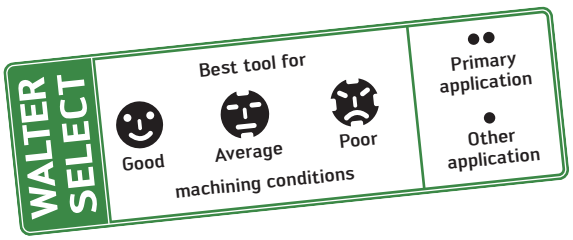
DIN 6527 L

	Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
Shank DIN 6535 HA	MC324-01.0A3B-	1	3	57	21	6	3	☺
	MC324-01.5A3B-	1,5	3	57	21	6	3	☺
	MC324-02.0A3B-	2	6	57	21	6	3	☺
	MC324-02.5A3B-	2,5	7	57	21	6	3	☺
	MC324-03.0A3B-	3	7	57	21	6	3	☺
	MC324-03.5A3B-	3,5	7	57	21	6	3	☺
	MC324-04.0A3B-	4	8	57	21	6	3	☺
	MC324-04.5A3B-	4,5	8	57	21	6	3	☺
	MC324-05.0A3B-	5	10	57	21	6	3	☺
	MC324-05.5A3B-	5,5	10	57	21	6	3	☺
	MC324-06.0A3B-	6	10	57	21	6	3	☺
	MC324-07.0A3B-	7	13	63	27	8	3	☺
	MC324-08.0A3B-	8	16	63	27	8	3	☺
	MC324-09.0A3B-	9	16	72	32	10	3	☺
	MC324-10.0A3B-	10	19	72	32	10	3	☺
	MC324-12.0A3B-	12	22	83	38	12	3	☺
	MC324-14.0A3B-	14	22	83	38	14	3	☺
	MC324-16.0A3B-	16	26	92	44	16	3	☺
	MC324-18.0A3B-	18	26	92	44	18	3	☺
	MC324-20.0A3B-	20	32	104	54	20	3	☺
Shank DIN 6535 HB	MC324-01.0W3B-	1	3	57	21	6	3	☺
	MC324-01.5W3B-	1,5	3	57	21	6	3	☺
	MC324-02.0W3B-	2	6	57	21	6	3	☺
	MC324-02.5W3B-	2,5	7	57	21	6	3	☺
	MC324-03.0W3B-	3	7	57	21	6	3	☺
	MC324-03.5W3B-	3,5	7	57	21	6	3	☺
	MC324-04.0W3B-	4	8	57	21	6	3	☺
	MC324-04.5W3B-	4,5	8	57	21	6	3	☺
	MC324-05.0W3B-	5	10	57	21	6	3	☺
	MC324-05.5W3B-	5,5	10	57	21	6	3	☺
	MC324-06.0W3B-	6	10	57	21	6	3	☺
	MC324-08.0W3B-	8	16	63	27	8	3	☺
	MC324-09.0W3B-	9	16	72	32	10	3	☺
	MC324-10.0W3B-	10	19	72	32	10	3	☺
	MC324-12.0W3B-	12	22	83	38	12	3	☺
	MC324-14.0W3B-	14	22	83	38	14	3	☺
	MC324-16.0W3B-	16	26	92	44	16	3	☺
	MC324-20.0W3B-	20	32	104	54	20	3	☺





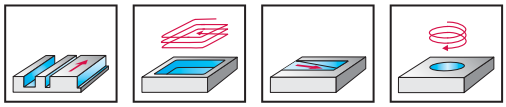
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30TF grade: MC324-01.0A3B-WJ30TF

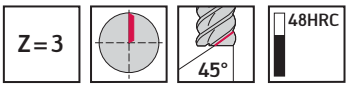


XIII D 1 C 234 C 264

Solid carbide shoulder/slot milling cutters MC324 Advance

– Type 45

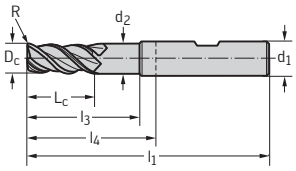




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

DIN 6527 L

Shank DIN 6535 HB



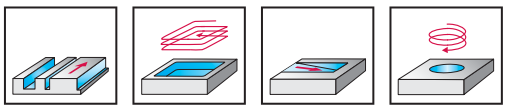
Designation	D_c h9 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC324-12.0W3B150C-	12	1,5	22	36	11,4	83	38	12	3	●
MC324-14.0W3B150C-	14	1,5	22	36	13,3	83	38	14	3	●
MC324-16.0W3B200C-	16	2	26	42	15,2	92	44	16	3	●
MC324-18.0W3B200C-	18	2	26	42	17,1	92	44	18	3	●
MC324-20.0W3B200C-	20	2	32	52	19	104	54	20	3	●

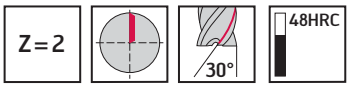
Ordering example for the WJ30TF grade: MC324-12.0W3B150C-WJ30TF

XIII D 1 C 234 C 264

Solid carbide shoulder/slot milling cutters MC216 Advance

– Type 30

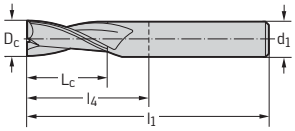




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

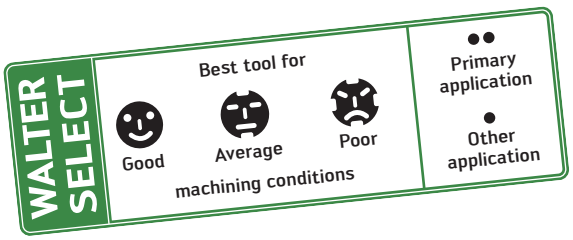
DIN 6527 L

Shank DIN 6535 HA



Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC216-02.0A2B-	2	6	57	21	6	2	●●
MC216-02.5A2B-	2,5	7	57	21	6	2	●●
MC216-03.0A2B-	3	7	57	21	6	2	●●
MC216-03.5A2B-	3,5	7	57	21	6	2	●●
MC216-04.0A2B-	4	8	57	21	6	2	●●
MC216-04.5A2B-	4,5	8	57	21	6	2	●●
MC216-05.0A2B-	5	10	57	21	6	2	●●
MC216-06.0A2B-	6	10	57	21	6	2	●●
MC216-07.0A2B-	7	13	63	27	8	2	●●
MC216-08.0A2B-	8	16	63	27	8	2	●●
MC216-09.0A2B-	9	16	72	32	10	2	●●
MC216-10.0A2B-	10	19	72	32	10	2	●●
MC216-11.0A2B-	11	22	83	38	12	2	●●
MC216-12.0A2B-	12	22	83	38	12	2	●●
MC216-14.0A2B-	14	22	83	38	14	2	●●
MC216-16.0A2B-	16	26	92	44	16	2	●●
MC216-18.0A2B-	18	26	92	44	18	2	●●
MC216-20.0A2B-	20	32	104	54	20	2	●●

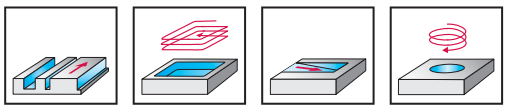
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30TF grade: MC216-10.0A2B-WJ30TF

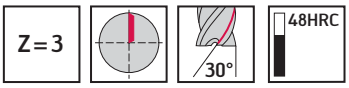


XIII D 1 C 235 C 264

Solid carbide shoulder/slot milling cutters MC216 Advance

– Type N 30

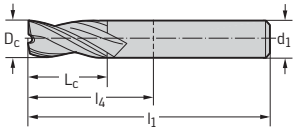




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

DIN 6527 L

Shank DIN 6535 HA



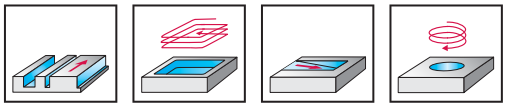
Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC216-02.0A3B-	2	6	57	21	6	3	●
MC216-02.5A3B-	2,5	7	57	21	6	3	●
MC216-03.0A3B-	3	7	57	21	6	3	●
MC216-03.5A3B-	3,5	7	57	21	6	3	●
MC216-04.0A3B-	4	8	57	21	6	3	●
MC216-04.5A3B-	4,5	8	57	21	6	3	●
MC216-05.0A3B-	5	10	57	21	6	3	●
MC216-05.5A3B-	5,5	10	57	21	6	3	●
MC216-06.0A3B-	6	10	57	21	6	3	●
MC216-06.5A3B-	6,5	13	63	27	8	3	●
MC216-07.0A3B-	7	13	63	27	8	3	●
MC216-07.5A3B-	7,5	16	63	27	8	3	●
MC216-08.0A3B-	8	16	63	27	8	3	●
MC216-09.0A3B-	9	16	72	32	10	3	●
MC216-10.0A3B-	10	19	72	32	10	3	●
MC216-11.0A3B-	11	22	83	38	12	3	●
MC216-12.0A3B-	12	22	83	38	12	3	●
MC216-13.0A3B-	13	22	83	38	14	3	●
MC216-14.0A3B-	14	22	83	38	14	3	●
MC216-15.0A3B-	15	26	92	44	16	3	●
MC216-16.0A3B-	16	26	92	44	16	3	●
MC216-18.0A3B-	18	26	92	44	18	3	●
MC216-20.0A3B-	20	32	104	54	20	3	●

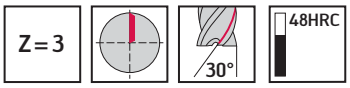
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30TF grade: MC216-10.0A3B-WJ30TF

XIII D 1 C 235 C 264

Solid carbide shoulder/slot milling cutters MC216 Advance

– Type N 30

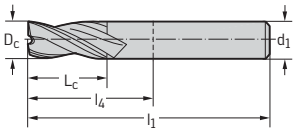




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

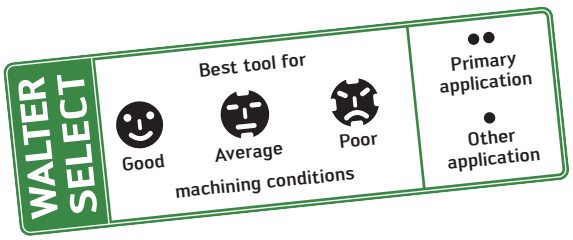
DIN 6527 L

Shank DIN 6535 HA



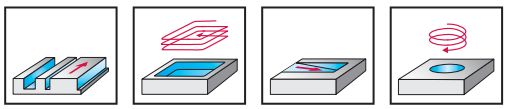
Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC216-01.0A3BJ-	1	3	38	10	3	3	☺
MC216-01.1A3BJ-	1,1	3	38	10	3	3	☺
MC216-01.2A3BJ-	1,2	3	38	10	3	3	☺
MC216-01.3A3BJ-	1,3	3	38	10	3	3	☺
MC216-01.4A3BJ-	1,4	3	38	10	3	3	☺
MC216-01.5A3BJ-	1,5	3	38	10	3	3	☺
MC216-01.6A3BJ-	1,6	3	38	10	3	3	☺
MC216-01.7A3BJ-	1,7	3	38	10	3	3	☺
MC216-01.8A3BJ-	1,8	3	38	10	3	3	☺
MC216-01.9A3BJ-	1,9	3	38	10	3	3	☺
MC216-02.0A3BJ-	2	3	38	10	3	3	☺
MC216-02.0A3BK-	2	6	38	10	3	3	☺
MC216-02.1A3BJ-	2,1	3	38	10	3	3	☺
MC216-02.2A3BJ-	2,2	3	38	10	3	3	☺
MC216-02.3A3BJ-	2,3	3	38	10	3	3	☺
MC216-02.4A3BJ-	2,4	3	38	10	3	3	☺
MC216-02.5A3BJ-	2,5	3	38	10	3	3	☺
MC216-02.5A3BK-	2,5	7	38	10	3	3	☺
MC216-02.6A3BJ-	2,6	3	38	10	3	3	☺
MC216-02.7A3BJ-	2,7	3	38	10	3	3	☺
MC216-02.8A3BJ-	2,8	3	38	10	3	3	☺
MC216-02.9A3BJ-	2,9	3	38	10	3	3	☺
MC216-03.0A3BJ-	3	3	38	10	3	3	☺
MC216-03.0A3BK-	3	7	38	10	3	3	☺

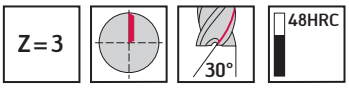
Shank 3 mm
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30TF grade: MC216-01.0A3BJ-WJ30TF



Solid carbide shoulder/slot milling cutters MC216 Advance

– Type 30 extra long

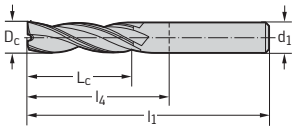




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

P STANDARD L

Shank DIN 6535 HA



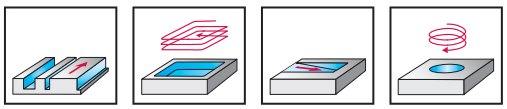
Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC216-01.0A3L-	1	4	38	10	3	3	●
MC216-01.5A3L-	1,5	6	38	10	3	3	●
MC216-02.0A3L-	2	8	38	11	3	3	●
MC216-03.0A3L-	3	12	38	12	3	3	●
MC216-04.0A3L-	4	14	50	22	4	3	●
MC216-05.0A3L-	5	16	57	21	6	3	●
MC216-06.0A3L-	6	22	65	29	6	3	●
MC216-08.0A3L-	8	28	80	44	8	3	●
MC216-10.0A3L-	10	32	100	60	10	3	●
MC216-12.0A3L-	12	38	100	55	12	3	●
MC216-16.0A3L-	16	50	115	67	16	3	●
MC216-20.0A3L-	20	50	125	75	20	3	●

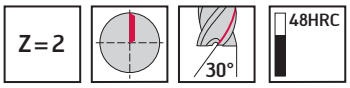
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WJ30TF grade: MC216-01.0A3L-WJ30TF

XIII D 1 C 235 C 264

Solid carbide shoulder/slot milling cutters MC213 Advance

– Long reach
– Type HSC 30 long

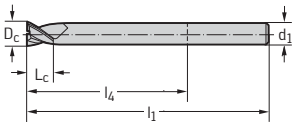




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

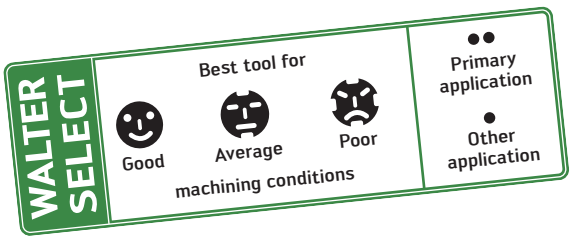
P STANDARD XL

Shank DIN 6535 HA



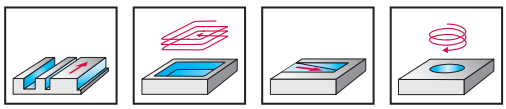
Designation	D_c h10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WJ30TF
MC213-06.3A2X-	6,3	6	100	64	6	2	●●
MC213-08.3A2X-	8,3	8	100	64	8	2	●●
MC213-10.3A2X-	10,3	10	150	110	10	2	●●
MC213-12.5A2X-	12,5	12	150	105	12	2	●●
MC213-14.5A2X-	14,5	14	150	105	14	2	●●
MC213-16.5A2X-	16,5	16	150	102	16	2	●●

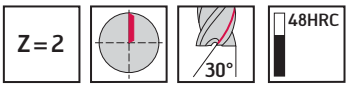
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$
Ordering example for the WJ30TF grade: MC213-10.3A2X-WJ30TF



Solid carbide shoulder/slot milling cutters MC213 Advance

– Long reach
– Type HSC 30 long

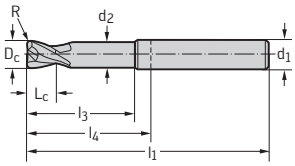




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

P STANDARD L

Shank DIN 6535 HA



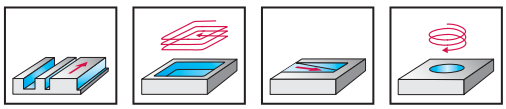
Designation	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WJ30TF
MC213-00.6A2L006C-	0,6	0,06	0,6	2,4	0,56	54	18	6	2	●
MC213-00.8A2L008C-	0,8	0,08	0,8	3,2	0,76	54	18	6	2	●
MC213-01.0A2L010C-	1	0,1	1	4	0,96	65	29	6	2	●
MC213-01.5A2L015C-	1,5	0,15	1,5	6	1,44	65	29	6	2	●
MC213-02.0A2L020C-	2	0,2	2	8	1,92	72	36	6	2	●
MC213-02.0A2L050C-	2	0,5	2	8	1,92	72	36	6	2	●
MC213-03.0A2L020C-	3	0,2	3	12	2,9	72	36	6	2	●
MC213-03.0A2L030C-	3	0,3	3	12	2,9	72	36	6	2	●
MC213-04.0A2L040C-	4	0,4	4	16	3,8	72	36	6	2	●
MC213-05.0A2L050C-	5	0,5	5	20	4,75	72	36	6	2	●
MC213-06.0A2L020C-	6	0,2	6	24	5,7	72	36	6	2	●
MC213-06.0A2L050C-	6	0,5	6	24	5,7	72	36	6	2	●
MC213-08.0A2L030C-	8	0,3	8	29	7,6	80	44	8	2	●
MC213-08.0A2L050C-	8	0,5	8	29	7,6	80	44	8	2	●
MC213-08.0A2L100C-	8	1	8	29	7,6	80	44	8	2	●
MC213-08.0A2L150C-	8	1,5	8	29	7,6	80	44	8	2	●
MC213-10.0A2L030C-	10	0,3	10	35	9,5	100	60	10	2	●
MC213-10.0A2L050C-	10	0,5	10	35	9,5	100	60	10	2	●
MC213-10.0A2L100C-	10	1	10	35	9,5	100	60	10	2	●
MC213-10.0A2L150C-	10	1,5	10	35	9,5	100	60	10	2	●
MC213-12.0A2L050C-	12	0,5	12	36	11,4	100	55	12	2	●
MC213-12.0A2L100C-	12	1	12	36	11,4	100	55	12	2	●
MC213-12.0A2L150C-	12	1,5	12	36	11,4	100	55	12	2	●

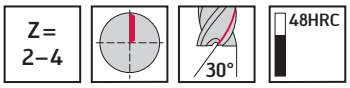
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
Ordering example for the WJ30TF grade: MC213-00.6A2L006C-WJ30TF

XIII D 1 C 235 C 264

Solid carbide shoulder/slot milling cutters MC213 Advance

– Long reach
– Type HSC 30

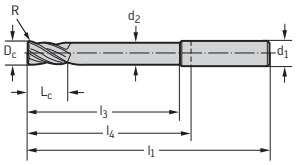




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

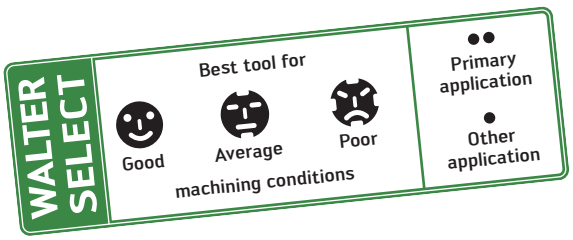
P STANDARD XL

Shank DIN 6535 HA



Designation	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WJ30TF
MC213-04.0A2X050R-	4	0,5	4	20	3,9	100	64	6	2	☺
MC213-04.0A2X050S-	4	0,5	4	30	3,9	100	64	6	2	☺
MC213-04.0A2X050T-	4	0,5	4	40	3,9	100	64	6	2	☺
MC213-05.0A2X050R-	5	0,5	5	25	4,9	100	64	6	2	☺
MC213-05.0A2X050S-	5	0,5	5	50	4,9	100	64	6	2	☺
MC213-06.0A4X050R-	6	0,5	6	30	5,9	100	64	6	4	☺
MC213-06.0A4X050S-	6	0,5	6	45	5,9	100	64	6	4	☺
MC213-06.0A4X050T-	6	0,5	6	60	5,9	100	64	6	4	☺
MC213-08.0A4X050R-	8	0,5	8	40	7,85	120	84	8	4	☺
MC213-08.0A4X050S-	8	0,5	8	60	7,85	120	84	8	4	☺
MC213-08.0A4X050T-	8	0,5	8	80	7,85	120	84	8	4	☺
MC213-10.0A4X100S-	10	1	10	50	9,85	150	110	10	4	☺
MC213-10.0A4X100T-	10	1	10	75	9,85	150	110	10	4	☺
MC213-12.0A4X100S-	12	1	12	60	11,8	150	105	12	4	☺

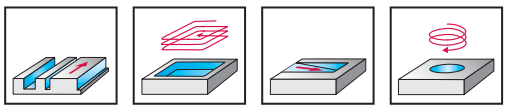
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$
Ordering example for the WJ30TF grade: MC213-10.0A4X100S-WJ30TF

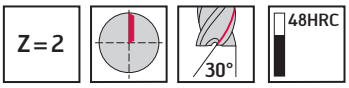


XIII D 1 C 235 C 264

Solid carbide routing cutters
MC716 Advance

– Type 30

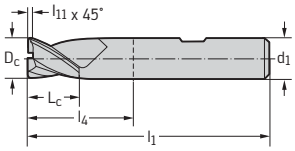




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

DIN 6527 K

Shank DIN 6535 HB



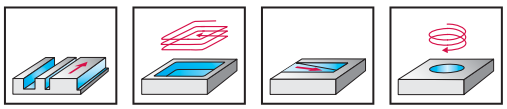
Designation	D_c e8 mm	l_{11} mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC716-02.0W2A-	2	0,1	3	50	14	6	2	●
MC716-02.5W2A-	2,5	0,1	3	50	14	6	2	●
MC716-02.8W2A-	2,8*	0,1	4	50	14	6	2	●
MC716-03.0W2A-	3	0,1	4	50	14	6	2	●
MC716-03.5W2A-	3,5	0,1	4	50	14	6	2	●
MC716-03.8W2A-	3,8*	0,1	5	54	18	6	2	●
MC716-04.0W2A-	4	0,1	5	54	18	6	2	●
MC716-04.8W2A-	4,8*	0,1	6	54	18	6	2	●
MC716-05.0W2A-	5	0,1	6	54	18	6	2	●
MC716-05.75W2A-	5,75*	0,1	7	54	18	6	2	●
MC716-06.0W2A-	6	0,1	7	54	18	6	2	●
MC716-07.75W2A-	7,75*	0,1	9	58	22	8	2	●
MC716-08.0W2A-	8	0,1	9	58	22	8	2	●
MC716-09.0W2A-	9	0,2	10	66	26	10	2	●
MC716-09.7W2A-	9,7*	0,2	11	66	26	10	2	●
MC716-10.0W2A-	10	0,2	11	66	26	10	2	●
MC716-11.7W2A-	11,7*	0,2	12	73	28	12	2	●
MC716-12.0W2A-	12	0,2	12	73	28	12	2	●
MC716-13.7W2A-	13,7*	0,2	14	75	30	14	2	●
MC716-15.7W2A-	15,7*	0,2	16	82	34	16	2	●
MC716-16.0W2A-	16	0,2	16	82	34	16	2	●
MC716-20.0W2A-	20	0,3	20	92	42	20	2	●

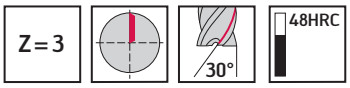
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
* Undersize milling cutter with cutting edge tolerance h10
Ordering example for the WJ30TF grade: MC716-02.0W2A-WJ30TF

XIII D 1 C 235 C 264

Solid carbide routing cutters
MC716 Advance

– Type 30

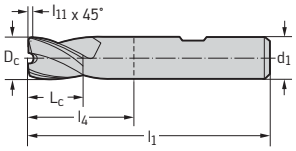




	P	M	K	N	S	H	O
WJ30TF	●●	●	●		●		

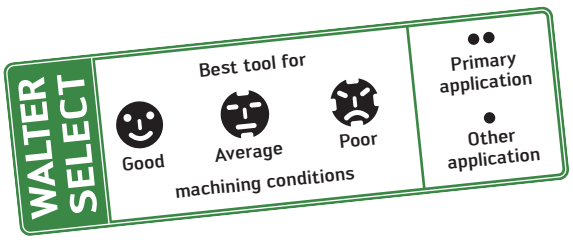
DIN 6527 K

Shank DIN 6535 HB

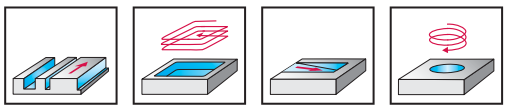


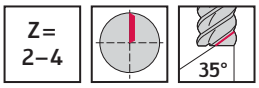
Designation	D_c e8 mm	l_{11} mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC716-01.8W3A-	1,8*	0,1	3	50	14	6	3	●
MC716-02.0W3A-	2	0,1	3	50	14	6	3	●
MC716-02.5W3A-	2,5	0,1	3	50	14	6	3	●
MC716-02.8W3A-	2,8*	0,1	4	50	14	6	3	●
MC716-03.0W3A-	3	0,1	4	50	14	6	3	●
MC716-03.5W3A-	3,5	0,1	4	50	14	6	3	●
MC716-03.8W3A-	3,8*	0,1	5	54	18	6	3	●
MC716-04.0W3A-	4	0,1	5	54	18	6	3	●
MC716-04.8W3A-	4,8*	0,1	6	54	18	6	3	●
MC716-05.0W3A-	5	0,1	6	54	18	6	3	●
MC716-05.75W3A-	5,75*	0,1	7	54	18	6	3	●
MC716-06.0W3A-	6	0,1	7	54	18	6	3	●
MC716-06.75W3A-	6,75*	0,1	8	58	22	8	3	●
MC716-07.0W3A-	7	0,1	8	58	22	8	3	●
MC716-07.75W3A-	7,75*	0,1	9	58	22	8	3	●
MC716-08.0W3A-	8	0,1	9	58	22	8	3	●
MC716-09.0W3A-	9	0,2	10	66	26	10	3	●
MC716-09.7W3A-	9,7*	0,2	11	66	26	10	3	●
MC716-10.0W3A-	10	0,2	11	66	26	10	3	●
MC716-11.7W3A-	11,7*	0,2	12	73	28	12	3	●
MC716-12.0W3A-	12	0,2	12	73	28	12	3	●
MC716-13.7W3A-	13,7*	0,2	14	75	30	14	3	●
MC716-14.0W3A-	14	0,2	14	75	30	14	3	●
MC716-15.7W3A-	15,7*	0,2	16	82	34	16	3	●
MC716-16.0W3A-	16	0,2	16	82	34	16	3	●
MC716-17.7W3A-	17,7*	0,2	18	84	36	18	3	●
MC716-20.0W3A-	20	0,3	20	92	42	20	3	●

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$
* Undersize milling cutter with cutting edge tolerance h10
Ordering example for the WJ30TF grade: MC716-01.8W3A-WJ30TF



Solid carbide shoulder/slot milling cutters MC232 Perform

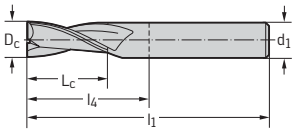


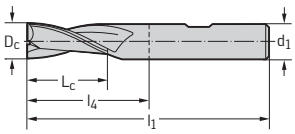


	P	M	K	N	S	H	O
WJ30ED	●●	●	●				

DIN 6527 L

	Designation	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30ED
Shank DIN 6535 HA	MC232-02.0A2B-	2	6	57	29	4	2	●
	MC232-02.5A2B-	2,5	7	57	29	4	2	●
	MC232-03.0A2B-	3	7	57	29	4	2	●
	MC232-03.5A2B-	3,5	7	57	29	4	2	●
	MC232-04.0A2B-	4	8	57	29	4	2	●
Shank DIN 6535 HB	MC232-05.0W2B-	5	10	57	21	6	2	●
	MC232-06.0W2B-	6	10	57	21	6	2	●
	MC232-08.0W2B-	8	16	63	27	8	2	●
	MC232-10.0W2B-	10	19	72	32	10	2	●
	MC232-12.0W2B-	12	22	83	38	12	2	●
	MC232-16.0W2B-	16	26	92	44	16	2	●
	MC232-20.0W2B-	20	32	104	54	20	2	●

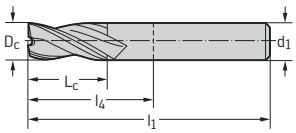


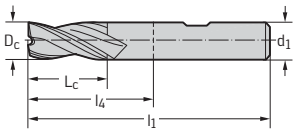


Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232-02.0A2B-WJ30ED

DIN 6527 L

	Designation	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30ED
Shank DIN 6535 HA	MC232-02.0A3B-	2	6	57	29	4	3	●
	MC232-02.5A3B-	2,5	7	57	29	4	3	●
	MC232-03.0A3B-	3	7	57	29	4	3	●
	MC232-03.5A3B-	3,5	7	57	29	4	3	●
	MC232-04.0A3B-	4	8	57	29	4	3	●
Shank DIN 6535 HB	MC232-05.0W3B-	5	10	57	21	6	3	●
	MC232-06.0W3B-	6	10	57	21	6	3	●
	MC232-08.0W3B-	8	16	63	27	8	3	●
	MC232-10.0W3B-	10	19	72	32	10	3	●
	MC232-12.0W3B-	12	22	83	38	12	3	●
	MC232-16.0W3B-	16	26	92	44	16	3	●
	MC232-20.0W3B-	20	32	104	54	20	3	●



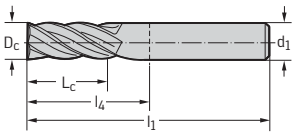


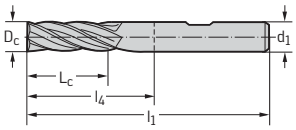
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232-02.0A3B-WJ30ED

XIII D 1 C 235 C 264

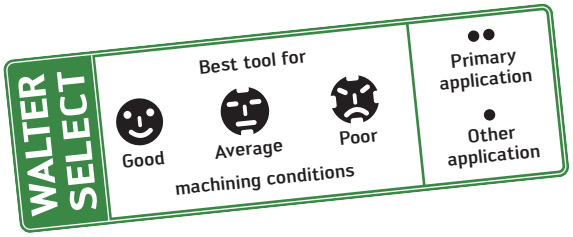
DIN 6527 L

	Designation	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30ED
Shank DIN 6535 HA	MC232-02.0A4B-	2	7	57	29	4	4	☺
	MC232-02.5A4B-	2,5	8	57	29	4	4	☺
	MC232-03.0A4B-	3	8	57	29	4	4	☺
	MC232-03.5A4B-	3,5	10	57	29	4	4	☺
	MC232-04.0A4B-	4	11	57	29	4	4	☺
Shank DIN 6535 HB	MC232-05.0W4B-	5	13	57	21	6	4	☺
	MC232-06.0W4B-	6	13	57	21	6	4	☺
	MC232-08.0W4B-	8	19	63	27	8	4	☺
	MC232-10.0W4B-	10	22	72	32	10	4	☺
	MC232-12.0W4B-	12	26	83	38	12	4	☺
	MC232-16.0W4B-	16	32	92	44	16	4	☺
	MC232-20.0W4B-	20	38	104	54	20	4	☺





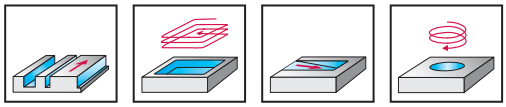
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$
Ordering example for the WJ30ED grade: MC232-02.0A4B-WJ30ED

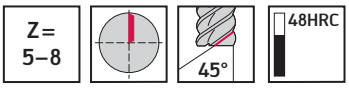


XIII D 1 C 235 C 264

Solid carbide shoulder/slot milling cutters
H3185378 / H3186378
Protostar® Qmax

– Type HR Kordel F 45

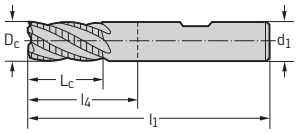




	P	M	K	N	S	H	O
TAX	●●	●	●				

DIN 6527 L

Shank DIN 6535 HB

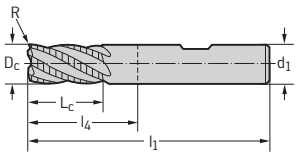


Designation TAX	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3185378-12	12	26	83	38	12	5
H3185378-14	14	26	83	38	14	6
H3185378-16	16	32	92	44	16	6
H3185378-18	18	32	92	44	18	6
H3185378-20	20	38	104	54	20	6
H3185378-25	25	45	121	65	25	8

Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

DIN 6527 L

Shank DIN 6535 HB



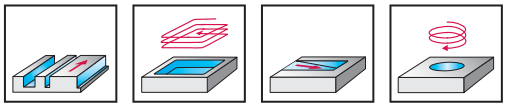
Designation TAX	D_c h12 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3186378-12-1	12	1	26	83	38	12	5
H3186378-12-1.5	12	1,5	26	83	38	12	5
H3186378-12-2	12	2	26	83	38	12	5
H3186378-12-3	12	3	26	83	38	12	5
H3186378-16-1	16	1	32	92	44	16	6
H3186378-16-2	16	2	32	92	44	16	6
H3186378-16-3	16	3	32	92	44	16	6
H3186378-16-4	16	4	32	92	44	16	6
H3186378-20-2	20	2	38	104	54	20	6
H3186378-20-3	20	3	38	104	54	20	6
H3186378-20-4	20	4	38	104	54	20	6

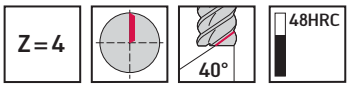
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 235 C 264

Solid carbide shoulder/slot milling cutters
H3182378 / H3183378
Protostar® Qmax

– Type HR Kordel F 40

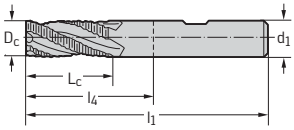




	P	M	K	N	S	H	O
TAX	●	●●	●				

DIN 6527 L

Shank DIN 6535 HB

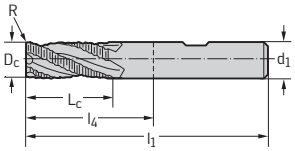


Designation TAX	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3182378-5	5	13	57	21	6	4
H3182378-6	6	13	57	21	6	4
H3182378-8	8	19	63	27	8	4
H3182378-10	10	22	72	32	10	4
H3182378-12	12	26	83	38	12	4
H3182378-14	14	26	83	38	14	4
H3182378-16	16	32	92	44	16	4
H3182378-18	18	32	92	44	18	4
H3182378-20	20	38	104	54	20	4

Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

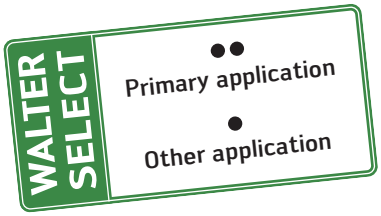
DIN 6527 L

Shank DIN 6535 HB



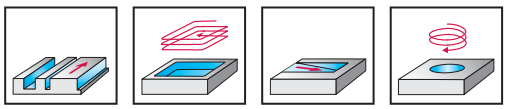
Designation TAX	D_c h12 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3183378-6-1	6	1	13	57	21	6	4
H3183378-8-1	8	1	19	63	27	8	4
H3183378-10-1	10	1	22	72	32	10	4
H3183378-10-1.5	10	1,5	22	72	32	10	4
H3183378-10-2	10	2	22	72	32	10	4
H3183378-12-1	12	1	26	83	38	12	4
H3183378-12-1.5	12	1,5	26	83	38	12	4
H3183378-12-2	12	2	26	83	38	12	4
H3183378-12-3	12	3	26	83	38	12	4
H3183378-16-1	16	1	32	92	44	16	4
H3183378-16-2	16	2	32	92	44	16	4
H3183378-16-3	16	3	32	92	44	16	4
H3183378-16-4	16	4	32	92	44	16	4
H3183378-20-2	20	2	38	104	54	20	4
H3183378-20-3	20	3	38	104	54	20	4
H3183378-20-4	20	4	38	104	54	20	4

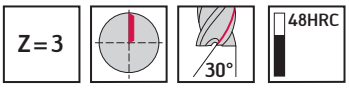
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$



Solid carbide shoulder/slot milling cutters
H3187278
Protostar® Qmax

– Type HR Kordel F 30

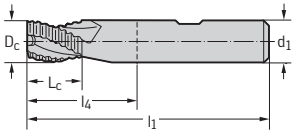




	P	M	K	N	S	H	O
TAX	●	●●	●	●			

DIN 6527 K

Shank DIN 6535 HB



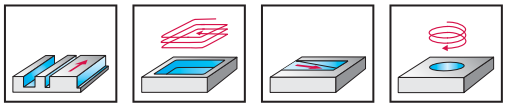
Designation TAX	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3187278-6	6	7	54	18	6	3
H3187278-8	8	9	58	22	8	3
H3187278-10	10	11	66	26	10	3
H3187278-12	12	12	73	28	12	3
H3187278-14	14	14	75	30	14	3
H3187278-16	16	16	82	34	16	3
H3187278-18	18	18	84	36	18	3
H3187278-20	20	20	92	42	20	3
H3187278-25	25	26	121	65	25	3

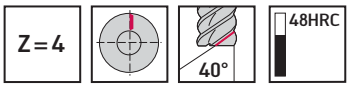
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 237 C 264

Solid carbide shoulder/slot milling cutters
H4189378 / H4189278
Protostar® Qmax

– Long reach
– Type HR Kordel F 40

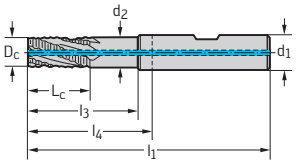




	P	M	K	N	S	H	O
TAX	●	●●					

DIN 6527 L

Shank DIN 6535 HB

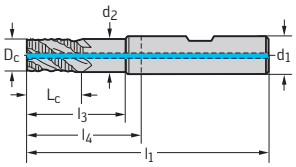


Designation TAX	D_c h12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H4189378-5	5	13	16	4,75	57	21	6	4
H4189378-6	6	13	19	5,5	57	21	6	4
H4189378-7	7	16	26	6,5	63	27	8	4
H4189378-8	8	19	25	7,5	63	27	8	4
H4189378-9	9	19	31	8,5	72	32	10	4
H4189378-10	10	22	30	9,5	72	32	10	4
H4189378-11	11	26	35	10,45	83	38	12	4
H4189378-12	12	26	36	11,4	83	38	12	4
H4189378-13	13	26	35	12,35	83	38	14	4
H4189378-14	14	26	36	13,3	83	38	14	4
H4189378-15	15	32	41	14,25	92	44	16	4
H4189378-16	16	32	42	15,2	92	44	16	4
H4189378-18	18	32	42	17,1	92	44	18	4
H4189378-20	20	38	52	19	104	54	20	4

Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

DIN 6527 K

Shank DIN 6535 HB



Designation TAX	D_c h12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H4189278-6	6	7	16	5,5	54	18	6	4
H4189278-8	8	9	20	7,5	58	22	8	4
H4189278-10	10	11	24	9,5	66	26	10	4
H4189278-12	12	12	26	11,4	73	28	12	4
H4189278-14	14	14	28	13,3	75	30	14	4
H4189278-16	16	16	32	15,2	82	34	16	4
H4189278-18	18	18	34	17,1	84	36	18	4
H4189278-20	20	20	40	19	92	42	20	4
H4189278-25	25	26	63	23,75	121	65	25	4

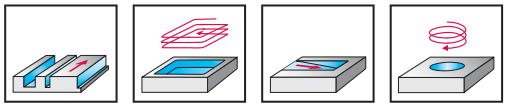
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

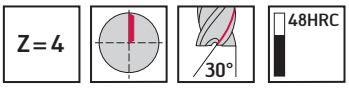
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 237 C 264

Solid carbide shoulder/slot milling cutters
H3180278 / H4180378
Protostar® Qmax

– Type HNR Kordel F 30

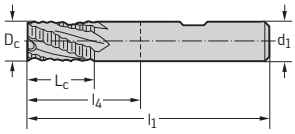




	P	M	K	N	S	H	O
TAX	●●	●●	●	●			

DIN 6527 K

Shank DIN 6535 HB

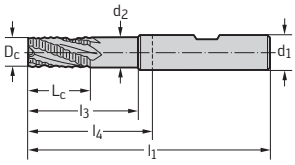


Designation TAX	D_c h12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H3180278-6	6	7	54	18	6	4
H3180278-8	8	9	58	22	8	4
H3180278-10	10	11	66	26	10	4
H3180278-12	12	12	73	28	12	4
H3180278-14	14	14	75	30	14	4
H3180278-16	16	16	82	34	16	4
H3180278-18	18	18	84	36	18	4
H3180278-20	20	20	92	42	20	4
H3180278-25	25	26	121	65	25	4

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

DIN 6527 L

Shank DIN 6535 HB

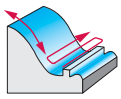


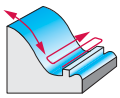
Designation TAX	D_c h12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
H4180378-6	6	13	19	5,5	57	21	6	4
H4180378-8	8	19	25	7,5	63	27	8	4
H4180378-10	10	22	30	9,5	72	32	10	4
H4180378-12	12	26	36	11,4	83	38	12	4
H4180378-14	14	26	36	13,3	83	38	14	4
H4180378-16	16	32	42	15,2	92	44	16	4
H4180378-20	20	38	52	19	104	54	20	4
H4180378-25	25	45	63	23,75	121	65	25	4

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 237 C 264

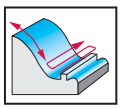
Walter Select – Solid carbide milling tools
Copy milling cutters

Machining WALTER SELECT ●● Primary application ● Other application						
Helix angle	**30°**					
Designation	**H602111** **Protostar®**	**H404691** **H4046918** **Protostar®**	**H4046928** **H8004028** **H8004128** **H8004728** **H8006428** **...** **Protostar® Ultra**	**H4046988** **H8004788** **Proto·max™Ultra**	**H4046919** **H8001119** **H8001919** **H8006419** **H8016419** **Protostar®**	
Dia. range [mm]	2–16	0,3–3	0,3–16	1–12	0,3–12	
Z	2	2	2–4	2	2–4	
Corner radius [mm]	1–8	0,15–1,5	0,15–8	0,5–6	0,15–6	
Standard	P STANDARD L	P STANDARD MINI	DIN 6527 L P STANDARD L P STANDARD XL P STANDARD MINI	P STANDARD L P STANDARD MINI	DIN 6527 L P STANDARD L P STANDARD XL P STANDARD MINI	
Shank	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA	
Page	C 104	C 105	C 106	C 111	C 114	
P Steel		●●				
M Stainless steel						
K Cast iron						
N NF metals	●●	●●				
S Materials with difficult cutting properties						
H Hard materials			●●	●●		
O Other					●●	

	
	30°
	MC413 Advance **MC416 Advance**
	1–20
	2–4
	0,5–10
	P STANDARD L DIN 6527 L P STANDARD XL
	DIN 6535 HA DIN 6535 HB
	C 118
	●●
	●
	●
	●
	●

Solid carbide ball-nose end mills
H602111
Protostar®

– Type AI 30

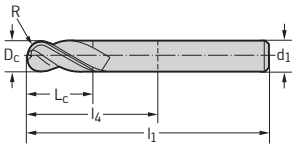


Z = 2

	P	M	K	N	S	H	O
Uncoated				●●			

P STANDARD L

Shank DIN 6535 HA



Designation Uncoated	D_c h9 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H602111-2	2	1	6	60	32	3	2
H602111-3	3	1,5	7	80	44	6	2
H602111-4	4	2	8	80	44	6	2
H602111-5	5	2,5	10	80	44	6	2
H602111-6	6	3	10	80	44	6	2
H602111-8	8	4	16	100	64	8	2
H602111-10	10	5	19	100	60	10	2
H602111-12	12	6	22	100	55	12	2
H602111-16	16	8	26	100	52	16	2

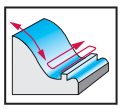
Shank tolerance h6 with shank diameter d_1 > 10 mm

XIII D 1 C 238 C 264

Solid carbide mini ball-nose end mills
H4046918 / H404691
Protostar®

Z=2 | 30° | 48HRC

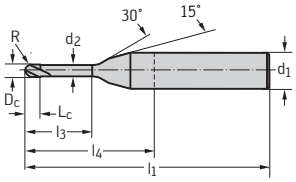
– Long reach
– Type HSC 30



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

P STANDARD MINI

Shank DIN 6535 HA



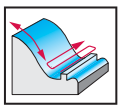
Designation TAX	Designation Uncoated	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H4046918-0.3-0.75	H404691-0.3-0.75	0,3	0,15	0,3	0,75	0,27	38	10	3	2
H4046918-0.3-1.5	H404691-0.3-1.5	0,3	0,15	0,3	1,5	0,27	38	10	3	2
H4046918-0.3-3	H404691-0.3-3	0,3	0,15	0,3	3	0,27	38	10	3	2
H4046918-0.4-1	H404691-0.4-1	0,4	0,2	0,4	1	0,37	38	10	3	2
H4046918-0.4-2	H404691-0.4-2	0,4	0,2	0,4	2	0,37	38	10	3	2
H4046918-0.4-4	H404691-0.4-4	0,4	0,2	0,4	4	0,37	38	10	3	2
H4046918-0.5-1.25	H404691-0.5-1.25	0,5	0,25	0,5	1,25	0,47	38	10	3	2
H4046918-0.5-2.5	H404691-0.5-2.5	0,5	0,25	0,5	2,5	0,47	38	10	3	2
H4046918-0.5-5	H404691-0.5-5	0,5	0,25	0,5	5	0,47	38	10	3	2
H4046918-0.6-1.5	H404691-0.6-1.5	0,6	0,3	0,6	1,5	0,57	38	10	3	2
H4046918-0.6-3	H404691-0.6-3	0,6	0,3	0,6	3	0,57	38	10	3	2
H4046918-0.6-6	H404691-0.6-6	0,6	0,3	0,6	6	0,57	38	10	3	2
H4046918-0.6-9	H404691-0.6-9	0,6	0,3	0,6	9	0,57	38	13	3	2
H4046918-0.8-2	H404691-0.8-2	0,8	0,4	0,8	2	0,77	38	10	3	2
H4046918-0.8-4	H404691-0.8-4	0,8	0,4	0,8	4	0,77	38	10	3	2
H4046918-0.8-6	H404691-0.8-6	0,8	0,4	0,8	6	0,77	38	10	3	2
H4046918-0.8-8	H404691-0.8-8	0,8	0,4	0,8	8	0,77	38	12	3	2
H4046918-0.8-12	H404691-0.8-12	0,8	0,4	0,8	12	0,77	60	32	3	2
H4046918-1-2.5	H404691-1-2.5	1	0,5	1	2,5	0,97	38	10	3	2
H4046918-1-5	H404691-1-5	1	0,5	1	5	0,97	60	32	3	2
H4046918-1-7.5	H404691-1-7.5	1	0,5	1	7,5	0,97	60	32	3	2
H4046918-1-10	H404691-1-10	1	0,5	1	10	0,97	60	32	3	2
H4046918-1-15	H404691-1-15	1	0,5	1	15	0,97	60	32	3	2
H4046918-1-20	H404691-1-20	1	0,5	1	20	0,97	60	32	3	2
H4046918-1.5-7.5	H404691-1.5-7.5	1,5	0,75	1,5	7,5	1,47	60	32	3	2
H4046918-1.5-15	H404691-1.5-15	1,5	0,75	1,5	15	1,47	60	32	3	2
H4046918-2-10	H404691-2-10	2	1	2	10	1,97	60	32	3	2
H4046918-2-15	H404691-2-15	2	1	2	15	1,97	60	32	3	2
H4046918-2-20	H404691-2-20	2	1	2	20	1,97	60	32	3	2
H4046918-2-30	H404691-2-30	2	1	2	30	1,97	60	32	3	2
H4046918-2.5-12.5	H404691-2.5-12.5	2,5	1,25	2,5	12,5	2,47	60	32	3	2
H4046918-2.5-25	H404691-2.5-25	2,5	1,25	2,5	25	2,47	60	32	3	2
H4046918-3-15	H404691-3-15	3	1,5	3	15	2,97	60	32	3	2
H4046918-3-22.5	H404691-3-22.5	3	1,5	3	22,5	2,97	60	32	3	2
H4046918-3-30	H404691-3-30	3	1,5	3	30	2,97	60	32	3	2

WALTER SELECT
●● Primary application
● Other application

XIII | D 1 | C 239 | C 264

Solid carbide ball-nose end mills
H8004028 / H8004128
Protostar® Ultra

– Long reach
– Type HSC 30

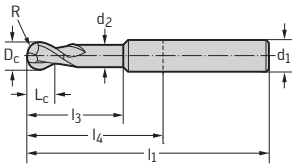


Z=2 | 30° | 63HRC 48HRC

	P	M	K	N	S	H	O
TAX						●●	

DIN 6527 L

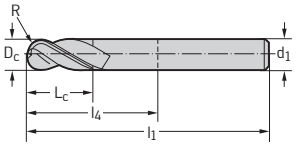
Shank DIN 6535 HA



Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8004028-5	5	2,5	5	20	4,9	57	21	6	2
H8004028-6	6	3	6	24	5,9	63	27	8	2
H8004028-8	8	4	8	29	7,6	72	32	10	2
H8004028-10	10	5	10	35	9,5	83	38	12	2
H8004028-12	12	6	12	36	11,4	83	38	12	2
H8004028-16	16	8	16	42	15,2	92	44	16	2

P STANDARD L

Shank DIN 6535 HA

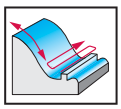


Designation TAX	D_c h7 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8004128-6-57	6	3	6	57	21	6	2
H8004128-6-80	6	3	6	80	44	6	2
H8004128-8-63	8	4	8	63	27	8	2
H8004128-8-100	8	4	8	100	64	8	2
H8004128-10-72	10	5	10	72	32	10	2
H8004128-10-100	10	5	10	100	60	10	2
H8004128-12-83	12	6	12	83	38	12	2
H8004128-12-100	12	6	12	100	55	12	2
H8004128-16-125	16	8	16	125	77	16	2

XIII | D 1 | C 239 | C 264

Solid carbide ball-nose end mills
H8006428 / H8016428
Protostar® Ultra

– Long reach
– Type HSC 30



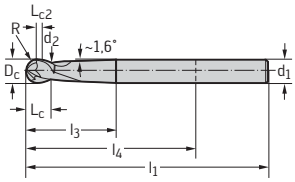
Z= 2–4

63HRC
48HRC

	P	M	K	N	S	H	O
TAX						●●	

P STANDARD L

Shank DIN 6535 HA

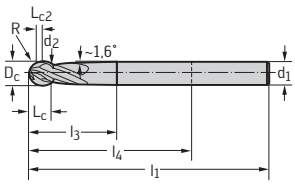


Designation TAX	D_c h7 mm	R mm	L_c mm	L_{c2} mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8006428-1	1	0,5	2	0	20		75	39	6	2
H8006428-2	2	1	3	1,5	20	1,7	75	39	6	2
H8006428-3	3	1,5	4	1,5	30	2,5	80	44	6	2
H8006428-4	4	2	5	1,5	30	3,3	80	44	6	2
H8006428-5	5	2,5	7	2	43	4,1	80	44	6	2
H8006428-6	6	3	7	2	30	4,7	100	64	6	2
H8006428-8	8	4	9	3	36	6,5	100	64	8	2
H8006428-10	10	5	11	3	43	8,2	100	60	10	2
H8006428-12	12	6	13	3	52	9,8	100	55	12	2
H8006428-16	16	8	15	3	61	13,4	150	102	16	2

With back cutting

P STANDARD L

Shank DIN 6535 HA



Designation TAX	D_c h7 mm	R mm	L_c mm	L_{c2} mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8016428-5	5	2,5	7	2	43	4,1	80	44	6	4
H8016428-6	6	3	7	2	30	4,7	100	64	6	4
H8016428-8	8	4	9	3	36	6,5	100	64	8	4
H8016428-10	10	5	11	3	43	8,2	100	60	10	4
H8016428-12	12	6	13	3	52	9,8	100	55	12	4
H8016428-16	16	8	15	3	61	13,4	150	102	16	4

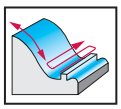
With back cutting

WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 239 C 264

Solid carbide ball-nose end mills
H8074128 / H8014028
Protostar® Ultra

– Type HSC 30

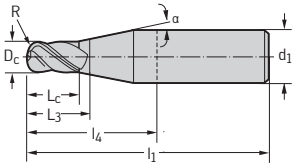


Z = 2–4 | 30° | 65HRC / 55HRC

	P	M	K	N	S	H	O
TAX						●●	

P STANDARD L

Shank DIN 6535 HA

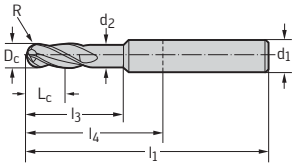


Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	α	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8074128-3	3	1,5	3	5	9,80°	57	21	6	2
H8074128-4	4	2	4	6	9,70°	80	44	6	2
H8074128-6	6	3	6			80	44	6	2
H8074128-8	8	4	8			100	64	8	2
H8074128-10	10	5	10			100	60	10	2

For finishing

DIN 6527 L

Shank DIN 6535 HA

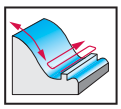


Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8014028-6	6	3	6	24	5,9	63	27	8	4
H8014028-8	8	4	8	29	7,6	72	32	10	4
H8014028-10	10	5	10	35	9,5	83	38	12	4
H8014028-12	12	6	12	36	11,4	83	38	12	4
H8014028-16	16	8	16	42	15,2	92	44	16	4

XIII | D 1 | C 239 | C 264

Solid carbide ball-nose end mills
H8004728
Protostar® Ultra

– Long reach
– Type HSC 30



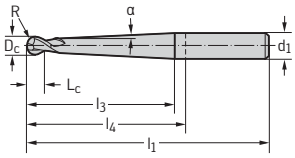
Z=2

63HRC
48HRC

	P	M	K	N	S	H	O
TAX						●●	

P STANDARD XL

Shank DIN 6535 HA



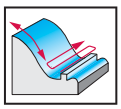
Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	α	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8004728-1-2.5-57	1	0,5	1	17	2,5°	57	21	6	2
H8004728-1-2.5-80	1	0,5	1	36	2,5°	80	44	6	2
H8004728-1-4-57	1	0,5	1	17	4°	57	21	6	2
H8004728-1.5-2.5-57	1,5	0,8	1,5	17	2,5°	57	21	6	2
H8004728-1.5-4-57	1,5	0,8	1,5	17	4°	57	21	6	2
H8004728-2-2.5-57	2	1	2	18	2,5°	57	21	6	2
H8004728-2-2.5-80	2	1	2	40	2,5°	80	44	6	2
H8004728-2-4-57	2	1	2	18	4°	57	21	6	2
H8004728-2.5-2.5-57	2,5	1,3	2,5	18	2,5°	57	21	6	2
H8004728-2.5-4-57	2,5	1,3	2,5	18	4°	57	21	6	2
H8004728-3-2.5-57	3	1,5	3	19	2,5°	57	21	6	2
H8004728-3-2.5-80	3	1,5	3	38	2,5°	80	44	6	2
H8004728-3-4-57	3	1,5	3	19	4°	57	21	6	2
H8004728-4-2.5-57	4	2	4	20	2,5°	57	21	6	2
H8004728-4-2.5-80	4	2	4	27	2,5°	80	44	6	2
H8004728-4-4-57	4	2	4	25	4°	57	24,8	6	2
H8004728-4-10-80	4	2	4	14	9,7°	80	44	6	2
H8004728-5-10-80	5	2,5	4	13	9,4°	80	44	6	2

WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 239 C 264

Solid carbide ball-nose end mills
H8014128
Protostar® Ultra

– Type HSC 30



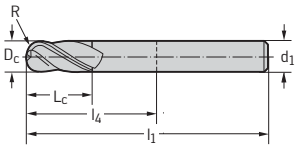
Z = 4

63HRC
48HRC

	P	M	K	N	S	H	O
TAX						●●	

DIN 6527 L

Shank DIN 6535 HA

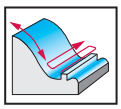


Designation TAX	D_c h7 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8014128-6-57	6	3	6	57	21	6	4
H8014128-6-80	6	3	6	80	44	6	4
H8014128-8-63	8	4	8	63	27	8	4
H8014128-8-100	8	4	8	100	64	8	4
H8014128-10-72	10	5	10	72	32	10	4
H8014128-10-100	10	5	10	100	60	10	4
H8014128-12-83	12	6	12	83	38	12	4
H8014128-12-100	12	6	12	100	55	12	4
H8014128-16-125	16	8	16	125	77	16	4

XIII D 1 C 239 C 264

Solid carbide ball-nose end mills
H8004788
Proto·max™ Ultra

– Long reach

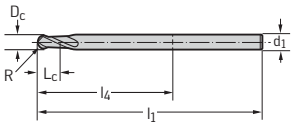


Z=2 | 30° | 70HRC

	P	M	K	N	S	H	O
TAS						●●	

P STANDARD L

Shank DIN 6535 HA



Designation TAS	D_c h7 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8004788-3-57	3	1,5	4,5	57	21	6	2
H8004788-3-70	3	1,5	4,5	70	34	6	2
H8004788-4-57	4	2	6	57	21	6	2
H8004788-4-70	4	2	6	70	34	6	2
H8004788-5-57	5	2,5	7,5	57	21	6	2
H8004788-5-80	5	2,5	7,5	80	44	6	2
H8004788-6-57	6	3	9	57	21	6	2
H8004788-6-90	6	3	9	90	54	6	2
H8004788-8-63	8	4	12	63	27	8	2
H8004788-8-100	8	4	12	100	64	8	2
H8004788-10-72	10	5	15	72	32	10	2
H8004788-10-100	10	5	15	100	60	10	2
H8004788-12-83	12	6	18	83	38	12	2
H8004788-12-110	12	6	18	110	65	12	2

WALTER SELECT

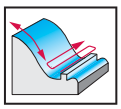
●● Primary application

● Other application

XIII | D 1 | C 239 | C 264

Solid carbide mini ball-nose end mills
H4046988
Proto·max™ Ultra

– Long reach

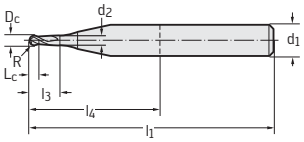


Z=2 | 30° | 70HRC

	P	M	K	N	S	H	O
TAS						●●	

P STANDARD MINI

Shank DIN 6535 HA

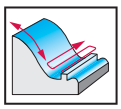


Designation TAS	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h4 mm	Z
H4046988-1-1.5	1	0,5	0,8	1,5	0,96	45	17	6	2
H4046988-1-3	1	0,5	0,8	3	0,96	45	17	6	2
H4046988-1-6	1	0,5	0,8	6	0,96	45	17	6	2
H4046988-1-8	1	0,5	0,8	8	0,96	45	17	6	2
H4046988-1-10	1	0,5	0,8	10	0,96	45	17	6	2
H4046988-1.2-1.8	1,2	0,6	1,1	1,8	1,15	45	17	6	2
H4046988-1.2-3.6	1,2	0,6	1,1	3,6	1,15	45	17	6	2
H4046988-1.5-2.25	1,5	0,75	1,4	2,25	1,44	45	17	6	2
H4046988-1.5-4.5	1,5	0,75	1,4	4,5	1,44	45	17	6	2
H4046988-1.5-8	1,5	0,75	1,4	8	1,44	45	17	6	2
H4046988-1.5-12	1,5	0,75	1,4	12	1,44	45	17	6	2
H4046988-2-3	2	1	1,7	3	1,92	45	17	6	2
H4046988-2-6	2	1	1,7	6	1,92	45	17	6	2
H4046988-2-8	2	1	1,7	8	1,92	45	17	6	2
H4046988-2-12	2	1	1,7	12	1,92	50	22	6	2
H4046988-2-16	2	1	1,7	16	1,92	50	22	6	2
H4046988-2-20	2	1	1,7	20	1,92	55	27	6	2
H4046988-2.5-3.75	2,5	1,25	2,2	3,75	2,42	45	17	6	2
H4046988-2.5-7.5	2,5	1,25	2,2	7,5	2,42	45	17	6	2
H4046988-2.5-12.5	2,5	1,25	2,2	12,5	2,42	50	22	6	2
H4046988-2.5-15	2,5	1,25	2,2	15	2,42	50	22	6	2

XIII | D 1 | C 239 | C 264

Solid carbide mini ball-nose end mills
H4046928
Protostar® Ultra

– Long reach
– Type HSC 30

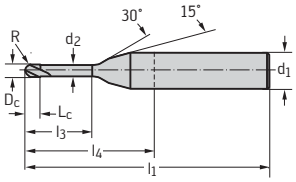


Z=2 | 30° | 63HRC 48HRC

	P	M	K	N	S	H	O
TAX						●●	

P STANDARD MINI

Shank DIN 6535 HA



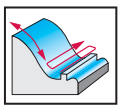
Designation TAX	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H4046928-0.3-0.75	0,3	0,15	0,3	0,75	0,27	38	10	3	2
H4046928-0.4-1	0,4	0,2	0,4	1	0,37	38	10	3	2
H4046928-0.4-2	0,4	0,2	0,4	2	0,37	38	10	3	2
H4046928-0.5-1.25	0,5	0,25	0,5	1,25	0,47	38	10	3	2
H4046928-0.5-2.5	0,5	0,25	0,5	2,5	0,47	38	10	3	2
H4046928-0.5-3.75	0,5	0,25	0,5	3,75	0,47	38	10	3	2
H4046928-0.6-1.5	0,6	0,3	0,6	1,5	0,57	38	10	3	2
H4046928-0.6-3	0,6	0,3	0,6	3	0,57	38	10	3	2
H4046928-0.6-4.5	0,6	0,3	0,6	4,5	0,57	38	10	3	2
H4046928-0.8-2	0,8	0,4	0,8	2	0,77	38	10	3	2
H4046928-0.8-4	0,8	0,4	0,8	4	0,77	38	10	3	2
H4046928-0.8-6	0,8	0,4	0,8	6	0,77	38	10	3	2
H4046928-1-2.5	1	0,5	1	2,5	0,97	38	10	3	2
H4046928-1-5	1	0,5	1	5	0,97	60	32	3	2
H4046928-1-7.5	1	0,5	1	7,5	0,97	60	32	3	2
H4046928-1.5-4	1,5	0,75	1,5	4	1,47	38	10	3	2
H4046928-1.5-7.5	1,5	0,75	1,5	7,5	1,47	60	32	3	2
H4046928-1.5-12	1,5	0,75	1,5	12	1,47	60	32	3	2
H4046928-2-5	2	1	2	5	1,97	38	10	3	2
H4046928-2-10	2	1	2	10	1,97	60	32	3	2
H4046928-2-15	2	1	2	15	1,97	60	32	3	2
H4046928-2.5-6	2,5	1,25	2,5	6	2,47	38	10	3	2
H4046928-2.5-12.5	2,5	1,25	2,5	12,5	2,47	60	32	3	2
H4046928-2.5-20	2,5	1,25	2,5	20	2,47	60	32	3	2
H4046928-3-7.5	3	1,5	3	7,5	2,97	38	10	3	2
H4046928-3-15	3	1,5	3	15	2,97	60	32	3	2
H4046928-3-22.5	3	1,5	3	22,5	2,97	60	32	3	2

WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 239 C 264

Solid carbide ball-nose end mills
H8001119
Protostar®

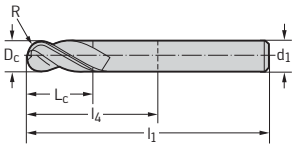
Z = 2



	P	M	K	N	S	H	O
DIA							●●

DIN 6527 L

Shank DIN 6535 HA

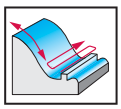


Designation DIA	D_c h8 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8001119-1	1	0,5	3	38	10	3	2
H8001119-1.5	1,5	0,75	3	38	10	3	2
H8001119-2	2	1	6	38	11	3	2
H8001119-2.5	2,5	1,25	7	38	12	3	2
H8001119-3	3	1,5	7	38	10	3	2
H8001119-4	4	2	8	57	21	6	2
H8001119-5	5	2,5	10	57	21	6	2
H8001119-6	6	3	10	57	21	6	2
H8001119-8	8	4	16	63	27	8	2
H8001119-10	10	5	19	72	32	10	2
H8001119-12	12	6	22	83	38	12	2

XIII D 1 C 239 C 264

Solid carbide ball-nose end mills
H8006419 / H8016419
Protostar®

– Long reach
– Type HSC 30

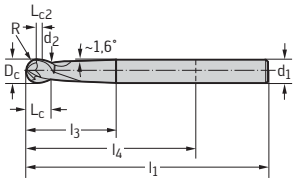


Z= 2–4

	P	M	K	N	S	H	O
DIA							●●

P STANDARD L

Shank DIN 6535 HA

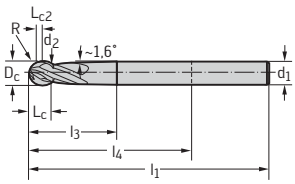


Designation DIA	D_c h8 mm	R mm	L_c mm	L_{c2} mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8006419-1	1	0,5	2	0	20		75	39	6	2
H8006419-2	2	1	3	1,5	20	1,7	75	39	6	2
H8006419-3	3	1,5	4	1,5	30	2,5	80	44	6	2
H8006419-4	4	2	5	1,5	30	3,3	80	44	6	2
H8006419-5	5	2,5	7	2	43	4,1	80	44	6	2
H8006419-6	6	3	7	2	30	4,7	100	64	6	2
H8006419-8	8	4	9	3	36	6,5	100	64	8	2
H8006419-10	10	5	11	3	43	8,2	100	60	10	2

With back cutting

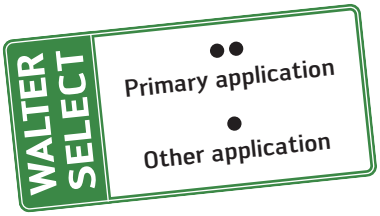
P STANDARD L

Shank DIN 6535 HA



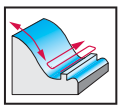
Designation DIA	D_c h8 mm	R mm	L_c mm	L_{c2} mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8016419-5-43	5	2,5	7	2	43	4,1	80	44	6	4
H8016419-6-30	6	3	7	2	30	4,7	100	64	6	4
H8016419-8-36	8	4	9	3	36	6,5	100	64	8	4
H8016419-10-43	10	5	11	3	43	8,2	100	60	10	4
H8016419-12-52	12	6	13	3	52	9,8	100	55	12	4

With back cutting



Solid carbide ball-nose end mills
H8001919
Protostar®

– Long reach

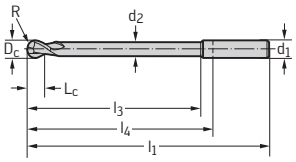


Z= 2–4

	P	M	K	N	S	H	O
DIA							●●

P STANDARD XL

Shank DIN 6535 HA

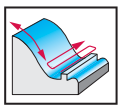


Designation DIA	D_c h8 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H8001919-4-20	4	2	4	20	3,9	100	64	6	2
H8001919-4-30	4	2	4	30	3,9	100	64	6	2
H8001919-4-40	4	2	4	40	3,9	100	64	6	2
H8001919-5-25	5	2,5	5	25	4,9	100	64	6	2
H8001919-5-50	5	2,5	5	50	4,9	100	64	6	2
H8001919-6-30	6	3	6	30	5,9	100	64	6	4
H8001919-6-45	6	3	6	45	5,9	100	64	6	4
H8001919-6-60	6	3	6	60	5,9	100	64	6	4
H8001919-8-40	8	4	8	40	7,85	120	84	8	4
H8001919-8-60	8	4	8	60	7,85	120	84	8	4
H8001919-8-80	8	4	8	80	7,85	120	84	8	4
H8001919-10-50	10	5	10	50	9,85	150	110	10	4
H8001919-10-75	10	5	10	75	9,85	150	110	10	4
H8001919-12-60	12	6	12	60	11,8	150	105	12	4
H8001919-12-90	12	6	12	90	11,8	150	105	12	4

XIII D 1 C 239 C 264

Solid carbide mini ball-nose end mills
H4046919
Protostar®

– Long reach
– Type HSC 30

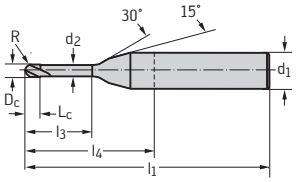


Z = 2

	P	M	K	N	S	H	O
DIA							●●

P STANDARD MINI

Shank DIN 6535 HA



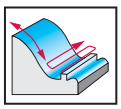
Designation DIA	D_c h8 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z
H4046919-0.3-0.75	0,3	0,15	0,3	0,75	0,27	38	10	3	2
H4046919-0.3-1.5	0,3	0,15	0,3	1,5	0,27	38	10	3	2
H4046919-0.3-3	0,3	0,15	0,3	3	0,27	38	10	3	2
H4046919-0.4-1	0,4	0,2	0,4	1	0,37	38	10	3	2
H4046919-0.4-2	0,4	0,2	0,4	2	0,37	38	10	3	2
H4046919-0.4-4	0,4	0,2	0,4	4	0,37	38	10	3	2
H4046919-0.5-1.25	0,5	0,25	0,5	1,25	0,47	38	10	3	2
H4046919-0.5-2.5	0,5	0,25	0,5	2,5	0,47	38	10	3	2
H4046919-0.5-5	0,5	0,25	0,5	5	0,47	38	10	3	2
H4046919-0.6-1.5	0,6	0,3	0,6	1,5	0,57	38	10	3	2
H4046919-0.6-3	0,6	0,3	0,6	3	0,57	38	10	3	2
H4046919-0.6-6	0,6	0,3	0,6	6	0,57	38	10	3	2
H4046919-0.6-9	0,6	0,3	0,6	9	0,57	38	13	3	2
H4046919-0.8-2	0,8	0,4	0,8	2	0,77	38	10	3	2
H4046919-0.8-4	0,8	0,4	0,8	4	0,77	38	10	3	2
H4046919-0.8-6	0,8	0,4	0,8	6	0,77	38	10	3	2
H4046919-0.8-8	0,8	0,4	0,8	8	0,77	38	12	3	2
H4046919-0.8-12	0,8	0,4	0,8	12	0,77	60	32	3	2
H4046919-1-2.5	1	0,5	1	2,5	0,97	38	10	3	2
H4046919-1-5	1	0,5	1	5	0,97	60	32	3	2
H4046919-1-7.5	1	0,5	1	7,5	0,97	60	32	3	2
H4046919-1-10	1	0,5	1	10	0,97	60	32	3	2
H4046919-1-15	1	0,5	1	15	0,97	60	32	3	2
H4046919-1-20	1	0,5	1	20	0,97	60	32	3	2
H4046919-1.5-7.5	1,5	0,75	1,5	7,5	1,47	60	32	3	2
H4046919-1.5-15	1,5	0,75	1,5	15	1,47	60	32	3	2
H4046919-2-10	2	1	2	10	1,97	60	32	3	2
H4046919-2-15	2	1	2	15	1,97	60	32	3	2
H4046919-2-20	2	1	2	20	1,97	60	32	3	2
H4046919-2-30	2	1	2	30	1,97	60	32	3	2
H4046919-2.5-12.5	2,5	1,25	2,5	12,5	2,47	60	32	3	2
H4046919-2.5-25	2,5	1,25	2,5	25	2,47	60	32	3	2
H4046919-3-15	3	1,5	3	15	2,97	60	32	3	2
H4046919-3-22.5	3	1,5	3	22,5	2,97	60	32	3	2
H4046919-3-30	3	1,5	3	30	2,97	60	32	3	2

WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 239 C 264

Solid carbide ball-nose end mills MC416 Advance

– Type 30

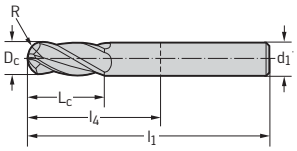


Z = 4 | 30° | 48HRC

	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

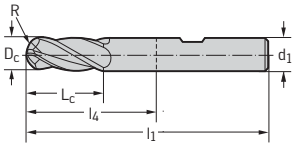
P STANDARD L

Shank DIN 6535 HA



Designation	D_c h7 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC416-03.0A4L-	3	1,5	8	80	44	6	4	●
MC416-04.0A4L-	4	2	11	80	44	6	4	●
MC416-05.0A4L-	5	2,5	13	80	44	6	4	●
MC416-06.0A4L-	6	3	13	80	44	6	4	●
MC416-07.0A4L-	7	3,5	16	100	64	8	4	●
MC416-08.0A4L-	8	4	19	100	64	8	4	●
MC416-09.0A4L-	9	4,5	19	100	60	10	4	●
MC416-10.0A4L-	10	5	22	100	60	10	4	●
MC416-12.0A4L-	12	6	26	100	55	12	4	●
MC416-16.0A4L-	16	8	32	100	52	16	4	●
MC416-20.0A4L-	20	10	38	125	75	20	4	●

Shank DIN 6535 HB



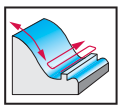
Designation	D_c h7 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC416-03.0W4L-	3	1,5	8	80	44	6	4	●
MC416-04.0W4L-	4	2	11	80	44	6	4	●
MC416-05.0W4L-	5	2,5	13	80	44	6	4	●
MC416-06.0W4L-	6	3	13	80	44	6	4	●
MC416-08.0W4L-	8	4	19	100	64	8	4	●
MC416-10.0W4L-	10	5	22	100	60	10	4	●
MC416-12.0W4L-	12	6	26	100	55	12	4	●
MC416-16.0W4L-	16	8	32	100	52	16	4	●
MC416-20.0W4L-	20	10	38	125	75	20	4	●

Ordering example for the WJ30TF grade: MC416-03.0A4L-WJ30TF

XIII | D 1 | C 240 | C 264

Solid carbide ball-nose end mills
MC416 Advance

– Type 30

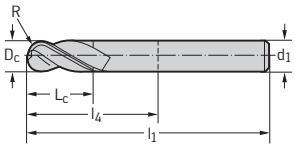


Z=2 | 30° | 48HRC

	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

DIN 6527 L

Shank DIN 6535 HA



Designation	D_c h7 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC416-01.0A2B-	1	0,5	3	38	10	3	2	●
MC416-01.5A2B-	1,5	0,75	3	38	10	3	2	●
MC416-02.0A2B-	2	1	6	38	11	3	2	●
MC416-02.5A2B-	2,5	1,25	7	38	12	3	2	●
MC416-03.0A2B-	3	1,5	7	38	10	3	2	●
MC416-04.0A2B-	4	2	8	57	21	6	2	●
MC416-05.0A2B-	5	2,5	10	57	21	6	2	●
MC416-06.0A2B-	6	3	10	57	21	6	2	●
MC416-07.0A2B-	7	3,5	13	63	27	8	2	●
MC416-08.0A2B-	8	4	16	63	27	8	2	●
MC416-09.0A2B-	9	4,5	16	72	32	10	2	●
MC416-10.0A2B-	10	5	19	72	32	10	2	●
MC416-12.0A2B-	12	6	22	83	38	12	2	●
MC416-14.0A2B-	14	7	22	83	38	14	2	●
MC416-16.0A2B-	16	8	26	92	44	16	2	●
MC416-18.0A2B-	18	9	26	92	44	18	2	●
MC416-20.0A2B-	20	10	32	104	54	20	2	●

Ordering example for the WJ30TF grade: MC416-01.0A2B-WJ30TF

WALTER SELECT

Best tool for

Good | Average | Poor

machining conditions

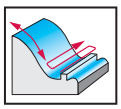
●● Primary application

● Other application

XIII | D 1 | C 240 | C 264

Solid carbide ball-nose end mills MC413 Advance

– Long reach
– Type HSC 30



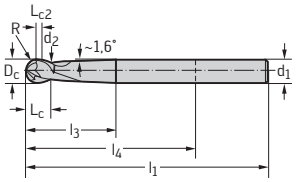
Z = 2–4

48HRC

	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

P STANDARD L

Shank DIN 6535 HA

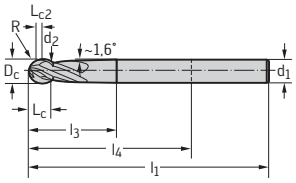


Designation	D_c h7 mm	R mm	L_c mm	L_{c2} mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WJ30TF
MC413-01.0A2L-	1	0,5	2	0	20		75	39	6	2	●
MC413-02.0A2L-	2	1	3	1,5	20	1,7	75	39	6	2	●
MC413-03.0A2L-	3	1,5	4	1,5	30	2,5	80	44	6	2	●
MC413-04.0A2L-	4	2	5	1,5	30	3,3	80	44	6	2	●
MC413-05.0A2L-	5	2,5	7	2	43	4,1	80	44	6	2	●
MC413-06.0A2L-	6	3	7	2	30	4,7	100	64	6	2	●
MC413-08.0A2L-	8	4	9	3	36	6,5	100	64	8	2	●
MC413-10.0A2L-	10	5	11	3	43	8,2	100	60	10	2	●

With back cutting
Ordering example for the WJ30TF grade: MC413-01.0A2L-WJ30TF

P STANDARD L

Shank DIN 6535 HA



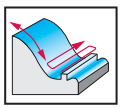
Designation	D_c h7 mm	R mm	L_c mm	L_{c2} mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WJ30TF
MC413-05.0A4L-	5	2,5	7	2	43	4,1	80	44	6	4	●
MC413-06.0A4L-	6	3	7	2	30	4,7	100	64	6	4	●
MC413-08.0A4L-	8	4	9	3	36	6,5	100	64	8	4	●
MC413-10.0A4L-	10	5	11	3	43	8,2	100	60	10	4	●
MC413-12.0A4L-	12	6	13	3	52	9,8	100	55	12	4	●
MC413-16.0A4L-	16	8	15	3	61	13,4	150	102	16	4	●

With back cutting
Shank tolerance h6 with shank diameter d_1 > 10 mm
Ordering example for the WJ30TF grade: MC413-05.0A4L-WJ30TF

XIII D 1 C 240 C 264

Solid carbide ball-nose end mills MC413 Advance

– Long reach
– Type HSC 30



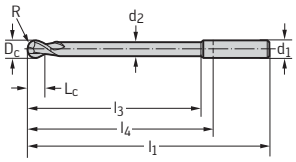
Z= 2–4

48HRC

	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

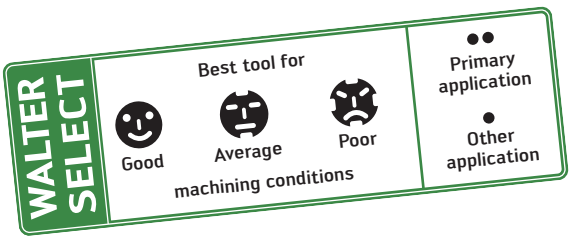
P STANDARD XL

Shank DIN 6535 HA



Designation	D_c h7 mm	R mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h5 mm	Z	WJ30TF
MC413-04.0A2XC-	4	2	4	20	3,9	100	64	6	2	☺
MC413-04.0A2XD-	4	2	4	30	3,9	100	64	6	2	☺
MC413-04.0A2XE-	4	2	4	40	3,9	100	64	6	2	☺
MC413-05.0A2XC-	5	2,5	5	25	4,9	100	64	6	2	☺
MC413-05.0A2XD-	5	2,5	5	50	4,9	100	64	6	2	☺
MC413-06.0A4XC-	6	3	6	30	5,9	100	64	6	4	☺
MC413-06.0A4XD-	6	3	6	45	5,9	100	64	6	4	☺
MC413-06.0A4XE-	6	3	6	60	5,9	100	64	6	4	☺
MC413-08.0A4XC-	8	4	8	40	7,85	120	84	8	4	☺
MC413-08.0A4XD-	8	4	8	60	7,85	120	84	8	4	☺
MC413-08.0A4XE-	8	4	8	80	7,85	120	84	8	4	☺
MC413-10.0A4XD-	10	5	10	50	9,85	150	110	10	4	☺
MC413-10.0A4XE-	10	5	10	75	9,85	150	110	10	4	☺
MC413-12.0A4XD-	12	6	12	60	11,8	150	105	12	4	☺

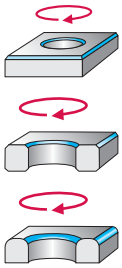
Shank tolerance h6 with shank diameter d_1 > 10 mm
Ordering example for the WJ30TF grade: MC413-04.0A2XC-WJ30TF



Walter Select – Solid carbide milling tools
Profiling cutters

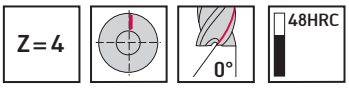
Machining

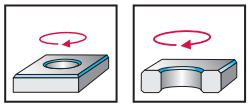
WALTER SELECT
●● Primary application
● Other application



Helix angle	0°				
Designation	**MC500 Advance**	**MC501 Advance**	**MC502 Advance**	**MC503 Advance**	**MC504 Advance**
Dia. range [mm]	6–10	6–12	10	6–20	6–12
Z	4	4–6	4	3–4	4–6
Type	60°	90°	120°	R0,5mm-6mm	90°
Standard	P STANDARD L	P STANDARD L	P STANDARD L	DIN 6527 L	P STANDARD L
Shank	DIN 6535 HA DIN 6535 HB	DIN 6535 HA DIN 6535 HB	DIN 6535 HA	DIN 6535 HA	DIN 6535 HA
Page	C 123	C 124	C 125	C 126	C 127
P Steel	●●	●●	●●	●●	●●
M Stainless steel	●	●	●	●	●
K Cast iron	●	●	●	●	●
N NF metals	●	●	●	●	●
S Materials with difficult cutting properties	●	●	●	●	●
H Hard materials					
O Other					

Solid carbide chamfer milling cutter 60° MC500 Advance

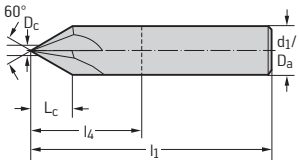


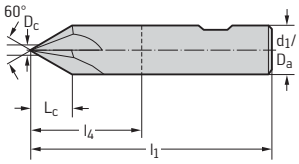


	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

P STANDARD L

	Designation	D_c mm	D_a mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	α	Z	WJ30TF
Shank DIN 6535 HA	MC500-06.0A4L-	1	6	4,3	57	20	6	60°	4	●
	MC500-10.0A4L-	1,5	10	7,35	100	59	10	60°	4	●
Shank DIN 6535 HB	MC500-10.0W4L-	1,5	10	7,35	100	59	10	60°	4	●

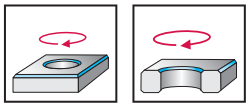


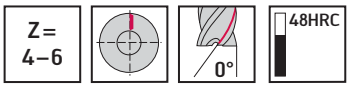


Shoulder milling $a_e \leq 0.3 \times D_a$
Ordering example for the WJ30TF grade: MC500-06.0A4L-WJ30TF

XIII D 1 C 242 C 264

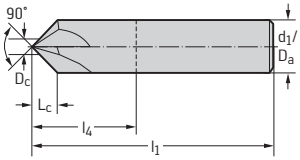
Solid carbide chamfer milling cutter 90°
MC501 Advance

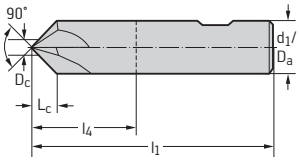




	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

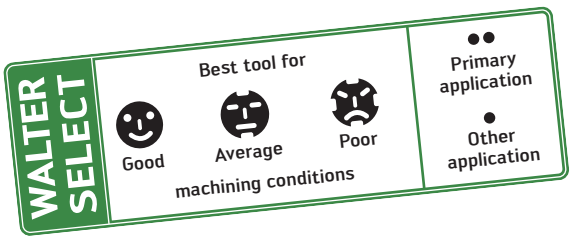
P STANDARD L



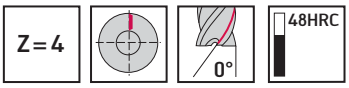


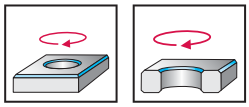
	Designation	D_c mm	D_a mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	α	Z	WJ30TF
Shank DIN 6535 HA	MC501-06.0A4L-	1	6	2,5	57	21	6	90°	4	☺
	MC501-08.0A5L-	2	8	3	80	43	8	90°	5	☺
	MC501-10.0A4L-	1,5	10	4,25	100	59	10	90°	4	☺
	MC501-12.0A6L-	3	12	4,5	83	37	12	90°	6	☺
Shank DIN 6535 HB	MC501-06.0W4L-	1	6	2,5	57	21	6	90°	4	☺
	MC501-08.0W5L-	2	8	3	80	43	8	90°	5	☺
	MC501-10.0W4L-	1,5	10	4,25	100	59	10	90°	4	☺
	MC501-12.0W6L-	3	12	4,5	83	37	12	90°	6	☺

Shoulder milling $a_e \leq 0.3 \times D_a$
Ordering example for the WJ30TF grade: MC501-06.0A4L-WJ30TF



Solid carbide chamfer milling cutter 120° MC502 Advance

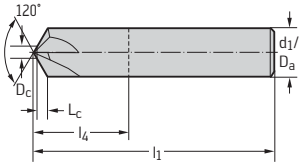




	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

P STANDARD L

	Designation	D_c mm	D_a mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	α	Z	WJ30TF
Shank DIN 6535 HA	MC502-10.0A4L-	1,5	10	2,45	100	60	10	120°	4	●

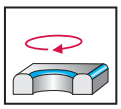


Shoulder milling $a_e \leq 0.3 \times D_a$
Ordering example for the WJ30TF grade: MC502-10.0A4L-WJ30TF

XIII D 1 C 242 C 264

Solid carbide quarter-round profiling cutters MC503 Advance

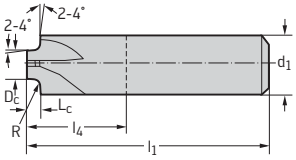
Z= 3–4 | 0° | 48HRC



	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

DIN 6527 L

Shank DIN 6535 HA



Designation	R mm	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC503-04.0A3B050-	0,5	4	0,5	57	21	6	3	
MC503-04.0A3B075-	0,75	4	0,75	57	21	6	3	
MC503-04.0A3B080-	0,8	4	0,8	57	21	6	3	
MC503-04.0A4B100-	1	4	1	63	27	8	4	
MC503-04.0A4B150-	1,5	4	1,5	63	27	8	4	
MC503-05.0A4B200-	2	5	2	72	32	10	4	
MC503-05.0A4B250-	2,5	5	2,5	72	32	10	4	
MC503-05.0A4B300-	3	5	3	83	38	12	4	
MC503-06.0A4B400-	4	6	4	83	38	14	4	
MC503-06.0A4B500-	5	6	5	92	44	16	4	
MC503-08.0A4B600-	6	8	6	104	54	20	4	

Ordering example for the WJ30TF grade: MC503-04.0A3B050-WJ30TF

WALTER SELECT

Best tool for

Good | Average | Poor

machining conditions

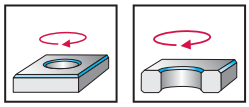
●● Primary application

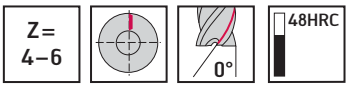
● Other application

XIII | D 1 | C 243 | C 264

Solid carbide front/rear deburrers MC504 Advance

– Long reach
– Type: Front/Rear deburrer

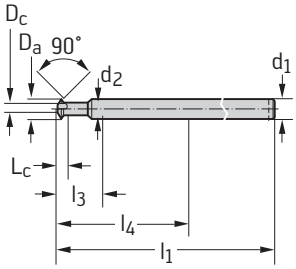




	P	M	K	N	S	H	O
WJ30TF	●●	●	●	●	●		

P STANDARD L

Shank DIN 6535 HA



Designation	D_a mm	D_c mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	WJ30TF
MC504-06.0A4LB-	6	0,4	4,25	19	3,9	100	64	6	4	●
MC504-08.0A4L-	8	5,9	2			100	64	6	4	●
MC504-10.0A6L-	10	5,9	4			100	64	6	6	●
MC504-12.0A6L-	12	5,9	6			100	64	6	6	●

Ordering example for the WJ30TF grade: MC504-06.0A4LB-WJ30TF

XIII D 1 C 243 C 264

Solid carbide milling tools with ConeFit interface product range overview
Shoulder milling cutters

Machining	
Helix angle	**50°**
Designation	**H3E21138 H3E23138 Protostar®**
Dia. range [mm]	10–25
Z	6–8
Corner radius [mm]	0–4
Page	C 135

Solid carbide milling tools with ConeFit interface product range overview
Shoulder/slot milling cutters

Machining						
Helix angle	**50°**		**50°**	**45°**	**50°**	**50°**
Designation	**H4E34217 H4E38217 Proto·max™$_{ST}$**	**H2EC34217 H2EC38217 Proto·max™$_{Inox}$**	**H2EC94717 Protostar® Flash**	**H6E2211 H6E2511 Protostar®**	**H3E20317 H3E21317 Tough Guys**	**H3E93718 H3E94718 Protostar® Flash**
Dia. range [mm]	10–20	10–25	10–25	10–25	10–25	10–25
Z	4	4–5	4–5	2–3	4–5	3–4
Corner radius [mm]	0–4	0–4	0	0	0–4	0
Page	C 138	C 139	C 140	C 141	C 143	C 144

Machining					
Helix angle	**10°**	**45°**	**10°**	**45°**	**40°**
Designation	**H1E92718 Protostar® Flash**	**H3E29148 Protostar®**	**H1E12018 Protostar®**	**H3E85378 Protostar® Qmax**	**H3E82378 Protostar® Qmax**
Dia. range [mm]	10–16	10–25	10–16	10–25	10–25
Z	2	3	2	5–8	4
Corner radius [mm]	0	0	0,2–4	0	0
Page	C 145	C 146	C 147	C 148	C 149

Solid carbide milling tools with ConeFit interface product range overview
Copy milling cutters

Machining		
Helix angle	**40°**	**10°**
Designation	**H8E01118 H8E11118 Protostar®**	**H1E0111 H1E01118 Protostar®**
Dia. range [mm]	10–25	10–16
Z	2–4	2
Corner radius [mm]	5–12,5	5–8
Page	C 151	C 153

Solid carbide milling tools with ConeFit interface product range overview
Profiling cutters

Machining						
Helix angle	**10°**	**0°**	**10°**	**0°**	**10°**	**0°**
Designation	**H1E58518 Protostar®**	**H3E58518 Protostar®**	**H1E58318 Protostar®**	**H3E58318 Protostar®**	**H1E58118 Protostar®**	**H3E58118 Protostar®**
Dia. range [mm]	10–12	10–12	10–16	10–16	10–12	12
Z	2	4–6	2	4–8	2	6
Type	60°	60°	90°	90°	120°	120°
Page	C 156	C 157	C 158	C 159	C 160	C 161

Machining		
Helix angle	**10°**	**0°**
Designation	**H1E58018 Protostar®**	**H3E68118 Protostar®**
Dia. range [mm]	12	10–20
Z	2	4
Type	150°	
Page	C 162	C 163

System overview

ConeFit

Cylindrical adaptors

Type B
Carbide
AK610 . . . C

Type A
Carbide
AK610 . . . C

Type C
Steel
AK610

Type B
Steel
AK610

Type A
Steel
AK610

Type A
Steel
reinforced
AK610

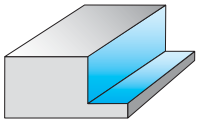
Monoblock adaptors

Walter Capto™
C5 + C6
AK681

HSK 63A
AK631

SK40 +
MAS–BT40
AK641

Shoulder milling

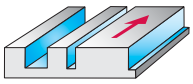


with radius

N50
Z = 6–8
H3E23138

N50
Z = 6–8
H3E21138

Slot/shoulder milling



Proto·max™ ST
Z = 4
H4E34217
H4E38217
(with radius)

Proto·max™ Inox
Z = 4–5
H2EC34217
H2EC 38217
H2EC94717
(with Flash profile)

Protostar® Flash
Z = 2–4
H3E94718
(with radius)
H3E93718
H1E92718
(Spade with radius)

AL45
Z = 2–3
H6E2211
H6E2511

Tough Guys
Z = 4–5
H3E20317
(with radius)
H3E21317

Protostar®
Z = 3
H3E29148

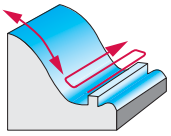
Spade with radius

N10
Z = 2
H1E12018

Protostar® Qmax
F45
Z = 5–8
H3E85378

Protostar® Qmax
F40
Z = 4
H3E82378

Radius copy milling



Spade

N10
Z = 2
H1E01118

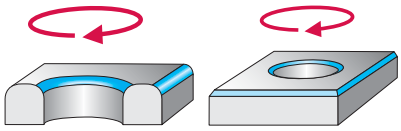
Spade

N10
Z = 2
H1E0111

N40
Z = 2
H8E01118

N40
Z = 4
H8E11118

Profile milling



Spade

Chamfer milling
cutter 60°
Z = 2
H1E58518

Spade

Chamfer milling
cutter 90°
Z = 2
H1E58318

Spade

Chamfer milling
cutter 120°
Z = 2
H1E58118

Spade

Chamfer milling
cutter 150°
Z = 2
H1E58018

Chamfer milling
cutter 60°
Z = 4–6
H3E58518

Chamfer milling
cutter 90°
Z = 4–8
H3E58318

Chamfer milling
cutter 120°
Z = 6
H3E58118

Corner rounding
end mill
Z = 4
H3E68118

Walter Select – Solid carbide milling cutters with ConeFit interface

Step by step to the right tool

STEP 1

Determine the **material** to be machined from page C 671 onwards:

Note the **machining group** that corresponds to your material, e.g.: P10.

Code letters	Machining groups	Groups of the materials to be machined	
P	P1–P15	**Steel**	All types of steel and steel casting, with the exception of steel with an austenitic structure
M	M1–M3	**Stainless steel**	Austenitic stainless steel, austenitic-ferritic steel and steel casting
K	K1–K7	**Cast iron**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron, cast iron with vermicular graphite
N	N1–N10	**NF metals**	Aluminium and other non-ferrous metals, non-ferrous materials
S	S1–S10	**Materials with difficult cutting properties**	Heat-resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys
H	H1–H4	**Hard materials**	Hardened steel, hardened cast iron materials, chilled cast iron
O	O1–O6	**Other**	Plastics, glass and carbon fibre reinforced plastics, graphite

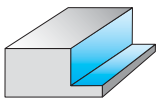
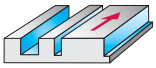
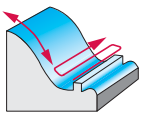
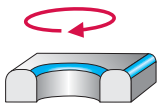
STEP 2

Select the **machining conditions**:

Machine stability, clamping system and workpiece		
very good	good	moderate
☺	😐	☹

STEP 3

Select your **machining method** based on the main categories and subcategories and then go to the relevant Walter Select product range overview (see table, e.g. page C 134).

Machining method			
			
Shoulder milling – No corner radius – With corner radius	**Shoulder/slot milling** – No corner radius – With chamfer – With corner radius – With roughing profile	**Radius copy milling**	**Profile milling** – Chamfering and deburring – Corner rounding
Page C 134	Page C 136	Page C 150	Page C 154

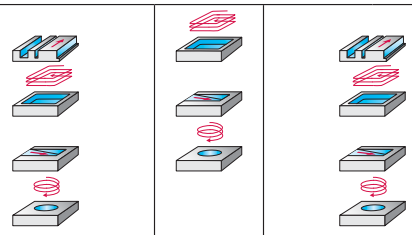
STEP 4

Select the appropriate tool for your **machining conditions** and then go to the ordering page.

Walter Select – Solid carbide milling tools with ConeFit interface
Shoulder/slot milling cutters

Machining

WALTER SELECT
●● Primary application
● Other application

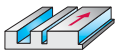


Helix angle	50°		50°	45°	50°
Designation	H4E34217 H4E38217 Proto-max™ST	H2EC34217 H2EC38217 Proto-max™Inox	H2EC94717 Protostar® Flash	H6E2211 H6E2511 Protostar®	H3E20317 H3E21317 Tough Guys
Dia. range [mm]	10–20	10–25	10–25	10–25	10–25
Z	4	4–5	4–5	2–3	4–5
Corner radius [mm]	0–4	0–4	0	0	0–4
Standard	PWZ	PWZ	PWZ	PWZ	PWZ
Shank	ConeFit	ConeFit	ConeFit	ConeFit	ConeFit
	C 138				

STEP 5

Based on the **material group** to be machined, look for the appropriate **cutting speed** by referring to **a_e to D_c from page** C 222 (e.g. A) **onwards** and also the **VT feed group**.

Cutting data for solid carbide shoulder/slot milling



Product family		λ
MC341 Supreme		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 6–20 mm, Z = 4, WK40TZ: 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	430	P1	201	265	365	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	316	403	575	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	316	403	575	A
		C > 0.55%	Annealed	190	640	P4	270	344	491	A
		C > 0.55%	Heat-treated	300	1010	P5	191	243	348	A
		Free cutting steel (short-chipping)	Annealed	220	750	P6	270	344	491	A
	Low-alloyed steel	Annealed		175	590	P7	270	344	491	A
		Heat-treated		285	960	P8	191	243	348	A
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	270	344	491	A
		Hardened and tempered		300	1010	P12	191	243	348	A
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	80	102	146	A
		[illegible]		[illegible]	[illegible]					A

STEP 6

Based on the feed group, determine the correct **feed value (page C 256 a_e to D_c)** for your **machining conditions**.

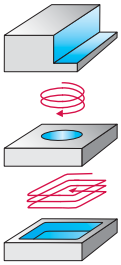
Feed determination

The specified feed rates are average standard val
For special applications, adjustment is recommen

A Material groups ISO P, ISO K and titanium alloys

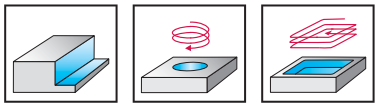
a_e [mm]*	Feed per tooth f_z [mm] Ø 0,3 mm	Ø 0,5 mm	Ø 1 mm	Ø 2 mm	Ø 3 mm	Ø 4 mm	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 12
0,01	0,02	0,02	0,03	0,06	0,09	0,12	0,15	0,15	0,20	
0,05	0,01	0,01	0,02	0,04	0,07	0,10	0,12	0,15	0,20	
0,1	0,01	0,01	0,02	0,03	0,05	0,08	0,10	0,15	0,20	0,20
0,2	0,01	0,01	0,01	0,03	0,04	0,06	0,08	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										

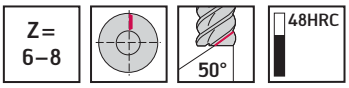
Walter Select – Solid carbide milling tools with ConeFit interface
Shoulder milling cutters

Machining	
WALTER SELECT ●● Primary application ● Other application	
Helix angle	**50°**
Designation	**H3E21138** **H3E23138** **Protostar®**
Dia. range [mm]	10–25
Z	6–8
Corner radius [mm]	0–4
Standard	PWZ
Shank	ConeFit
Page	C 135
P Steel	●●
M Stainless steel	●
K Cast iron	
N NF metals	
S Materials with difficult cutting properties	●
H Hard materials	
O Other	

Solid carbide shoulder milling cutters
H3E21138 / H3E23138
Protostar®

– Type N 50

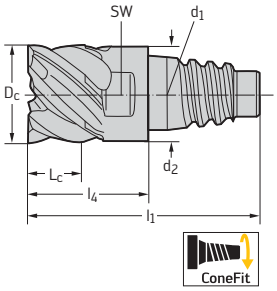




	P	M	K	N	S	H	O
TAX	●●	●			●		

PWZ

ConeFit

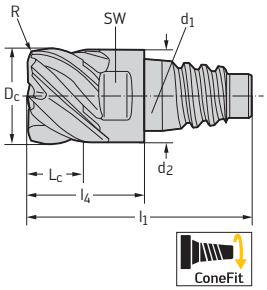


Designation TAX	D_c h10 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H3E21138-E10-10	10	5,5	9,7	23,6	12,4	8	E10	6
H3E21138-E12-12	12	6,5	11,7	28,3	14,5	10	E12	6
H3E21138-E16-16	16	8,5	15,5	35,7	18,7	12	E16	6
H3E21138-E20-20	20	11	19,3	40,8	21,3	16	E20	8
H3E21138-E25-25	25	13,5	24,2	49,6	25,6	20	E25	8

Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

PWZ

ConeFit

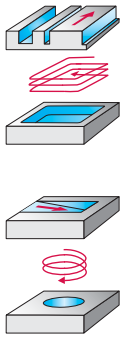
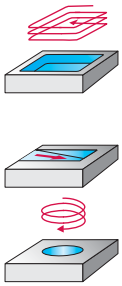
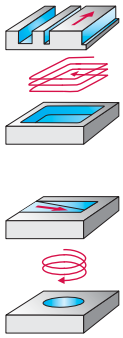


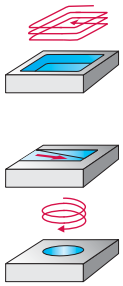
Designation TAX	D_c h9 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H3E23138-E10-10-0.5	10	0,5	5,5	9,7	23,6	12,4	8	E10	6
H3E23138-E10-10-1	10	1	5,5	9,7	23,6	12,4	8	E10	6
H3E23138-E12-12-0.5	12	0,5	6,5	11,7	28,3	14,5	10	E12	6
H3E23138-E12-12-1	12	1	6,5	11,7	28,3	14,5	10	E12	6
H3E23138-E12-12-1.5	12	1,5	6,5	11,7	28,3	14,5	10	E12	6
H3E23138-E12-12-2	12	2	6,5	11,7	28,3	14,5	10	E12	6
H3E23138-E16-16-0.5	16	0,5	8,5	15,5	35,7	18,7	12	E16	6
H3E23138-E16-16-1	16	1	8,5	15,5	35,7	18,7	12	E16	6
H3E23138-E16-16-1.5	16	1,5	8,5	15,5	35,7	18,7	12	E16	6
H3E23138-E16-16-2	16	2	8,5	15,5	35,7	18,7	12	E16	6
H3E23138-E20-20-1	20	1	11	19,3	40,8	21,3	16	E20	8
H3E23138-E20-20-1.5	20	1,5	11	19,3	40,8	21,3	16	E20	8
H3E23138-E20-20-2	20	2	11	19,3	40,8	21,3	16	E20	8
H3E23138-E20-20-4	20	4	11	19,3	40,8	21,3	16	E20	8
H3E23138-E25-25-1	25	1	13,5	24,2	49,6	25,6	20	E25	8
H3E23138-E25-25-2	25	2	13,5	24,2	49,6	25,6	20	E25	8
H3E23138-E25-25-4	25	4	13,5	24,2	49,6	25,6	20	E25	8

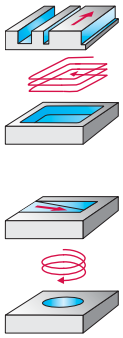
Slot milling $a_p \leq 0.1 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

XIII D 1 C 223 C 264 C 270

Walter Select – Solid carbide milling tools with ConeFit interface
Shoulder/slot milling cutters

Machining						
WALTER SELECT ●● Primary application ● Other application						
Helix angle	**50°**		**50°**	**45°**	**50°**	
Designation	**H4E34217 H4E38217 Proto·max™ST**	**H2EC34217 H2EC38217 Proto·max™Inox**	**H2EC94717 Protostar® Flash**	**H6E2211 H6E2511 Protostar®**	**H3E20317 H3E21317 Tough Guys**	
Dia. range [mm]	10–20	10–25	10–25	10–25	10–25	
Z	4	4–5	4–5	2–3	4–5	
Corner radius [mm]	0–4	0–4	0	0	0–4	
Standard	PWZ	PWZ	PWZ	PWZ	PWZ	
Shank	ConeFit	ConeFit	ConeFit	ConeFit	ConeFit	
Page	C 138	C 139	C 140	C 141	C 143	
P Steel	●●				●●	
M Stainless steel	●	●●	●●		●	
K Cast iron					●	
N NF metals				●●		
S Materials with difficult cutting properties		●	●		●	
H Hard materials						
O Other						

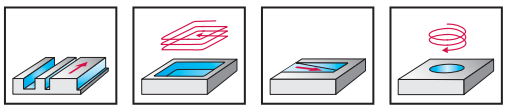


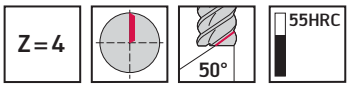


	50°	10°	45°	10°	45°	40°
	H3E93718 H3E94718 Protostar® Flash	H1E92718 Protostar® Flash	H3E29148 Protostar®	H1E12018 Protostar®	H3E85378 Protostar® Qmax	H3E82378 Protostar® Qmax
	10–25	10–16	10–25	10–16	10–25	10–25
	3–4	2	3	2	5–8	4
	0	0	0	0,2–4	0	0
	PWZ	PWZ	PWZ	PWZ	PWZ	PWZ
	ConeFit	ConeFit	ConeFit	ConeFit	ConeFit	ConeFit
	C 144	C 145	C 146	C 147	C 148	C 149
	●●	●●	●●	●●	●●	●
	●	●		●	●	●●
	●	●	●	●	●	●
	●	●				

Solid carbide shoulder/slot milling cutters H4E34217 / H4E38217

Proto·max™ ST

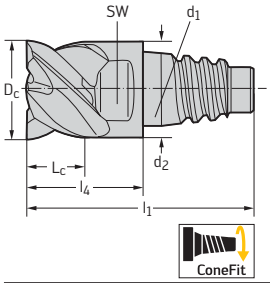




	P	M	K	N	S	H	O
TAZ	●●	●					

PWZ

ConeFit

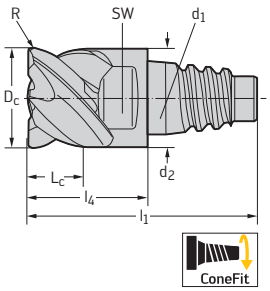


Designation TAZ	D_c h9 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H4E34217-E10-10	10	5,5	9,7	23,6	12,4	8	E10	4
H4E34217-E12-12	12	6,5	11,7	28,3	14,5	10	E12	4
H4E34217-E16-16	16	8,5	15,5	35,7	18,7	12	E16	4
H4E34217-E20-20	20	11	19,3	40,8	21,3	16	E20	4

Slot milling $a_p \leq 0.47 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

PWZ

ConeFit

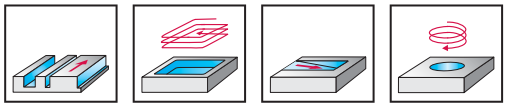


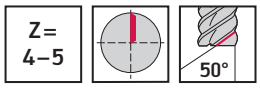
Designation TAZ	D_c h9 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H4E38217-E10-10-0.5	10	0,5	5,5	9,7	23,6	12,4	8	E10	4
H4E38217-E10-10-1	10	1	5,5	9,7	23,6	12,4	8	E10	4
H4E38217-E10-10-1.5	10	1,5	5,5	9,7	23,6	12,4	8	E10	4
H4E38217-E10-10-2	10	2	5,5	9,7	23,6	12,4	8	E10	4
H4E38217-E10-10-3	10	3	5,5	9,7	23,6	12,4	8	E10	4
H4E38217-E12-12-0.5	12	0,5	6,5	11,7	28,3	14,5	10	E12	4
H4E38217-E12-12-1	12	1	6,5	11,7	28,3	14,5	10	E12	4
H4E38217-E12-12-1.5	12	1,5	6,5	11,7	28,3	14,5	10	E12	4
H4E38217-E12-12-2	12	2	6,5	11,7	28,3	14,5	10	E12	4
H4E38217-E12-12-3	12	3	6,5	11,7	28,3	14,5	10	E12	4
H4E38217-E12-12-4	12	4	6,5	11,7	28,3	14,5	10	E12	4
H4E38217-E16-16-0.5	16	0,5	8,5	15,5	35,7	18,7	12	E16	4
H4E38217-E16-16-1	16	1	8,5	15,5	35,7	18,7	12	E16	4
H4E38217-E16-16-1.5	16	1,5	8,5	15,5	35,7	18,7	12	E16	4
H4E38217-E16-16-2	16	2	8,5	15,5	35,7	18,7	12	E16	4
H4E38217-E16-16-3	16	3	8,5	15,5	35,7	18,7	12	E16	4
H4E38217-E16-16-4	16	4	8,5	15,5	35,7	18,7	12	E16	4
H4E38217-E20-20-0.5	20	0,5	11	19,3	40,8	21,3	16	E20	4
H4E38217-E20-20-1	20	1	11	19,3	40,8	21,3	16	E20	4
H4E38217-E20-20-2	20	2	11	19,3	40,8	21,3	16	E20	4
H4E38217-E20-20-3	20	3	11	19,3	40,8	21,3	16	E20	4
H4E38217-E20-20-4	20	4	11	19,3	40,8	21,3	16	E20	4

Slot milling $a_p \leq 0.47 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

XIII D 1 C 227 C 264 C 270

Solid carbide shoulder/slot milling cutters
H2EC34217 / H2EC38217
Proto·max™ Inox

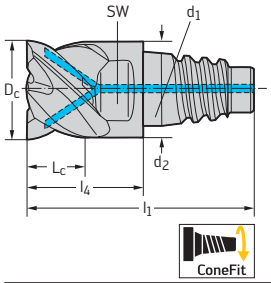




	P	M	K	N	S	H	O
TAA		●●			●		

PWZ

ConeFit

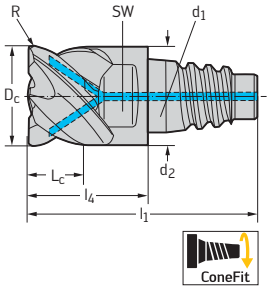


Designation TAA	D_c h10 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H2EC34217-E10-10	10	6	9,7	23,6	12,4	8	E10	4
H2EC34217-E12-12	12	7,5	11,7	28,3	14,5	10	E12	4
H2EC34217-E16-16	16	10	15,5	35,7	18,7	12	E16	4
H2EC34217-E20-20	20	12	19,3	40,8	21,3	16	E20	4
H2EC34217-E25-25	25	15	24,2	49,6	25,6	20	E25	5

Slot milling $a_p \leq 0.4 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

PWZ

ConeFit



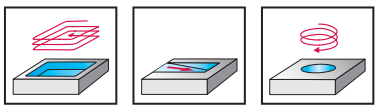
Designation TAA	D_c h9 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H2EC38217-E10-10-0.5	10	0,5	6	9,7	23,6	12,4	8	E10	4
H2EC38217-E10-10-1	10	1	6	9,7	23,6	12,4	8	E10	4
H2EC38217-E10-10-1.5	10	1,5	6	9,7	23,6	12,4	8	E10	4
H2EC38217-E10-10-2	10	2	6	9,7	23,6	12,4	8	E10	4
H2EC38217-E10-10-3	10	3	6	9,7	23,6	12,4	8	E10	4
H2EC38217-E12-12-0.5	12	0,5	7,5	11,7	28,3	14,5	10	E12	4
H2EC38217-E12-12-1	12	1	7,5	11,7	28,3	14,5	10	E12	4
H2EC38217-E12-12-1.5	12	1,5	7,5	11,7	28,3	14,5	10	E12	4
H2EC38217-E12-12-2	12	2	7,5	11,7	28,3	14,5	10	E12	4
H2EC38217-E12-12-3	12	3	7,5	11,7	28,3	14,5	10	E12	4
H2EC38217-E12-12-4	12	4	7,5	11,7	28,3	14,5	10	E12	4
H2EC38217-E16-16-1	16	1	10	15,5	35,7	18,7	12	E16	4
H2EC38217-E16-16-1.5	16	1,5	10	15,5	35,7	18,7	12	E16	4
H2EC38217-E16-16-2	16	2	10	15,5	35,7	18,7	12	E16	4
H2EC38217-E16-16-3	16	3	10	15,5	35,7	18,7	12	E16	4
H2EC38217-E16-16-4	16	4	10	15,5	35,7	18,7	12	E16	4
H2EC38217-E20-20-1	20	1	12	19,3	40,8	21,3	16	E20	4
H2EC38217-E20-20-1.5	20	1,5	12	19,3	40,8	21,3	16	E20	4
H2EC38217-E20-20-2	20	2	12	19,3	40,8	21,3	16	E20	4
H2EC38217-E20-20-3	20	3	12	19,3	40,8	21,3	16	E20	4
H2EC38217-E20-20-4	20	4	12	19,3	40,8	21,3	16	E20	4
H2EC38217-E25-25-1	25	1	15	24,2	49,6	25,6	20	E25	5
H2EC38217-E25-25-1.5	25	1,5	15	24,2	49,6	25,6	20	E25	5
H2EC38217-E25-25-2	25	2	15	24,2	49,6	25,6	20	E25	5
H2EC38217-E25-25-3	25	3	15	24,2	49,6	25,6	20	E25	5
H2EC38217-E25-25-4	25	4	15	24,2	49,6	25,6	20	E25	5

Slot milling $a_p \leq 0.4 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

XIII D 1 C 227 C 264 C 270

Solid carbide shoulder/slot milling cutters
H2EC94717
Protostar® Flash

– Type Flash N 50

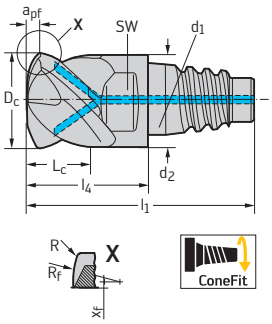


Z = 4–5

	P	M	K	N	S	H	O
TAA		●●			●		

PWZ

ConeFit



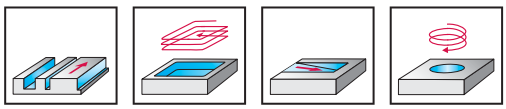
Designation TAA	D_c h9 mm	a_{pf}	x_f mm	R_f	R_{ers} mm	R mm	L_c mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H2EC94717-E10-10	10	0,7	1,7	5	1,998	1,5	6	23,6	12,4	8	E10	4
H2EC94717-E12-12	12	0,8	2,25	6	2,103	1,5	7,5	28,3	14,5	10	E12	4
H2EC94717-E16-16	16	1	3,1	8	2,747	2	10	35,7	18,7	12	E16	4
H2EC94717-E20-20	20	1,3	4	10	3,072	2	12	40,8	21,3	16	E20	4
H2EC94717-E25-25	25	1,6	5	12	4,206	3	15	49,6	25,6	20	E25	5

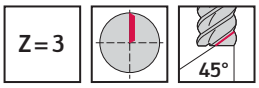
Shoulder milling $a_e \leq 0.5 \times D_c$

XIII D 1 C 227 C 264 C 270

Solid carbide shoulder/slot milling cutters
H6E2211
Protostar®

– Type AI 45

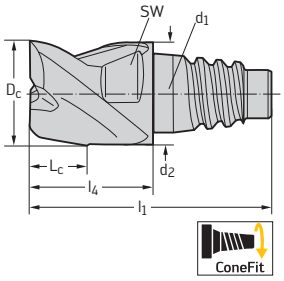




	P	M	K	N	S	H	O
Uncoated				●●			

PWZ

ConeFit



Designation Uncoated	D_c h10 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H6E2211-E10-10	10	5,5	9,7	23,6	12,4	8	E10	3
H6E2211-E12-12	12	6,5	11,7	28,3	14,5	10	E12	3
H6E2211-E16-16	16	8,5	15,5	35,7	18,7	12	E16	3
H6E2211-E20-20	20	11	19,3	40,8	21,3	16	E20	3
H6E2211-E25-25	25	13,5	24,2	49,6	25,6	20	E25	3

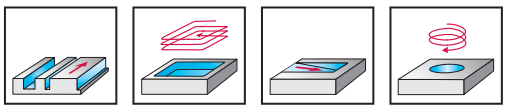
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

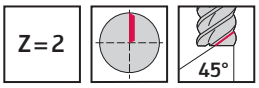
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 229 C 264 C 270

Solid carbide shoulder/slot milling cutters
H6E2511
Protostar®

– Type AI 45

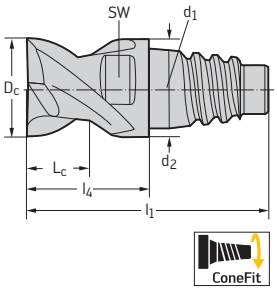




	P	M	K	N	S	H	O
Uncoated				●●			

PWZ

ConeFit



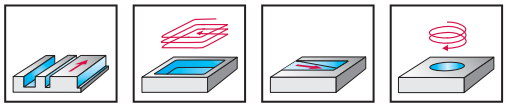
Designation Uncoated	D_c h10 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H6E2511-E10-10	10	5,5	9,7	23,6	12,4	8	E10	2
H6E2511-E12-12	12	6,5	11,7	28,3	14,5	10	E12	2
H6E2511-E16-16	16	8,5	15,5	35,7	18,7	12	E16	2
H6E2511-E20-20	20	11	19,3	40,8	21,3	16	E20	2
H6E2511-E25-25	25	13,5	24,2	49,6	25,6	20	E25	2

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

XIII D 1 C 229 C 264 C 270

Solid carbide shoulder/slot milling cutters
H3E21317 / H3E20317
Tough Guys

– Type N 50

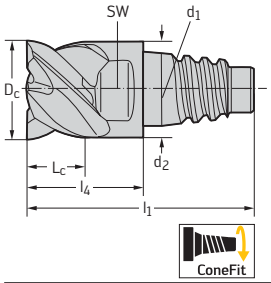


Z= 4–5 | 50° | 48HRC

	P	M	K	N	S	H	O
TAX	●●	●	●		●		

PWZ

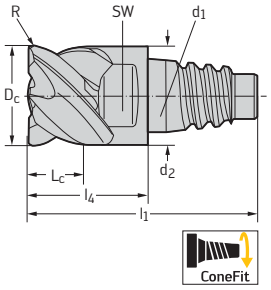
ConeFit



Designation TAX	D_c h10 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H3E21317-E10-10	10	5,5	9,7	23,6	12,4	8	E10	4
H3E21317-E12-12	12	6,5	11,7	28,3	14,5	10	E12	4
H3E21317-E16-16	16	8,5	15,5	35,7	18,7	12	E16	4
H3E21317-E20-20	20	11	19,3	40,8	21,3	16	E20	4
H3E21317-E25-25	25	13,5	24,2	49,6	25,6	20	E25	5

PWZ

ConeFit



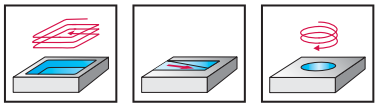
Designation TAX	D_c h9 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H3E20317-E10-10-0.5	10	0,5	5,5	9,7	23,6	12,4	8	E10	4
H3E20317-E10-10-1	10	1	5,5	9,7	23,6	12,4	8	E10	4
H3E20317-E10-10-1.5	10	1,5	5,5	9,7	23,6	12,4	8	E10	4
H3E20317-E10-10-2	10	2	5,5	9,7	23,6	12,4	8	E10	4
H3E20317-E10-10-3	10	3	5,5	9,7	23,6	12,4	8	E10	4
H3E20317-E12-12-0.5	12	0,5	6,5	11,7	28,3	14,5	10	E12	4
H3E20317-E12-12-1	12	1	6,5	11,7	28,3	14,5	10	E12	4
H3E20317-E12-12-1.5	12	1,5	6,5	11,7	28,3	14,5	10	E12	4
H3E20317-E12-12-2	12	2	6,5	11,7	28,3	14,5	10	E12	4
H3E20317-E12-12-3	12	3	6,5	11,7	28,3	14,5	10	E12	4
H3E20317-E12-12-4	12	4	6,5	11,7	28,3	14,5	10	E12	4
H3E20317-E16-16-0.5	16	0,5	8,5	15,5	35,7	18,7	12	E16	4
H3E20317-E16-16-1	16	1	8,5	15,5	35,7	18,7	12	E16	4
H3E20317-E16-16-1.5	16	1,5	8,5	15,5	35,7	18,7	12	E16	4
H3E20317-E16-16-2	16	2	8,5	15,5	35,7	18,7	12	E16	4
H3E20317-E16-16-3	16	3	8,5	15,5	35,7	18,7	12	E16	4
H3E20317-E16-16-4	16	4	8,5	15,5	35,7	18,7	12	E16	4
H3E20317-E20-20-0.5	20	0,5	11	19,3	40,8	21,3	16	E20	4
H3E20317-E20-20-1	20	1	11	19,3	40,8	21,3	16	E20	4
H3E20317-E20-20-1.5	20	1,5	11	19,3	40,8	21,3	16	E20	4
H3E20317-E20-20-2	20	2	11	19,3	40,8	21,3	16	E20	4
H3E20317-E20-20-3	20	3	11	19,3	40,8	21,3	16	E20	4
H3E20317-E20-20-4	20	4	11	19,3	40,8	21,3	16	E20	4
H3E20317-E25-25-1	25	1	13,5	24,2	49,6	25,6	20	E25	5
H3E20317-E25-25-1.5	25	1,5	13,5	24,2	49,6	25,6	20	E25	5
H3E20317-E25-25-2	25	2	13,5	24,2	49,6	25,6	20	E25	5
H3E20317-E25-25-3	25	3	13,5	24,2	49,6	25,6	20	E25	5
H3E20317-E25-25-4	25	4	13,5	24,2	49,6	25,6	20	E25	5

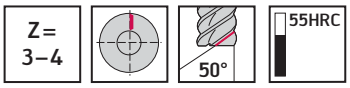
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

XIII | D 1 | C 233 | C 264 | C 270

Solid carbide shoulder/slot milling cutters
H3E94718 / H3E93718
Protostar® Flash

– Type Flash N 50

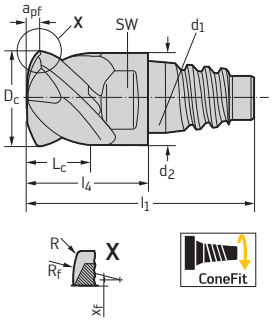




	P	M	K	N	S	H	O
TAX	●●	●	●		●		

PWZ

ConeFit

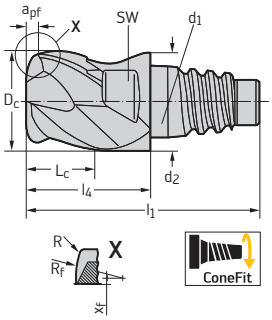


Designation TAX	D_c h9 mm	a_{pf}	x_f mm	R_f	R_{ers} mm	R mm	L_c mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H3E94718-E10-10	10	0,7	1,7	5	1,998	1,5	5,5	23,6	12,4	8	E10	4
H3E94718-E12-12	12	0,8	2,25	6	2,103	1,5	6,5	28,3	14,5	10	E12	4
H3E94718-E16-16	16	1	3,1	8	2,747	2	8,5	35,7	18,7	12	E16	4
H3E94718-E20-20	20	1,3	4	10	3,072	2	11	40,8	21,3	16	E20	4
H3E94718-E25-25	25	1,6	5	12	4,206	3	13,5	49,6	25,6	20	E25	4

Shoulder milling $a_e \leq 0.5 \times D_c$

PWZ

ConeFit



Designation TAX	D_c h9 mm	a_{pf}	x_f mm	R_f	R_{ers} mm	R mm	L_c mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H3E93718-E10-10	10	0,7	1,7	5	1,998	1,5	5,5	23,6	12,4	8	E10	3
H3E93718-E12-12	12	0,8	2,25	6	2,103	1,5	6,5	28,3	14,5	10	E12	3
H3E93718-E16-16	16	1	3,1	8	2,747	2	8,5	35,7	18,7	12	E16	3
H3E93718-E20-20	20	1,3	4	10	3,072	2	11	40,8	21,3	16	E20	3

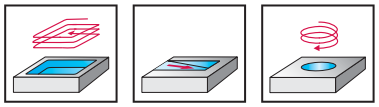
Shoulder milling $a_e \leq 0.5 \times D_c$

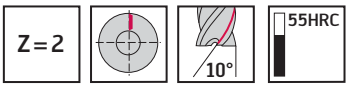
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 233 C 264 C 270

Solid carbide shoulder/slot milling cutters
H1E92718
Protostar® Flash

– Type Flash N 10

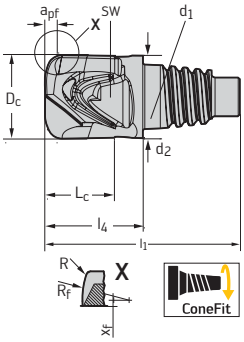




	P	M	K	N	S	H	O
TAX	●●	●	●		●		

PWZ

ConeFit



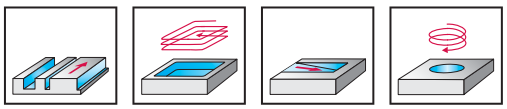
Designation TAX	D_c h12 mm	a_{pf}	x_f mm	R_f	R_{ers} mm	R mm	L_c mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H1E92718-E10-10	10	0,7	1,7	5	1,998	1,5	8	23	11,8	6	E10	2
H1E92718-E12-12	12	0,8	2,25	6	2,103	1,5	10	27,8	14	8	E12	2
H1E92718-E16-16	16	1	3,1	8	2,747	2	13	35,1	18,1	10	E16	2

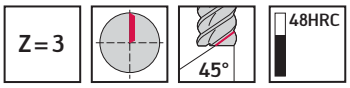
Shoulder milling $a_e \leq 0.5 \times D_c$

XIII D 1 C 233 C 264 C 270

Solid carbide shoulder/slot milling cutters
H3E29148
Protostar®

– Type 45

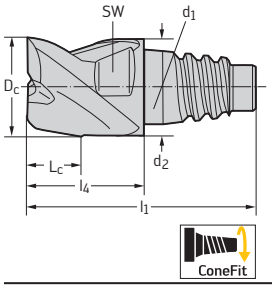




	P	M	K	N	S	H	O
TAX	●●		●				

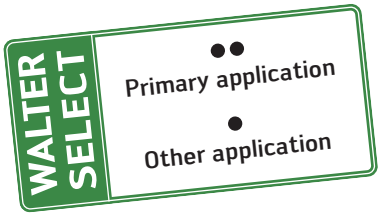
PWZ

ConeFit



Designation TAX	D_c h10 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H3E29148-E10-10	10	5,5	9,7	23,6	12,4	8	E10	3
H3E29148-E12-12	12	6,5	11,7	28,3	14,5	10	E12	3
H3E29148-E16-16	16	8,5	15,5	35,7	18,7	12	E16	3
H3E29148-E20-20	20	11	19,3	40,8	21,3	16	E20	3
H3E29148-E25-25	25	13,5	24,2	49,6	25,6	20	E25	3

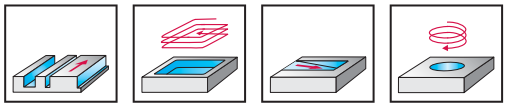
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

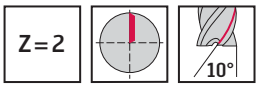


XIII D 1 C 234 C 264 C 270

Solid carbide shoulder/slot milling cutters
H1E12018
Protostar®

– Type N 10

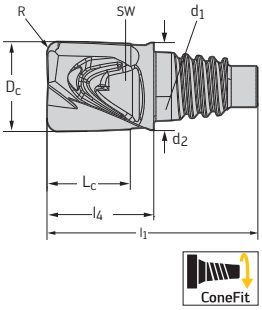




	P	M	K	N	S	H	O
TAX	●●	●	●				

PWZ

ConeFit



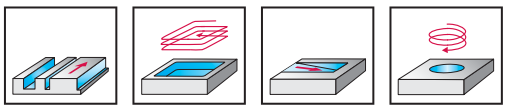
Designation TAX	D_c h10 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H1E12018-E10-10-0.2	10	0,2	8	9,7	23	11,8	6	E10	2
H1E12018-E10-10-0.5	10	0,5	8	9,7	23	11,8	6	E10	2
H1E12018-E10-10-0.8	10	0,8	8	9,7	23	11,8	6	E10	2
H1E12018-E10-10-1	10	1	8	9,7	23	11,8	6	E10	2
H1E12018-E10-10-1.2	10	1,2	8	9,7	23	11,8	6	E10	2
H1E12018-E10-10-1.5	10	1,5	8	9,7	23	11,8	6	E10	2
H1E12018-E10-10-2	10	2	8	9,7	23	11,8	6	E10	2
H1E12018-E10-10-2.5	10	2,5	8	9,7	23	11,8	6	E10	2
H1E12018-E10-10-3	10	3	8	9,7	23	11,8	6	E10	2
H1E12018-E12-12-0.2	12	0,2	10	11,7	27,8	14	8	E12	2
H1E12018-E12-12-0.5	12	0,5	10	11,7	27,8	14	8	E12	2
H1E12018-E12-12-0.8	12	0,8	10	11,7	27,8	14	8	E12	2
H1E12018-E12-12-1	12	1	10	11,7	27,8	14	8	E12	2
H1E12018-E12-12-1.2	12	1,2	10	11,7	27,8	14	8	E12	2
H1E12018-E12-12-1.5	12	1,5	10	11,7	27,8	14	8	E12	2
H1E12018-E12-12-1.6	12	1,6	10	11,7	27,8	14	8	E12	2
H1E12018-E12-12-2	12	2	10	11,7	27,8	14	8	E12	2
H1E12018-E12-12-2.5	12	2,5	10	11,7	27,8	14	8	E12	2
H1E12018-E12-12-3	12	3	10	11,7	27,8	14	8	E12	2
H1E12018-E16-16-0.2	16	0,2	13	15,5	35,1	18,1	10	E16	2
H1E12018-E16-16-0.5	16	0,5	13	15,5	35,1	18,1	10	E16	2
H1E12018-E16-16-0.8	16	0,8	13	15,5	35,1	18,1	10	E16	2
H1E12018-E16-16-1	16	1	13	15,5	35,1	18,1	10	E16	2
H1E12018-E16-16-1.2	16	1,2	13	15,5	35,1	18,1	10	E16	2
H1E12018-E16-16-1.5	16	1,5	13	15,5	35,1	18,1	10	E16	2
H1E12018-E16-16-2	16	2	13	15,5	35,1	18,1	10	E16	2
H1E12018-E16-16-3	16	3	13	15,5	35,1	18,1	10	E16	2
H1E12018-E16-16-4	16	4	13	15,5	35,1	18,1	10	E16	2

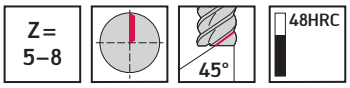
Slot milling $a_p \leq 0.8 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

XIII D 1 C 235 C 264 C 270

Solid carbide shoulder/slot milling cutters
H3E85378
Protostar® Qmax

– Type HR Kordel F 45

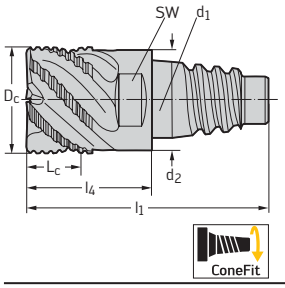




	P	M	K	N	S	H	O
TAX	●●	●	●				

PWZ

ConeFit



Designation TAX	D_c h12 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H3E85378-E10-10	10	5,5	9,7	23,6	12,4	8	E10	5
H3E85378-E12-12	12	6,5	11,7	28,3	14,5	10	E12	5
H3E85378-E16-16	16	8,5	15,5	35,7	18,7	12	E16	6
H3E85378-E20-20	20	11	19,3	40,8	21,3	16	E20	6
H3E85378-E25-25	25	13,5	24,2	49,6	25,6	20	E25	8

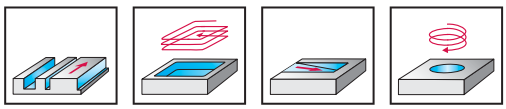
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

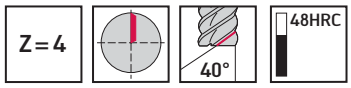
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 235 C 264 C 270

Solid carbide shoulder/slot milling cutters
H3E82378
Protostar® Qmax

– Type HR Kordel F 40

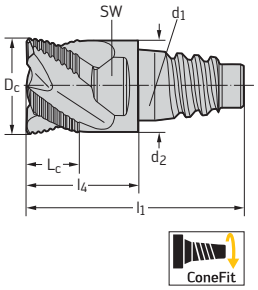




	P	M	K	N	S	H	O
TAX	●	●●	●				

PWZ

ConeFit

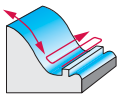


Designation TAX	D_c h12 mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H3E82378-E10-10	10	5,5	9,7	23,6	12,4	8	E10	4
H3E82378-E12-12	12	6,5	11,7	28,3	14,5	10	E12	4
H3E82378-E16-16	16	8,5	15,5	35,7	18,7	12	E16	4
H3E82378-E20-20	20	11	19,3	40,8	21,3	16	E20	4
H3E82378-E25-25	25	13,5	24,2	49,6	25,6	20	E25	4

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

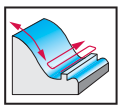
XIII D 1 C 236 C 264 C 270

Walter Select – Solid carbide milling tools with ConeFit interface
Copy milling cutters

Machining WALTER SELECT ●● Primary application ● Other application		
Helix angle	**40°**	**10°**
Designation	**H8E01118 H8E11118 Protostar®**	**H1E0111 H1E01118 Protostar®**
Dia. range [mm]	10–25	10–16
Z	2–4	2
Corner radius [mm]	5–12,5	5–8
Standard	PWZ	PWZ
Shank	ConeFit	ConeFit
Page	C 151	C 153
P Steel	●●	●●
M Stainless steel	●●	●●
K Cast iron	●	●
N NF metals	●	●●
S Materials with difficult cutting properties		
H Hard materials		
O Other		

Solid carbide ball-nose end mills
H8E11118
Protostar®

– Type N 40

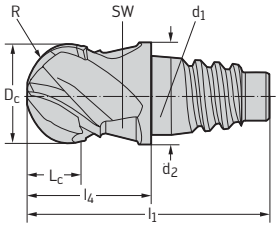


Z = 4 | 40° | 48HRC

	P	M	K	N	S	H	O
TAX	●●	●●	●	●			

PWZ

ConeFit

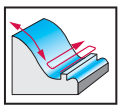


Designation TAX	D_c h9 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H8E11118-E10-10	10	5	5,5	9,7	23,6	12,4	8	E10	4
H8E11118-E12-12	12	6	6,5	11,7	28,3	14,5	10	E12	4
H8E11118-E16-16	16	8	8,5	15,5	35,7	18,7	12	E16	4
H8E11118-E20-20	20	10	11	19,3	40,8	21,3	16	E20	4
H8E11118-E25-25	25	12,5	13,5	24,2	49,6	25,6	20	E25	4

XIII | D 1 | C 240 | C 264 | C 270

Solid carbide ball-nose end mills
H8E01118
Protostar®

– Type N 40

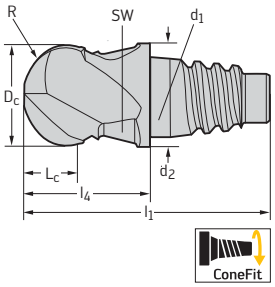


Z=2 | 40° | 48HRC

	P	M	K	N	S	H	O
TAX	●●	●●	●	●			

PWZ

ConeFit



Designation TAX	D_c h9 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H8E01118-E10-10	10	5	5,5	9,7	23,6	12,4	8	E10	2
H8E01118-E12-12	12	6	6,5	11,7	28,3	14,5	10	E12	2
H8E01118-E16-16	16	8	8,5	15,5	35,7	18,7	12	E16	2
H8E01118-E20-20	20	10	11	19,3	40,8	21,3	16	E20	2

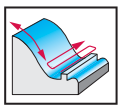
WALTER SELECT
●● Primary application
● Other application

XIII | D 1 | C 240 | C 264 | C 270

Solid carbide ball-nose end mills
H1E0111 / H1E01118
Protostar®

Z=2 | 10° | 48HRC

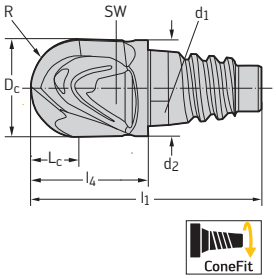
– Type N 10



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

PWZ

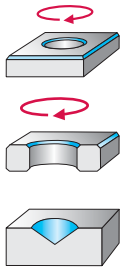
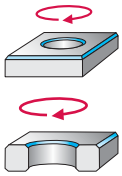
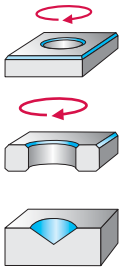
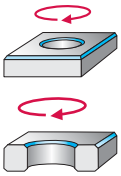
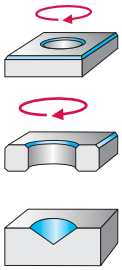
ConeFit

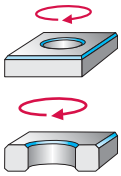
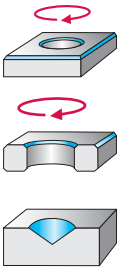
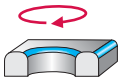


Designation TAX	Designation Uncoated	D_c h9 mm	R mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	Z
H1E01118-E10-10	H1E0111-E10-10	10	5	8	9,7	23	11,8	6	E10	2
H1E01118-E12-12	H1E0111-E12-12	12	6	10	11,7	27,8	14	8	E12	2
H1E01118-E16-16	H1E0111-E16-16	16	8	13	15,5	35,1	18,1	10	E16	2

XIII | D 1 | C 238 | C 264 | C 270

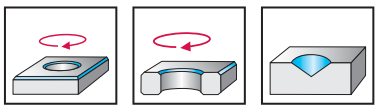
Walter Select – Solid carbide milling tools with ConeFit interface
Profiling cutters

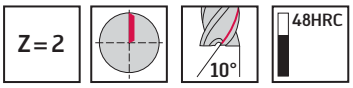
Machining WALTER SELECT ●● Primary application ● Other application						
Helix angle	**10°**	**0°**	**10°**	**0°**	**10°**	
Designation	**H1E58518 Protostar®**	**H3E58518 Protostar®**	**H1E58318 Protostar®**	**H3E58318 Protostar®**	**H1E58118 Protostar®**	
Dia. range [mm]	10–12	10–12	10–16	10–16	10–12	
Z	2	4–6	2	4–8	2	
Type	60°	60°	90°	90°	120°	
Standard	PWZ	PWZ	PWZ	PWZ	PWZ	
Shank	ConeFit	ConeFit	ConeFit	ConeFit	ConeFit	
Page	C 156	C 157	C 158	C 159	C 160	
P Steel	●●	●●	●●	●●	●●	
M Stainless steel	●	●	●	●	●	
K Cast iron	●	●	●	●	●	
N NF metals	●	●	●	●	●	
S Materials with difficult cutting properties	●	●	●	●	●	
H Hard materials						
O Other						

			
	0°	**10°**	**0°**
	H3E58118 Protostar®	**H1E58018 Protostar®**	**H3E68118 Protostar®**
	12	12	10–20
	6	2	4
	120°	150°	R1mm-8mm
	PWZ	PWZ	PWZ
	ConeFit	ConeFit	ConeFit
	C 161	C 162	C 163
	●●	●●	●●
	●	●	●
	●	●	●
	●	●	●
	●	●	●

Solid carbide chamfer milling cutter 60°
H1E58518
Protostar®

– Type: Chamfer milling cutter 60°

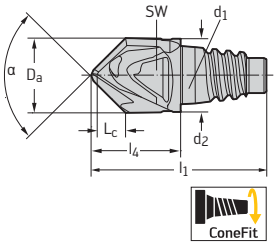




	P	M	K	N	S	H	O
TAX	●●	●	●	●	●		

PWZ

ConeFit



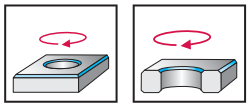
Designation TAX	D_a mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	α	Z
H1E58518-E10-10	10	7,23	9,7	23	11,8	6	E10	60°	2
H1E58518-E12-12	12	7,73	11,7	27,8	14	8	E12	60°	2

Shoulder milling $a_e \leq 0.5 \times D_a$

XIII D 1 C 242 C 264 C 270

Solid carbide chamfer milling cutter 60°
H3E58518
Protostar®

– Type: Chamfer milling cutter 60°

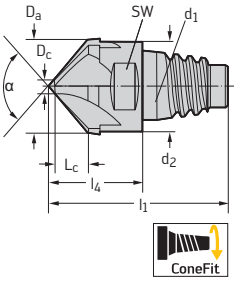


Z= 4–6 | 0° | 48HRC

	P	M	K	N	S	H	O
TAX	●●	●	●	●	●		

PWZ

ConeFit



Designation TAX	D_c mm	D_a mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	α	Z
H3E58518-E10-10	3,5	10	5,6	9,7	23,6	12,4	8	E10	60°	4
H3E58518-E12-12	4,5	12	6,5	11,7	28,3	14,5	10	E12	60°	6

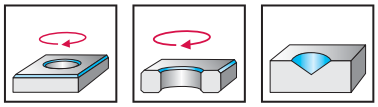
Shoulder milling $a_e \leq 0.3 \times D_a$

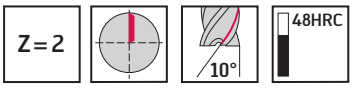
WALTER SELECT
●● Primary application
● Other application

XIII | D 1 | C 242 | C 264 | C 270

Solid carbide chamfer milling cutter 90°
H1E58318
Protostar®

– Type: Chamfer milling cutter 90°

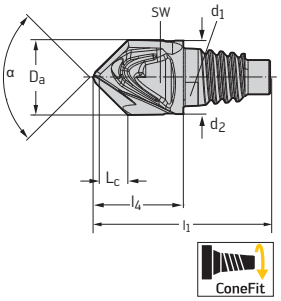




	P	M	K	N	S	H	O
TAX	●●	●	●	●	●		

PWZ

ConeFit



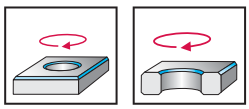
Designation TAX	D_a mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	α	Z
H1E58318-E10-10	10	4,23	9,7	23	11,8	6	E10	90°	2
H1E58318-E12-12	12	5,23	11,7	27,8	14	8	E12	90°	2
H1E58318-E16-16	16	7,23	15,5	35,1	18,1	10	E16	90°	2

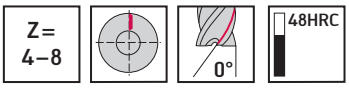
Shoulder milling $a_e \leq 0.5 \times D_a$

XIII D 1 C 242 C 264 C 270

Solid carbide chamfer milling cutter 90°
H3E58318
Protostar®

– Type: Chamfer milling cutter 90°

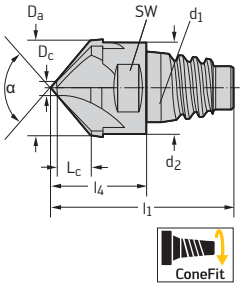




	P	M	K	N	S	H	O
TAX	●●	●	●	●	●		

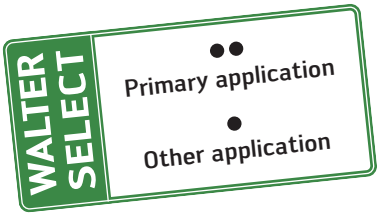
PWZ

ConeFit



Designation TAX	D_c mm	D_a mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	α	Z
H3E58318-E10-10	1,5	10	4,25	9,7	23,6	11,9	8	E10	90°	4
H3E58318-E12-12	3	12	4,5	11,7	28,3	13	10	E12	90°	6
H3E58318-E16-16	3	16	6,5	15,5	35,7	17,2	12	E16	90°	8

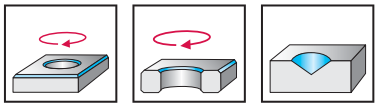
Shoulder milling $a_e \leq 0.3 \times D_a$

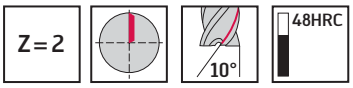


XIII D 1 C 242 C 264 C 270

Solid carbide chamfer milling cutter 120°
H1E58118
Protostar®

– Type: Chamfer milling cutter 120°

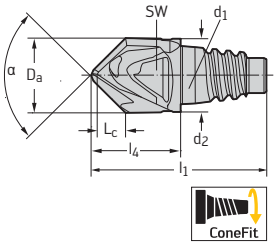




	P	M	K	N	S	H	O
TAX	●●	●	●	●	●		

PWZ

ConeFit



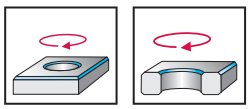
Designation TAX	D_a mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	α	Z
H1E58118-E10-10	10	2,43	9,7	23	11,8	6	E10	120°	2
H1E58118-E12-12	12	3,03	11,7	27,8	14	8	E12	120°	2

Shoulder milling $a_e \leq 0.5 \times D_a$

XIII D 1 C 242 C 264 C 270

Solid carbide chamfer milling cutter 120°
H3E58118
Protostar®

– Type: Chamfer milling cutter 120°

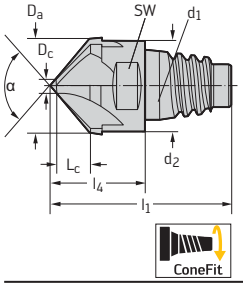


Z = 6 | 0° | 48HRC

	P	M	K	N	S	H	O
TAX	●●	●	●	●	●		

PWZ

	Designation TAX	D_c mm	D_a mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	α	Z
ConeFit	H3E58118-E12-12	3	12	2,6	11,7	28,3	13,6	10	E12	120°	6



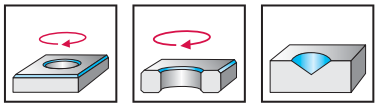
Shoulder milling $a_e \leq 0.3 \times D_a$

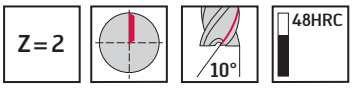
WALTER SELECT
●● Primary application
● Other application

XIII | D 1 | C 242 | C 264 | C 270

Solid carbide chamfer milling cutter 150°
H1E58018
Protostar®

– Type: Chamfer milling cutter 150°

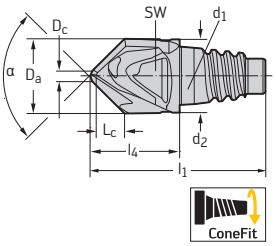




	P	M	K	N	S	H	O
TAX	●●	●	●	●	●		

PWZ

	Designation TAX	D_a mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1 mm	α	Z
ConeFit	H1E58018-E12-12	12	1,6	11,7	27,8	14	8	E12	150°	2



Shoulder milling $a_e \leq 0.5 \times D_a$

XIII D 1 C 242 C 264 C 270

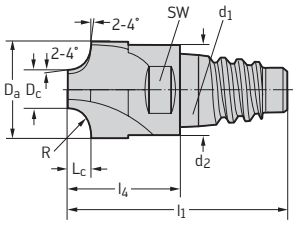
Solid carbide quarter-round profiling cutters
H3E68118
Protostar®

Z=4 | 0° | 48HRC

	P	M	K	N	S	H	O
TAX	●●	●	●	●	●		

PWZ

ConeFit



ConeFit

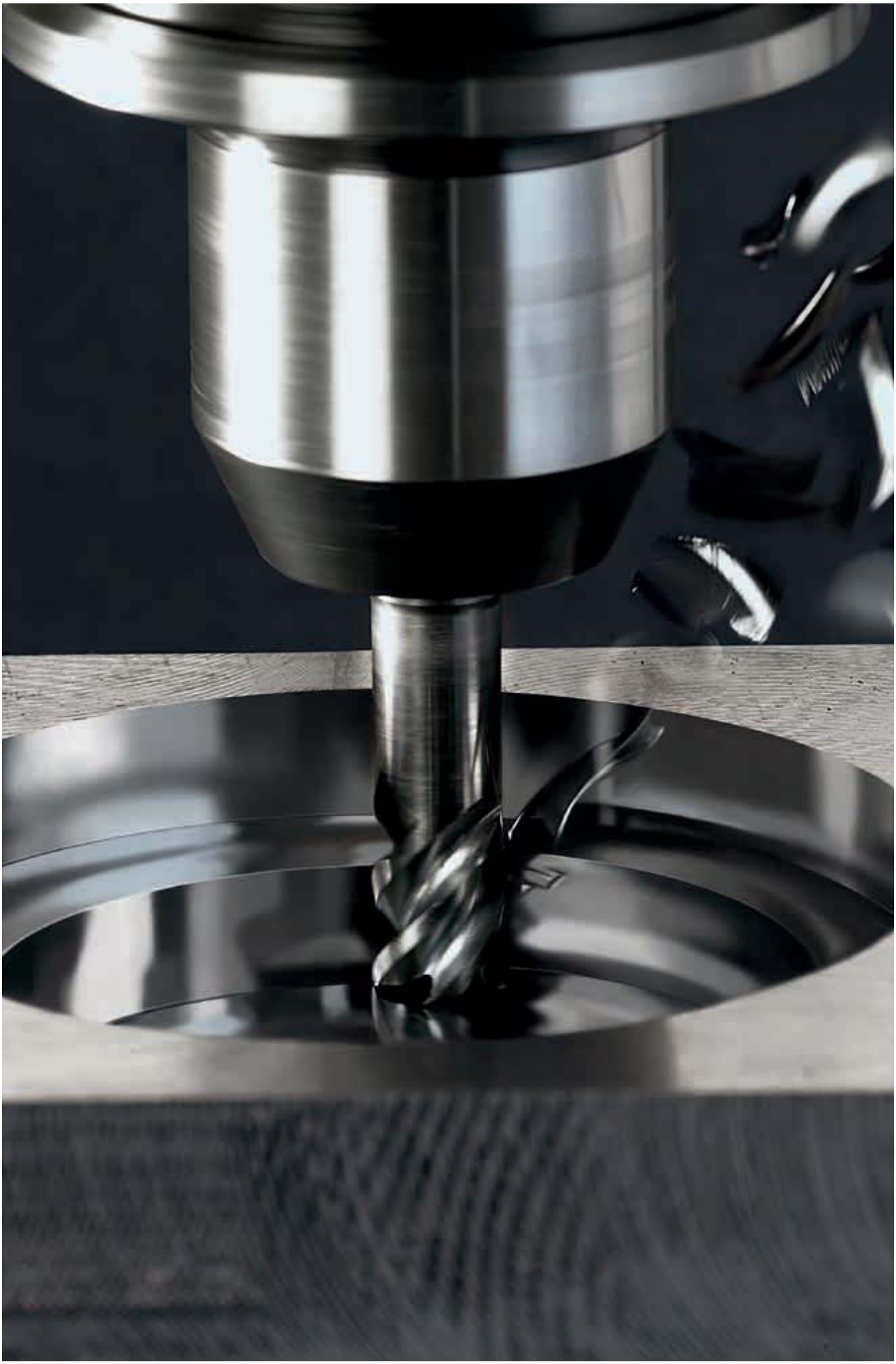
Designation TAX	R mm	D_c mm	D_a mm	L_c mm	d_2 mm	l_1 mm	l_4 mm	SW mm	d_1	Z
H3E68118-E10-10-1	1	5	10	1	9,7	23,6	12,4	8	E10	4
H3E68118-E10-10-2	2	5	10	2	9,7	23,6	12,4	8	E10	4
H3E68118-E12-12-3	3	5	12	3	11,7	28,3	14,5	10	E12	4
H3E68118-E10-10-3	3	4	10	3	9,7	23,6	12,4	8	E10	4
H3E68118-E16-16-4	4	6	16	4	15,5	35,7	18,7	12	E16	4
H3E68118-E16-16-5	5	6	16	5	15,5	35,7	18,7	12	E16	4
H3E68118-E20-20-6	6	8	20	6	19,3	40,8	21,3	16	E20	4

WALTER SELECT

●● Primary application

● Other application

XIII | D 1 | C 243 | C 264 | ConeFit C 270



HSS milling tools product range overview
Shoulder/slot milling cutters

Machining						
Helix angle	**40°**		**25°**	**45°**	**40°**	**30°**
Designation	**P4117027 Protostar® HSS**	**P602612 P612612 Protostar® HSS**	**P632612 Protostar® HSS**	**P312301 P3123017 P3123117 Protostar® HSS**	**P312401 P312411 Protostar® HSS**	**P300611 P302201 P302211 P302621 P310611 ... Protostar® HSS**
Dia. range [mm]	2–20	6–20	16–25	3–30	2–25	1–50
Z	3	2	2	3–6	3	2–8
Corner radius [mm]	0	0	0	0	0	0
Page	C 172	C 173	C 174	C 175	C 176	C 177

Machining					
Helix angle	**35°**		**30°**		
Designation	**P312021 P3120217 P312028 P3120287 P4110217 Protostar® HSS**	**P312001 P3120017 P312011 P3120117 Protostar® HSS**	**P3120537 P3120937 Protostar® HSS**	**P3120387 P3128417 Protostar® HSS**	**P3120717 P3121017 P312111 Protostar® HSS**
Dia. range [mm]	5–40	6–50	6–32	6–32	6–40
Z	3–6	4–6	4–6	3–6	4–6
Corner radius [mm]	0	0	0	0	0
Page	C 189	C 192	C 194	C 195	C 196

HSS milling tools product range overview
Copy milling cutters

Machining	
Helix angle	**30°**
Designation	**P316601 P3166017 P8112017 Protostar® HSS**
Dia. range [mm]	2–20
Z	2–4
Corner radius [mm]	1–10
Page	C 200

HSS milling tools product range overview
Profiling cutters

Machining						
Helix angle	**12°**			**10°**	**0°**	
Designation	**P3148016 Protostar® HSS**	**P314801 Protostar® HSS**	**P314101 Protostar® HSS**	**P313231 Protostar® HSS**	**P315801 Protostar® HSS**	**P315821 Protostar® HSS**
Dia. range [mm]	11–32	11–50	16–50	4,5–45,5	12–32	12–32
Z	6–8	6–10	6–10	6–14	10–12	10–12
Page	C 204	C 204	C 205	C 206	C 207	C 207

HSS milling tools product range overview
Profiling cutters

Machining			
Helix angle	**0°**		
Designation	**P315831 Protostar® HSS**	**P315851 Protostar® HSS**	**P316881 Protostar® HSS**
Dia. range [mm]	12–32	12–32	10–48
Z	10–12	10–12	4–5
Page	C 208	C 208	C 209

Walter Select – HSS milling tools

Step by step to the right tool

STEP 1

Determine the **material** to be machined from page C 671 onwards:

Note the **machining group** that corresponds to your material, e.g.: P10.

Code letters	Machining groups	Groups of the materials to be machined	
P	P1–P15	**Steel**	All types of steel and steel casting, with the exception of steel with an austenitic structure
M	M1–M3	**Stainless steel**	Austenitic stainless steel, austenitic-ferritic steel and steel casting
K	K1–K7	**Cast iron**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron, cast iron with vermicular graphite
N	N1–N10	**NF metals**	Aluminium and other non-ferrous metals, non-ferrous materials
S	S1–S10	**Materials with difficult cutting properties**	Heat-resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys
H	H1–H4	**Hard materials**	Hardened steel, hardened cast iron materials, chilled cast iron
O	O1–O6	**Other**	Plastics, glass and carbon fibre reinforced plastics, graphite

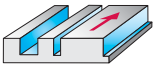
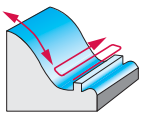
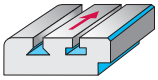
STEP 2

Select the **machining conditions**:

Machine stability, clamping system and workpiece		
very good	good	moderate
☺	😐	☹

STEP 3

Select your **machining method** based on the main categories and subcategories and then go to the relevant Walter Select product range overview (see table, e.g. page C 170).

Machining method		
		
Shoulder/slot milling – No corner radius – With chamfer – With roughing profile	**Radius copy milling**	**Profile milling** – Slot milling – Corner rounding – T-slot milling – Dovetail milling
Page C 170	Page C 199	Page C 202

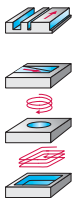
STEP 4

Select the appropriate tool for your **machining conditions** and then go to the ordering page.

Walter Select – HSS milling tools
Shoulder/slot milling cutters

Machining

WALTER SELECT
•• Primary application
• Other application

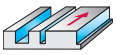


Helix angle	40°		25°	45°	40°
Designation	P4117027 Protostar® HSS	P602612 P612612 Protostar® HSS	P632612 Protostar® HSS	P312301 P3123017 P3123117 Protostar® HSS	P312401 P312411 Protostar® HS
Dia. range [mm]	2–20	6–20	16–25	3–30	2–25
Z	3	2	2	3–6	3
Corner radius [mm]	0	0	0		0

STEP 5

Based on the **material group** to be machined, look for the appropriate **cutting speed** by referring to **a_e to D_c from page** C 244 **onwards** and also the **VT feed group** (e.g. A).

Cutting data for HSS shoulder/slot milling



Product family		λ
P312001 P3120017	P312011 P3120117	35°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group[1]	Ø 6–50 mm, Z = 4–6, ACN / uncoated: 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	430	P1	39	48	69	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	55	69	98	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	24	30	43	A
		C > 0.55%	Annealed	190	640	P4	24	30	43	A
		C > 0.55%	Heat-treated	300	1010	P5				A
		Free cutting steel (short-chipping)	Annealed	220	750	P6	24	30	43	A
	Low-alloyed steel	Annealed		175	590	P7	24	30	43	A
		Heat-treated		285	960	P8	20	30	40	A
		Heat-treated		380	1280	P9				A
		Heat-treated		430	1480	P10				A
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	24	30	43	A
		Hardened and tempered		300	1010	P12	20	20	30	A
		Hardened and tempered		380	1280	P13				A
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	10	10	20	A
										A

STEP 6

Based on the feed group, determine the correct **feed value (page C 256 a_e to D_c.)** for your **machining conditions**

Feed determination

The specified feed rates are average standard v
For special applications, adjustment is recomme

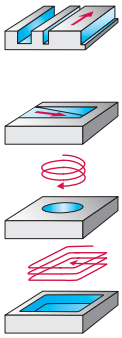
A Material groups ISO P, ISO K and titanium alloys

a_e [mm]*	Feed per tooth f_z [mm] Ø 0,3 mm	Ø 0,5 mm	Ø 1 mm	Ø 2 mm	Ø 3 mm	Ø 4 mm	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 12
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										

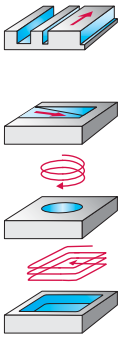
Walter Select – HSS milling tools
Shoulder/slot milling cutters

Machining

WALTER SELECT
●● Primary application
● Other application



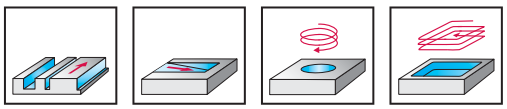
Helix angle	40°		25°	45°	40°
Designation	**P4117027 Protostar® HSS**	**P602612 P612612 Protostar® HSS**	**P632612 Protostar® HSS**	**P312301 P3123017 P3123117 Protostar® HSS**	**P312401 P312411 Protostar® HSS**
Dia. range [mm]	2–20	6–20	16–25	3–30	2–25
Z	3	2	2	3–6	3
Corner radius [mm]	0	0	0	0	0
Standard	DIN 327 D	DIN 844 A DIN 844 B	P STANDARD	DIN 844 B	DIN 845 DIN 844 B
Shank	DIN 1835 B	DIN 1835 A DIN 1835 B	DIN 1835 E	DIN 1835 B	DIN 1835 B
Page	C 172	C 173	C 174	C 175	C 176
P Steel				●●	
M Stainless steel	●●			●	
K Cast iron					
N NF metals		●●	●●	●●	●●
S Materials with difficult cutting properties					
H Hard materials					
O Other					



	30°	35°		30°		
	P300611 P302201 P302211 P302621 P310611 ... Protostar® HSS	**P312021 P3120217 P312028 P3120287 P4110217 Protostar® HSS**	**P312001 P3120017 P312011 P3120117 Protostar® HSS**	**P3120537 P3120937 Protostar® HSS**	**P3120387 P3128417 Protostar® HSS**	**P3120717 P3121017 P312111 Protostar® HSS**
	1–50	5–40	6–50	6–32	6–32	6–40
	2–8	3–6	4–6	4–6	3–6	4–6
	0	0	0	0	0	0
	DIN 327 DIN 844 A DIN 844 B P STANDARD P STANDARD S	DIN 844 B DIN 327 H	DIN 844 B	DIN 844 B	P STANDARD S DIN 844 B	DIN 844 B P STANDARD XL
	DIN 1835 A DIN 1835 B	DIN 1835 B	DIN 1835 B	DIN 1835 B	DIN 1835 B	DIN 1835 B
	C 177	C 189	C 192	C 194	C 195	C 196
	●●	●●	●●	●●	●●	●●
	●	●				
	●	●	●	●	●	●
	●●	●●	●●	●	●	●●

HSS-E-PM shoulder/slot milling cutters
P4117027
Protostar® HSS

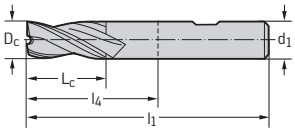
– Type Inox V 40



Z = 3

	P	M	K	N	S	H	O
ACN		●●					

DIN 327 D	Designation ACN	D_c e8 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
Shank DIN 1835 B	P4117027-2	2	4	48	12	6	3
	P4117027-3	3	5	49	13	6	3
	P4117027-4	4	7	51	15	6	3
	P4117027-5	5	8	52	16	6	3
	P4117027-6	6	8	52	16	6	3
	P4117027-7	7	10	60	20	10	3
	P4117027-8	8	11	61	21	10	3
	P4117027-10	10	13	63	23	10	3
	P4117027-12	12	16	73	28	12	3
	P4117027-14	14	16	73	28	12	3
	P4117027-15	15	16	73	28	12	3
	P4117027-16	16	19	79	31	16	3
	P4117027-18	18	19	79	31	16	3
	P4117027-20	20	22	88	38	20	3

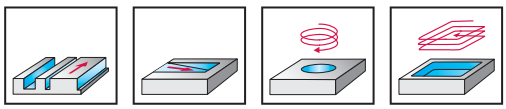


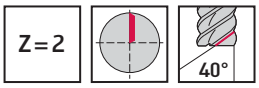
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 244 C 263

HSS-E Co8 shoulder/slot milling cutters
P602612 / P612612
Protostar® HSS

– Type AI 40

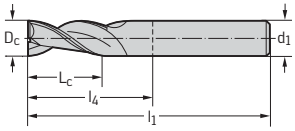


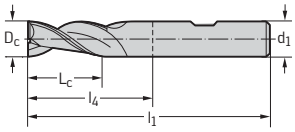


	P	M	K	N	S	H	O
Uncoated				●●			

DIN 844 A

	Designation Uncoated	D_c e8 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
Shank DIN 1835 A	P602612-6	6	24	68	32	6	2
	P602612-8	8	38	88	48	10	2
	P602612-10	10	45	95	55	10	2
	P602612-12	12	53	110	65	12	2
	P602612-14	14	53	110	65	12	2
	P602612-16	16	63	123	75	16	2
	P602612-18	18	63	123	75	16	2
	P602612-20	20	75	141	91	20	2
Shank DIN 1835 B	P612612-6	6	24	68	32	6	2
	P612612-7	7	30	80	40	10	2
	P612612-8	8	38	88	48	10	2
	P612612-9	9	38	88	48	10	2
	P612612-10	10	45	95	55	10	2
	P612612-12	12	53	110	65	12	2
	P612612-14	14	53	110	65	12	2
	P612612-16	16	63	123	75	16	2





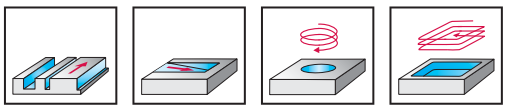
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

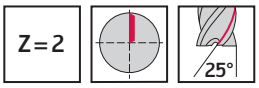
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 245 C 263

HSS-E Co8 shoulder/slot milling cutters
P632612
Protostar® HSS

– Type AI 25 long

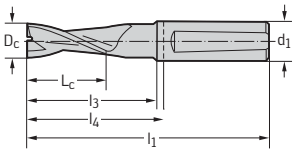




	P	M	K	N	S	H	O
Uncoated				●●			

P STANDARD

Shank DIN 1835 E



Designation Uncoated	D_c k10 mm	L_c mm	l_3 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P632612-16	16	50	57	100	58	16	2
P632612-20	20	50	55	100	56	20	2
P632612-25	25	50	59	120	64	25	2

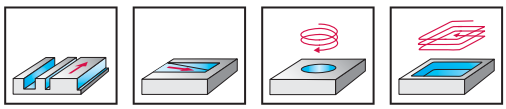
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

XIII D 1 C 245 C 263

HSS-E-PM shoulder/slot milling cutters
P312301 / P3123017 / P3123117
Protostar® HSS

Z= 3–6

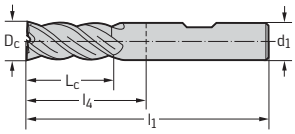
– Type N 45



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

DIN 844 B

Shank DIN 1835 B

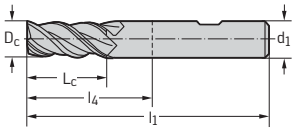


Designation ACN	Designation Uncoated	D_c k10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
	P312301-3	3	8	52	16	6	3
	P312301-4	4	11	55	19	6	3
P3123017-5	P312301-5	5	13	57	21	6	3
P3123017-6	P312301-6	6	13	57	21	6	3
P3123017-8	P312301-8	8	19	69	29	10	4
P3123017-10	P312301-10	10	22	72	32	10	4
P3123017-12	P312301-12	12	26	83	38	12	4
P3123017-14	P312301-14	14	26	83	38	12	4
P3123017-16	P312301-16	16	32	92	44	16	4
P3123017-20	P312301-20	20	38	104	54	20	4
P3123017-22	P312301-22	22	38	104	54	20	5
P3123017-25	P312301-25	25	45	121	65	25	5
P3123017-30	P312301-30	30	45	121	65	25	6

Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

DIN 844 B

Shank DIN 1835 B



Designation ACN	Designation Uncoated	D_c k10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3123117-6		6	24	68	32	6	3
P3123117-8		8	38	88	48	10	4
P3123117-10		10	45	95	55	10	4
P3123117-12		12	53	110	65	12	4
P3123117-14		14	53	110	65	12	4
P3123117-16		16	63	123	75	16	4
P3123117-18		18	63	123	75	16	4
P3123117-20		20	75	141	91	20	4

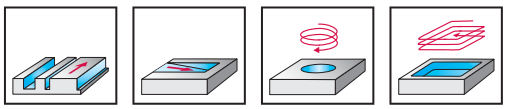
Slot milling $a_p \leq 0.5 \times D_c$
Shoulder milling $a_e \leq 0.3 \times D_c$

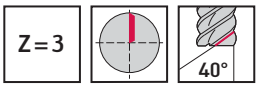
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 245 C 263

HSS-E-PM shoulder/slot milling cutters
P312401 / P312411
Protostar® HSS

– Type W 40

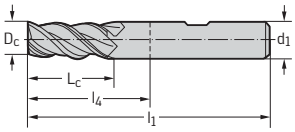




	P	M	K	N	S	H	O
Uncoated				●●			

DIN 845

Shank DIN 1835 B

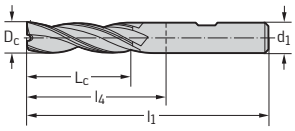


Designation Uncoated	D_c k10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P312401-2	2	7	51	15	6	3
P312401-2.5	2,5	8	52	16	6	3
P312401-3	3	8	52	16	6	3
P312401-3.5	3,5	10	54	18	6	3
P312401-4	4	11	55	19	6	3
P312401-4.5	4,5	11	55	19	6	3
P312401-5	5	13	57	21	6	3
P312401-5.5	5,5	13	57	21	6	3
P312401-6	6	13	57	21	6	3
P312401-6.5	6,5	16	66	26	10	3
P312401-7	7	16	66	26	10	3
P312401-8	8	19	69	29	10	3
P312401-9	9	19	69	29	10	3
P312401-10	10	22	72	32	10	3
P312401-12	12	26	83	38	12	3
P312401-14	14	26	83	38	12	3
P312401-16	16	32	92	44	16	3
P312401-18	18	32	92	44	16	3
P312401-20	20	38	104	54	20	3
P312401-22	22	38	104	54	20	3
P312401-25	25	45	121	65	25	3

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

DIN 844 B

Shank DIN 1835 B



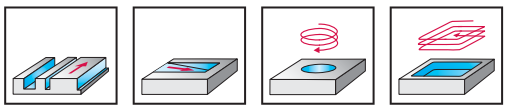
Designation Uncoated	D_c k10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P312411-2	2	10	54	18	6	3
P312411-2.5	2,5	12	56	20	6	3
P312411-3	3	12	56	20	6	3
P312411-3.5	3,5	15	59	23	6	3
P312411-4	4	19	63	27	6	3
P312411-4.5	4,5	19	63	27	6	3
P312411-5	5	24	68	32	6	3
P312411-5.5	5,5	24	68	32	6	3
P312411-6	6	24	68	32	6	3
P312411-7	7	30	80	40	10	3
P312411-8	8	38	88	48	10	3
P312411-9	9	38	88	48	10	3
P312411-10	10	45	95	55	10	3
P312411-12	12	53	110	65	12	3
P312411-16	16	63	123	75	16	3
P312411-18	18	63	123	75	16	3
P312411-20	20	75	141	91	20	3
P312411-25	25	90	166	110	25	3

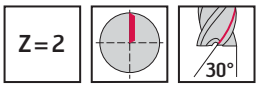
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 246 C 263

HSS-E-PM shoulder/slot milling cutters
P300611
Protostar® HSS

– Type 30

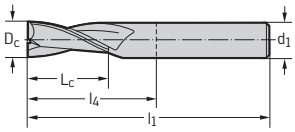




	P	M	K	N	S	H	O
Uncoated	●			●●			

DIN 327

Shank DIN 1835 A



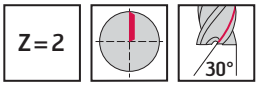
Designation Uncoated	D_c e8 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P300611-1.8	1,8	4	48	12	6	2
P300611-2	2	4	48	12	6	2
P300611-2.5	2,5	5	49	13	6	2
P300611-2.8	2,8	5	49	13	6	2
P300611-3	3	5	49	13	6	2
P300611-3.5	3,5	6	50	14	6	2
P300611-3.8	3,8	7	51	15	6	2
P300611-4	4	7	51	15	6	2
P300611-4.5	4,5	7	51	15	6	2
P300611-4.8	4,8	8	52	16	6	2
P300611-5	5	8	52	16	6	2
P300611-5.5	5,5	8	52	16	6	2
P300611-5.75	5,75	8	52	16	6	2
P300611-6	6	8	52	16	6	2
P300611-6.5	6,5	10	60	20	10	2
P300611-7	7	10	60	20	10	2
P300611-7.5	7,5	10	60	20	10	2
P300611-7.75	7,75	11	61	21	10	2
P300611-8	8	11	61	21	10	2
P300611-8.5	8,5	11	61	21	10	2
P300611-9	9	11	61	21	10	2
P300611-9.5	9,5	11	61	21	10	2
P300611-10	10	13	63	23	10	2
P300611-10.5	10,5	13	70	25	12	2
P300611-11	11	13	70	25	12	2
P300611-12	12	16	73	28	12	2
P300611-12.5	12,5	16	73	28	12	2
P300611-13	13	16	73	28	12	2
P300611-14	14	16	73	28	12	2
P300611-15	15	16	73	28	12	2
P300611-16	16	19	79	31	16	2
P300611-17	17	19	79	31	16	2
P300611-18	18	19	79	31	16	2
P300611-19	19	19	79	31	16	2
P300611-20	20	22	88	38	20	2
P300611-22	22	22	88	38	20	2

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

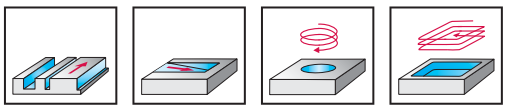
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P3106117 / P310611
Protostar® HSS



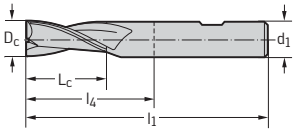
– Type 30



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

DIN 327

Shank DIN 1835 B



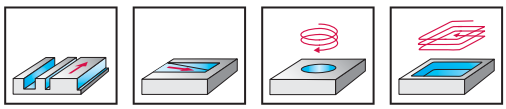
Designation ACN	Designation Uncoated	D_c e8 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3106117-1	P310611-1	1	2,5	48	12	6	2
P3106117-1.5	P310611-1.5	1,5	3	48	12	6	2
P3106117-2	P310611-2	2	4	48	12	6	2
P3106117-2.5	P310611-2.5	2,5	5	49	13	6	2
P3106117-3	P310611-3	3	5	49	13	6	2
P3106117-3.5	P310611-3.5	3,5	6	50	14	6	2
P3106117-4	P310611-4	4	7	51	15	6	2
P3106117-4.5	P310611-4.5	4,5	7	51	15	6	2
P3106117-5	P310611-5	5	8	52	16	6	2
P3106117-5.5	P310611-5.5	5,5	8	52	16	6	2
P3106117-6	P310611-6	6	8	52	16	6	2
P3106117-6.5	P310611-6.5	6,5	10	60	20	10	2
P3106117-7	P310611-7	7	10	60	20	10	2
	P310611-7.5	7,5	10	60	20	10	2
P3106117-8	P310611-8	8	11	61	21	10	2
	P310611-8.5	8,5	11	61	21	10	2
P3106117-9	P310611-9	9	11	61	21	10	2
	P310611-9.5	9,5	11	61	21	10	2
P3106117-10	P310611-10	10	13	63	23	10	2
	P310611-10.5	10,5	13	70	25	12	2
P3106117-11	P310611-11	11	13	70	25	12	2
P3106117-12	P310611-12	12	16	73	28	12	2
	P310611-12.5	12,5	16	73	28	12	2
P3106117-13	P310611-13	13	16	73	28	12	2
P3106117-14	P310611-14	14	16	73	28	12	2
P3106117-15	P310611-15	15	16	73	28	12	2
P3106117-16	P310611-16	16	19	79	31	16	2
	P310611-17	17	19	79	31	16	2
P3106117-18	P310611-18	18	19	79	31	16	2
	P310611-19	19	19	79	31	16	2
P3106117-20	P310611-20	20	22	88	38	20	2
P3106117-22	P310611-22	22	22	88	38	20	2
	P310611-24	24	26	102	46	25	2
	P310611-25	25	26	102	46	25	2
	P310611-26	26	26	102	46	25	2
	P310611-28	28	26	102	46	25	2
	P310611-30	30	26	102	46	25	2
	P310611-36	36	32	112	52	32	2
	P310611-40	40	38	130	60	40	2

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P3116127 / P311612
Protostar® HSS

– Type 30

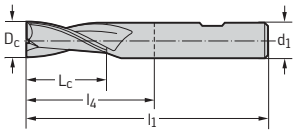


Z=2 | 30°

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

DIN 844 A

Shank DIN 1835 B



Designation ACN	Designation Uncoated	D_c e8 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3116127-2	P311612-2	2	7	51	15	6	2
P3116127-2.5		2,5	8	52	16	6	2
P3116127-3	P311612-3	3	8	52	16	6	2
P3116127-3.5		3,5	10	54	18	6	2
P3116127-4	P311612-4	4	11	55	19	6	2
P3116127-4.5		4,5	11	55	19	6	2
P3116127-5	P311612-5	5	13	57	21	6	2
P3116127-5.5		5,5	13	57	21	6	2
P3116127-6	P311612-6	6	13	57	21	6	2
P3116127-7	P311612-7	7	16	66	26	10	2
P3116127-8	P311612-8	8	19	69	29	10	2
P3116127-9	P311612-9	9	19	69	29	10	2
P3116127-10	P311612-10	10	22	72	32	10	2
P3116127-11	P311612-11	11	22	79	34	12	2
P3116127-12	P311612-12	12	26	83	38	12	2
P3116127-13	P311612-13	13	26	83	38	12	2
P3116127-14	P311612-14	14	26	83	38	12	2
P3116127-15	P311612-15	15	26	83	38	12	2
P3116127-16	P311612-16	16	32	92	44	16	2
P3116127-18	P311612-18	18	32	92	44	16	2
P3116127-20	P311612-20	20	38	104	54	20	2
	P311612-22	22	38	104	54	20	2
	P311612-25	25	45	121	65	25	2
	P311612-30	30	45	121	65	25	2

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

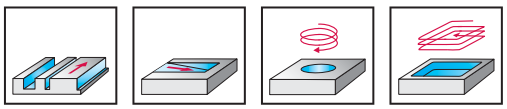
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P312201 / P3122017
Protostar® HSS

Z = 4–8

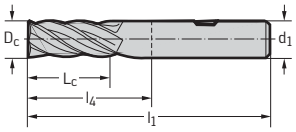
– Type N 30



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

DIN 844 B

Shank DIN 1835 B



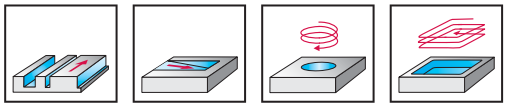
Designation ACN	Designation Uncoated	D_c k10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
	P312201-1	1	4	51	15	6	4
	P312201-1.5	1,5	5	51	15	6	4
P3122017-2	P312201-2	2	7	51	15	6	4
	P312201-2.5	2,5	8	52	16	6	4
P3122017-3	P312201-3	3	8	52	16	6	4
	P312201-3.5	3,5	10	54	18	6	4
P3122017-4	P312201-4	4	11	55	19	6	4
	P312201-4.5	4,5	11	55	19	6	4
P3122017-5	P312201-5	5	13	57	21	6	4
	P312201-5.5	5,5	13	57	21	6	4
P3122017-6	P312201-6	6	13	57	21	6	4
	P312201-6.5	6,5	16	66	26	10	4
P3122017-7	P312201-7	7	16	66	26	10	4
	P312201-7.5	7,5	16	66	26	10	4
P3122017-8	P312201-8	8	19	69	29	10	4
	P312201-8.5	8,5	19	69	29	10	4
P3122017-9	P312201-9	9	19	69	29	10	4
	P312201-9.5	9,5	19	69	29	10	4
P3122017-10	P312201-10	10	22	72	32	10	4
P3122017-11	P312201-11	11	22	79	34	12	4
P3122017-12	P312201-12	12	26	83	38	12	4
P3122017-13	P312201-13	13	26	83	38	12	4
P3122017-14	P312201-14	14	26	83	38	12	4
P3122017-15	P312201-15	15	26	83	38	12	4
P3122017-16	P312201-16	16	32	92	44	16	4
P3122017-18	P312201-18	18	32	92	44	16	4
P3122017-20	P312201-20	20	38	104	54	20	4
P3122017-22	P312201-22	22	38	104	54	20	5
P3122017-25	P312201-25	25	45	121	65	25	5
P3122017-28	P312201-28	28	45	121	65	25	6
P3122017-30	P312201-30	30	45	121	65	25	6
P3122017-32	P312201-32	32	53	133	73	32	6
	P312201-36	36	53	133	73	32	6
	P312201-40	40	63	155	85	40	6
	P312201-50	50	75	177	117	50	8

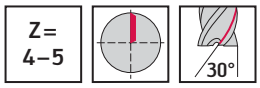
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P302201
Protostar® HSS

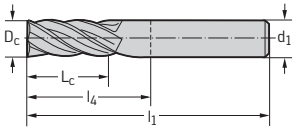
– Type N 30



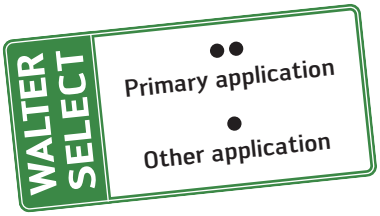


	P	M	K	N	S	H	O
Uncoated	●			●●			

DIN 844 A	Designation Uncoated	D_c k10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
Shank DIN 1835 A	P302201-2	2	7	51	15	6	4
	P302201-3	3	8	52	16	6	4
	P302201-4	4	11	55	19	6	4
	P302201-5	5	13	57	21	6	4
	P302201-6	6	13	57	21	6	4
	P302201-7	7	16	66	26	10	4
	P302201-8	8	19	69	29	10	4
	P302201-9	9	19	69	29	10	4
	P302201-10	10	22	72	32	10	4
	P302201-12	12	26	83	38	12	4
	P302201-14	14	26	83	38	12	4
	P302201-16	16	32	92	44	16	4
	P302201-18	18	32	92	44	16	4
	P302201-20	20	38	104	54	20	4
	P302201-22	22	38	104	54	20	5
	P302201-25	25	45	121	65	25	5



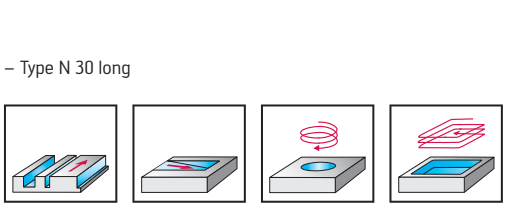
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$



XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P312211 / P3122117
Protostar® HSS

– Type N 30 long

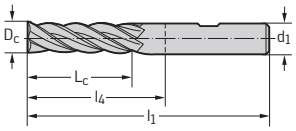


Z = 4–8

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

DIN 844 B

Shank DIN 1835 B



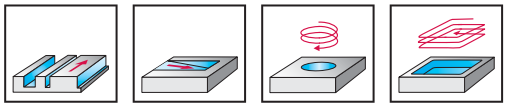
Designation ACN	Designation Uncoated	D_c k10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
	P312211-2	2	10	56	18	6	4
	P312211-2.5	2,5	12	56	20	6	4
P3122117-3	P312211-3	3	12	56	20	6	4
	P312211-3.5	3,5	15	59	23	6	4
P3122117-4	P312211-4	4	19	63	27	6	4
	P312211-4.5	4,5	19	63	27	6	4
P3122117-5	P312211-5	5	24	68	32	6	4
	P312211-5.5	5,5	24	68	32	6	4
P3122117-6	P312211-6	6	24	68	32	6	4
	P312211-6.5	6,5	30	80	40	10	4
P3122117-7	P312211-7	7	30	80	40	10	4
P3122117-8	P312211-8	8	38	88	48	10	4
P3122117-9	P312211-9	9	38	88	48	10	4
P3122117-10	P312211-10	10	45	95	55	10	4
	P312211-11	11	45	102	57	12	4
P3122117-12	P312211-12	12	53	110	65	12	4
	P312211-13	13	53	110	65	12	4
P3122117-14	P312211-14	14	53	110	65	12	4
P3122117-15	P312211-15	15	53	110	65	12	4
P3122117-16	P312211-16	16	63	123	75	16	4
P3122117-18	P312211-18	18	63	123	75	16	4
P3122117-20	P312211-20	20	75	141	91	20	4
	P312211-22	22	75	141	91	20	5
P3122117-25	P312211-25	25	90	166	110	25	5
	P312211-28	28	90	166	110	25	6
	P312211-30	30	90	166	110	25	6
	P312211-32	32	106	186	126	32	6
	P312211-36	36	106	186	126	32	6
	P312211-40	40	125	217	147	40	6
	P312211-50	50	150	252	192	50	8

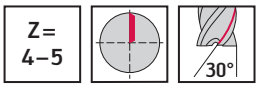
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P302211
Protostar® HSS

– Type N 30 long

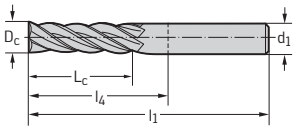




	P	M	K	N	S	H	O
Uncoated	●			●●			

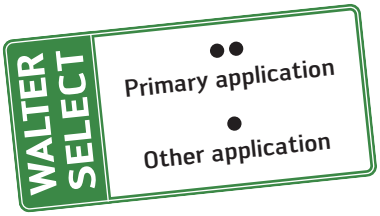
DIN 844 A

Shank DIN 1835 A



Designation Uncoated	D_c k10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P302211-2	2	10	54	18	6	4
P302211-3	3	12	56	20	6	4
P302211-4	4	19	63	27	6	4
P302211-5	5	24	68	32	6	4
P302211-6	6	24	68	32	6	4
P302211-7	7	30	80	40	10	4
P302211-8	8	38	88	48	10	4
P302211-9	9	38	88	48	10	4
P302211-10	10	45	95	55	10	4
P302211-11	11	45	102	57	12	4
P302211-12	12	53	110	65	12	4
P302211-13	13	53	110	65	12	4
P302211-14	14	53	110	65	12	4
P302211-15	15	53	110	65	12	4
P302211-16	16	63	123	75	16	4
P302211-18	18	63	123	75	16	4
P302211-20	20	75	141	91	20	4
P302211-22	22	75	141	91	20	5
P302211-25	25	90	166	110	25	5

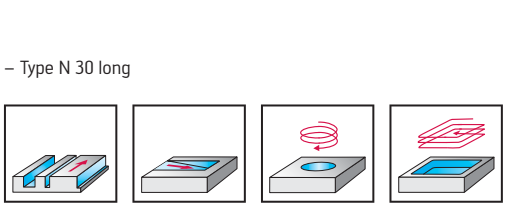
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$



XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P312221 / P3122317
Protostar® HSS

– Type N 30 long

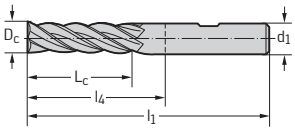


Z = 4–6

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

P STANDARD

Shank DIN 1835 B

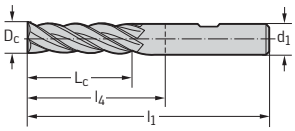


Designation ACN	Designation Uncoated	D_c k10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
	P312221-16X80	16	80	137	89	16	4
	P312221-16X100	16	100	157	109	16	4
	P312221-18X100	18	100	157	109	16	4
	P312221-20X100	20	100	165	109	25	4
	P312221-20X125	20	125	190	134	25	4
	P312221-25X125	25	125	192	136	25	5
	P312221-25X140	25	140	207	151	25	5
	P312221-25X160	25	160	227	171	25	5
	P312221-32X140	32	140	214	154	32	6
	P312221-32X160	32	160	234	174	32	6
	P312221-32X180	32	180	254	194	32	6

Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

P STANDARD

Shank DIN 1835 B



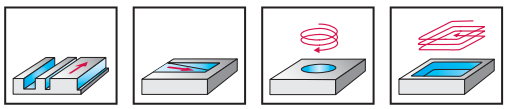
Designation ACN	Designation Uncoated	D_c k10 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3122317-10		10	34	84	44	10	4
P3122317-12		12	40	97	52	12	4
P3122317-14		14	40	97	52	12	4
P3122317-16		16	45	105	57	16	4
P3122317-18		18	45	105	57	16	4
P3122317-20		20	55	121	71	20	4
P3122317-22		22	63	129	79	20	5
P3122317-25		25	68	144	88	25	5

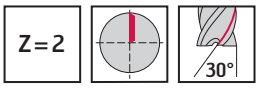
Slot milling $a_p \leq 0.3 \times D_c$
Shoulder milling $a_e \leq 0.1 \times D_c$

XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P302621
Protostar® HSS

– Long reach
– Type 30 long

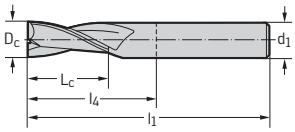




	P	M	K	N	S	H	O
Uncoated	●			●●			

P STANDARD

Shank DIN 1835 A



Designation Uncoated	D_c js14 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P302621-6	6	13	180	144	6	2
P302621-8	8	19	180	144	8	2
P302621-10	10	22	200	160	10	2
P302621-12	12	26	200	155	12	2
P302621-16	16	32	200	152	16	2

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

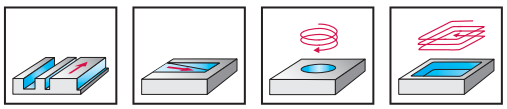
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P311712 / P3117127
Protostar® HSS

Z=3

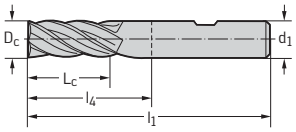
– Type 30



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

DIN 844 B

Shank DIN 1835 B



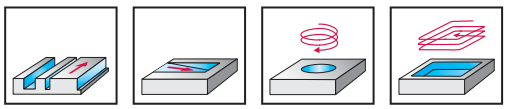
Designation ACN	Designation Uncoated	D_c e8 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
	P311712-1.5	1,5	5	51	15	6	3
P3117127-2	P311712-2	2	7	51	15	6	3
	P311712-2.5	2,5	8	52	16	6	3
P3117127-3	P311712-3	3	8	52	16	6	3
	P311712-3.5	3,5	10	54	18	6	3
P3117127-4	P311712-4	4	11	55	19	6	3
	P311712-4.5	4,5	11	55	19	6	3
P3117127-5	P311712-5	5	13	57	21	6	3
	P311712-5.5	5,5	13	57	21	6	3
P3117127-6	P311712-6	6	13	57	21	6	3
	P311712-6.5	6,5	16	66	26	10	3
	P311712-7	7	16	66	26	10	3
	P311712-7.5	7,5	16	66	26	10	3
P3117127-8	P311712-8	8	19	69	29	10	3
	P311712-8.5	8,5	19	69	29	10	3
	P311712-9	9	19	69	29	10	3
	P311712-9.5	9,5	19	69	29	10	3
P3117127-10	P311712-10	10	22	72	32	10	3
	P311712-11	11	22	79	34	12	3
P3117127-12	P311712-12	12	26	83	38	12	3
	P311712-13	13	26	83	38	12	3
P3117127-14	P311712-14	14	26	83	38	12	3
	P311712-15	15	26	83	38	12	3
P3117127-16	P311712-16	16	32	92	44	16	3
	P311712-17	17	32	92	44	16	3
P3117127-18	P311712-18	18	32	92	44	16	3
	P311712-19	19	32	92	44	16	3
P3117127-20	P311712-20	20	38	104	54	20	3
	P311712-22	22	38	104	54	20	3
	P311712-25	25	45	121	65	25	3
	P311712-28	28	45	121	65	25	3
	P311712-30	30	45	121	65	25	3
	P311712-32	32	53	133	73	32	3

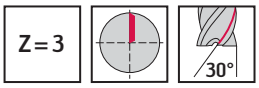
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 247 C 263

HSS-E Co8 shoulder/slot milling cutters
P311722
Protostar® HSS

– Type 30 long

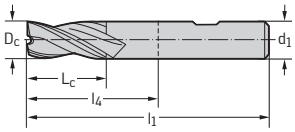




	P	M	K	N	S	H	O
Uncoated	●			●●			

DIN 844 B

Shank DIN 1835 B



Designation Uncoated	D_c e8 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P311722-3	3	12	56	20	6	3
P311722-4	4	19	63	27	6	3
P311722-5	5	24	68	32	6	3
P311722-6	6	24	68	32	6	3
P311722-8	8	38	88	48	10	3
P311722-10	10	45	95	55	10	3
P311722-12	12	53	110	65	12	3
P311722-14	14	53	110	65	12	3
P311722-15	15	53	110	65	12	3
P311722-16	16	63	123	75	16	3
P311722-18	18	63	123	75	16	3
P311722-20	20	75	141	91	20	3

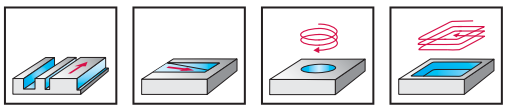
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

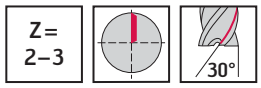
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 247 C 263

HSS-E Co8 shoulder/slot milling cutters
P312673 / P312771
Protostar® HSS

– Long reach
– Type 30

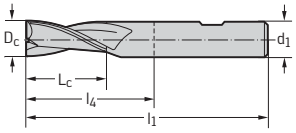




	P	M	K	N	S	H	O
Uncoated	●			●●			

P STANDARD

Shank DIN 1835 B

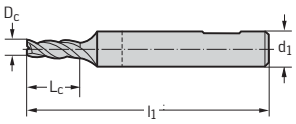


Designation Uncoated	D_c e8 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P312673-4	4	11	63	27	6	2
P312673-5	5	13	68	32	6	2
P312673-6	6	13	68	32	6	2
P312673-7	7	16	80	40	10	2
P312673-8	8	19	88	48	10	2
P312673-9	9	19	88	48	10	2
P312673-10	10	22	95	55	10	2
P312673-11	11	22	110	65	12	2
P312673-12	12	26	110	65	12	2
P312673-13	13	26	110	65	12	2
P312673-14	14	26	110	65	12	2
P312673-15	15	26	110	65	12	2
P312673-16	16	32	123	75	16	2
P312673-17	17	32	123	75	16	2
P312673-18	18	32	123	75	16	2
P312673-19	19	32	123	75	16	2
P312673-20	20	38	141	91	20	2
P312673-25	25	45	166	110	25	2
P312673-30	30	45	166	110	25	2

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

P STANDARD S

Shank DIN 1835 B



Designation Uncoated	D_c e8 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P312771-1	1	2	40	11	6	3
P312771-1.5	1,5	2,5	40	11	6	3
P312771-2	2	3	40	10	6	3
P312771-2.5	2,5	4	40	11	6	3
P312771-3	3	4,5	40	11	6	3
P312771-4	4	6	40	11	6	3
P312771-5	5	7,5	40	11	6	3
P312771-6	6	9	40	9	6	3

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

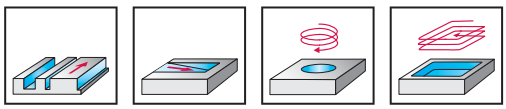
XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P312021 / P3120217
Protostar® HSS

Z= 4–6

35°

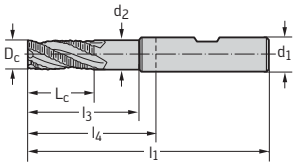
– Type HRA Kordel F 35



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

DIN 844 B

Shank DIN 1835 B



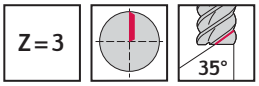
Designation ACN	Designation Uncoated	D_c k12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
	P312021-5	5	13	13		57	21	6	4
P3120217-6	P312021-6	6	13	13		57	21	6	4
P3120217-8	P312021-8	8	19	19		69	29	10	4
P3120217-10	P312021-10	10	22	32	9,5	72	32	10	4
P3120217-12	P312021-12	12	26	38	11,5	83	38	12	4
P3120217-14	P312021-14	14	26	38	11,5	83	38	12	4
P3120217-16	P312021-16	16	32	44	15,5	92	44	16	4
P3120217-18	P312021-18	18	32	44	15,5	92	44	16	4
P3120217-20	P312021-20	20	38	54	19,5	104	54	20	4
P3120217-22	P312021-22	22	38	54	19,5	104	54	20	4
P3120217-25	P312021-25	25	45	65	24,5	121	65	25	6
P3120217-30	P312021-30	30	45	65	24,5	121	65	25	6
P3120217-32	P312021-32	32	53	73	31,5	133	73	32	6
	P312021-36	36	53	73	31,5	133	73	32	6
	P312021-40	40	63	85	39,5	155	85	40	6

Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

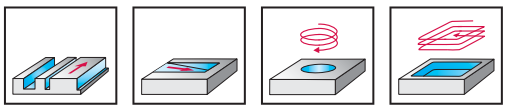
WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P3120287 / P312028
Protostar® HSS



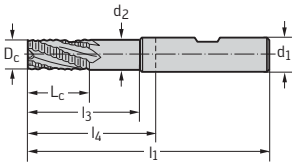
– Type HRA Kordel F 35



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

DIN 844 B

Shank DIN 1835 B



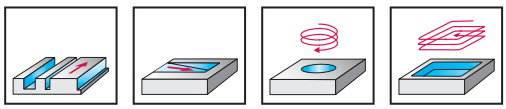
Designation ACN	Designation Uncoated	D_c k12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3120287-6		6	13	13		57	21	6	3
P3120287-7		7	16	16		66	26	10	3
P3120287-8		8	19	19		69	29	10	3
P3120287-9		9	19	19		69	29	10	3
P3120287-10	P312028-10	10	22	32	9,5	72	32	10	3
P3120287-11		11	22	22		79	34	12	3
P3120287-12		12	26	38	11,5	83	38	12	3
P3120287-15		15	26	38	11,5	83	38	12	3
P3120287-16		16	32	44	15,5	92	44	16	3
P3120287-20		20	38	54	19,5	104	54	20	3

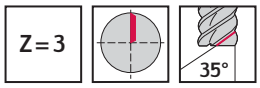
Profile, with radial clearance
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters
P4110217
Protostar® HSS

– Type HRA Kordel F 35

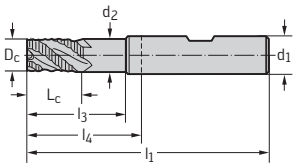




	P	M	K	N	S	H	O
ACN	●●	●	●	●			

DIN 327 H

Shank DIN 1835 B



Designation ACN	D_c k12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P4110217-8	8	11	11		61	21	10	3
P4110217-10	10	13	25	9,5	63	23	10	3
P4110217-12	12	16	28	11,5	73	28	12	3
P4110217-14	14	16	31	13,5	73	28	12	3
P4110217-16	16	19	31	15,5	79	31	16	3
P4110217-20	20	22	38	19,5	88	38	20	3
P4110217-22	22	22	37	19,5	88	38	20	3
P4110217-25	25	26	45	24,5	102	46	25	3
P4110217-28	28	26	45	24,5	102	46	25	3
P4110217-30	30	26	45	24,5	102	46	25	3

Fine roughing teeth
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

WALTER SELECT
●● Primary application
● Other application

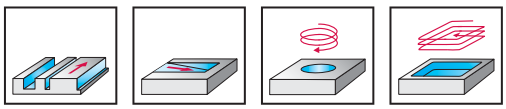
XIII D 1 C 247 C 263

HSS-E-PM shoulder/slot milling cutters P3120017 / P312001

Protostar® HSS

Z = 4–6

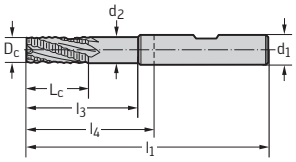
– Type NRA Kordel G 35



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

DIN 844 B

Shank DIN 1835 B



Designation ACN	Designation Uncoated	D_c k12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3120017-6	P312001-6	6	13	13		57	21	6	4
P3120017-7	P312001-7	7	16	16		66	26	10	4
P3120017-8	P312001-8	8	19	19		69	29	10	4
P3120017-9	P312001-9	9	19	19		69	29	10	4
P3120017-10	P312001-10	10	22	22		72	32	10	4
P3120017-11	P312001-11	11	22	22		79	34	12	4
P3120017-12	P312001-12	12	26	26		83	38	12	4
	P312001-13	13	26	38	11,5	83	38	12	4
P3120017-14	P312001-14	14	26	38	11,5	83	38	12	4
P3120017-15	P312001-15	15	26	38	11,5	83	38	12	4
P3120017-16	P312001-16	16	32	44	15,5	92	44	16	4
P3120017-18	P312001-18	18	32	44	15,5	92	44	16	4
P3120017-20	P312001-20	20	38	54	19,5	104	54	20	4
P3120017-22	P312001-22	22	38	54	19,5	104	54	20	4
P3120017-25	P312001-25	25	45	65	24,5	121	65	25	6
	P312001-28	28	45	65	24,5	121	65	25	6
P3120017-30	P312001-30	30	45	65	24,5	121	65	25	6
	P312001-32	32	53	73	31,5	133	73	32	6

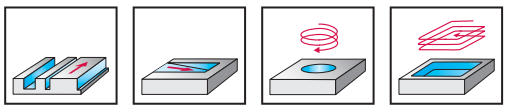
Profile, with radial clearance
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 248 C 263

HSS-E-PM shoulder/slot milling cutters
P3120117 / P312011
Protostar® HSS

Z= 4–6

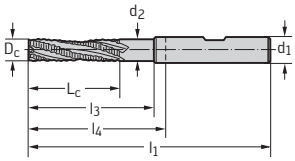
– Type NRA Kordel G 35



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

DIN 844 B

Shank DIN 1835 B



Designation ACN	Designation Uncoated	D_c k12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3120117-6	P312011-6	6	24	24		68	32	6	4
P3120117-8	P312011-8	8	38	38		88	48	10	4
P3120117-10	P312011-10	10	45	55	9,5	95	55	10	4
P3120117-12	P312011-12	12	53	65	11,5	110	65	12	4
	P312011-14	14	53	65	11,5	110	65	12	4
P3120117-16	P312011-16	16	63	75	15,5	123	75	16	4
P3120117-18	P312011-18	18	63	75	15,5	123	75	16	4
P3120117-20	P312011-20	20	75	91	19,5	141	91	20	4
	P312011-22	22	75	91	19,5	141	91	20	4
P3120117-25	P312011-25	25	90	110	24,5	166	110	25	5
	P312011-30	30	90	110	24,5	166	110	25	5
	P312011-32	32	106	126	31,5	186	126	32	6
	P312011-40	40	125	147	39,5	217	147	40	6
	P312011-50	50	150	192	49,5	252	192	50	6

Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

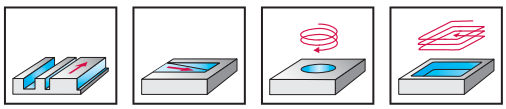
WALTER SELECT
●● Primary application
● Other application

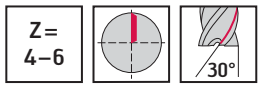
XIII D 1 C 248 C 263

HSS-E-PM shoulder/slot milling cutters P3120937 / P3120537

Protostar® HSS

– Type HNR Kordel F 30

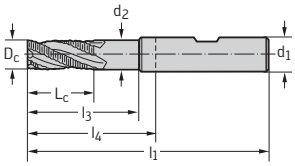




	P	M	K	N	S	H	O
ACN	●●		●	●			

DIN 844 B

Shank DIN 1835 B

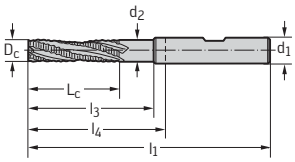


Designation ACN	D_c k12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3120937-6	6	13	13		57	21	6	4
P3120937-8	8	19	19		69	29	10	4
P3120937-10	10	22	22		72	32	10	4
P3120937-12	12	26	26		83	38	12	4
P3120937-14	14	26	26		83	38	12	4
P3120937-16	16	32	42	15,5	92	44	16	4
P3120937-18	18	32	42	15,5	92	44	16	4
P3120937-20	20	38	52	19,5	104	54	20	4
P3120937-22	22	38	52	19,5	104	54	20	4
P3120937-25	25	45	63	24,5	121	65	25	5
P3120937-30	30	45	63	24,5	121	65	25	5
P3120937-32	32	53	71	31,5	133	73	32	6

Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

DIN 844 B

Shank DIN 1835 B



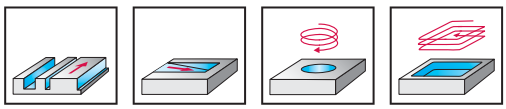
Designation ACN	D_c k12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3120537-6	6	24	24		68	32	6	4
P3120537-8	8	38	38		88	48	10	4
P3120537-10	10	45	45		95	55	10	4
P3120537-12	12	53	53		110	65	12	4
P3120537-14	14	53	53		110	65	12	4
P3120537-16	16	63	73	15,5	123	75	16	4
P3120537-18	18	63	73	15,5	123	75	16	4
P3120537-20	20	75	89	19,5	141	91	20	4
P3120537-25	25	90	108	24,5	166	110	25	5
P3120537-32	32	106	124	31,5	186	126	32	6

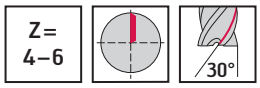
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 249 C 263

HSS-E-PM shoulder/slot milling cutters
P3128417 / P3120387
Protostar® HSS

– Type HR Kordel F 30

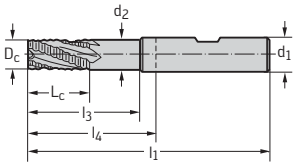




	P	M	K	N	S	H	O
ACN	●●		●	●			

P STANDARD S

Shank DIN 1835 B

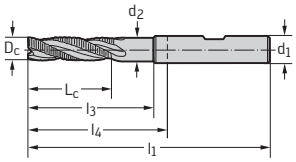


Designation ACN	D_c k12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3128417-6	6	8	8		52	16	6	4
P3128417-8	8	11	11		61	21	10	4
P3128417-10	10	13	25	9,5	63	31	10	4
P3128417-12	12	16	28	11,5	73	28	12	4
P3128417-14	14	16	31	13,5	79	33	16	4
P3128417-16	16	19	31	15,5	79	31	16	4
P3128417-18	18	19	38	17,5	88	40	20	4
P3128417-20	20	22	38	19,5	88	38	20	4
P3128417-25	25	26	46	24,5	102	46	25	5
P3128417-30	30	26	48	29,5	108	50	32	5
P3128417-32	32	32	52	31,5	112	52	32	6

Fine roughing teeth
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

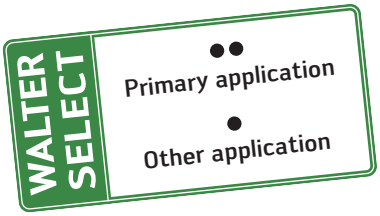
DIN 844 B

Shank DIN 1835 B



Designation ACN	D_c k12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3120387-6	6	24	24		68	32	6	3
P3120387-8	8	38	38		88	48	10	3
P3120387-10	10	45	55	9,5	95	55	10	3
P3120387-12	12	53	57	11,5	110	65	12	3
P3120387-16	16	63	75	15,5	123	75	16	3
P3120387-20	20	75	91	19,5	141	91	20	3

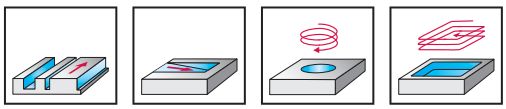
Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$



HSS-E Co8 shoulder/slot milling cutters
P312111 / P3121017
Protostar® HSS

Z = 4–6

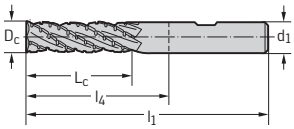
– Type NF RAPAX G 30



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

DIN 844 B

Shank DIN 1835 B

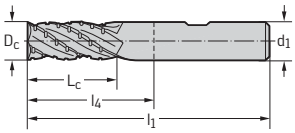


Designation ACN	Designation Uncoated	D_c k12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
	P312111-10	10	45	95	55	10	4
	P312111-12	12	53	110	65	12	4
	P312111-14	14	53	110	65	12	4
	P312111-16	16	63	123	75	16	4
	P312111-20	20	75	141	91	20	4
	P312111-22	22	75	141	91	20	4
	P312111-25	25	90	166	110	25	5
	P312111-28	28	90	166	110	25	5
	P312111-30	30	90	166	110	25	5
	P312111-32	32	106	186	126	32	6
	P312111-40	40	125	217	147	40	6

Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

DIN 844 B

Shank DIN 1835 B



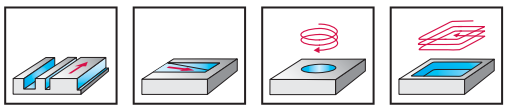
Designation ACN	Designation Uncoated	D_c k12 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3121017-6		6	13	57	21	6	4
P3121017-8		8	19	69	29	10	4
P3121017-10		10	22	72	32	10	4
P3121017-12		12	26	83	38	12	4
P3121017-14		14	26	83	38	12	4
P3121017-16		16	32	92	44	16	4
P3121017-18		18	32	92	44	16	4
P3121017-20		20	38	104	54	20	4
P3121017-22		22	38	104	54	20	4
P3121017-25		25	45	121	65	25	5
P3121017-30		30	45	121	65	25	5

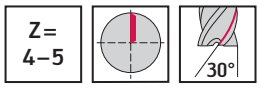
Slot milling $a_p \leq 1.5 \times D_c$
Shoulder milling $a_e \leq 0.6 \times D_c$

XIII D 1 C 249 C 263

HSS-E-PM shoulder/slot milling cutters
P3120717
Protostar® HSS

– Type NR Kordel G 30

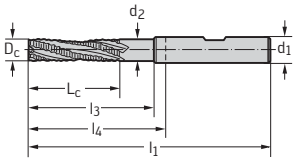




	P	M	K	N	S	H	O
ACN	●●		●	●			

P STANDARD XL

Shank DIN 1835 B



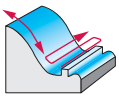
Designation ACN	D_c k12 mm	L_c mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3120717-6	6	19	19		63	27	6	4
P3120717-8	8	29	29		79	43	10	4
P3120717-10	10	34	45	9,5	84	44	10	4
P3120717-12	12	40	52	11,5	97	52	12	4
P3120717-14	14	43	52	11,5	100	55	12	4
P3120717-16	16	45	57	15,5	105	57	16	4
P3120717-18	18	45	57	15,5	105	57	16	4
P3120717-20	20	55	71	19,5	121	71	20	4
P3120717-22	22	63	71	19,5	129	79	20	4
P3120717-25	25	68	91	24,5	144	88	25	5
P3120717-30	30	71	91	24,5	147	91	25	5

Slot milling $a_p \leq 1.0 \times D_c$
Shoulder milling $a_e \leq 0.5 \times D_c$

WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 249 C 263

Walter Select HSS milling tools
Copy milling cutters

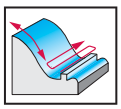
Machining WALTER SELECT ●● Primary application ● Other application	
Helix angle	**30°**
Designation	**P316601** **P3166017** **P8112017** **Protostar® HSS**
Dia. range [mm]	2–20
Z	2–4
Corner radius [mm]	1–10
Standard	DIN 327 / DIN 1889 BB
Shank	DIN 1835 B
Page	C 200
P Steel	●●
M Stainless steel	●●
K Cast iron	●
N NF metals	●●
S Materials with difficult cutting properties	●●
H Hard materials	
O Other	

HSS-E Co8 ball-nose end mills
P3166017 / P316601
Protostar® HSS

Z = 2

30°

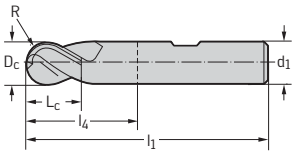
– Type 30



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

DIN 327

Shank DIN 1835 B

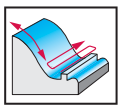


Designation ACN	Designation Uncoated	D_c e8 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P3166017-2	P316601-2	2	1	4	48	12	6	2
P3166017-3	P316601-3	3	1,5	5	49	13	6	2
P3166017-4	P316601-4	4	2	7	51	15	6	2
P3166017-5	P316601-5	5	2,5	8	52	16	6	2
P3166017-6	P316601-6	6	3	8	52	16	6	2
P3166017-8	P316601-8	8	4	11	61	21	10	2
P3166017-10	P316601-10	10	5	13	63	23	10	2
P3166017-11		11	5,5	13	70	25	12	2
P3166017-12	P316601-12	12	6	16	73	28	12	2
P3166017-13	P316601-13	13	6,5	16	73	28	12	2
P3166017-14	P316601-14	14	7	16	73	28	12	2
P3166017-15	P316601-15	15	7,5	16	73	28	12	2
P3166017-16	P316601-16	16	8	19	79	31	16	2
P3166017-18	P316601-18	18	9	19	79	31	16	2
P3166017-20	P316601-20	20	10	22	88	38	20	2

XIII D 1 C 250 C 263

HSS-E Co8 ball-nose end mills
P8112017
Protostar® HSS

– Type 30

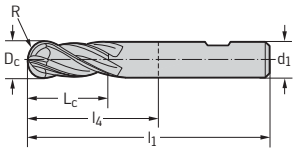


Z = 4

	P	M	K	N	S	H	O
ACN	●●		●	●			

DIN 1889 BB

Shank DIN 1835 B



Designation ACN	D_c k12 mm	R mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P8112017-6	6	3	13	57	21	6	4
P8112017-8	8	4	19	69	29	10	4
P8112017-10	10	5	22	72	32	10	4
P8112017-12	12	6	26	83	38	12	4
P8112017-16	16	8	32	92	44	16	4
P8112017-20	20	10	38	104	54	20	4

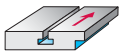
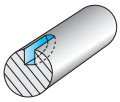
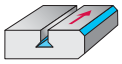
WALTER SELECT

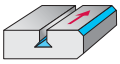
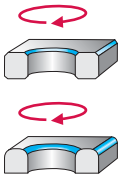
●● Primary application

● Other application

XIII D 1 C 250 C 263

Walter Select HSS milling tools
Profiling cutters

Machining WALTER SELECT ●● Primary application ● Other application						
Helix angle	**12°**			**10°**	**0°**	
Designation	**P3148016 Protostar® HSS**	**P314801 Protostar® HSS**	**P314101 Protostar® HSS**	**P313231 Protostar® HSS**	**P315801 Protostar® HSS**	
Dia. range [mm]	11–32	11–50	16–50	4,5–45,5	12–32	
Z	6–8	6–10	6–10	6–14	10–12	
Shank	DIN 1835 B	DIN 1835 B	DIN 1835 B	DIN 1835 B	DIN 1835 B	
Page	C 204	C 204	C 205	C 206	C 207	
P Steel	●●		●●		●	
M Stainless steel		●	●			
K Cast iron						
N NF metals	●	●●	●●	●●	●●	
S Materials with difficult cutting properties						
H Hard materials						
O Other						

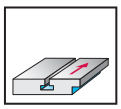
				
	0°	0°		
	P315821 Protostar® HSS	P315831 Protostar® HSS	P315851 Protostar® HSS	P316881 Protostar® HSS
	12–32	12–32	12–32	10–48
	10–12	10–12	10–12	4–5
	DIN 1835 B	DIN 1835 B	DIN 1835 B	DIN 1835 B
	C 207	C 208	C 208	C 209
	●	●	●	●●
				●
				●
	●●	●●	●●	●
				●

HSS-E Co8 T-slot milling cutters
P314801 / P3148016
Protostar® HSS

Z= 6–10

12°

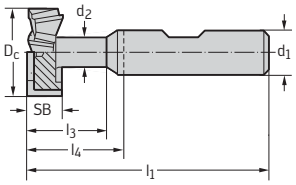
– Type N 12



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

DIN 851 AB

Shank DIN 1835 B



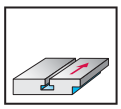
Designation TICN	Designation Uncoated	D_c mm	SB d11 mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
	P314801-11X3.5	11	3,5	10,5	4	53,5	13,5	10	6
P3148016-11	P314801-11	11	4	10,5	4	53,5	13,5	10	6
P3148016-12.5	P314801-12.5	12,5	6	13	5	57	17	10	6
P3148016-16	P314801-16	16	8	18	7	62	22	10	6
P3148016-18	P314801-18	18	8	21	8	70	25	12	6
	P314801-21	21	9	25	10	74	29	12	8
P3148016-22	P314801-22	22	10	26	10	74	29	12	8
P3148016-25	P314801-25	25	11	28	12	82	34	16	8
P3148016-28	P314801-28	28	12	34	13	85	37	16	8
P3148016-32	P314801-32	32	14	36	15	90	42	16	8
	P314801-36	36	16	43	17	108	52	25	8
	P314801-40	40	18	45	19	108	52	25	8
	P314801-50	50	22	56	25	124	64	32	10

Cross-toothed

XIII D 1 C 252 C 263

HSS-E Co8 T-slot milling cutters
P314101
Protostar® HSS

– Type Kordel F 12

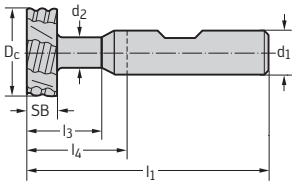


Z= 6–10

	P	M	K	N	S	H	O
Uncoated	●●	●		●●			

DIN 851 AB

Shank DIN 1835 B



Designation Uncoated	D_c mm	SB d11 mm	l_3 mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P314101-16	16	8	18	7	62	22	10	6
P314101-18	18	8	21	8	70	25	12	6
P314101-21	21	9	25	10	74	29	12	6
P314101-25	25	11	28	12	82	34	16	8
P314101-32	32	14	36	15	90	42	16	8
P314101-40	40	18	45	19	108	52	25	8
P314101-50	50	22	56	25	124	64	32	10

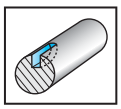
Fine roughing teeth
Cross-toothed

WALTER SELECT
●● Primary application
● Other application

XIII D 1 C 252 C 263

HSS-E Co slot milling cutters
P313231
Protostar® HSS

– Type N 10

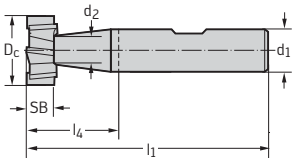


Z= 6–14

	P	M	K	N	S	H	O
Uncoated				●●			

DIN 851 AB

Shank DIN 1835 B



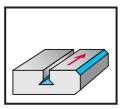
Designation Uncoated	D_c h12 mm	SB mm	d_2 mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P313231-4.5X1	4,5	1	1,8	50	14	6	6
P313231-7.5X1.5	7,5	2	2,8	50	14	6	6
P313231-7.5X2	7,5	2	3,2	50	14	6	6
P313231-10.5X2	10,5	2	4	50	14	6	8
P313231-10.5X2.5	10,5	3	4	50	14	6	8
P313231-10.5X3	10,5	3	4,2	50	14	6	8
P313231-13.5X2	13,5	2	4,6	56	16	10	8
P313231-13.5X3	13,5	3	4,6	56	16	10	8
P313231-13.5X4	13,5	4	4,6	56	16	10	8
P313231-16.5X2.5	16,5	3	4,6	56	16	10	8
P313231-16.5X4	16,5	4	4,6	56	16	10	8
P313231-16.5X5	16,5	5	5	56	16	10	8
P313231-19.5X3	19,5	3	5,6	63	23	10	10
P313231-19.5X4	19,5	4	5,6	63	23	10	10
P313231-19.5X5	19,5	5	6	63	23	10	10
P313231-19.5X6	19,5	6	6,5	63	23	10	10
P313231-22.5X4	22,5	4	6	63	23	10	10
P313231-22.5X5	22,5	5	6	63	23	10	10
P313231-22.5X6	22,5	6	6,5	63	23	10	10
P313231-22.5X8	22,5	8	6,5	63	23	10	10
P313231-25.5X5	25,5	5	7,5	63	23	10	10
P313231-25.5X6	25,5	6	7,5	63	23	10	10
P313231-25.5X7	25,5	7	7,5	63	23	10	10
P313231-25.5X8	25,5	8	7,5	63	23	10	10
P313231-28.5X5	28,5	5	8,5	63	23	10	12
P313231-28.5X6	28,5	6	8,5	63	23	10	12
P313231-28.5X8	28,5	8	8,5	63	23	10	12
P313231-28.5X10	28,5	10	9,3	71	26	12	12
P313231-32.5X5	32,5	5	8,5	71	26	12	12
P313231-32.5X6	32,5	6	8,5	71	26	12	12
P313231-32.5X7	32,5	7	8,5	71	26	12	12
P313231-32.5X8	32,5	8	8,5	71	26	12	12
P313231-32.5X10	32,5	10	9,3	71	26	12	12
P313231-35.5X6	35,5	6	11,8	71	26	12	12
P313231-35.5X8	35,5	8	11,8	71	26	12	12
P313231-35.5X10	35,5	10	11,8	71	26	12	12
P313231-38.5X8	38,5	8	11,8	71	26	12	14
P313231-38.5X10	38,5	10	11,8	71	26	12	14
P313231-45.5X10	45,5	10	11,8	71	26	12	14

For woodruff keys
Cross-toothed

XIII D 1 C 253 C 263

HSS-E Co angle milling cutters
P315801 / P315821
Protostar® HSS

– Type 45°



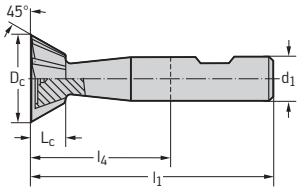
Z= 10–12

0°

	P	M	K	N	S	H	O
Uncoated	●			●●			

DIN 1833 C

Shank DIN 1835 B

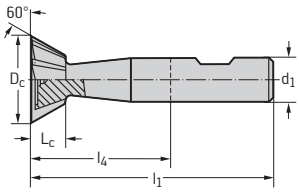


Designation Uncoated	D_c js16 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P315801-12-45	12	3,5	54	14	10	10
P315801-16-45	16	4	60	15	12	10
P315801-20-45	20	5	63	18	12	10
P315801-25-45	25	6,3	67	22	12	10
P315801-32-45	32	8	71	23	16	12

Radial and axial cutting
Shoulder milling $a_e \leq 0.3 \times D_c$

DIN 1833 C

Shank DIN 1835 B



Designation Uncoated	D_c js16 mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P315821-12-60	12	5	54	14	10	10
P315821-16-60	16	6,3	60	15	12	10
P315821-20-60	20	8	63	18	12	10
P315821-25-60	25	10	67	22	12	10
P315821-32-60	32	12,5	71	23	16	12

Radial and axial cutting
Shoulder milling $a_e \leq 0.3 \times D_c$

WALTER SELECT

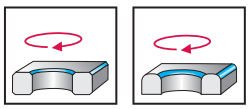
●● Primary application

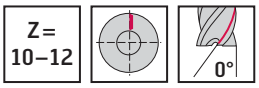
● Other application

XIII D 1 C 253 C 263

HSS-E Co angle milling cutters
P315831 / P315851
Protostar® HSS

– Type 45°

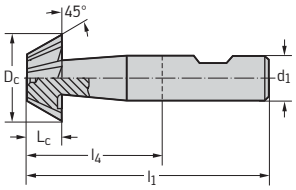




	P	M	K	N	S	H	O
Uncoated	●			●●			

DIN 1833 D

Shank DIN 1835 B

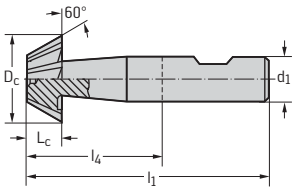


Designation Uncoated	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P315831-12-45	12	3,5	54	14	10	10
P315831-16-45	16	4	60	15	12	10
P315831-20-45	20	5	63	18	12	10
P315831-25-45	25	6,3	67	22	12	10
P315831-32-45	32	8	71	23	16	12

Radial cutting only
Shoulder milling $a_e \leq 0.3 \times D_c$

DIN 1833 D

Shank DIN 1835 B



Designation Uncoated	D_c mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z
P315851-12-60	6,2	5	54	14	10	10
P315851-16-60	8,7	6,3	60	15	12	10
P315851-20-60	10,8	8	63	18	12	10
P315851-25-60	13,5	10	67	22	12	10
P315851-32-60	17,6	12,5	71	23	16	12

Radial cutting only
Shoulder milling $a_e \leq 0.3 \times D_c$

XIII D 1 C 253 C 263

HSS-E Co quarter-round profiling cutters
P316881
Protostar® HSS

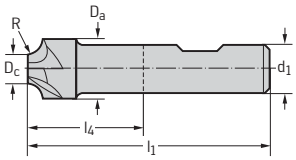
Z= 4–5

0°

	P	M	K	N	S	H	O
Uncoated	●●	●	●	●	●		

DIN 6518 B

Shank DIN 1835 B



Designation Uncoated	R mm	D_c mm	D_a mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z
P316881-1	1	8	10	1	60	20	10	4
P316881-1.5	1,5	7	10	1,5	60	20	10	4
P316881-2	2	6	10	2	60	20	10	4
P316881-2.5	2,5	5	10	2,5	60	20	10	4
P316881-3	3	6	12	3	60	15	12	4
P316881-4	4	7	15	4	60	15	12	4
P316881-5	5	8	18	5	70	22	16	4
P316881-6	6	9	21	6	70	22	16	4
P316881-7	7	10	24	7	70	22	16	4
P316881-8	8	8	24	8	70	22	16	4
P316881-9	9	10	28	9	85	35	20	4
P316881-10	10	8	28	10	85	35	20	4
P316881-12	12	11	35	12	100	50	20	4
P316881-12.5	12,5	10	35	12,5	100	50	20	4
P316881-14	14	14	42	14	100	44	25	4
P316881-15	15	18	48	15	105	49	25	5

With radial and axial relief

WALTER SELECT

●● Primary application

● Other application

XIII D 1 C 253 C 263

Brazed milling tools product range overview
Shoulder milling cutters

Machining						
Designation	**F1678**	**F1682**	**F1676**	**F1675**	**F4722**	**F4722**
Dia. range [mm]	25–40	40–63	63	50–100	20–40	6–20
Z	4–6	6	6	6–8	4	2
Shank [mm]	DIN 1835 B	Modular NCT adaptor	Steep taper	Cylindrical bore	ScrewFit	Parallel shank
Page	C 216	C 216	C 217	C 217	C 219	C 219

Machining	
Designation	**F4723**
Dia. range [mm]	50–80
Z	5–6
Shank [mm]	Cylindrical bore
Page	C 221

Designation key – PCD milling cutters

Example:

F47	2	2	.	Z	16	.	16	.	Z02	.	20	.	D
1	2	3		4	5		6		7		8		9

1
Tool range
F47 PCD milling cutter, brazed

2
Insert corner
1 Corner radius
2 Chamfer
3 Wiper cutting edge
4 Cutting edge shape for sealing surfaces
5 According to Walter standard

3
Machining method
1 Routing cutters
2 Shoulder milling cutters
3 Face milling cutters
4 Radius milling cutters
5 Torus cutters
6 Porcupine milling cutters

4
Adaptor
Z Parallel shank
H HSK
T ScrewFit
B Bore

5
Adaptor size

6
Cutting diameter
06 6 mm
16 16 mm

7
Number of teeth

8
Cutting length

9
Cutting tool material
D WCD10

Walter Select – Brazed cutters

Step by step to the right tool

STEP 1

Determine the **material** to be machined from page C 671 onwards:

Note the **machining group** that corresponds to your material, e.g.: P10.

Code letters	Machining groups	Groups of the materials to be machined	
P	P1–P15	**Steel**	All types of steel and steel casting, with the exception of steel with an austenitic structure
M	M1–M3	**Stainless steel**	Austenitic stainless steel, austenitic-ferritic steel and steel casting
K	K1–K7	**Cast iron**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron, cast iron with vermicular graphite
N	N1–N10	**NF metals**	Aluminium and other non-ferrous metals, non-ferrous materials
S	S1–S10	**Materials with difficult cutting properties**	Heat-resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys
H	H1–H4	**Hard materials**	Hardened steel, hardened cast iron materials, chilled cast iron
O	O1–O6	**Other**	Plastics, glass and carbon fibre reinforced plastics, graphite

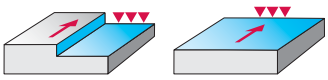
STEP 2

Select the **machining conditions**:

Machine stability, clamping system and workpiece		
very good	good	moderate
☺	😐	☹

STEP 3

Select your **machining method** based on the main categories and subcategories and then go to the relevant Walter Select product range overview (see table, e.g. page C 214).

Machining method

Shoulder milling – No facet – With facet
Page C 214

STEP 4

Select the appropriate tool for your **machining conditions** and then go to the ordering page.

Walter Select brazed milling tools
Shoulder milling cutters

Machining

WALTER SELECT
●● Primary application
● Other application

Designation	F1678	F1682	F1676	F1675	F4722
Dia. range [mm]	25–40	40–63	63	50–100	20–40
Z	4–6	6	6	6–8	4
Shank	DIN 1835 B	Modular NCT adaptor	Steep taper	Cylindrical bore	ScrewFit
Page	C 216	C 216	C 217		C 219

STEP 5

Based on the **material group** to be machined, look for the appropriate **cutting speed** by referring to **a_e to D_c from page** C 254 **onwards** and also the **VT feed group** (e.g. A).

Cutting data for end milling cutters with PCD/brazed cutting edges

Product family
Brazed helical milling cutters
F1675, F1676, F1678, F1682

Ø 20–100 mm
Z = 4–8
WP40

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 1/2	1/4	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	200	325	375	J
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	140	225	265	J
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	120	200	230	J
		C > 0.55%	Annealed	190	640	P4	140	225	265	J
		C > 0.55%	Heat-treated	300	1010	P5	110	180	215	J
		Free cutting steel (short-chipping)	Annealed	220	750	P6	130	220	280	J
	Low-alloyed steel	Annealed		175	590	P7	155	250	290	L
		Heat-treated		285	960	P8	120	190	225	L
		Heat-treated		380	1280	P9	100	170	195	L
		Heat-treated		430	1480	P10	90	160	170	L
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	115	190	220	L
		Hardened and tempered		300	1010	P12	100	160	180	L

STEP 6

Based on the feed group, determine the correct **feed value (page C 256 a_e to D_c)** for your **machining conditions**.

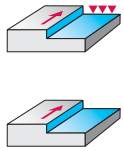
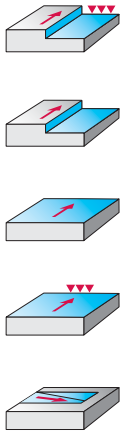
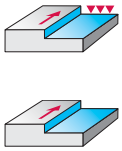
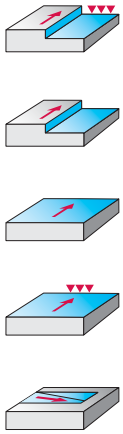
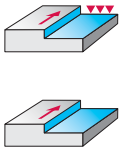
J Non-alloyed steel, malleable cast iron, ductile cast iron and CGI

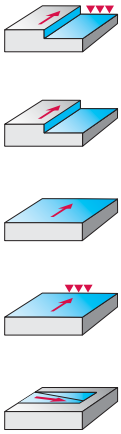
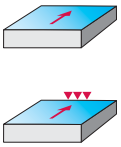
Feed per tooth f_z [mm]

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 10
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
6,0	0,10	0,10	0,10	0,11	0,12	0,17	0,18	0,18	0,
8,0	0,10	0,10	0,10	0,10	0,11	0,17	0,17	0,18	0,
10,0	0,10	0,10	0,10	0,10	0,10	0,17	0,17	0,17	0,
12,0	0,10	0,10	0,10	0,10	0,10	0,16	0,17	0,17	0,1
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	0,1
32,0				0,10	0,10	0,15	0,15	0,15	0,
40,0					0,10	0,15	0,15	0,15	0,
50,0						0,15	0,15	0,15	0,
63,0							0,15	0,15	0,
80,0								0,15	0,
100,0									0

* Radial feed in mm

Walter Select brazed milling tools
Shoulder milling cutters

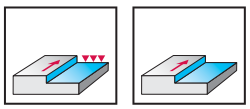
Machining						
WALTER SELECT ●● Primary application ● Other application						
Designation	**F1678**	**F1682**	**F1676**	**F1675**	**F4722**	
Dia. range [mm]	25–40	40–63	63	50–100	20–40	
Z	4–6	6	6	6–8	4	
Shank	DIN 1835 B	Modular NCT adaptor	Steep taper	Cylindrical bore	ScrewFit	
Page	C 216	C 216	C 217	C 217	C 219	
P Steel	●●	●●	●●	●●		
M Stainless steel						
K Cast iron	●●	●●		●●		
N NF metals					●●	
S Materials with difficult cutting properties						
H Hard materials						
O Other					●	

		
	F4722	**F4723**
	6–20	50–80
	2	5–6
	Parallel shank	Cylindrical bore
	C 219	C 221
	●●	●●
	●	●

Brazed helical shoulder milling cutters F1678 / F1682

Z= 3–6

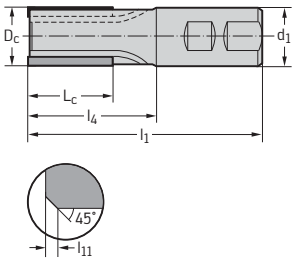
– Brazed cutting edges



	P	M	K	N	S	H	O
WKM			●●				
WP40	●●						

Tool

Shank DIN 1835 B

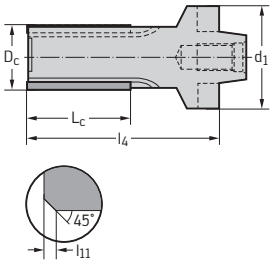


Designation	$D_{c\ js16}$ mm	l_{11} mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	kg	WKM	WP40
F1678.W.020.Z03.40.K	20	0,5	40	105	54	20	3	0,3	●	
F1678.W.020.Z03.40.P	20	0,5	40	105	54	20	3	0,2		●
F1678.W.025.Z04.50.K	25	0,5	50	125	68	25	4	0,4	●	
F1678.W.025.Z04.50.P	25	0,5	50	125	68	25	4	0,4		●
F1678.W.032.Z04.50.K	32	0,5	50	130	69	32	4	0,7	●	
F1678.W.032.Z04.50.P	32	0,5	50	130	69	32	4	0,7		●
F1678.W.040.Z06.63.K	40	0,8	63	145	84	40	6	1,0	●	
F1678.W.040.Z06.63.P	40	0,8	63	145	84	40	6	1,0		●

Ordering example for the WKM grade: F1678.W.020.Z03.40.K

Tool

Modular NCT adaptor



Designation	$D_{c\ js16}$ mm	l_{11} mm	L_c mm	l_4 mm	d_1 mm	Z	kg	WKM	WP40
F1682.N6.032.Z04.50.K	32	0,5	50	110	NCT 63	4	1,0	●	
F1682.N6.032.Z04.50.P	32	0,5	50	110	NCT 63	4	1,1		●
F1682.N6.040.Z06.63.K	40	0,8	63	120	NCT 63	6	1,3	●	
F1682.N6.040.Z06.63.P	40	0,8	63	120	NCT 63	6	1,3		●
F1682.N8.050.Z06.80.K	50	0,8	80	135	NCT 80	6	2,5	●	
F1682.N8.050.Z06.80.P	50	0,8	80	135	NCT 80	6	2,5		●
F1682.N8.063.Z06.100.K	63	0,8	100	150	NCT 80	6	3,3	●	
F1682.N8.063.Z06.100.P	63	0,8	100	150	NCT 80	6	3,4		●

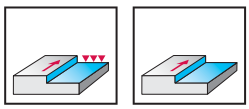
Ordering example for the WKM grade: F1682.N6.032.Z04.50.K

XIII D 1 C 254 C 264

Brazed helical shoulder milling cutters F1676 / F1675

Z= 6–8

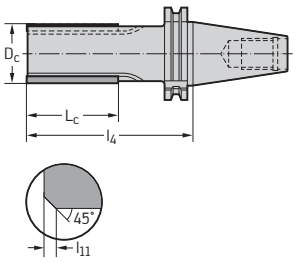
– Brazed cutting edges



	P	M	K	N	S	H	O
WKM			●●				
WP40	●●						

Tool

SK DIN 69871 + 2080

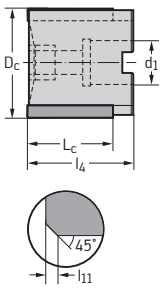


Designation	$D_{c\ js16}$ mm	l_{11} mm	L_c mm	l_4 mm	d_1 mm	Z	kg	WKM	WP40
F1676.S5.050.Z06.80.K	50	0,8	80	135	SK50	6	4,0	☺	
F1676.S5.050.Z06.80.P	50	0,8	80	135	SK50	6	3,8		☺
F1676.S5.063.Z06.100.K	63	0,8	100	155	SK50	6	5,1	☺	
F1676.S5.063.Z06.100.P	63	0,8	100	155	SK50	6	5,1		☺

Ordering example for the WKM grade: F1676.S5.050.Z06.80.K

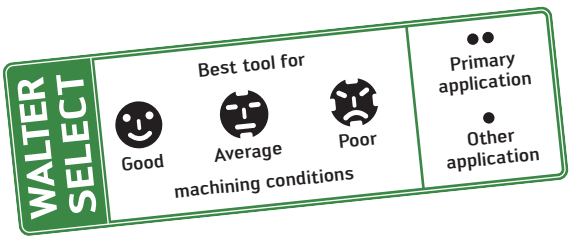
Tool

Cylindrical bore
DIN 138 transverse keyway



Designation	$D_{c\ js16}$ mm	l_{11} mm	L_c mm	l_4 mm	d_1 mm	Z	kg	WKM	WP40
F1675.B.050.Z06.40.K	50	0,8	40	50	22	6	0,5	☺	
F1675.B.050.Z06.40.P	50	0,8	40	50	22	6	0,5		☺
F1675.B.063.Z06.50.K	63	0,8	50	63	27	6	1	☺	
F1675.B.063.Z06.50.P	63	0,8	50	63	27	6	1,0		☺
F1675.B.080.Z08.50.K	80	1	50	63	32	8	1,5	☺	
F1675.B.080.Z08.50.P	80	1	50	63	32	8	1,5		☺
F1675.B.100.Z08.63.K	100	1	63	80	40	8	3,0	☺	
F1675.B.100.Z08.63.P	100	1	63	80	40	8	3,0		☺

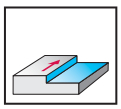
Ordering example for the WKM grade: F1675.B.050.Z06.40.K



XIII D 1 C 254 C 264

Brazed porcupine shoulder milling cutters F1616 / F1375

– Brazed cutting edges

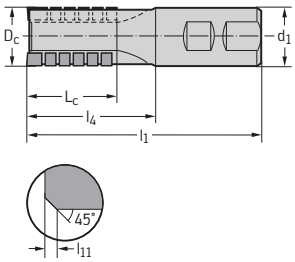


Z= 2–4

	P	M	K	N	S	H	O
WKM			●●				

Tool

Shank DIN 1835 B

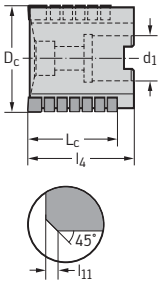


Designation	$D_{c\ js16}$ mm	l_{11} mm	L_c mm	l_1 mm	l_4 mm	d_1 h6 mm	Z	kg	WKM
F1616.W.020.Z02.40.K	20	0,5	40	105	54	20	2	0,2	●
F1616.W.025.Z02.50.K	25	0,5	50	125	68	25	2	0,4	●
F1616.W.028.Z02.50.K	28	0,5	50	125	68	25	2	0,6	●
F1616.W.032.Z02.50.K	32	0,5	50	130	69	32	2	0,7	●
F1616.W.040.Z02.63.K	40	0,8	63	145	84	40	2	0,9	●

Ordering example for the WKM grade: F1616.W.020.Z02.40.K

Tool

Cylindrical bore
DIN 138 transverse keyway



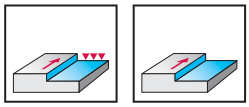
Designation	$D_{c\ js16}$ mm	l_{11} mm	L_c mm	l_4 mm	d_1 mm	Z	kg	WKM
F1375.B.050.Z03.40.K	50	0,8	40	50	22	3	0,4	●
F1375.B.063.Z03.50.K	63	0,8	50	63	27	3	0,8	●
F1375.B.080.Z04.50.K	80	1	50	63	32	4	1,4	●

Ordering example for the WKM grade: F1375.B.050.Z03.40.K

XIII D 1 C 255 C 264

PCD shoulder milling cutters
F4722

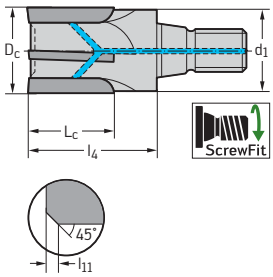
Z= 2–4



	P	M	K	N	S	H	O
WCD10				●●			●

Tool

ScrewFit

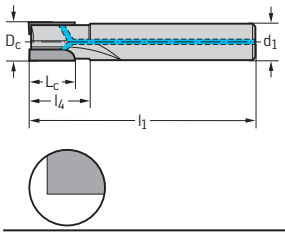


Designation	D_c mm	l_{11} mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z	kg	WCD10
F4722.T18.020.Z04.20.D	20	0,2	20	51	30	T18	4	0,1	●
F4722.T22.025.Z04.20.D	25	0,2	20	58	35	T22	4	0,1	●
F4722.T28.032.Z04.20.D	32	0,2	20	69	40	T28	4	0,4	●
F4722.T36.040.Z04.20.D	40	0,2	20	75	40	T36	4	0,4	●

Pre-balanced to G6.3 where n = 16,000 rpm
Ordering example for the WCD10 grade: F4722.T18.020.Z04.20.D

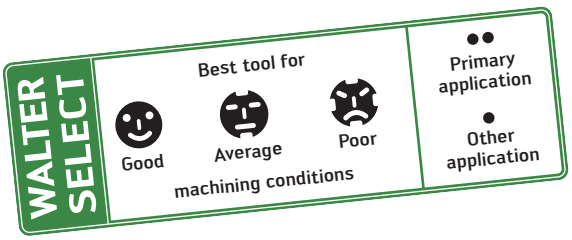
Tool

Parallel shank



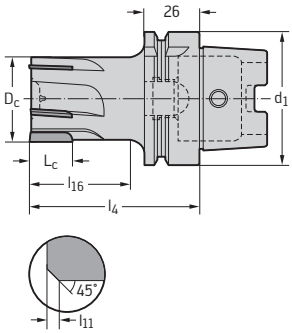
Designation	D_c mm	l_{11} mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z	kg	WCD10
F4722.Z06.006.Z02.08.D	6	0	8	50	13	6	2	0,0	●
F4722.Z08.008.Z02.10.D	8	0	10	70	15	6	2	0,1	●
F4722.Z10.010.Z02.12.D	10	0	12	80	17	10	2	0,1	●
F4722.Z12.012.Z02.16.D	12	0	16	80	21	12	2	0,1	●
F4722.Z16.016.Z02.20.D	16	0	20	90	25	16	2	0,2	●
F4722.Z20.020.Z02.20.D	20	0	20	100	25	20	2	0,4	●

Ordering example for the WCD10 grade: F4722.Z06.006.Z02.08.D



Tool

HSK DIN 69893/1-A



Designation	D_c mm	l_{11} mm	L_c mm	l_1 mm	l_4 mm	d_1 mm	Z	kg	WCD10
F4722.H63A.025.Z04.20.D	25	0,2	20	142	110	63	4	1,1	●
F4722.H63A.032.Z04.20.D	32	0,2	20	142	110	63	4	0,8	●
F4722.H63A.040.Z05.20.D	40	0,2	20	112	80	63	5	1,2	●

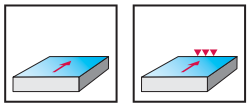
Pre-balanced to G6.3 where n = 16,000 rpm
Ordering example for the WCD10 grade: F4722.H63A.025.Z04.20.D

XIII D 1 C 255 C 264

PCD face/shoulder milling cutters
F4723

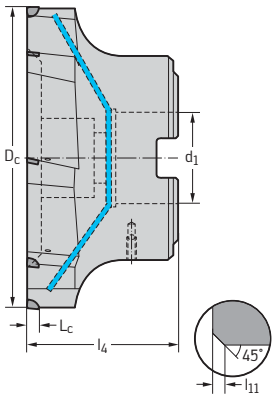
– κ = 75° to L_c = 1.1 mm

Z = 5–8



	P	M	K	N	S	H	O
WCD10				●●			●

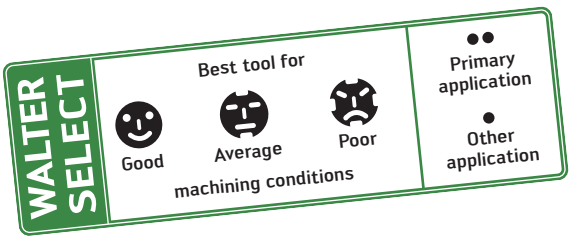
Tool



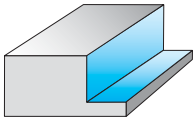
Cylindrical bore
DIN 138 transverse keyway

Designation	D_c mm	l_{11} mm	L_c mm	l_4 mm	d_1 mm	Z	kg	WCD10
F4723.B22.050.Z05.05.D	50	0,1	1,1	40	22	5	0,6	●●
F4723.B22.063.Z05.05.D	63	0,1	1,1	40	22	5	0,5	●●
F4723.B27.080.Z06.05.D	80	0,1	1,1	50	27	6	1,0	●●
F4723.B32.100.Z08.05.D	100	0,1	1,1	50	32	8	1,5	●●
F4723.B40.125.Z08.05.D	125	0,1	1,1	63	40	8	3,0	●●

Pre-balanced to G6.3 where n = 16,000 rpm
Ordering example for the WCD10 grade: F4723.B22.050.Z05.05.D
Bodies and assembly parts are included in the scope of delivery.



Cutting data for solid carbide shoulder milling



Product family		λ
H7073417		45°

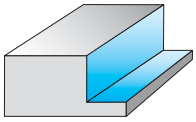
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 25 mm, Z = 4–5, ACN, Starting values for cutting speed v_c [m/min], a_e / D_c 1/2	1/4	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1				
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2				
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3				
		C > 0.55%	Annealed	190	640	P4				
		C > 0.55%	Heat-treated	300	1010	P5				
		Free cutting steel (short-chipping)	Annealed	220	750	P6				
	Low-alloyed steel	Annealed		175	590	P7				
		Heat-treated		285	960	P8				
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11				
		Hardened and tempered		300	1010	P12				
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14				
		Martensitic, heat-treated		330	1110	P15				
M	Stainless steel	Austenitic, quench hardened		200	680	M1				
		Austenitic, precipitation hardened (PH)		300	1010	M2				
		Austenitic/ferritic, duplex		230	780	M3				
K	Malleable cast iron	Ferritic		200	400	K1				
		Pearlitic		260	700	K2				
	Grey cast iron	Low tensile strength		180	200	K3				
		High tensile strength/austenitic		245	350	K4				
	Cast iron with spheroidal graphite	Ferritic		155	400	K5				
		Pearlitic		265	700	K6				
	GGV (CGI)			230	400	K7				
N	Wrought aluminium alloys	Not hardenable		30	–	N1				
		Hardenable, hardened		100	340	N2				
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3				
		≤ 12% Si, hardenable, hardened		90	310	N4				
		> 12% Si, not hardenable		130	450	N5				
	Magnesium-based alloys			70	250	N6				
	Copper and copper alloys (bronze/brass)	Non-alloyed, 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			73	B
			Hardened	280	940	S2			44	B
		Ni or Co base	Annealed	250	840	S3			73	B
			Hardened	350	1180	S4			44	B
			Cast	320	1080	S5			44	B
	Titanium alloys	Pure titanium		200	680	S6				
		α and β alloys, hardened		375	1260	S7			110	B
		β alloys		410	1400	S8			57	B
	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

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

	Product family		λ	Product family		λ	Product family		λ
	H8082228	H8083128	50°	H3178128		30°	H3021138 H3023138	H3E21138 H3E23138	50°
	Ø 3–25 mm			Ø 5–16 mm			Ø 3–25 mm		
	Z = 4–8			Z = 6–16			Z = 4–8		
	TAX			TAX			TAX		
	Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c		
	1/2	1/4	1/10	VT	1/2	1/4	1/10	VT	1/2	1/4	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
										81	99	A
										54	65	A
										113	137	B
										56	68	B
										76	92	B
										62	75	B
										37	45	B
										62	75	B
										37	45	B
										37	45	B
										66	80	B
										65	79	B
										34	42	B
										86	104	B
										86	104	B
			182	B			182	B				
			77	B			77	B				
			162	B			162	B				

Cutting data for solid carbide shoulder milling



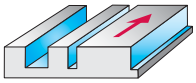
Product family	λ
MC129	60°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 6–20 mm, Z = 6, WJ30TF: Starting values for cutting speed v_c [m/min], a_e / D_c 1/2	1/4	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1		191	232	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2		261	317	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3		222	270	A
		C > 0.55%	Annealed	190	640	P4		222	270	A
		C > 0.55%	Heat-treated	300	1010	P5		157	191	A
		Free cutting steel (short-chipping)	Annealed	220	750	P6		222	270	A
	Low-alloyed steel	Annealed		175	590	P7		222	270	A
		Heat-treated		285	960	P8		138	168	A
		Heat-treated		380	1280	P9		129	157	A
		Heat-treated		430	1480	P10		109	133	A
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11		222	270	A
		Hardened and tempered		300	1010	P12		157	191	A
		Hardened and tempered		380	1280	P13		129	157	A
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14		95	116	A
		Martensitic, heat-treated		330	1110	P15		63	76	A
M	Stainless steel	Austenitic, quench hardened		200	680	M1		113	137	B
		Austenitic, precipitation hardened (PH)		300	1010	M2		56	68	B
		Austenitic/ferritic, duplex		230	780	M3		76	92	B
K	Malleable cast iron	Ferritic		200	400	K1		219	266	A
		Pearlitic		260	700	K2		171	207	A
	Grey cast iron	Low tensile strength		180	200	K3		219	266	A
		High tensile strength/austenitic		245	350	K4		184	223	A
	Cast iron with spheroidal graphite	Ferritic		155	400	K5		219	266	A
		Pearlitic		265	700	K6		171	207	A
	GGV (CGI)			230	400	K7		146	178	A
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)	Non-alloyed, 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		62	75	B
			Hardened	280	940	S2		37	45	B
		Ni or Co base	Annealed	250	840	S3		62	75	B
			Hardened	350	1180	S4		37	45	B
			Cast	320	1080	S5		37	45	B
	Titanium alloys	Pure titanium		200	680	S6		66	80	B
		α and β alloys, hardened		375	1260	S7		65	79	B
		β alloys		410	1400	S8		34	42	B
	Tungsten alloys			300	1010	S9		86	104	B
	Molybdenum alloys			300	1010	S10		86	104	B
H	Hardened steel	Hardened and tempered		50 HRC	–	H1				
		Hardened and tempered		55 HRC	–	H2				
		Hardened and tempered		60 HRC	–	H3				
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4				
O	Thermoplastics	Without abrasive fillers				O1				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

	Product family			λ	Product family			λ	Product family			λ
	MC122 Advance			45°	MC111 Advance	MC112 Advance		30°	H3058917	H404491 H4044918		30°
	Ø 2–25 mm				Ø 2–25 mm				Ø 0,4–25 mm			
	Z = 4–8				Z = 4				Z = 2–6			
	WJ30TF				WJ30TF				TAX / uncoated			
	Starting values for cutting speed v_c [m/min] a_e / D_c				Starting values for cutting speed v_c [m/min] a_e / D_c				Starting values for cutting speed v_c [m/min] a_e / D_c			
	1/2	1/4	1/10	VT	1/2	1/4	1/10	VT	1/2	1/4	1/10	VT
	162	191	232	A	174	204	248	A	161	189	230	A
	222	261	317	A	237	279	339	A	220	259	314	A
	189	222	270	A	202	238	289	A	188	221	269	A
	189	222	270	A	202	238	289	A	188	221	269	A
	134	157	191	A	143	168	204	A	133	156	190	A
	189	222	270	A	202	238	289	A	188	221	269	A
	189	222	270	A	202	238	289	A	188	221	269	A
	117	138	168	A	125	148	179	A	117	137	167	A
	110	129	157	A	118	139	168	A	110	129	157	A
	93	109	133	A	100	117	142	A	93	109	133	A
	189	222	270	A	202	238	289	A	188	221	269	A
	134	157	191	A	143	168	204	A	133	156	190	A
	110	129	157	A	118	139	168	A	110	129	157	A
	81	95	116	A	87	102	124	A	80	95	115	A
	53	63	76	A	57	67	82	A	53	62	76	A
	96	113	137	B	103	121	147	B	112	131	160	B
	47	56	68	B	51	60	72	B	55	65	79	B
	64	76	92	B	69	81	99	B	75	88	107	B
	186	219	266	A	199	234	285	A				
	145	171	207	A	155	183	222	A				
	186	219	266	A	199	234	285	A				
	156	184	223	A	167	197	239	A				
	186	219	266	A	199	234	285	A				
	145	171	207	A	155	183	222	A				
	124	146	178	A	133	157	190	A				
					1930	1720	1120	C	503	503	503	C
					1840	1720	1120	C	503	503	503	C
					771	907	1100	C	502	503	503	C
					771	907	1100	C	502	503	503	C
					257	302	367	C	240	282	343	C
								C				
					555	652	793	C	402	428	466	C
					555	652	793	C	402	428	466	C
					555	652	793	C	402	428	466	C
					74	87	106	C	62	73	88	C
	52	62	75	B	56	66	80	B				
	32	37	45	B	34	40	49	B				
	52	62	75	B	56	66	80	B				
	32	37	45	B	34	40	49	B				
	32	37	45	B	34	40	49	B				
	56	66	80	B	60	70	85	B				
	55	65	79	B	59	70	85	B				
	29	34	42	B	31	37	45	B				
	73	86	104	B	78	92	112	B				
	73	86	104	B	78	92	112	B				

Cutting data for solid carbide shoulder/slot milling



Product family		λ
MC341 Supreme		50°

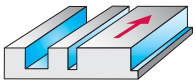
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 6–20 mm, Z = 4, WK40TZ: Starting values for cutting speed v_c [m/min], a_e / D_c 1/1	1/2	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	201	265	365	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	316	403	575	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	316	403	575	A
		C > 0.55%	Annealed	190	640	P4	270	344	491	A
		C > 0.55%	Heat-treated	300	1010	P5	191	243	348	A
		Free cutting steel (short-chipping)	Annealed	220	750	P6	270	344	491	A
	Low-alloyed steel	Annealed		175	590	P7	270	344	491	A
		Heat-treated		285	960	P8	191	243	348	A
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	270	344	491	A
		Hardened and tempered		300	1010	P12	191	243	348	A
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	80	102	146	A
		Martensitic, heat-treated		330	1110	P15	66	99	120	A
M	Stainless steel	Austenitic, quench hardened		200	680	M1	87	112	160	B
		Austenitic, precipitation hardened (PH)		300	1010	M2	54	69	99	B
		Austenitic/ferritic, duplex		230	780	M3	73	94	135	B
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)	Non-alloyed, 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 base	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

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

Product family		λ	Product family		λ	Product family		λ	Product family		λ
H4033217 H4036217	H4133217	45°	H4034217 H4038217 H4134217	H4138217 H4E34217 H4E38217	50°	H4135217	H4137217	35°	H2034217 H2038217	H2134217 H2138217	35°/38°
									H2EC34217 H2EC38217	H2EC94717	50°
Ø 2–20 mm			Ø 3–20 mm			Ø 6–25 mm			Ø 6–25 mm		
Z = 3			Z = 4			Z = 5			Z = 4–5		
TAZ			TAZ			TAZ			TAA		
Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] 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	1/1	1/2	1/10	VT	1/1	1/2	1/10	VT
170	211	302	A	178	222	317	A	170	211	302	A				
234	290	415	A	245	304	435	A	234	290	415	A				
199	248	354	A	209	260	371	A	199	248	354	A				
199	248	354	A	209	260	371	A	199	248	354	A				
141	175	250	A	148	184	263	A	141	175	250	A				
199	248	354	A	209	260	371	A	199	248	354	A				
199	248	354	A	209	260	371	A	199	248	354	A				
124	154	220	A	130	161	230	A	124	154	220	A				
			A				A				A				
199	248	354	A	209	260	371	A	199	248	354	A				
141	175	250	A	148	184	263	A	141	175	250	A				
68	85	121	A	72	89	127	A	68	85	121	A				
56	70	99	A	59	73	104	A	58	70	99	A				
74	92	131	B	78	96	138	B	74	92	131	B	111	138	197	B
46	57	82	B	48	60	86	B	46	57	82	B	55	68	97	B
63	78	111	B	66	82	117	B	63	78	111	B	75	93	132	B
												51	63	90	B
												31	38	54	B
												51	63	90	B
												31	38	54	B

Cutting data for solid carbide shoulder/slot milling



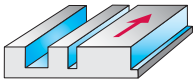
Product family		λ
MC251 Advance		35°/38°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 3–20 mm, Z = 4, WK40RC: 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	430	P1				
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2				
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3				
		C > 0.55%	Annealed	190	640	P4				
		C > 0.55%	Heat-treated	300	1010	P5				
		Free cutting steel (short-chipping)	Annealed	220	750	P6				
	Low-alloyed steel	Annealed		175	590	P7				
		Heat-treated		285	960	P8				
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11				
		Hardened and tempered		300	1010	P12				
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14				
		Martensitic, heat-treated		330	1110	P15				
M	Stainless steel	Austenitic, quench hardened		200	680	M1	58	73	104	B
		Austenitic, precipitation hardened (PH)		300	1010	M2	37	46	65	B
		Austenitic/ferritic, duplex		230	780	M3	50	62	88	B
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)	Non-alloyed, 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	38	47	67	B
			Hardened	280	940	S2	24	29	42	B
		Ni or Co base	Annealed	250	840	S3	38	47	67	B
			Hardened	350	1180	S4	24	29	42	B
			Cast	320	1080	S5	24	29	42	B
	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

Product family		λ	Product family		λ	Product family		λ	Product family		λ
H602311 H6023114 H602411 H602511	H602551 H6E2211 H6E2511	45°	H901411	H901451	30°	H602641 H602681	H602881 H6028818	25°	MB266 Supreme		30°
Ø 1–25 mm			Ø 2–12 mm			Ø 2–20 mm			Ø 12–25 mm		
Z = 2–3			Z = 1–2			Z = 2			Z = 3		
CRN / uncoated			Uncoated			TAX / uncoated			WJ30UU		
Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] 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	1/1	1/4	1/10	VT
1410	1750	2240	C	1410	1750	2240	C	1455	1635	1950	C	1590	2050	1890	C
1410	1750	2240	C	1410	1750	2240	C	1455	1635	1950	C	1590	2050	1890	C
353	439	627	C	353	439	627	C	368	456	652	C	398	512	731	C
353	439	627	C	353	439	627	C	368	456	652	C	398	512	731	C
141	175	251	C	141	175	251	C	147	183	261	C	159	205	293	C

Cutting data for solid carbide shoulder/slot milling



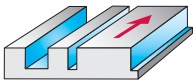
Product family		λ
MB265 Supreme		30°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 16–25 mm, Z = 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	430	P1				
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2				
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3				
		C > 0.55%	Annealed	190	640	P4				
		C > 0.55%	Heat-treated	300	1010	P5				
		Free cutting steel (short-chipping)	Annealed	220	750	P6				
	Low-alloyed steel	Annealed		175	590	P7				
		Heat-treated		285	960	P8				
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11				
		Hardened and tempered		300	1010	P12				
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14				
		Martensitic, heat-treated		330	1110	P15				
M	Stainless steel	Austenitic, quench hardened		200	680	M1				
		Austenitic, precipitation hardened (PH)		300	1010	M2				
		Austenitic/ferritic, duplex		230	780	M3				
K	Malleable cast iron	Ferritic		200	400	K1				
		Pearlitic		260	700	K2				
	Grey cast iron	Low tensile strength		180	200	K3				
		High tensile strength/austenitic		245	350	K4				
	Cast iron with spheroidal graphite	Ferritic		155	400	K5				
		Pearlitic		265	700	K6				
	GGV (CGI)			230	400	K7				
N	Wrought aluminium alloys	Not hardenable		30	–	N1	2310	2970	1890	C
		Hardenable, hardened		100	340	N2	2310	2970	1890	C
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	616	792	1130	C
		≤ 12% Si, hardenable, hardened		90	310	N4	616	792	1130	C
		> 12% Si, not hardenable		130	450	N5	269	347	495	C
	Magnesium-based alloys			70	250	N6				
	Copper and copper alloys (bronze/brass)	Non-alloyed, 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 base	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

Product family		λ	Product family		λ	Product family		λ	Product family		λ
H608411 H608771	H608871 H618911	40°	H7073717		40°	H3183017		30°	H3070118 H3070318 H3071118	H3071318 H3170318 H3171318	50°
Ø 6–25 mm			Ø 12–20 mm			Ø 8–16 mm			Ø 2–20 mm		
Z = 3			Z = 4			Z = 4			Z = 3–4		
Uncoated			ACN			ACN			TAX		
Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] 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	1/1	1/2	1/10	VT	1/1	1/2	1/10	VT
																87	108	155	A
																73	91	130	A
																87	108	155	A
1380	1720	1640	C																
1380	1720	1640	C																
345	429	613	C																
345	429	613	C																
138	172	245	C																
				45	56	80	B	42	52	75	B				
				27	34	49	B	26	32	45	B				
				45	56	80	B	42	52	75	B				
				27	34	49	B	26	32	45	B				
				27	34	49	B	26	32	45	B				
				67	85	121	B	64	79	113	B				
				35	44	63	B	33	41	59	B				
												57	70	101	B
												30	37	53	B
														53	B
												51	64	91	B

Cutting data for solid carbide shoulder/slot milling



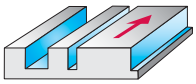
Product family		λ
H3094728		50°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 4–20 mm, Z = 4, TAX: Starting values for cutting speed v_c [m/min] a_e / D_c 1/1	1/4	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1				
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2				
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3				
		C > 0.55%	Annealed	190	640	P4				
		C > 0.55%	Heat-treated	300	1010	P5				
		Free cutting steel (short-chipping)	Annealed	220	750	P6				
	Low-alloyed steel	Annealed		175	590	P7				
		Heat-treated		285	960	P8				
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11				
		Hardened and tempered		300	1010	P12				
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14				
		Martensitic, heat-treated		330	1110	P15				
M	Stainless steel	Austenitic, quench hardened		200	680	M1				
		Austenitic, precipitation hardened (PH)		300	1010	M2				
		Austenitic/ferritic, duplex		230	780	M3				
K	Malleable cast iron	Ferritic		200	400	K1				
		Pearlitic		260	700	K2				
	Grey cast iron	Low tensile strength		180	200	K3				
		High tensile strength/austenitic		245	350	K4				
	Cast iron with spheroidal graphite	Ferritic		155	400	K5				
		Pearlitic		265	700	K6				
	GGV (CGI)			230	400	K7				
N	Wrought aluminium alloys	Not hardenable		30	–	N1				
		Hardenable, hardened		100	340	N2				
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3				
		≤ 12% Si, hardenable, hardened		90	310	N4				
		> 12% Si, not hardenable		130	450	N5				
	Magnesium-based alloys			70	250	N6				
	Copper and copper alloys (bronze/brass)	Non-alloyed, 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 base	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		39	57	E
		Hardened and tempered		55 HRC	–	H2		21	30	E
		Hardened and tempered		60 HRC	–	H3			30	E
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4		36	51	E
O	Thermoplastics	Without abrasive fillers				O1				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

Product family		λ	Product family		λ	Product family		λ	Product family		λ
H4044928 H8005728 H8005828	H8005928 H8015728 H8015828	30°	H3027419 H4044919	H8095919	30°	MC326 Supreme MC726 Supreme	H3E20317 H3E21317	50°	H1E92718		10°
									H3094718 H3E93718	H3E94718	50°
Ø 0,4–20 mm			Ø 0,4–16 mm			Ø 2–25 mm			Ø 4–25 mm		
Z = 2–4			Z = 2–4			Z = 3–5			Z = 2–5		
TAX			DIA			WK40TF / TAX			TAX		
Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] 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	1/1	1/4	1/10	VT
								150	185	264	A		105	127	D
								206	253	363	A		143	174	D
								175	216	310	A		122	149	D
								175	216	310	A		122	149	D
								124	153	219	A		87	105	D
								175	216	310	A		122	149	D
								175	216	310	A		122	149	D
								109	135	192	A		76	92	D
								102	127	181	A		72	87	D
								87	107	153	A		61	74	D
								175	216	310	A		122	149	D
								124	153	219	A		87	105	D
								102	127	181	A		72	87	D
								60	74	106	A		52	64	D
								49	61	87	A			42	D
								71	87	125	B		73	88	D
								44	55	78	B			44	D
								61	75	107	B		49	59	D
								164	203	290	A		141	172	D
								129	159	226	A		110	134	D
								164	203	290	A		141	172	D
								138	170	243	A		118	144	D
								164	203	290	A		141	172	D
								129	159	226	A		110	134	D
								110	136	194	A		94	115	D
								46	57	81	B		40	48	D
								29	35	50	B		24	29	D
								46	57	81	B		40	48	D
								29	35	50	B		24	29	D
								29	35	50	B		24	29	D
								49	61	87	B				
								49	61	87	B		42	51	D
								26	32	46	B		22	27	D
								65	80	114	B		55	67	D
								65	80	114	B		55	67	D
121	170	224	B												
	59	94	B												
	59	94	B												
	130	199	B												
				622	750	1100	C								

Cutting data for solid carbide shoulder/slot milling



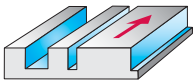
Product family		λ
MC321 Advance MC322 Advance MC324 Advance	H3E29148	45°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 1–25 mm, Z = 3–5, WJ30TF / TAX, 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	430	P1	140	174	248	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	191	237	339	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	163	202	289	A
		C > 0.55%	Annealed	190	640	P4	163	202	289	A
		C > 0.55%	Heat-treated	300	1010	P5	115	143	204	A
		Free cutting steel (short-chipping)	Annealed	220	750	P6	163	202	289	A
	Low-alloyed steel	Annealed		175	590	P7	163	202	289	A
		Heat-treated		285	960	P8	101	125	179	A
		Heat-treated		380	1280	P9	95	118	168	A
		Heat-treated		430	1480	P10	80	100	142	A
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	163	202	289	A
		Hardened and tempered		300	1010	P12	115	143	204	A
		Hardened and tempered		380	1280	P13	95	118	168	A
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	70	87	124	A
		Martensitic, heat-treated		330	1110	P15	46	57	82	A
M	Stainless steel	Austenitic, quench hardened		200	680	M1	83	103	147	B
		Austenitic, precipitation hardened (PH)		300	1010	M2	41	51	72	B
		Austenitic/ferritic, duplex		230	780	M3	56	69	99	B
K	Malleable cast iron	Ferritic		200	400	K1	160	199	285	A
		Pearlitic		260	700	K2	125	155	222	A
	Grey cast iron	Low tensile strength		180	200	K3	160	199	285	A
		High tensile strength/austenitic		245	350	K4	135	167	239	A
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	160	199	285	A
		Pearlitic		265	700	K6	125	155	222	A
	GGV (CGI)			230	400	K7	107	133	190	A
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)	Non-alloyed, 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	45	56	80	B
			Hardened	280	940	S2	27	34	49	B
		Ni or Co base	Annealed	250	840	S3	45	56	80	B
			Hardened	350	1180	S4	27	34	49	B
			Cast	320	1080	S5	27	34	49	B
	Titanium alloys	Pure titanium		200	680	S6	48	60	85	B
		α and β alloys, hardened		375	1260	S7	48	59	85	B
		β alloys		410	1400	S8	25	31	45	B
	Tungsten alloys			300	1010	S9	63	78	112	B
	Molybdenum alloys			300	1010	S10	63	78	112	B
H	Hardened steel	Hardened and tempered		50 HRC	–	H1				
		Hardened and tempered		55 HRC	–	H2				
		Hardened and tempered		60 HRC	–	H3				
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4				
O	Thermoplastics	Without abrasive fillers				O1				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

Product family		λ	Product family		λ	Product family		λ	Product family		λ
H1E2018		10°	MC716 Advance		30°	MC232 Perform		35°	H3185378 H3186378	H3E85378	45°
MC213 Advance MC216 Advance		30°									
Ø 0,6–20 mm			Ø 1,8–20 mm			Ø 2–20 mm			Ø 12–25 mm		
Z = 2–4			Z = 2–3			Z = 2–4			Z = 5–8		
WJ30TF / TAX			WJ30TF			WJ30ED			TAX		
Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] 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	1/1	1/2	1/10	VT
123	180	219	A	145	180	257	A	89	111	158	A	123	153	218	A
175	247	300	A	198	246	352	A	122	151	216	A	169	210	300	A
149	210	256	A	169	210	300	A	104	130	185	A	144	179	256	A
149	210	256	A	169	210	300	A	104	130	185	A	144	179	256	A
105	149	181	A	119	148	212	A	74	92	131	A	102	127	181	A
149	210	256	A	169	210	300	A	104	130	185	A	144	179	256	A
149	210	256	A	169	210	300	A	104	130	185	A	144	179	256	A
92	130	158	A	105	130	186	A	65	81	115	A	90	111	159	A
87	122	149	A	98	122	175	A	61	76	108	A	84	105	150	A
73	103	126	A	83	103	147	A	52	64	92	A	71	88	126	A
149	210	256	A	169	210	300	A	104	130	185	A	144	179	256	A
107	149	181	A	119	148	212	A	77	92	131	A	102	127	181	A
89	122	149	A	98	122	175	A	63	76	108	A	84	105	150	A
64	90	110	A	73	90	129	A	44	55	79	A	49	61	88	A
43	59	72	A	48	59	85	A	31		52	A	41	50	72	A
76	107	130	B	86	106	152	B	62	77	110	B	58	73	104	B
38	53	64	B	42	53	75	B	32	40	55	B	37	46	65	B
51	72	87	B	58	72	102	B	42	52	75	B	50	62	88	B
142	207	252	A	166	207	295	A	120	149	213	A	135	168	240	A
114	161	196	A	130	161	230	A	94	117	167	A	106	131	188	A
142	207	252	A	166	207	295	A	120	149	213	A	135	168	240	A
123	174	211	A	139	173	248	A	101	125	179	A	113	141	201	A
142	207	252	A	166	207	295	A	120	149	213	A	135	168	240	A
114	161	196	A	130	161	230	A	94	117	167	A	106	131	188	A
98	138	168	A	111	138	197	A	80	100	142	A	91	112	161	A
41	58	71	B	47	58	83	B								
25	35	43	B	28	35	50	B								
41	58	71	B	47	58	83	B								
26	35	43	B	28	35	50	B								
26	35	43	B	28	35	50	B								
43	62	76	B	50	62	89	B								
42	61	75	B	49	61	88	B								
23	32	39	B	26	32	46	B								
58	81	99	B	65	81	116	B								
58	81	99	B	65	81	116	B								

Cutting data for solid carbide shoulder/slot milling



Product family		λ
H3182378 H3183378	H3E82378	40°

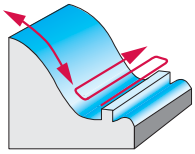
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 5–25 mm, Z = 4, TAX, Starting values for cutting speed v_c [m/min], a_e / D_c 1/1	1/2	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	123	153	218	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	169	210	300	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	144	179	256	A
		C > 0.55%	Annealed	190	640	P4	144	179	256	A
		C > 0.55%	Heat-treated	300	1010	P5	102	127	181	A
		Free cutting steel (short-chipping)	Annealed	220	750	P6	144	179	256	A
	Low-alloyed steel	Annealed		175	590	P7	144	179	256	A
		Heat-treated		285	960	P8	90	111	159	A
		Heat-treated		380	1280	P9	84	105	150	A
		Heat-treated		430	1480	P10	71	88	126	A
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	144	179	256	A
		Hardened and tempered		300	1010	P12	102	127	181	A
		Hardened and tempered		380	1280	P13	84	105	150	A
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	49	61	88	A
		Martensitic, heat-treated		330	1110	P15	41	50	72	A
M	Stainless steel	Austenitic, quench hardened		200	680	M1	58	73	104	B
		Austenitic, precipitation hardened (PH)		300	1010	M2	37	46	65	B
		Austenitic/ferritic, duplex		230	780	M3	50	62	88	B
K	Malleable cast iron	Ferritic		200	400	K1	135	168	240	A
		Pearlitic		260	700	K2	106	131	188	A
	Grey cast iron	Low tensile strength		180	200	K3	135	168	240	A
		High tensile strength/austenitic		245	350	K4	113	141	201	A
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	135	168	240	A
		Pearlitic		265	700	K6	106	131	188	A
	GGV (CGI)			230	400	K7	91	112	161	A
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)	Non-alloyed, 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 base	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

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

Product family			λ	Product family			λ	Product family			λ
H3187278			30°	H4189278	H4189378		40°	H3180278	H4180378		30°
Ø 6–25 mm				Ø 5–25 mm				Ø 6–25 mm			
Z = 3				Z = 4				Z = 4			
TAX				TAX				TAX			
Starting values for cutting speed v_c [m/min] a_e / D_c				Starting values for cutting speed v_c [m/min] a_e / D_c				Starting values for cutting speed v_c [m/min] 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
136	169	242	A	123	153	218	A	123	153	218	A
188	233	333	A	169	210	300	A	169	210	300	A
160	199	284	A	144	179	256	A	144	179	256	A
160	199	284	A	144	179	256	A	144	179	256	A
113	141	201	A	102	127	181	A	102	127	181	A
160	199	284	A	144	179	256	A	144	179	256	A
160	199	284	A	144	179	256	A	144	179	256	A
100	124	177	A	90	111	159	A	90	111	159	A
94	116	166	A	84	105	150	A	84	105	150	A
79	98	140	A	71	88	126	A	71	88	126	A
160	199	284	A	144	179	256	A	144	179	256	A
113	141	201	A	102	127	181	A	102	127	181	A
94	116	166	A	84	105	150	A	84	105	150	A
55	68	97	A	49	61	88	A	49	61	88	A
45	56	80	A	41	50	72	A	41	50	72	A
65	80	115	B	58	73	104	B	58	73	104	B
41	51	72	B	37	46	65	B	37	46	65	B
55	69	98	B	50	62	88	B	50	62	88	B
150	187	267	A					135	168	240	A
117	146	208	A					106	131	188	A
150	187	267	A					135	168	240	A
126	156	223	A					113	141	201	A
150	187	267	A					135	168	240	A
117	146	208	A					106	131	188	A
100	125	178	A					91	112	161	A
579	720	1030	C					522	649	927	C
579	720	1030	C					522	649	927	C
417	518	740	C					376	467	667	C
417	518	740	C					376	467	667	C
56	70	99	C					51	63	90	C

Cutting data for solid carbide profile copy milling



Product family		λ
H1E0111		10°
H602111		30°

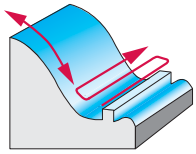
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 2–16 mm, Z = 2, Uncoated: Starting values for cutting speed v_c [m/min] a_e / D_c 1/5	1/20	1/50	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1				
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2				
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3				
		C > 0.55%	Annealed	190	640	P4				
		C > 0.55%	Heat-treated	300	1010	P5				
		Free cutting steel (short-chipping)	Annealed	220	750	P6				
	Low-alloyed steel	Annealed		175	590	P7				
		Heat-treated		285	960	P8				
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11				
		Hardened and tempered		300	1010	P12				
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14				
		Martensitic, heat-treated		330	1110	P15				
M	Stainless steel	Austenitic, quench hardened		200	680	M1				
		Austenitic, precipitation hardened (PH)		300	1010	M2				
		Austenitic/ferritic, duplex		230	780	M3				
K	Malleable cast iron	Ferritic		200	400	K1				
		Pearlitic		260	700	K2				
	Grey cast iron	Low tensile strength		180	200	K3				
		High tensile strength/austenitic		245	350	K4				
	Cast iron with spheroidal graphite	Ferritic		155	400	K5				
		Pearlitic		265	700	K6				
	GGV (CGI)			230	400	K7				
N	Wrought aluminium alloys	Not hardenable		30	–	N1	1770	1790	1790	C
		Hardenable, hardened		100	340	N2	1790	1790	1790	C
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	440	590	710	C
		≤ 12% Si, hardenable, hardened		90	310	N4	440	590	710	C
		> 12% Si, not hardenable		130	450	N5	180	240	280	C
	Magnesium-based alloys			70	250	N6	440	590	710	C
	Copper and copper alloys (bronze/brass)	Non-alloyed, electrolytic copper		100	340	N7	270	350	430	C
		Brass, bronze, red brass		90	310	N8	270	350	430	C
		Cu-alloys, short-chipping		110	380	N9	270	350	430	C
		High-tensile, Ampco		300	1010	N10				
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1				
			Hardened	280	940	S2				
		Ni or Co base	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

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

Product family		λ	Product family		λ	Product family		λ	Product family		λ
H404691	H4046918	30°	H4046928 H8004028 H8004128 H8004728	H8006428 H80016428 H8074128 H8014028 H8014128	30°	H4046988	H8004788	30°	H4046919 H8001119 H8001919	H8006419 H8016419	30°
Ø 0,3–3 mm			Ø 0,3–16 mm			Ø 1–12 mm			Ø 0,3–12 mm		
Z = 2			Z = 2–4			Z = 2			Z = 2–4		
TAX / uncoated			TAX			TAS			DIA		
Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c		
1/5	1/20	1/50	VT	1/5	1/20	1/50	VT	1/5	1/20	1/50	VT	1/5	1/20	1/50	VT
260	340	410	A												
250	330	400	A												
230	280	340	A												
230	280	340	A												
160	200	240	A												
230	280	340	A												
230	280	340	A												
160	200	240	A												
130	170	200	A												
110	140	170	A												
230	280	340	A												
160	200	240	A												
110	140	170	A												
80	100	120	A												
60	70	90	A												
1450	1450	1450	C												
1450	1450	1450	C												
770	1030	1230	C												
770	1030	1230	C												
270	360	430	C												
880	1180	1420	C												
550	740	890	C												
550	740	890	C												
550	740	890	C												
90	100	130	C												
				120	140	170	B	160	220	260	B				
				130	140	170	B	160	220	260	B				
				80	80	100	B	160	220	260	B				
				130	140	170	B								
												500	700	800	C

Cutting data for solid carbide profile copy milling

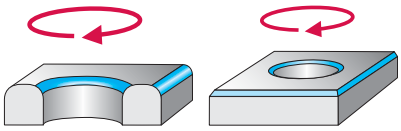


Product family		λ
H1E01118		10°
MC413 Advance	MC416 Advance	30°
H8E01118	H8E11118	40°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 1–25 mm, Z = 2–4, WJ30TF / TAX, 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	430	P1	230	310	370	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	220	300	360	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	190	260	310	A
		C > 0.55%	Annealed	190	640	P4	190	260	310	A
		C > 0.55%	Heat-treated	300	1010	P5	150	180	220	A
		Free cutting steel (short-chipping)	Annealed	220	750	P6	190	260	310	A
	Low-alloyed steel	Annealed		175	590	P7	190	260	310	A
		Heat-treated		285	960	P8	150	180	220	A
		Heat-treated		380	1280	P9	120	150	180	A
		Heat-treated		430	1480	P10	100	130	150	A
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	190	260	310	A
		Hardened and tempered		300	1010	P12	150	180	220	A
		Hardened and tempered		380	1280	P13	100	130	150	A
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	70	90	100	A
		Martensitic, heat-treated		330	1110	P15	50	60	80	A
M	Stainless steel	Austenitic, quench hardened		200	680	M1	80	110	130	B
		Austenitic, precipitation hardened (PH)		300	1010	M2	50	60	80	B
		Austenitic/ferritic, duplex		230	780	M3	70	90	100	B
K	Malleable cast iron	Ferritic		200	400	K1	180	240	290	A
		Pearlitic		260	700	K2	150	190	220	A
	Grey cast iron	Low tensile strength		180	200	K3	180	240	290	A
		High tensile strength/austenitic		245	350	K4	150	200	240	A
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	180	240	290	A
		Pearlitic		265	700	K6	150	190	220	A
	GGV (CGI)			230	400	K7	130	160	190	A
N	Wrought aluminium alloys	Not hardenable		30	–	N1	1740	1740	1740	C
		Hardenable, hardened		100	340	N2	1740	1740	1740	C
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	690	920	1100	C
		≤ 12% Si, hardenable, hardened		90	310	N4	690	920	1100	C
		> 12% Si, not hardenable		130	450	N5	240	320	390	C
	Magnesium-based alloys			70	250	N6	800	1060	1280	C
	Copper and copper alloys (bronze/brass)	Non-alloyed, electrolytic copper		100	340	N7	500	660	800	C
		Brass, bronze, red brass		90	310	N8	500	660	800	C
		Cu-alloys, short-chipping		110	380	N9	500	660	800	C
		High-tensile, Ampco		300	1010	N10	80	90	110	C
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	60	90	110	B
			Hardened	280	940	S2	40	50	70	B
		Ni or Co base	Annealed	250	840	S3	60	90	110	B
			Hardened	350	1180	S4	40	50	70	B
			Cast	320	1080	S5	40	50	70	B
	Titanium alloys	Pure titanium		200	680	S6	210	300	380	B
		α and β alloys, hardened		375	1260	S7	60	100	130	B
		β alloys		410	1400	S8	60	100	130	B
	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

Cutting data for solid carbide profile milling



Product family		λ
MC500 Advance	H3E58118	0°
MC501 Advance	H3E58318	
MC502 Advance	H3E58518	
H1E58018	H1E58318	10°
H1E58118	H1E58518	

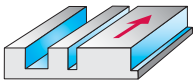
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	60° / 90° / 120° / 150° Z = 2–6 WJ30TF / TAX Starting values for cutting speed v_c [m/min] a_e / D_c 1/3	1/10	1/20	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	220	320	380	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	220	320	380	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	180	260	320	A
		C > 0.55%	Annealed	190	640	P4	180	260	30	A
		C > 0.55%	Heat-treated	300	1010	P5	130	180	230	A
		Free cutting steel (short-chipping)	Annealed	220	750	P6	180	260	320	A
	Low-alloyed steel	Annealed		175	590	P7	180	260	320	A
		Heat-treated		285	960	P8	130	180	230	A
		Heat-treated		380	1280	P9	110	150	170	A
		Heat-treated		430	1480	P10	90	130	160	A
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	180	260	320	A
		Hardened and tempered		300	1010	P12	130	180	230	A
		Hardened and tempered		380	1280	P13	90	130	160	A
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	60	90	110	A
		Martensitic, heat-treated		330	1110	P15	50	70	80	A
M	Stainless steel	Austenitic, quench hardened		200	680	M1	80	110	130	B
		Austenitic, precipitation hardened (PH)		300	1010	M2	50	70	80	B
		Austenitic/ferritic, duplex		230	780	M3	60	90	110	B
K	Malleable cast iron	Ferritic		200	400	K1	170	240	300	A
		Pearlitic		260	700	K2	130	190	230	A
	Grey cast iron	Low tensile strength		180	200	K3	170	240	300	A
		High tensile strength/austenitic		245	350	K4	170	240	300	A
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	170	240	300	A
		Pearlitic		265	700	K6	130	190	230	A
	GGV (CGI)			230	400	K7	110	160	200	A
N	Wrought aluminium alloys	Not hardenable		30	–	N1	1600	2300	2900	C
		Hardenable, hardened		100	340	N2	1600	2300	2900	C
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	260	370	450	C
		≤ 12% Si, hardenable, hardened		90	310	N4	260	370	450	C
		> 12% Si, not hardenable		130	450	N5	170	240	300	C
	Magnesium-based alloys			70	250	N6	750	1100	1300	C
	Copper and copper alloys (bronze/brass)	Non-alloyed, electrolytic copper		100	340	N7	480	680	840	C
		Brass, bronze, red brass		90	310	N8	480	680	840	C
		Cu-alloys, short-chipping		110	380	N9	480	680	840	C
		High-tensile, Ampco		300	1010	N10	70	100	120	C
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	60	90	110	B
			Hardened	280	940	S2	40	50	70	B
		Ni or Co base	Annealed	250	840	S3	60	90	110	B
			Hardened	350	1180	S4	40	50	70	B
			Cast	320	1080	S5	40	50	70	B
	Titanium alloys	Pure titanium		200	680	S6	200	290	370	B
		α and β alloys, hardened		375	1260	S7	60	90	120	B
		β alloys		410	1400	S8	60	90	120	B
	Tungsten alloys			300	1010	S9	70	100	120	B
	Molybdenum alloys			300	1010	S10	70	100	120	B
H	Hardened steel	Hardened and tempered		50 HRC	–	H1				
		Hardened and tempered		55 HRC	–	H2				
		Hardened and tempered		60 HRC	–	H3				
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4				
O	Thermoplastics	Without abrasive fillers				O1				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

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

	Product family		λ	Product family		λ
	MC503 Advance	H3E68118	0°	MC504 Advance		0°
	R 0,5–8 mm			Ø 6–12 mm		
	Z = 3–4			Z = 4–6		
	WJ30TF / TAX			WJ30TF		
	Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c		
	1/1	1/2	1/10	VT	1/3	1/10	1/20	VT
	310			A	220	320	380	A
	310			A	220	320	380	A
	260			A	180	260	320	A
	260			A	180	260	30	A
	190			A	130	180	230	A
	260			A	180	260	320	A
	260			A	180	260	320	A
	190			A	130	180	230	A
	150			A	110	150	170	A
	130			A	90	130	160	A
	260			A	180	260	320	A
	190			A	130	180	230	A
	130			A	90	130	160	A
	90			A	60	90	110	A
	70			A	50	70	80	A
	100			B	80	110	130	B
	70			B	50	70	80	B
	90			B	60	90	110	B
	240			A	170	240	300	A
	190			A	130	190	230	A
	240			A	170	240	300	A
	200			A	170	240	300	A
	240			A	170	240	300	A
	190			A	130	190	230	A
	120			A	110	160	200	A
	2300			C	1600	2300	2900	C
	2300			C	1600	2300	2900	C
	370			C	260	370	450	C
	370			C	260	370	450	C
	240			C	170	240	300	C
	1100			C	750	1100	1300	C
	680			C	480	680	840	C
	680			C	480	680	840	C
	680			C	480	680	840	C
	100			C	70	100	120	C
	90			B	60	90	110	B
	50			B	40	50	70	B
	90			B	60	90	110	B
	50			B	40	50	70	B
	50			B	40	50	70	B
	280			B	200	290	370	B
	80			B	60	90	120	B
	80			B	60	90	120	B
	100			B	70	100	120	B
	100			B	70	100	120	B

Cutting data for HSS shoulder/slot milling



Product family		λ
P4117027		40°

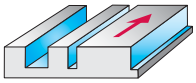
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 2–20 mm, Z = 3, ACN, Starting values for cutting speed v_c [m/min], a_e / D_c 1/1	1/2	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1				
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2				
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3				
		C > 0.55%	Annealed	190	640	P4				
		C > 0.55%	Heat-treated	300	1010	P5				
		Free cutting steel (short-chipping)	Annealed	220	750	P6				
	Low-alloyed steel	Annealed		175	590	P7				
		Heat-treated		285	960	P8				
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11				
		Hardened and tempered		300	1010	P12				
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14				
		Martensitic, heat-treated		330	1110	P15				
M	Stainless steel	Austenitic, quench hardened		200	680	M1	20	25	36	B
		Austenitic, precipitation hardened (PH)		300	1010	M2	9	11	16	B
		Austenitic/ferritic, duplex		230	780	M3	14	17	24	B
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)	Non-alloyed, 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 base	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

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

Product family		λ	Product family		λ	Product family		λ
P602612	P612612	40°	P632612		25°	P312301 P3123017	P3123117	45°
Ø 6–20 mm			Ø 16–25 mm			Ø 3–30 mm		
Z = 2			Z = 2			Z = 3–6		
Uncoated			Uncoated			ACN/uncoated		
Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] 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
								39	48	69	A
								55	69	98	A
								24	30	43	A
								24	30	43	A
								21	26	37	A
								24	30	43	A
								24	30	43	A
								18	23	32	A
								17	22	31	A
								14	17	25	A
								24	30	43	A
								21	26	37	A
								17	22	31	A
								16	20	28	A
								10	12	17	A
								19	23	33	B
								8	10	15	B
								12	15	22	B
130	162	231	C	130	162	231	C	145	180	258	C
130	162	231	C	130	162	231	C	145	180	258	C
39	49	69	C	39	49	69	C	87	108	155	C
39	49	69	C	39	49	69	C	87	108	155	C
26	32	46	C	26	32	46	C	58	72	103	C
30	30		C	30	30		C				C
40			C	40			C	116	144	206	C
40			C	40			C	116	144	206	C
50			C	50			C	116	144	206	C
								14	17	24	C

Cutting data for HSS shoulder/slot milling



Product family		λ
P312401	P312411	40°

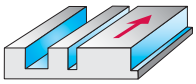
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 2–25 mm, Z = 3, Uncoated, Starting values for cutting speed v_c [m/min], a_e/D_c 1/1	1/2	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1				
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2				
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3				
		C > 0.55%	Annealed	190	640	P4				
		C > 0.55%	Heat-treated	300	1010	P5				
		Free cutting steel (short-chipping)	Annealed	220	750	P6				
	Low-alloyed steel	Annealed		175	590	P7				
		Heat-treated		285	960	P8				
		Heat-treated		380	1280	P9				
		Heat-treated		430	1480	P10				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11				
		Hardened and tempered		300	1010	P12				
		Hardened and tempered		380	1280	P13				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14				
		Martensitic, heat-treated		330	1110	P15				
M	Stainless steel	Austenitic, quench hardened		200	680	M1				
		Austenitic, precipitation hardened (PH)		300	1010	M2				
		Austenitic/ferritic, duplex		230	780	M3				
K	Malleable cast iron	Ferritic		200	400	K1				
		Pearlitic		260	700	K2				
	Grey cast iron	Low tensile strength		180	200	K3				
		High tensile strength/austenitic		245	350	K4				
	Cast iron with spheroidal graphite	Ferritic		155	400	K5				
		Pearlitic		265	700	K6				
	GGV (CGI)			230	400	K7				
N	Wrought aluminium alloys	Not hardenable		30	–	N1	130	162	231	C
		Hardenable, hardened		100	340	N2	130	162	231	C
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	39	49	69	C
		≤ 12% Si, hardenable, hardened		90	310	N4	39	49	69	C
		> 12% Si, not hardenable		130	450	N5				
	Magnesium-based alloys			70	250	N6				
	Copper and copper alloys (bronze/brass)	Non-alloyed, electrolytic copper		100	340	N7	43	54	77	C
		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 base	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

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

Product family		λ	Product family		λ	Product family		λ
P300611	P312201		P311712	P312673		P312021	P3120287	
P302201	P3122017		P3117127	P312771	30°	P3120217	P4110217	35°
P302211	P312211		P311722			P312028		
P302621	P3122117	30°						
P310611	P312221							
P3106117	P3122317							
P3116127								
Ø 1–50 mm			Ø 1–40 mm			Ø 5–40 mm		
Z = 2–8			Z = 2–3			Z = 3–6		
ACN / uncoated			ACN / uncoated			ACN / uncoated		
Starting values for cutting speed v_c [m/min] a_e/D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] 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
14	20	24	A	42	54	77	A	42	52	74	A
19	28	34	A	59	76	109	A	60	74	106	A
14	20	24	A	26	33	48	A	26	33	46	A
14	20	24	A	26	33	48	A	26	33	46	A
12	16	20	A	22	29	41	A	22	28	40	A
14	20	24	A	26	33	48	A	26	33	46	A
14	20	24	A	26	33	48	A	26	33	46	A
10	14	17	A	20	25	36	A	20	24	35	A
			A	19	24	34	A	19	23	33	A
			A	15	19	27	A	15	19	27	A
14	20	24	A	26	33	48	A	26	33	46	A
12	16	20	A	22	29	41	A	22	28	40	A
			A	19	24	34	A	19	23	33	A
6	9	11	A	17	22	31	A	17	21	30	A
6		9	A	11	14	19	A	11	13	19	A
7	10	13	B	20	26	37	B	20	25	36	B
5		9	B	9	12	16	B	9	11	16	B
6	8	10	B	13	17	25	B	14	17	24	B
9	14	17	A	23	30	42	A	23	29	41	A
6	9	11	A	16	21	30	A	16	20	29	A
11	16	20	A	31	40	57	A	31	39	56	A
9	13	15	A	26	33	48	A	26	33	46	A
9	14	17	A	23	30	42	A	23	29	41	A
6	9	11	A	16	21	30	A	16	20	29	A
7	10	12	A	21	27	38	A	21	26	37	A
130	190	231	C	156	201	287	C				
130	190	231	C	156	201	287	C				
39	57	69	C	94	120	172	C	94	117	167	C
39	57	69	C	94	120	172	C	94	117	167	C
26	38	46	C	62	80	115	C	63	78	111	C
43	64	77	C	125	161	229	C	126	156	223	C
45	64	77	C	125	161	229	C	126	156	223	C
43	64	77	C	125	161	229	C	126	156	223	C
6	9	12	C	15	19	27	C	15	19	26	C

Cutting data for HSS shoulder/slot milling



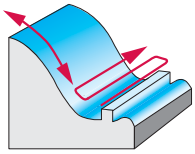
Product family		λ
P312001 P3120017	P312011 P3120117	35°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 6–50 mm, Z = 4–6, ACN / uncoated: 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	430	P1	39	48	69	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	55	69	98	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	24	30	43	A
		C > 0.55%	Annealed	190	640	P4	24	30	43	A
		C > 0.55%	Heat-treated	300	1010	P5				A
		Free cutting steel (short-chipping)	Annealed	220	750	P6	24	30	43	A
	Low-alloyed steel	Annealed		175	590	P7	24	30	43	A
		Heat-treated		285	960	P8	20	30	40	A
		Heat-treated		380	1280	P9				A
		Heat-treated		430	1480	P10				A
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	24	30	43	A
		Hardened and tempered		300	1010	P12	20	20	30	A
		Hardened and tempered		380	1280	P13				A
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	10	10	20	A
		Martensitic, heat-treated		330	1110	P15	10	10	10	A
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	20	30	40	A
		Pearlitic		260	700	K2	20	20	30	A
	Grey cast iron	Low tensile strength		180	200	K3	20	30	50	A
		High tensile strength/austenitic		245	350	K4	20	30	40	A
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	20	30	40	A
		Pearlitic		265	700	K6	20	20	30	A
	GGV (CGI)			230	400	K7	20	20	30	A
N	Wrought aluminium alloys	Not hardenable		30	–	N1	110	140	180	
		Hardenable, hardened		100	340	N2	110	140	180	
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	60	80	110	C
		≤ 12% Si, hardenable, hardened		90	310	N4	60	80	60	C
		> 12% Si, not hardenable		130	450	N5	30	40	110	C
	Magnesium-based alloys			70	250	N6	60	80	130	
	Copper and copper alloys (bronze/brass)	Non-alloyed, electrolytic copper		100	340	N7	70	90	130	C
		Brass, bronze, red brass		90	310	N8	70	90	130	C
		Cu-alloys, short-chipping		110	380	N9	70	90	130	C
		High-tensile, Ampco		300	1010	N10	10	20	20	C
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1				
			Hardened	280	940	S2				
		Ni or Co base	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

Product family		λ	Product family		λ	Product family		λ
P3120537	P3120937	30°	P3120387	P3128417	30°	P3120717 P3121017	P312111	30°
Ø 6–32 mm			Ø 6–32 mm			Ø 6–40 mm		
Z = 4–6			Z = 3–6			Z = 4–6		
ACN			ACN			ACN / uncoated		
Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] a_e / D_c			Starting values for cutting speed v_c [m/min] 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
39	48	69	A	35	43	62	A	39	48	69	A
55	69	98	A	50	62	88	A	55	69	98	A
24	30	43	A	22	27	39	A	24	30	43	A
24	30	43	A	22	27	39	A	24	30	43	A
21	26	37	A	19	23	33	A				A
24	30	43	A	22	27	39	A	24	30	43	A
24	30	43	A	22	27	39	A	24	30	43	A
18	23	32	A	16	20	29	A	20	30	40	A
17	22	31	A	16	19	28	A				A
14	17	25	A	12	15	22	A				A
24	30	43	A	22	27	39	A	24	30	43	A
21	26	37	A	19		33	A	20	20	30	A
17	22	31	A	16		28	A				A
16	20	28	A	15	18	25	A	10	10	20	A
10	12	17	A	9		16	A	10	10	10	A
21	27	38	A	19	24	34	A	20	30	40	A
15	19	27	A	14	17	24	A	20	20	30	A
29	36	52	A	26	32	46	A	20	30	50	A
24	30	43	A	22	27	39	A	20	30	40	A
21	27	38	A	19	24	34	A	20	30	40	A
15	19	27	A	14	17	24	A	20	20	30	A
19	24	34	A	17	22	31	A	20	20	30	A
								110	140	180	C
								110	140	180	C
87	108	155	C	78	97	139	C	60	80	110	C
87	108	155	C	78	97	139	C	60	80	60	C
58	72	103	C	52	65	93	C	30	40	110	C
								60	80	130	C
116	144	206	C	104	130	185	C	70	90	130	C
116	144	206	C	108	130	185	C	70	90	130	C
116	144	206	C	104	130	185	C	70	90	130	C
14	17	24	C	12	15	22	C	10	20	20	C

Cutting data for HSS profile copy milling

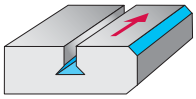


Product family		λ
P316601 P3166017	P8112017	30°

Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 2–20 mm, Z = 2–4, ACN / uncoated, 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	430	P1	110	140	170	A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	110	140	170	A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	50	60	80	A
		C > 0.55%	Annealed	190	640	P4	50	60	80	A
		C > 0.55%	Heat-treated	300	1010	P5	40	50	60	A
		Free cutting steel (short-chipping)	Annealed	220	750	P6	50	60	80	A
	Low-alloyed steel	Annealed		175	590	P7	50	60	80	A
		Heat-treated		285	960	P8	40	50	60	A
		Heat-treated		380	1280	P9	30	40	50	A
		Heat-treated		430	1480	P10	30	40	40	A
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	50	60	80	A
		Hardened and tempered		300	1010	P12	40	50	60	A
		Hardened and tempered		380	1280	P13	30	40	40	A
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	20	30	40	A
		Martensitic, heat-treated		330	1110	P15	20	20	30	A
M	Stainless steel	Austenitic, quench hardened		200	680	M1	40	50	60	B
		Austenitic, precipitation hardened (PH)		300	1010	M2	20	20	30	B
		Austenitic/ferritic, duplex		230	780	M3	20	30	40	B
K	Malleable cast iron	Ferritic		200	400	K1	50	60	80	A
		Pearlitic		260	700	K2	40	50	60	A
	Grey cast iron	Low tensile strength		180	200	K3	60	70	90	A
		High tensile strength/austenitic		245	350	K4	50	60	80	A
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	50	60	80	A
		Pearlitic		265	700	K6	40	50	60	A
	GGV (CGI)			230	400	K7	40	50	60	A
N	Wrought aluminium alloys	Not hardenable		30	–	N1	330	430	520	C
		Hardenable, hardened		100	340	N2	330	430	520	C
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	190	250	300	C
		≤ 12% Si, hardenable, hardened		90	310	N4	190	250	300	C
		> 12% Si, not hardenable		130	450	N5	110	150	180	C
	Magnesium-based alloys			70	250	N6	200	270	320	C
	Copper and copper alloys (bronze/brass)	Non-alloyed, electrolytic copper		100	340	N7	220	300	360	C
		Brass, bronze, red brass		90	310	N8	220	300	360	C
		Cu-alloys, short-chipping		110	380	N9	220	300	360	C
		High-tensile, Ampco		300	1010	N10	30	40	50	C
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	30	40	50	B
			Hardened	280	940	S2	20	20	30	B
		Ni or Co base	Annealed	250	840	S3	30	40	50	B
			Hardened	350	1180	S4	20	20	30	B
			Cast	320	1080	S5	20	20	30	B
	Titanium alloys	Pure titanium		200	680	S6	60	80	100	B
		α and β alloys, hardened		375	1260	S7	40	50	60	B
		β alloys		410	1400	S8	40	50	60	B
	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

Cutting data for HSS profile milling



Product family		λ
P314101 P314801	P3148016	12°

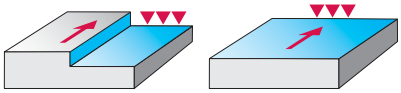
Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Ø 11–50 mm, Z = 6–10, TiCN/uncoated, Starting values for cutting speed v_c [m/min], a_e / D_c 1/1	1/2	1/10	VT
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	30	40		A
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	30	40		A
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	20	30		A
		C > 0.55%	Annealed	190	640	P4	20	30		A
		C > 0.55%	Heat-treated	300	1010	P5	20	30		A
		Free cutting steel (short-chipping)	Annealed	220	750	P6	20	30		A
	Low-alloyed steel	Annealed		175	590	P7	20	30		A
		Heat-treated		285	960	P8	20	30		A
		Heat-treated		380	1280	P9	10	20		A
		Heat-treated		430	1480	P10	10	20		A
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	20	30		A
		Hardened and tempered		300	1010	P12	20	30		A
		Hardened and tempered		380	1280	P13	10	20		A
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	10	10		A
		Martensitic, heat-treated		330	1110	P15	10	10		A
M	Stainless steel	Austenitic, quench hardened		200	680	M1	10	20		B
		Austenitic, precipitation hardened (PH)		300	1010	M2	10	10		B
		Austenitic/ferritic, duplex		230	780	M3	10	10		B
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	200	200		C
		Hardenable, hardened		100	340	N2	200	200		C
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	40	50		C
		≤ 12% Si, hardenable, hardened		90	310	N4	40	50		C
		> 12% Si, not hardenable		130	450	N5	30	40		C
	Magnesium-based alloys			70	250	N6	70	90		C
	Copper and copper alloys (bronze/brass)	Non-alloyed, electrolytic copper		100	340	N7	100	130		C
		Brass, bronze, red brass		90	310	N8	100	130		C
		Cu-alloys, short-chipping		110	380	N9	100	130		C
		High-tensile, Ampco		300	1010	N10	10	20		C
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1				
			Hardened	280	940	S2				
		Ni or Co base	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				
	Thermosetting plastics	Without abrasive fillers				O2				
	Plastic, glass fibre reinforced	GFRP				O3				
	Plastic, carbon fibre reinforced	CFRP				O4				
	Plastic, aramid fibre reinforced	AFRP				O5				
	Graphite (technical)			80 Shore		O6				

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

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

Product family			λ	Product family			λ	Product family			λ
P313231			10°	P315801 P315821	P315831 P315851		0°	P316881			0°
Ø 4,5–45,5 mm				Ø 6,2–32 mm				Ø 8–18 mm			
Z = 6–14				Z = 10–12 [45°/60°]				R 1–15 mm			
Uncoated				Uncoated				Uncoated			
Starting values for cutting speed v_c [m/min] a_e / D_c				Starting values for cutting speed v_c [m/min] a_e / D_c				Starting values for cutting speed v_c [m/min] a_e / D_c			
1/1	1/2	1/10	VT	1/3	1/10	1/20	VT	1/1	1/2	1/10	VT
30	40		A	30	40	40	A	35			
30	40		A	30	40	40	A	35			
20	30		A	20	30	30	A	25			
20	30		A	20	30	30	A	25			
20	30		A	20	30	30	A	20			
20	30		A	20	30	30	A	25			
20	30		A	20	30	30	A	25			
20	30		A	20	30	30	A	20			
10	20		A	10	20	20	A	15			
10	20		A	10	20	20	A	13			
20	30		A	20	30	30	A	25			
20	30		A	20	30	30	A	20			
10	20		A	10	20	20	A	13			
10	10		A	10	10	20	A	10			
10	10		A	10	10	10	A	8			
10	20		B	10	20	20	B	15			
10	10		B	10	10	10	B	8			
10	10		B	10	10	20	B	10			
								25			
								15			
								25			
								15			
								25			
200	200		C	200	200	300	C	250			
200	200		C	200	200	300	C	250			
40	50		C	40	50	50	C	40			
40	50		C	40	50	50	C	40			
30	40		C	30	40	50	C	35			
70	90		C	70	90	90	C	70			
100	130		C	100	130	140	C	110			
100	130		C	100	130	140	C	110			
100	130		C	100	130	140	C	110			
10	20		C	10	20	20	C	15			
								13			
								7			
								13			
								7			
								7			
								35			
								20			
								20			
								7			
								7			

Cutting data for end milling cutters with PCD/brazed cutting edges



Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R_m N/mm²	Machining group [1]	Product family Brazed helical milling cutters F1675 F1678				Product family Brazed helical milling cutters F1676 F1682
							Ø 20–100 mm				
							Z = 4–8				
							WP40				
							Starting values for cutting speed v_c [m/min] a_e / D_c 1/2	1/4	1/10	VT	
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	200	325	375	J	
		C > 0.25... ≤ 0.55%	Annealed	190	640	P2	140	225	265	J	
		C > 0.25... ≤ 0.55%	Heat-treated	210	710	P3	120	200	230	J	
		C > 0.55%	Annealed	190	640	P4	140	225	265	J	
		C > 0.55%	Heat-treated	300	1010	P5	110	180	215	J	
		Free cutting steel (short-chipping)	Annealed	220	750	P6	130	220	280	J	
	Low-alloyed steel	Annealed		175	590	P7	155	250	290	L	
		Heat-treated		285	960	P8	120	190	225	L	
		Heat-treated		380	1280	P9	100	170	195	L	
		Heat-treated		430	1480	P10	90	160	170	L	
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	115	190	220	L	
		Hardened and tempered		300	1010	P12	100	160	180	L	
		Hardened and tempered		380	1280	P13	90	150	170	L	
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	75	125	145	L	
		Martensitic, heat-treated		330	1110	P15	70	115	135	L	
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)	Non-alloyed, 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 base	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					
	Thermosetting plastics	Without abrasive fillers				O2					
	Plastic, glass fibre reinforced	GFRP				O3					
	Plastic, carbon fibre reinforced	CFRP				O4					
	Plastic, aramid fibre reinforced	AFRP				O5					
	Graphite (technical)			80 Shore		O6					

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

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

	Product family **Brazed porcupine milling cutters**				**Product family** **PCD milling cutters**			
	F1675 **F1682**		**F1678**		**F4722**		**F4723**	
	Ø 20–100 mm				Ø 6–80 mm			
	Z = 4–8				Z = 2–6			
	WKM				WCD10			
	Starting values for cutting speed v_c [m/min] a_e / D_c				Starting values for cutting speed v_c [m/min] a_e / D_c			
	1/2	1/4	1/10	VT	1/1 1/2	1/4	1/10	VT
	180	275	320	J				
	135	215	250	J				
	150	250	290	K				
	125	205	240	K				
	180	280	320	J				
	130	205	240	J				
	110	180	210	J				
					3000	4000	4000	G
					2000	2000	2000	G
					1500	1500	1500	H
					1000	1000	1000	H
					500	500	500	H
					600	800	800	I
					500	600	600	I
					600	800	800	I

Feed determination

The specified feed rates are average standard values.
For special 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

The specified feed rates are average standard values.
For special 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

Feed determination

(continued)

The specified feed rates are average standard values.
For special 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

The specified feed rates are average standard values.
For special 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

Feed determination for brazed tools

The specified feed rates are average standard values.
For special 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

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

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

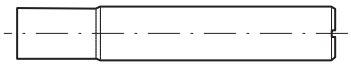
* Radial feed in mm

Cutting speed: Correction factors*

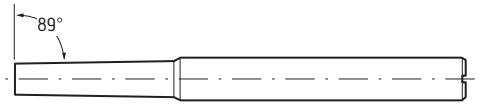
v_c correction factors – toolholder/steel

v_c correction factors		Type	Max. speed
AK610.Z16.E10.005	v_c x 1	A	40.000
AK610.Z12.E10.005	v_c x 1	A	40.000
AK610.Z10.E10.020	v_c x 0,9	A	30.000
AK610.Z16.E10.050	v_c x 0,6	B	12.000
AK610.Z16.E10.036	v_c x 0,7	C	15.000
AK610.Z12.E10.036	v_c x 0,7	C	15.000
AK610.Z16.E12.005	v_c x 1	A	40.000
AK610.Z12.E12.022	v_c x 0,9	A	30.000
AK610.Z16.E12.060	v_c x 0,6	B	10.000
AK610.Z16.E12.025	v_c x 0,7	C	15.000
AK610.Z20.E16.005	v_c x 1	A	40.000
AK610.Z16.E16.025	v_c x 0,9	A	30.000
AK610.Z20.E16.025	v_c x 0,9	A	30.000
AK610.Z20.E16.075	v_c x 0,6	B	10.000
AK610.Z25.E16.054	v_c x 0,7	C	15.000
AK610.Z25.E20.005	v_c x 1	A	30.000
AK610.Z20.E20.030	v_c x 0,8	A	20.000
AK610.Z32.E20.073	v_c x 0,7	C	20.000
AK610.Z32.E25.005	v_c x 1	A	30.000
AK610.Z25.E25.040	v_c x 0,7	A	15.000
AK610.Z32.E25.045	v_c x 0,7	C	20.000

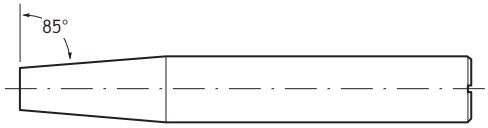
Type A



Type B



Type C



v_c correction factors – toolholder/solid carbide

v_c correction factors		Type	Max. speed
AK610.Z10.E10.050C	v_c x 0,8	A	20.000
AK610.Z16.E10.100C	v_c x 0,7	B	15.000
AK610.Z12.E12.048C	v_c x 0,9	A	30.000
AK610.Z16.E12.090C	v_c x 0,7	B	15.000
AK610.Z16.E16.080C	v_c x 0,9	A	30.000
AK610.Z20.E16.118C	v_c x 0,6	B	10.000
AK610.Z20.E20.038C	v_c x 1	A	30.000
AK610.Z20.E20.110C	v_c x 0,9	A	30.000
AK610.Z25.E25.120C	v_c x 0,6	A	10.000

*** Please note:**
With ConeFit tooling, the cutting speed should be adjusted based on the projection length and shank type.
Do not exceed the maximum speed. For cutting data, see page C 222 onwards.

Cutting tool materials, surface treatment and coatings

Cutting tool materials for HSS milling tools

For Walter Prototyp milling tools, three groups of high-speed steel are used.

HSS-E Co	High-speed steel with 5% Co for increased stress, particularly high thermal loads
HSS-E Co8	High-speed steel with 8% Co for maximum heat resistance, in accordance with American standard designation M42 (end milling cutters for general use, available in standard dimensions and with Morse taper shank, shell end mills)
HSS-E-PM	High-speed steel manufactured using powder metallurgy with an extremely high content of alloy elements **Advantages:** – High purity – Uniformity of the microstructure – High wear resistance – Heat resistance (end milling cutters and shell end mills for more demanding applications)

	Material no.	Short name	Old standard designation	AISI ASTM	AFNOR	B.S.	UNI	Alloy table C	Cr	W	Mo	V	Co
HSS-E Co	1.3243	S 6-5-2-5	EMo5 Co5	M35	6.5.2.5	–	HS 6-5-2-5	0,82	4,5	6,0	5,0	2,0	5,0
HSS-E Co8	1.3247	S 2-10-1-8	–	M42	–	BM42	HS 2-9-1-8	1,08	4,0	1,5	9,5	1,2	8,25
HSS-E-PM	Trade name ASP												

Grade description

Coated carbide

Walter grade designation	Standard designation	Material groups: P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other	Range of applications (01 05 10 15 20 25 30 35 40 45)	Coating process	Coating composition	Tool example
WK40TF	HC – P 40	●●								PVD	AlTiN	
	HC – M 40		●									
	HC – K 40			●								
	HC – S 40					●						
WJ30TF	HC – P 30	●●								PVD	AlTiN	
	HC – M 30		●									
	HC – K 30			●								
	HC – N 30				●							
	HC – S 30					●						
WJ30CA	HC – N 30				●●					PVD	CrN mod	
WK40RC	HC – M 40		●●							PVD	TiAlN	
	HC – S 40					●						
WK40TZ	HC – P 40	●●								PVD	AlTiN + ZrN	
	HC – M 40		●									
WJ30ED	HC – P 30	●●								PVD	AlCrN	
	HC – M 30		●									
	HC – K 30			●								

Uncoated 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	Tool example
WJ30UU	HW – N 30				●●					–	–	

HC = Coated carbide
HW = Uncoated carbide

●● Primary application
● Additional application

Cutting tool materials, surface treatment and coatings

Surface treatment and hard material coatings for increased performance

Surface coating has developed into a proven technological process for improving the performance of metal cutting tools. In contrast to surface treatment, the tool surface remains chemically unaltered and a thin layer is applied.

For Walter Prototyp high-speed steel (HSS) and solid carbide (SC) tools, the coating is produced using PVD processes, which work at process temperatures of below 600 °C. This ensures that there is no change to the base material.
Hard material layers have a higher hardness and wear resistance than the cutting tool material itself.

In addition…
- they help to improve the low-friction quality of the tool surface
- they separate the cutting tool material and the material that is to be cut from each other
- they act as a thermal insulation layer

This means that coated tools not only have a longer tool life, but they can also be used with higher cutting speeds and feed rates.

Surface treatment/coating	Method/coating	Properties	Colour	Tool example
Uncoated	No treatment	–	Uncoated	
TAX	TiAlN coating	– Universal coating for solid carbide milling tools	Black-violet	
TAZ	TiAlN/zirconium nitride coating	– High-performance layer specially developed for machining steel: Chemical resistance to emulsions and oils – Effective against built-up edges	Champagne	
CRN	Chromium nitride coating	– Very thin layer with high degree of toughness – Minimised coating roughness for excellent chip flow, especially with aluminium materials	Rainbow-coloured	
DIA	Diamond coating	– For machining graphite and AlSi alloys	Grey	
ACN	Aluminium chromium nitride coating	– High-performance coating with particularly low friction for titanium machining tools but also for HSS tools	Blue-violet	
TAA	TiAlN/TiAl coating	– High-performance coating for machining stainless steels – Effective against built-up edges – Wear-resistant – Provides a smooth surface	Silver-grey	

Type description

Roughing

Tool type	Application area	Material groups							Helix angle	Coating/grade
		P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other		
MB265 Supreme	– Solid carbide high-performance roughing cutters with corner radius – Shank according to DIN 6535 HA with surface treatment – With internal coolant – Polished flutes				●●				30°	WJ30CA WJ30UU
Qmax HR	– Solid carbide roughing cutters with HR Kordel profile – In accordance with DIN 6527 K and L – Shank in accordance with DIN 6535 HB – With and without internal coolant – For use in more unstable conditions	●●	●	●					30° / 40° / 45°	TAX
Qmax HNR	– Solid carbide roughing cutters with HNR Kordel profile – In accordance with DIN 6527 K and L – Shank in accordance with DIN 6535 HB – Without internal coolant – For use in more stable conditions	●●	●●	●	●				30°	TAX
Ti NS 30	– Solid carbide roughing cutters with chip breaker for reduced power requirement – Shank in accordance with DIN 6535 HB – Without internal coolant – Specially developed for titanium materials		●	●		●●			30°	ACN
Flash N50	– Up to 55 HRC – Solid carbide milling cutters with special end-face geometry for HSC machining – Shank in accordance with DIN 6535 HA – Without internal coolant – Can be used universally	●●	●	●					50°	TAX
Flash H50	– From 55 to 63 HRC – Solid carbide milling cutters with special end-face geometry for HSC machining – Shank in accordance with DIN 6535 HA – Without internal coolant – Specially developed for hardened materials						●●		50°	TAX

●● Primary application
● Additional application

Roughing and finishing

Tool type	Application area	Material groups							Helix angle	Coating/grade
		P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other		
MC341 Supreme	Four-edge tools – Solid carbide high-performance milling cutters for machining slots with depths of up to 1.5 × D_c – Shank in accordance with DIN 6535 HA with special treatment to prevent it being pulled out – With neck – Specially designed for steel materials – For stainless materials as a secondary application	●●	●						50°	WK40TZ
Proto·max™ ST	Three-edge tools – Solid carbide high-performance milling cutters for machining slots with depths of up to 2 × D_c – Shank in accordance with DIN 6535 HA with special treatment to prevent it being pulled out – With neck – Specially designed for steel materials – For stainless materials as a secondary application	●●	●						45°	TAZ
Proto·max™ ST	Four-edge tools – Solid carbide high-performance milling cutters for machining slots with depths of up to 1.5 × D_c – Shank in accordance with DIN 6535 HA with special treatment to prevent it being pulled out – With neck – Specially designed for steel materials – For stainless materials as a secondary application	●●	●						50°	TAZ
Proto·max™ ST	Five-edge tools – Solid carbide high-performance milling cutters – With and without corner radius (R = 0.5–4 mm) – Shank in accordance with DIN 6535 HB – Ideal for dynamic or trochoidal milling – Full slotting, helical plunging, pocket milling, ramping and contour milling	●●	●						35°	TAZ
Proto·max™ Inox	Four-edge tools – Solid carbide high-performance milling cutters for machining slots with depths of up to 1 × D_c – Shank in accordance with DIN 6535 HA and HB – With and without corner radius – Specially developed for stainless steels – For materials from the ISO S group as a secondary application		●●			●			35° / 38°	TAA

●● Primary application
● Additional application

Type description

(continued)

Roughing and finishing

Tool type	Application area	Material groups							Helix angle	Coating/grade
		P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other		
MC251 Advance	– Solid carbide milling cutters with geometry for stainless steels – With and without corner radius (R = 0.2–6 mm) – Shank in accordance with DIN 6535 HA – Pocket milling, ramping and contour milling		●●			●			35° / 38°	WK40RC
MC326 / MC726 Supreme	– Up to 48 HRC – Solid carbide high-performance milling cutters with or without corner radius for slots up to $0.9 \times D_c$ – Shank in accordance with DIN 6535 HA and HB – Different core diameters for increased stability – Can be used universally	●●	●	●		●			50°	WK40TF
MC111 / MC112 Advance	– Universal application – Shoulder milling cutters	●●	●	●	●	●			30°	WJ30TF
MC122 Advance	– Universal application – Shoulder milling cutters	●●	●	●		●			45°	WJ30TF
MC213 / MC216 Advance	– Universal application – Shoulder/slot milling cutters	●●	●	●		●			30°	WJ30TF
MC321 / MC322 / MC324 Advance	– Universal application – Shoulder/slot milling cutters	●●	●	●		●			45°	WJ30TF
MC716 Advance	– Universal application – Routing cutters	●●	●	●		●			30°	WJ30TF
MC232 Perform	– Universal application – Shoulder/slot milling cutters	●●	●	●					35°	WJ30ED

●● Primary application
● Additional application

Roughing and finishing

Tool type	Application area	Material groups							Helix angle	Coating/grade
		P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials	O Other		
Ti 40	– Solid carbide high-performance milling cutters – Shank in accordance with DIN 6535 HA with special treatment to prevent it being pulled out – With neck and internal coolant – Specially developed for titanium	●	●			●●			40°	ACN
HSC 30 graphite	– Solid carbide high-performance milling cutters – Specially for graphite machining							●●	30°	DIA

Finishing

MC129 Advance	– Universal application – Shoulder milling cutters	●●	●	●		●			60°	WJ30TF
N50 multipurpose cutters	– Solid carbide high-performance milling cutters with 4–8 cutting edges – D_c = diameters of 6–20 mm – Shank in accordance with DIN 6535 HA	●●	●			●			50°	TAX
Ti 45	– Solid carbide high-performance milling cutters – Shank in accordance with DIN 6535 HA – With neck – Specially developed for finishing titanium	●		●		●●			45°	ACN
MB266 Supreme	– Solid carbide high-performance finishing face milling cutters with corner radius – Shank in accordance with DIN 6535 HA with special treatment to prevent it being pulled out – With internal coolant – Polished flutes				●●				30°	WJ30UU
Ultra H30	– From 48 to 63 HRC – Solid carbide high-performance milling cutters with 6–16 cutting edges – Specially developed for hardened materials						●●		30° / 50°	TAX

●● Primary application
● Additional application

Assembly instructions

ConeFit

Safety information:
Please wear **safety gloves** during assembly with the tool holder, as the edges of the ConeFit milling cutter heads are sharp.

- Clean the interface and support face on the milling tool and tool holder
- Fit the ConeFit™ tool holder into its adaptor
- Screw the ConeFit milling tool by hand into the ConeFit tool holder until it is hand-tight (figure 1)
- Using a torque wrench, tighten the ConeFit milling tool to the specified torque (see table) to ensure a positive-locking connection
- Ensure that the gap is closed and that a support face exists (figure 2)

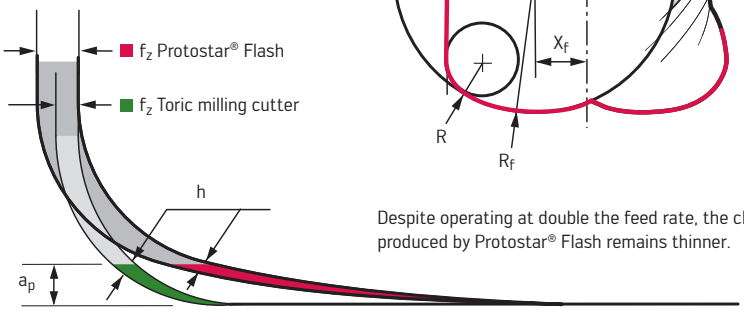
Torques for fitting the milling cutter heads

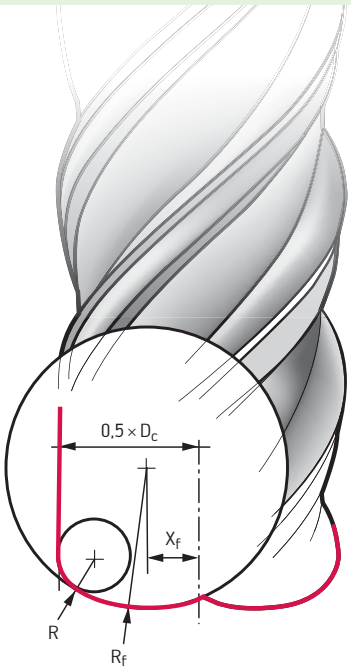
E	SW	Nm
10	8	12
12	10	15
16	12	30
20	16	50
25	20	65

High-feed geometry

Protostar® Flash high-performance milling cutter

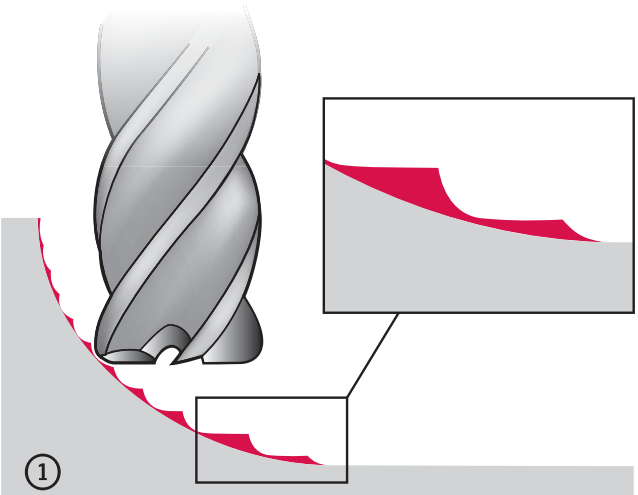
The chip thickness "h" is reduced thanks to the special end-face geometry. Extremely high feeds are possible. Forces are diverted axially towards the centre of the tool, which helps to stabilise the machining process.



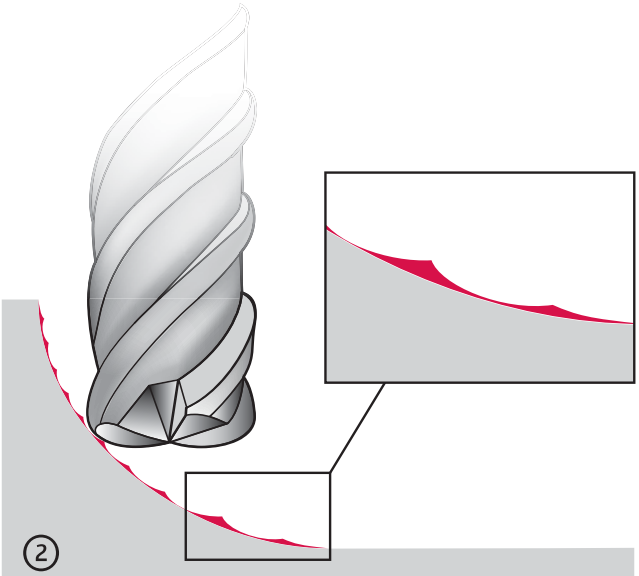


Despite operating at double the feed rate, the chip thickness (h) produced by Protostar® Flash remains thinner.

In comparison with conventional toric tools (figure 1), the special geometry of Protostar® Flash (figure 2) reduces the amount of residual material produced. This minimises the machining required on the residual material, which increases the tool life of the subsequent finishing tool.



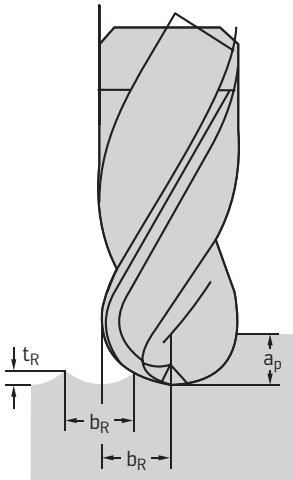
1 Conventional toric tool



2 Protostar® Flash

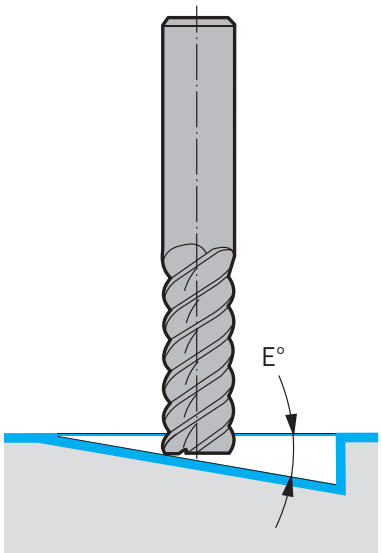
Recommended copying and finishing application

Tool diameter D_c (mm)	Row width (b_R) for groove depth t_R = 5 µm	Row width (b_R) for groove depth t_R = 2 µm
0,3	0,08	0,04
0,4	0,09	0,05
0,5	0,10	0,06
0,6	0,11	0,07
0,8	0,12	0,08
1,0	0,14	0,09
1,5	0,17	0,11
2,0	0,20	0,12
2,5	0,22	0,14
3,0	0,25	0,16
4,0	0,28	0,18
5,0	0,31	0,20
6,0	0,34	0,22
8,0	0,40	0,25
10,0	0,45	0,28
12,0	0,49	0,31
16,0	0,56	0,36
20,0	0,63	0,40
25,0	0,71	0,45
32,0	0,80	0,50



Maximum feed angle with solid carbide and HSS milling cutters E [°]

Material groups	Materials	Number of teeth					
		2	3	4	5	6–8	8
P	Steel	10*	8*	5	5	4	3
M	Stainless steel	5	5	5	5	4	3
K	Cast iron	10	10	8	6	5	3
N	NF metals	15	15	15	10	10	5
S	Materials with difficult cutting properties	5	5	5	5	4	3
H	Hard materials	2	2	1,5	1,5	1,5	1
O	Other	15	15	15	10	10	5



* with R_m > 1100 N/mm², reduce the plunging angle by 25%

		Page
Indexable inserts for milling	Product range overview	C 276
	Designation key	C 278
	Walter Select – Milling tools with indexable inserts	C 282
	Positive indexable inserts	C 284
	Negative indexable inserts	C 312
	Indexable inserts for tangential installation	C 325
Indexable insert milling cutters	Product range overview	C 336
	System overviews	C 340
	Designation key	C 348
	Walter Select – Face milling	C 350
	Face milling cutters	C 356
	Walter Select – Shoulder milling	C 428
	Shoulder milling cutters	C 432
	Walter Select – Slot milling	C 484
	Slot milling cutters	C 486
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	Copy milling cutters	C 536
	Walter Select – Profile milling	C 559
	Profiling cutters	C 560
	Walter Select – Circular interpolation milling	C 566

		Page
Technical information	Cutting data	C 568
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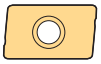
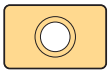
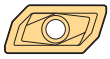
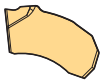
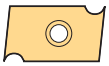
	Cutting tool material application charts	C 612
	Geometry overview – Milling indexable inserts	C 614
	Setting and assembly instructions	C 625
	Tightening torques	C 635
	Information on high-speed applications	C 621
	Roughing/finishing combinations	C 636
	Application information	C 638
Assembly parts and accessories	Milling tool cartridges	C 656
	Clamping screws for indexable inserts	C 657
	Screwdriver	C 659
	Drive collars and retaining washers	C 661
	Steep taper pull studs	C 662
	Transfer units for HSK	C 663
	Miscellaneous	C 664

C 2

Indexable inserts for milling – product range overview

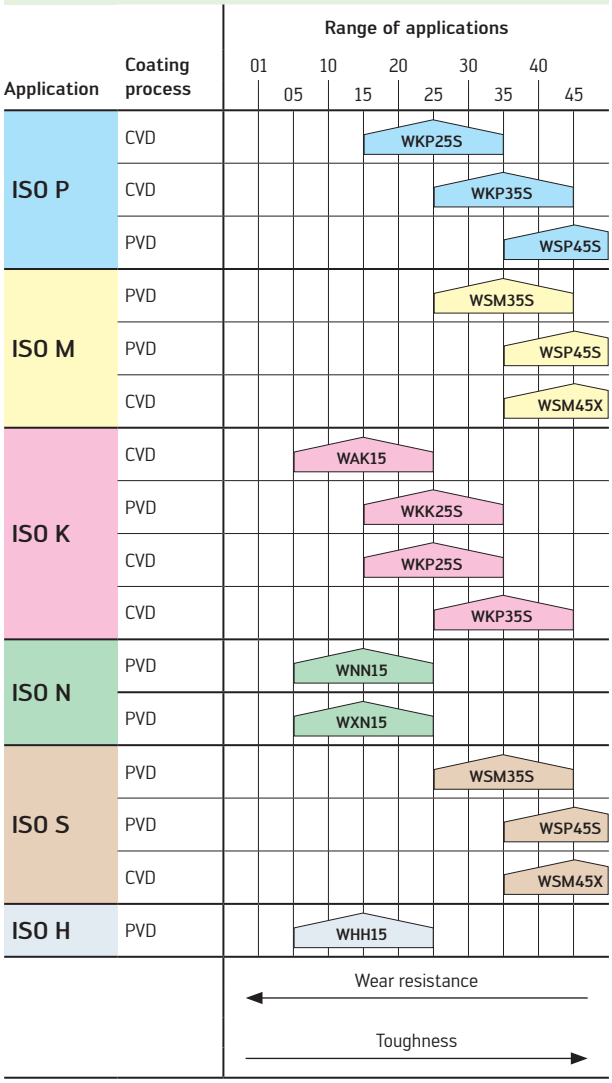
Insert shape		Description	Page
	**A**	Positive rhombic for **Xtra·tec®**	C 284
	C	Tangential rhombic	C 325
 	**L**	Positive rhombic Negative rhombic for **Xtra·tec®** Tangential rhombic Tangential rhombic for **Xtra·tec®** Tangential rhombic for **Walter BLAXX**	C 288 C 312 C 325 C 326 C 328
	M	Positive rhombic	C 290
	O	Positive octagonal for **Xtra·tec®** Finishing inserts	C 291 C 310
	R	Positive round	C 296
	S	Positive square Negative square for **Xtra·tec®** F2254 tangential square	C 299 C 314 C 332
	T	Positive triangular Negative triangular	C 306 C 319
	X	Negative heptagonal for **Xtra·tec®** Negative heptagon for **Walter BLAXX**	C 319 C 320
	X	Tangential for **Walter BLAXX**	C 330
	X	Positive form inserts for copy milling cutters	C 307
	**Z**	Positive rhombic	C 308

Insert shape		Description	Page
	**SX . .**	Indexable inserts for **Walter BLAXX** slitting cutters	C 332
	**P 20200**	Positive rhombic	C 330
	P 23 . .	Wendelnovex® inserts	C 313
	P 236 . .	Negative triangular for **Xtra·tec®** high-feed milling cutters	C 313
	P 263 . .	Positive triangular for high-feed milling cutters for copy milling cutters	C 294 C 293
	P 32 . .	Indexable inserts for profile milling cutters	C 295
	P 44 . .	Tangential rhombic	C 331
		Finishing inserts	C 309 C 322 C 333

Cutting tool materials for milling – product range overview

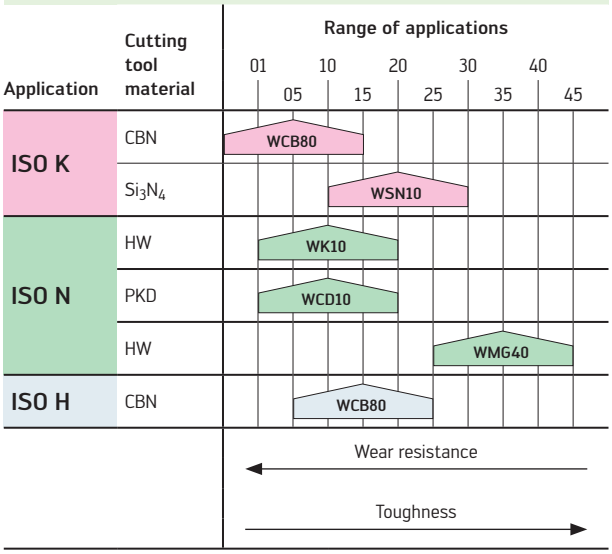
Cutting tool materials: Coated carbide

Cutting tool material applications



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

Cutting tool material applications



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

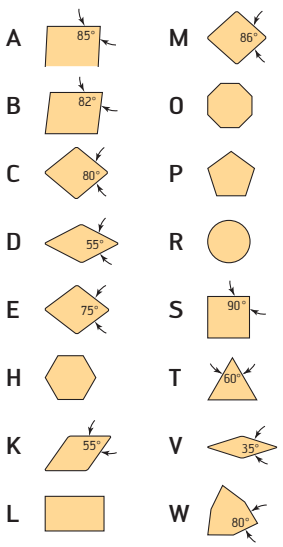
C 2

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

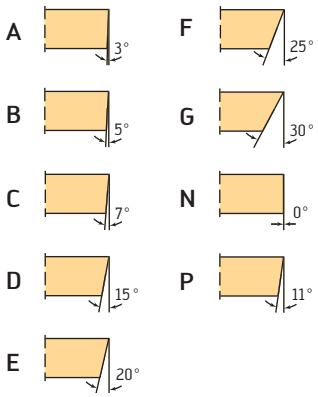
Example:

A	D	G	T	12	04	PE		R	–	F56
1	2	3	4	5	6	7	8	9		12

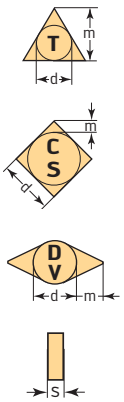
1 Insert shape



2 Clearance angle



3 Tolerances



Permissible deviation in mm for

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

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

7 Corner radius

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

Lead angle

A	45°
D	60°
E	75°
F	85°
P	90°
Z	Other lead angles

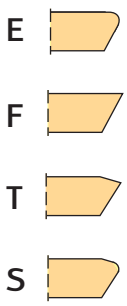
Clearance angle of planar cutting edge

A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
Z	Other clearance angles

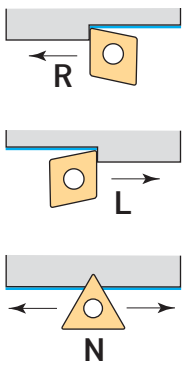
00 for diameters converted from imperial units to mm

M0 for diameters in metric units

8 Edge formation

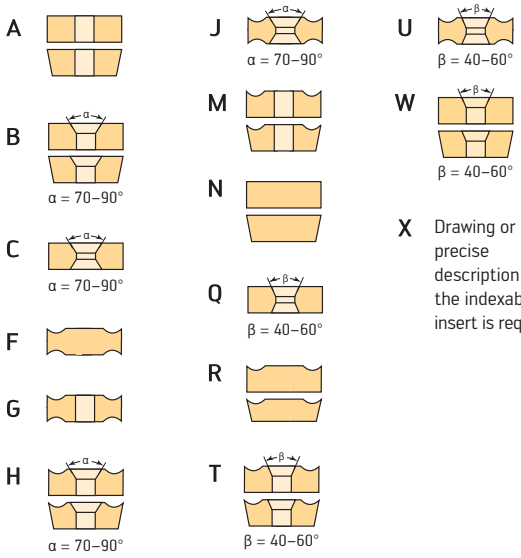


9 Cutting direction



4

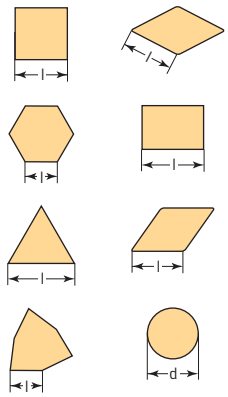
Machining and fastening features



X Drawing or precise description of the indexable insert is required

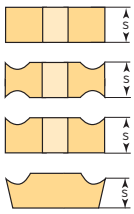
5

Cutting edge length



6

Insert thickness



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

10

Chamfer width

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

11

Chamfer angle

15	= 15°
20	= 20°

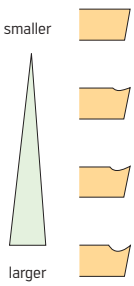
12

Manufacturer specifications/geometry index

Example

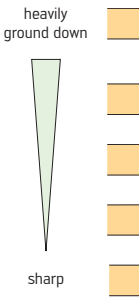
F	5	6	
1	2	3	4

1. Chip breaker groove



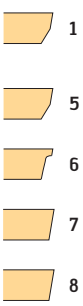
A	= 0°
B	= 6°
D	= 10°
E	= 15°
F	= 16°
G	= 20°
K	= 25°
L	= 28°

2. Cutting edge



2	
5	
6	
7	
8	

3. Flank face design



1	including vibration damped
5	
6	
7	
8	

Flank face design

4. Additional information

T Tangential installation

C 2

Designation key for coated carbides – Milling

Example:

W	K	P	35	S
Walter	1	2	3	4

1
1. Primary application
P Steel
M Stainless steel
K Cast iron
N NF metals
S Materials with difficult cutting properties
H Hard materials

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 application range
Wear resistance
01
10
15
20
25
30
35
40
45
Toughness

4
Generation
S Tiger·tec® Silver
X

Walter Select for indexable inserts for milling

Step by step to the right indexable insert

C 2

STEP 1

Determine the **material** to be machined from page C 671 onwards.

Note the **machining group** that corresponds to your material, e.g.: P10.

Code letters	Machining groups	Groups of the materials to be machined	
P	P1–P15	**Steel**	All types of steel and steel casting, with the exception of steel with an austenitic structure
M	M1–M3	**Stainless steel**	Austenitic stainless steel, austenitic-ferritic steel and steel casting
K	K1–K7	**Cast iron**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron, cast iron with vermicular graphite
N	N1–N10	**NF metals**	Aluminium and other non-ferrous metals, non-ferrous materials
S	S1–S10	**Materials with difficult cutting properties**	Heat-resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys
H	H1–H4	**Hard materials**	Hardened steel, hardened cast iron materials, chilled cast iron
O	O1–O6	**Other**	Plastics, glass and carbon fibre reinforced plastics, graphite

STEP 2

Select the **machining conditions:**

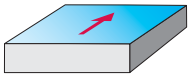
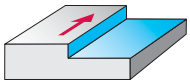
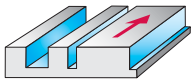
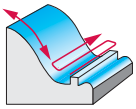
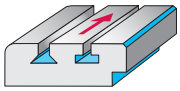
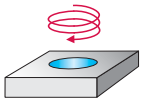
	Machine stability, clamping system and workpiece		
Type of cutting action	**very good**	**good**	**moderate**
Short projection length	☺	😐	☹
Long projection length	😐	☹	

C 2

STEP 3

Select your **tool** according to your application and individual requirements.
Then select your milling cutter from the corresponding tool page.

Machining method

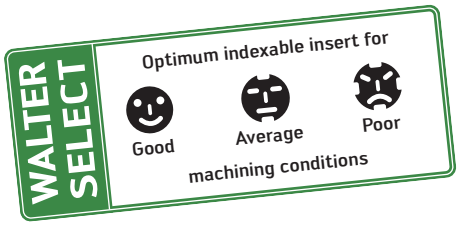
 **Face milling** See page C 350	 **Shoulder milling** See page C 428	 **Slot milling** See page C 484
 **Copy milling** See page C 534	 **Profile milling** See page C 559	 **Circular interpolation milling** See page C 566

STEP 4

Determine your optimum **indexable insert grade and geometry** on the appropriate tool page.
In so doing, please take into consideration the machining conditions (step 2) and the material to be machined.
For a detailed geometry description for milling tools, see page C 614.

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10
	SNGX1205ANN-F27		1,5	☺	☺						☺	☹		
	SNGX1205ANN-F57		1,5	☺	☺	☹	☺	☹		☺	☺	☹		
	SNGX1205ANN-F67		1,5	☺	☺	☹	☺	☹	☺		☺	☹		
	SNHX1205ANN-K88		1,5										☺	☺
	SNMX1205ANN-F27		1,5	☺	☺						☺	☹		
	SNMX1205ANN-F57		1,5	☺	☺					☺	☺	☹		
	SNMX1205ANN-F67		1,5	☺	☺				☺		☺	☹		
	SNGX120512-F57	1,2		☺	☺	☹	☺	☹			☺	☹		☹
	SNMX120512-D27	1,2		☺	☺					☺	☺	☹		
	SNMX120512-F27	1,2		☺	☺						☺	☹		
	SNMX120520-D27	2		☺	☺					☺	☺	☹		
	SNMX120520-F57	2		☺	☺	☹		☹		☺	☺	☹		
	XNGX1205ANN-F67		4,7						☺					



STEP 5

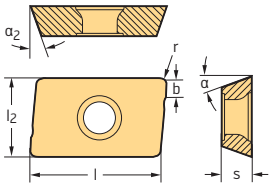
Select the **cutting data** from page C 568 onwards.

Cutting data for roughing
Face/shoulder milling

= 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]	Wet	Dry	Cutting material grades: HC WKP35S a_e / D_c* 1/1 1/2	WKP35S 1/5	WKP25S a_e / D_c* 1/1 1/2	WKP25S 1/5	WAK15 a_e / D_c* 1/1 1/2	WAK15 1/5
									Starting values for cutting speed v_c [m/min]					
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●	●●	250	300	290	320		
		C > 0.25 ... ≤ 0.55%	Annealed	190	640	P2	●	●●	220	260	260	330		
		C > 0.25 ... ≤ 0.55%	Heat-treated	210	710	P3	●	●●	215	250	255	320		
		C > 0.55%	Annealed	190	640	P4	●	●●	220	260	260	330		
		C > 0.55%	Heat-treated	300	1010	P5	●	●●	160	180	220	260		
		Free cutting steel (short-chipping)	Annealed	220	750	P6	●	●●	210	240	250	315		
	Low-alloyed steel	Annealed		175	590	P7	●	●●	220	270	260	320		
		Heat-treated		285	960	P8	●	●●	170	190	210	250		
		Heat-treated		380	1280	P9	●	●●	130	150	170	190		
		Heat-treated		430	1480	P10	●	●●	110	130	150	170		
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	●	●●	130	160	140	170		
		Hardened and tempered		300	1010	P12	●	●●	80	90	110	130		
		Hardened and tempered		380	1280	P13	●	●●	70	80	90	110		
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●	●●	140	160				
		Martensitic, heat-treated		330	1110	P15	●	●●	90	110				
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●	●						
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●	●						
		Austenitic/ferritic, duplex		230	780	M3	●●	●						
	Malleable cast iron	Ferritic		200	400	K1	●	●●	160	190	180	210	210	230

Positive rhombic
ADGT / ADHT / ADKT
Tiger·tec® Silver



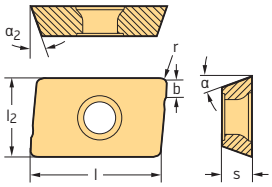
C 2

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				N HC	N HW	S HC			
											WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSP45S	WSP45
	ADGT0803PER-D51	G	2	6,75	9,52	3,35	15°	20°	0,4	1,2	☺	☻	☹				☹				☻	☹					☹	
	ADGT1204PER-D51	G	2	8,4	13,6	4,76	15°	20°	0,8	1,2	☺	☻	☹				☹				☻	☹					☹	
	ADGT1606PER-D51	G	2	10,8	17,5	6,15	15°	20°	0,8	1,6	☺	☻	☹				☹				☻	☹					☹	
	ADGT1807PER-D51	G	2	14,5	19	7	15°	17°	1,2	1,8	☺	☻	☹				☹				☻	☹					☹	
	ADGT0803PER-D56	G	2	6,75	9,52	3,35	15°	20°	0,4	1,2			☹				☹										☹	
	ADGT1204PER-D56	G	2	8,4	13,6	4,76	15°	20°	0,8	1,2	☺	☻	☹				☹			☻	☻	☹					☹	
	ADGT1606PER-D56	G	2	10,8	17,5	6,15	15°	20°	0,8	1,6	☺	☻	☹				☹			☻	☻	☹					☹	
	ADGT1807PER-D56	G	2	14,5	19	7	15°	17°	1,2	1,8	☺	☻	☹				☹				☻	☹					☹	
	ADGT10T3PER-D67	G	2	7,25	11,3	3,8	15°	15°	0,8	1,2		☻	☹		☻		☹					☹			☻		☹	
	ADGT10T316R-D67	G	2	7,25	11,3	3,8	15°	15°	1,6	1,2			☹			☻	☹									☻	☹	
	ADGT10T325R-D67	G	2	7,25	11,3	3,8	15°	15°	2,5	1				☹		☻		☹								☻		☹
	ADGT10T330R-D67	G	2	7,25	11,3	3,8	15°	15°	3	0,8			☹			☻	☹									☻	☹	
	ADGT10T332R-D67	G	2	7,25	11,3	3,8	15°	15°	3,2	0,8				☹		☻		☹								☻		☹
	ADGT1204PER-D67	G	2	8,4	13,6	4,76	15°	20°	0,8	1,2		☻	☹		☻		☹					☹			☻		☹	
	ADGT120416R-D67	G	2	8,4	13,6	4,76	15°	20°	1,6	1			☹			☻	☹									☻	☹	
	ADGT120430R-D67	G	2	8,4	13,6	4,76	15°	20°	3	0,8				☹		☻		☹								☻		☹
	ADGT1606PER-D67	G	2	10,8	17,5	6,15	15°	20°	0,8	1,6		☻	☹		☻		☹					☹			☻		☹	
	ADGT160616R-D67	G	2	10,8	17,5	6,15	15°	20°	1,6	1			☹			☻	☹									☻	☹	
	ADGT160630R-D67	G	2	10,8	17,5	6,15	15°	20°	3	0,8			☹			☻	☹									☻	☹	
	ADGT0803PER-F56	G	2	6,75	9,52	3,35	15°	20°	0,4	1,2			☹		☻		☹								☻		☹	
	ADGT080308R-F56	G	2	6,75	9,52	3,35	15°	20°	0,8	1,2			☹			☻	☹									☻	☹	
	ADGT120404R-F56	G	2	8,4	13,6	4,76	15°	20°	0,4	1,2			☹			☻	☹									☻	☹	
	ADGT1204PER-F56	G	2	8,4	13,6	4,76	15°	20°	0,8	1,2			☹		☻		☹								☻		☹	
	ADGT120430R-F56	G	2	8,4	13,6	4,76	15°	20°	3	0,8			☹				☹										☹	
	ADGT120440R-F56	G	2	8,4	13,6	4,76	15°	20°	4	0,4			☹				☹										☹	
	ADGT1606PER-F56	G	2	10,8	17,5	6,15	15°	20°	0,8	1,6			☹		☻		☹								☻		☹	
	ADGT160612R-F56	G	2	10,8	17,5	6,15	15°	20°	1,2	1,6			☹			☻	☹									☻	☹	
	ADGT160616R-F56	G	2	10,8	17,5	6,15	15°	20°	1,6	1,4			☹				☹										☹	
	ADGT160620R-F56	G	2	10,8	17,5	6,15	15°	20°	2	1,4			☹				☹										☹	
	ADGT160632R-F56	G	2	10,8	17,5	6,15	15°	20°	3,2	1,2			☹				☹										☹	
	ADGT160640R-F56	G	2	10,8	17,5	6,15	15°	20°	4	1			☹				☹										☹	
	ADGT160650R-F56	G	2	10,8	17,5	6,15	15°	20°	5	0,4			☹			☻	☹									☻	☹	
	ADGT10T3PER-G77	G	2	7,25	11,3	3,8	15°	15°	0,8	1,2			☻			☺	☻									☺	☻	
	ADGT1204PER-G77	G	2	8,4	13,6	4,76	15°	20°	0,8	1,2			☻			☺	☻									☺	☻	
	ADGT1606PER-G77	G	2	10,8	17,5	6,15	15°	20°	0,8	1,2			☻			☺	☻									☺	☻	

HC = Coated carbide
HW = Uncoated carbide

Positive rhombic
ADGT / ADHT / ADKT
Tiger·tec® Silver

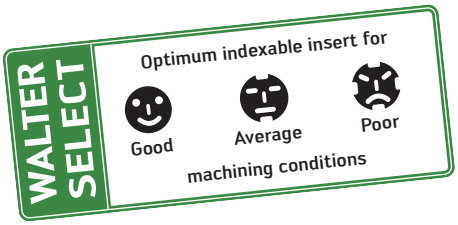


Indexable inserts

C 2

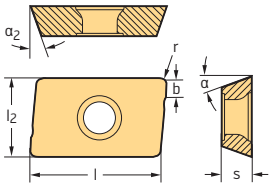
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	$α_2$	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	ADHT0803PER-G88	H	2	6,75	9,52	3,35	15°	20°	0,4	1,2													☺	☺				
	ADHT0803PEL-G88	H	2	6,75	9,52	3,35	15°	20°	0,4	1,2													☺					
	ADHT10T3PER-G88	H	2	7,25	11,3	3,8	15°	15°	0,8	1,2													☺	☺				
	ADHT1204PER-G88	H	2	8,4	13,6	4,76	15°	20°	0,8	1,2													☺	☺				
	ADHT1204PEL-G88	H	2	8,4	13,6	4,76	15°	20°	0,8	1,2													☺	☺				
	ADHT120416R-G88	H	2	8,4	13,6	4,76	15°	20°	1,6	1													☺	☺				
	ADHT120416L-G88	H	2	8,4	13,6	4,76	15°	20°	1,6	1													☺					
	ADHT120425R-G88	H	2	8,4	13,6	4,76	15°	20°	2,5	0,8														☺				
	ADHT120425L-G88	H	2	8,4	13,6	4,76	15°	20°	2,5	0,8													☺					
	ADHT120430R-G88	H	2	8,4	13,6	4,76	15°	20°	3	0,8													☺	☺				
	ADHT120430L-G88	H	2	8,4	13,6	4,76	15°	20°	3	0,8													☺					
	ADHT120440R-G88	H	2	8,4	13,6	4,76	15°	20°	4	0,4														☺				
	ADHT120440L-G88	H	2	8,4	13,6	4,76	15°	20°	4	0,4													☺					
	ADHT1606PER-G88	H	2	10,8	17,5	6,15	15°	20°	0,8	1,6													☺	☺				
	ADHT1606PEL-G88	H	2	10,8	17,5	6,15	15°	20°	0,8	1,6													☺					
	ADHT160616R-G88	H	2	10,8	17,5	6,15	15°	20°	1,6	1,4													☺	☺				
	ADHT160616L-G88	H	2	10,8	17,5	6,15	15°	20°	1,6	1,4													☺					
	ADHT160625R-G88	H	2	10,8	17,5	6,15	15°	20°	2,5	1,2														☺				
	ADHT160625L-G88	H	2	10,8	17,5	6,15	15°	20°	2,5	1,2													☺					
	ADHT160630R-G88	H	2	10,8	17,5	6,15	15°	20°	3	1,2														☺				
	ADHT160640R-G88	H	2	10,8	17,5	6,15	15°	20°	4	1														☺				
	ADHT160640L-G88	H	2	10,8	17,5	6,15	15°	20°	4	1													☺					
	ADKT0803PER-F56	K	2	6,75	9,52	3,35	15°	20°	0,4	1,2	☺	😐	☹				☹		☺		😐	☹					☹	
	ADKT0803PEL-F56	K	2	6,75	9,52	3,35	15°	20°	0,4	1,2		😐	☹				☹					☹					☹	
	ADKT10T3PER-F56	K	2	7,25	11,3	3,8	15°	15°	0,8	1,2	☺	😐	☹		😐		☹		☺		😐	☹			😐		☹	
	ADKT1204PER-F56	K	2	8,4	13,6	4,76	15°	20°	0,8	1,2	☺	😐	☹				☹		☺		😐	☹					☹	
	ADKT1204PEL-F56	K	2	8,4	13,6	4,76	15°	20°	0,8	1,2		😐	☹				☹					☹					☹	
	ADKT1606PER-F56	K	2	10,8	17,5	6,15	15°	20°	0,8	1,6	☺	😐	☹				☹		☺		😐	☹					☹	
	ADKT1606PEL-F56	K	2	10,8	17,5	6,15	15°	20°	0,8	1,6		😐	☹				☹					☹					☹	

HC = Coated carbide
HW = Uncoated carbide



Positive rhombic ADMT

Tiger·tec® Silver



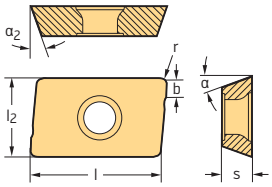
C 2

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	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WSM35S	WSM35	WSM45X	WSP45S	WSP45
	ADMT080304R-D56	M	2	6,75	9,52	3,35	15°	20°	0,4	1,2	☺	☺	☹					☹		☺	☺	☺	☹				☹	
	ADMT120408R-D56	M	2	8,4	13,6	4,76	15°	20°	0,8	1,2	☺	☺	☹					☹		☺	☺	☺	☹				☹	
	ADMT160608R-D56	M	2	10,8	17,5	6,15	15°	20°	0,8	1,6	☺	☺	☹					☹		☺	☺	☺	☹				☹	
	ADMT180712R-D56	M	2	14,5	19	7	15°	17°	1,2	1,8	☺	☺	☹					☹			☺	☺	☹				☹	

HC = Coated carbide

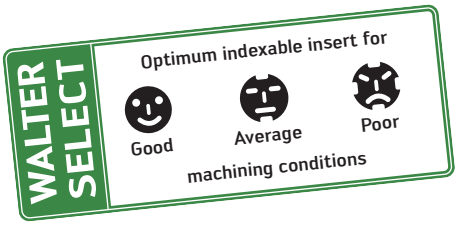
Positive rhombic
ADMT
Tiger·tec® Silver



Indexable inserts

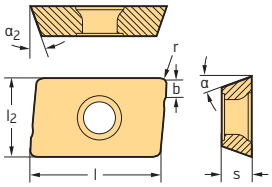
Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	$α_2$	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSM45X	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM35	S HC WSM45X	S HC WSP45S	S HC WSP45
ADMT080302R-F56	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		😐	☹		😐		☹	☹					☹	😐		☹	☹	
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		😐		☹					☹				☹					☹

HC = Coated carbide



Positive rhombic ADMT

Tiger·tec® Silver



C 2

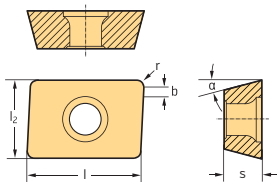
Indexable inserts

	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 WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSM45X	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM35	S HC WSM45X	S HC WSP45S	S HC WSP45
	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	15°	17°	1,2	1,8	●	●	●					●			●	●	●				●	
	ADMT080304R-G56	M	2	6,75	9,52	3,35	15°	20°	0,4	1,2		●		●	●				●				●	●				●
	ADMT10T308R-G56	M	2	7,25	11,3	3,8	15°	15°	0,8	1,2		●		●	●				●				●	●				●
	ADMT120408R-G56	M	2	8,4	13,6	4,76	15°	20°	0,8	1,2		●	●		●			●					●	●			●	
	ADMT160608R-G56	M	2	10,8	17,5	6,15	15°	20°	0,8	1,6		●	●		●			●					●	●			●	

HC = Coated carbide

Positive rhombic LDMW / LDMT

Tiger·tec® Silver

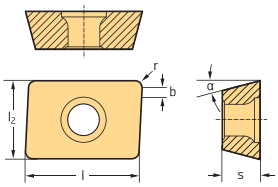


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	LDMW08T204R-A57	M	2	6,1	8,88	2,58	15°	0,4	0,8	●	●						●	●		
	LDMW14T308R-A57	M	2	9,68	14,1	4,08	15°	0,8	1,2	●	●						●	●		
	LDMW170408R-A57	M	2	11,78	17,24	4,92	15°	0,8	1,6	●	●						●	●		
	LDMT08T204R-D51	M	2	6,1	8,88	2,58	15°	0,4	0,8	●	●	●		●			●	●		●
	LDMT14T308R-D51	M	2	9,68	14,1	4,08	15°	0,8	1,2	●	●						●	●		
	LDMT170408R-D51	M	2	11,78	17,24	4,92	15°	0,8	1,6	●	●	●		●			●	●		●
	LDMT14T308R-D51	M	2					0,8	1,2			●		●						●
	LDMT08T204R-D57	M	2	6,1	8,88	2,58	15°	0,4	0,8	●	●	●	●	●		●	●	●	●	●
	LDMT14T308R-D57	M	2	9,68	14,1	4,08	15°	0,8	1,2	●	●	●	●	●		●	●	●	●	●
	LDMT170408R-D57	M	2	11,78	17,24	4,92	15°	0,8	1,6	●	●	●	●	●		●	●	●	●	●

HC = Coated carbide

Positive rhombic
LDMW / LDMT
Tiger·tec® Silver

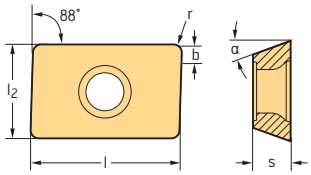


Indexable inserts

Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
LDMT08T204R-F57	M	2	6,1	8,88	2,58	15°	0,4	0,8	☺	😐	☹	😐	☹	☺		😐	☹	😐	☹
LDMT14T308R-F57	M	2	9,68	14,1	4,08	15°	0,8	1,2	☺	😐	☹	😐	☹	☺		😐	☹	😐	☹
LDMT170408R-F57	M	2	11,78	17,24	4,92	15°	0,8	1,6	☺	😐	☹	😐	☹	☺		😐	☹	😐	☹

HC = Coated carbide

Positive rhombic
LPGW / LPGT / LPMW / LPMT
Tiger·tec® Silver



Indexable inserts

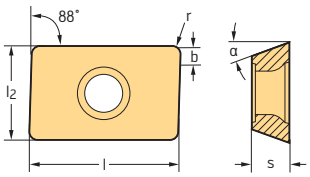
Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
LPGW070304R-A57	G	2	6,35	7,94	3,18	11°	0,4	1,2	😐	☹							☺		😐	☹				
LPGW15T308R-A57	G	2	9,52	15	3,97	11°	0,8	1,4	😐	☹							☺		😐	☹				
LPGW150412R-A57	G	2	12,7	15,88	4,76	11°	1,2	1,6	😐	☹							☺		😐	☹				
LPGT070304R-F55	G	2	6,35	7,94	3,18	11°	0,4	1,2		😐		☹		😐		☹				☹		😐		☹
LPGT15T308R-F55	G	2	9,52	15	3,97	11°	0,8	1,4		😐		☹		😐		☹				☹		😐		☹
LPGT150412R-F55	G	2	12,7	15,88	4,76	11°	1,2	1,6		😐		☹		😐		☹	☺			☹		😐		☹
LPGT1506PPR-F57	G	2	12,7	15,88	6,35	11°	1,2	1,6		😐	☹			😐	☹					☹		😐	☹	
LPMW070304TR-A27	M	2	6,35	7,94	3,18	11°	0,4		😐	☹									😐	☹				
LPMW15T308TR-A27	M	2	9,52	15	3,97	11°	0,8		😐	☹									😐	☹				
LPMW150412TR-A27	M	2	12,7	15,88	4,76	11°	1,2		😐	☹									😐	☹				
LPMW150612TR-A27	M	2	12,7	15,88	6,35	11°	1,2			☹										☹				
LPMT070304R-D51	M	2	6,35	7,94	3,18	11°	0,4	1,2	☺	😐		☹		😐		☹			😐	☹		😐		☹
LPMT15T308R-D51	M	2	9,52	15	3,97	11°	0,8	1,4	☺	😐		☹		😐		☹			😐	☹		😐		☹
LPMT150412R-D51	M	2	12,7	15,88	4,76	11°	1,2	1,6	☺	😐		☹		😐		☹			😐	☹		😐		☹
LPMT150612R-D51	M	2	12,7	15,88	6,35	11°	1,2			😐	☹			😐	☹					☹		😐	☹	

HC = Coated carbide

WALTER SELECT
Optimum indexable insert for
Good Average Poor
machining conditions

C 2

Positive rhombic
LPGW / LPGT / LPMW / LPMT
Tiger·tec® Silver

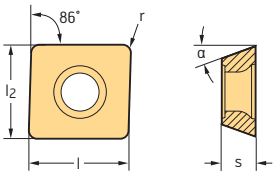


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	LPMT150612R-D57	M	2	12,7	15,88	6,35	11°	1,2		☺	☹		☠				☠	☺		☹	☠				☠

HC = Coated carbide

Positive rhombic
MPHX / MPHW / MPHT / MPMX / MPMT
Tiger·tec® Silver

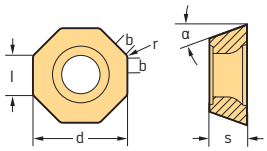


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	MPHX060304-A57	H	2	6,35	6,35	3,18	11°	0,4	☹	☠							☺		☹	☠					
	MPHX080305-A57	H	2	8,3	8,3	3,18	11°	0,5	☹	☠							☺		☹	☠					
	MPHW120408-A57	H	2	12,7	12,7	4,76	11°	0,8	☹	☠							☺		☹	☠					
	MPHX060304-G88	H	2	6,35	6,35	3,18	11°	0,4													☺				
	MPHX080305-G88	H	2	8,3	8,3	3,18	11°	0,5													☺				
	MPHT120408-G88	H	2	12,7	12,7	4,76	11°	0,8													☺				
	MPMX060304-F57	M	2	6,35	6,35	3,18	11°	0,4		☹		☠		☹		☠				☠			☹		☠
	MPMX080305-F57	M	2	8,3	8,3	3,18	11°	0,5		☹		☠		☹		☠	☺			☠			☹		☠
	MPMT120408-F57	M	2	12,7	12,7	4,76	11°	0,8		☹		☠		☹		☠				☠			☹		☠

HC = Coated carbide

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

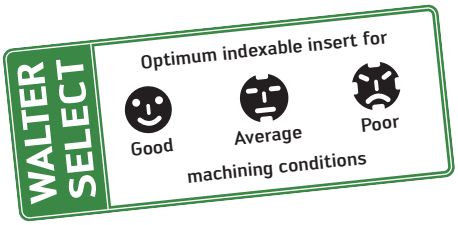


C 2

Indexable inserts

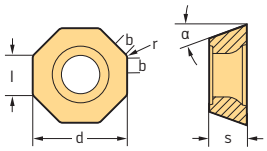
	Designation	Tolerance class	Number of cutting edges	l mm	d mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM35	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSM45X	S HC WSP45S
	ODHW050408-A57	H	8	5,26	12,7	4,76	15°	0,8			☹									☹							
	ODHW060512-A57	H	8	6,58	15,88	5,56	15°	1,2			☹									☹							
	ODHW050412-A57	H	8	5,26	12,7	4,76	15°	1,2													☺						
	ODHW060516-A57	H	8	6,58	15,88	5,56	15°	1,6													☺						
	ODHT050408-F57	H	8	5,26	12,7	4,76	15°	0,8			☹	☹				☹				☹							☹
	ODHT060512-F57	H	8	6,58	15,88	5,56	15°	1,2			☹	☹				☹				☹							☹
	ODHT050408-G88	H	8	5,26	12,7	4,76	15°	0,8														☺					
	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													☺	☺				
	ODMT050408-D57	M	8	5,26	12,7	4,76	15°	0,8			☹	☹		😐		☹		😐		☹					😐		☹
	ODMT060512-D57	M	8	6,58	15,88	5,56	15°	1,2			☹	☹		😐		☹		😐		☹					😐		☹
	ODMT0504ZZN-D57	M	8	5,26	12,7	4,76	15°	0,8	1,2	☺	☹	☹	😐		☹	☹		😐	😐	☹				😐		☹	☹
	ODMT0605ZZN-D57	M	8	6,58	15,88	5,56	15°	0,8	1,6	☺	☹	☹	😐		☹	☹		😐	😐	☹				😐		☹	☹

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



C 2

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

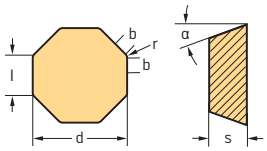


Indexable inserts

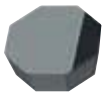
	Designation	Tolerance class	Number of cutting edges	l mm	d mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM35	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSM45X	S HC WSP45S
	ODMW050408T-A27	M	8	5,26	12,7	4,76	15°	0,8		☺	☹							☺	☺	☹							
	ODMW060508T-A27	M	8	6,58	15,88	5,56	15°	0,8		☺	☹							☺	☺	☹							
	ODMW050408-A57	M	8	5,26	12,7	4,76	15°	0,8		☺	☹						☻	☺	☺	☹							
	ODMW060508-A57	M	8	6,58	15,88	5,56	15°	0,8		☺	☹						☻	☺	☺	☹							

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

Positive octagonal
OPHN
Tiger·tec® Silver



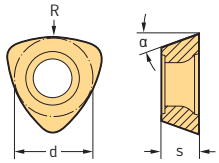
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	d mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	K BH WCB80	K CN WSN10	S HC WSM35S	S HC WSP45S
	OPHN0504ZZN-A27	H	2	5	12,7	4,76	11°	0,4	1,2										☻			
	OPHN050412-A57	H	8	5	12,7	4,76	11°	1,2												☻		
	OPHN0504ZZN-A57	H	8	5	12,7	4,76	11°	0,4	1,2						☻		☺			☻		

HC = Coated carbide
BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4

Positive triangular
P26315 / P26325

Tiger·tec® Silver



Indexable inserts

C 2

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	R mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S	S HC WSP45
	P26315R10	M	3	6,75	2,78	14°	10,0	☺	☹	☹			☹				☺	☹		☹	
	P26315R12	M	3	8,5	3,18	14°	12,5	☺	☹	☹			☹				☺	☹		☹	
	P26315R15	M	3	10,5	3,97	14°	15,0	☺	☹	☹			☹				☺	☹		☹	
	P26315R16	M	3	10,5	3,97	14°	16,0	☺	☹	☹			☹				☺	☹		☹	
	P26315R20	M	3	12,5	4,76	11°	20,0	☺	☹	☹			☹				☺	☹		☹	
	P26315R25	M	3	12,7	4,76	11°	25,0	☺	☹	☹			☹				☺	☹		☹	
	P26315R31	M	3	12,7	4,76	11°	31,5	☺	☹	☹			☹				☺	☹		☹	
	P26325R25	M	3	13	5,56	14°	25,0	☺	☹		☹			☹			☺	☹			☹
	P26325R31	M	3	13,52	5,59	14°	31,5	☺	☹		☹			☹			☺	☹			☹

HC = Coated carbide

WALTER SELECT

Optimum indexable insert for

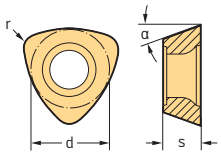
Good Average Poor

machining conditions

C 2

Positive triangular
P26335 / P26337 / P26339

Tiger·tec® Silver



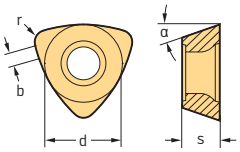
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S	S HC WSP45
	P26335R10	M	3	6,75	3,18	14°	0,8	●	✖	✖		●	✖				●	✖	●	✖	
	P26335R14	M	3	9,52	3,97	14°	1,2	●	✖	✖	✖	●	✖	✖			●	✖	●	✖	✖
	P26335R25	M	3	13	5,56	14°	2	●	✖	✖		●	✖				●	✖	●	✖	
	P26337R10	M	3	6,75	3,18	14°	0,8	●	✖	✖			✖				●	✖		✖	
	P26337R14	M	3	9,52	3,97	14°	1,2	●	✖	✖			✖				●	✖		✖	
	P26337R25	M	3	13	5,56	14°	2	●	✖	✖			✖				●	✖		✖	
	P26339R10	M	3	6,75	3,18	14°	0,8	●	✖	✖		●	✖				●	✖	●	✖	
	P26339R14	M	3	9,52	3,97	14°	1,2	●	✖	✖		●	✖				●	✖	●	✖	
	P26339R25	M	3	13	5,56	14°	2	●	✖	✖		●	✖				●	✖	●	✖	

HC = Coated carbide

Positive triangular
P26379

Tiger·tec® Silver



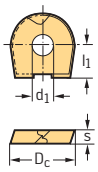
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	P26379-R10	M	3	6,75	3,18	14°	0,8	0,9		✖	✖		✖				✖		✖
	P26379-R14	M	3	9,52	3,97	14°	1,2	1		✖	✖		✖				✖		✖
	P26379-R25	M	3	13	5,56	14°	2	1,1		✖	✖		✖				✖		✖

HC = Coated carbide

Profile milling inserts
P3204 / P3201

Tiger·tec®

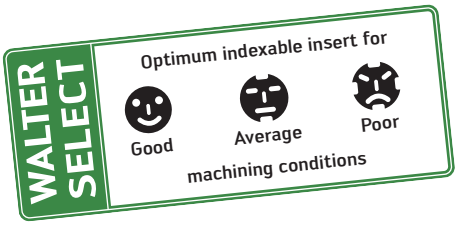


Indexable inserts

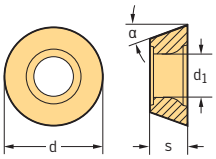
C 2

	Designation	Tolerance class	Number of cutting edges	D_c -0,03 mm	s mm	l_1 mm	d_1 mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP46	M HC WSM35S	M HC WSM36	M HC WSP45S	M HC WSP46	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM36	S HC WSP45S	S HC WSP46	H HC WHH15
	P3204-D08	H	2	8	2	4	3				☹		☺		☹						☺		☹	☻
	P3204-D10	H	2	10	2,5	5	4				☹		☺		☹						☺		☹	☻
	P3204-D12	H	2	12	2,5	6	5				☹		☺		☹						☺		☹	☻
	P3204-D16	H	2	16	3	6	5				☹		☺		☹						☺		☹	☻
	P3204-D20	H	2	20	3	6	5				☹		☺		☹						☺		☹	☻
	P3204-D25	H	2	25	4	9	6				☹		☺		☹						☺		☹	☻
	P3204-D30	H	2	30	5	10	8				☹		☺		☹						☺		☹	☻
	P3204-D32	H	2	32	5	10	8				☹		☺		☹						☺		☹	☻
	P3201-D08	H	2	8	2	4	3																	☻
	P3201-D10	H	2	10	2,5	5	4																	☻
	P3201-D12	H	2	12	2,5	6	5																	☻
	P3201-D16	H	2	16	3	6	5																	☻
	P3201-D20	H	2	20	3	6	5																	☻
	P3201-D25	H	2	25	4	9	6																	☻
	P3201-D30	H	2	30	5	10	8																	☻
	P3201-D32	H	2	32	5	10	8																	☻

HC = Coated carbide



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



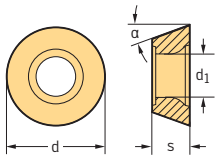
C 2

Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	d_1 mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSM45X	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM35	S HC WSM45X	S HC WSP45S	S HC WSP45
	ROGX10T3M0-G77	G	4	10	3,97	11°	4,4				●		☻			●						☻			●
	ROGX1204M0-G77	G	4	12	4,76	11°	4,4			●			☻		●							☻		●	
	ROGX1605M0-G77	G	6	16	5,56	15°	5,5				●		☻			●						☻			●
	ROHX10T3M0T-A27	H	4	10	3,97	11°	4,4		✖											✖					
	ROHX1204M0T-A27	H	4	12	4,76	11°	4,4		✖											✖					
	ROHX1605M0T-A27	H	6	16	5,56	15°	5,5		✖											✖					
	ROHX2006M0T-A27	H	8	20	6,35	15°	6,5		✖											✖					
	ROHX0803M0-D57	H	4	8	3,18	11°	3,4		●	✖		●			✖					✖	●			✖	
	ROHX10T3M0-D57	H	4	10	3,97	11°	4,4		●	✖		●	●		✖					✖	●	●		✖	
	ROHX1204M0-D57	H	4	12	4,76	11°	4,4		●	✖		●			✖					✖	●			✖	
	ROHX1605M0-D57	H	6	16	5,56	15°	5,5		●	✖		●			✖					✖	●			✖	
	ROHX2006M0-D57	H	8	20	6,35	15°	6,5		●	✖		●			✖					✖	●			✖	
	ROHX0803M0-D67	H	4	8	3,18	11°	3,4			✖			●		✖							●		✖	
	ROHX10T3M0-D67	H	4	10	3,97	11°	4,4			✖			●		✖							●		✖	
	ROHX1204M0-D67	H	4	12	4,76	11°	4,4		●	✖			●		✖					✖		●		✖	
	ROHX1605M0-D67	H	6	16	5,56	15°	5,5			✖			●		✖							●		✖	
	ROHX10T3M0-F67	H	4	10	3,97	11°	4,4		●	✖			●		✖					✖		●		✖	
	ROHX1204M0-F67	H	4	12	4,76	11°	4,4		●	✖			●		✖					✖		●		✖	
	ROMX0803M0-D57	M	4	8	3,18	11°	3,4		●	✖		●			✖					✖	●			✖	
	ROMX10T3M0-D57	M	4	10	3,97	11°	4,4		●	✖		●		✖	✖					✖	●		✖	✖	
	ROMX1204M0-D57	M	4	12	4,76	11°	4,4		●	✖		●		✖	✖					✖	●		✖	✖	
	ROMX1605M0-D57	M	6	16	5,56	15°	5,5		●	✖		●			✖					✖	●			✖	
	ROMX2006M0-D57	M	8	20	6,35	15°	6,5		●	✖		●			✖					✖	●			✖	
	ROMX10T3M0-F67	M	4	10	3,97	11°	4,4			✖				✖	✖								✖	✖	
	ROMX1204M0-F67	M	4	12	4,76	11°	4,4			✖				✖	✖								✖	✖	

HC = Coated carbide

Positive round
RDGT / RDHW / RDMW / RDMT
Tiger·tec® Silver



Indexable inserts

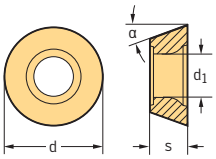
C 2

	Designation	Tolerance class	d mm	s mm	α	d_1 mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HF WMG40
	RDGT0803M0-G85	G	8	3,18	15°	3,4															☺
	RDGT10T3M0-G85	G	10	3,97	15°	4,4															☺
	RDGT1204M0-G85	G	12	4,76	15°	4,4															☺
	RDGT1605M0-G85	G	16	5,56	15°	5,5															☺
	RDGT2006M0-G85	G	20	6,35	15°	6,5															☺
	RDGT0803M0-G88	G	8	3,18	15°	3,4										☺	☺				
	RDGT10T3M0-G88	G	10	3,97	15°	4,4										☺	☺				
	RDGT1204M0-G88	G	12	4,76	15°	4,4										☺	☺				
	RDGT1605M0-G88	G	16	5,56	15°	5,5										☺	☺				
	RDGT2006M0-G88	G	20	6,35	15°	6,5										☺	☺				
	RDHW0803M0T-A27	H	8	3,18	15°	3,4	😐	☹						😐	☹						
	RDHW10T3M0T-A27	H	10	3,97	15°	4,4	😐	☹						😐	☹						
	RDHW1204M0T-A27	H	12	4,76	15°	4,4	😐	☹						😐	☹						
	RDHW1605M0T-A27	H	16	5,56	15°	5,5	😐	☹						😐	☹						
	RDHW2006M0T-A27	H	20	6,35	15°	6,5	😐	☹						😐	☹						
	RDHW0803M0-A57	H	8	3,18	15°	3,4						☺								☺	
	RDHW10T3M0-A57	H	10	3,97	15°	4,4						☺								☺	
	RDHW1204M0-A57	H	12	4,76	15°	4,4						☺								☺	
	RDHW1605M0-A57	H	16	5,56	15°	5,5						☺								☺	
	RDHW2006M0-A57	H	20	6,35	15°	6,5						☺								☺	
	RDMW0803M0T-A27	M	8	3,18	15°	3,4	😐	☹						😐	☹						
	RDMW10T3M0T-A27	M	10	3,97	15°	4,4	😐	☹						😐	☹						
	RDMW1204M0T-A27	M	12	4,76	15°	4,4	😐	☹						😐	☹						
	RDMW1605M0T-A27	M	16	5,56	15°	5,5	😐	☹						😐	☹						
	RDMW2006M0T-A27	M	20	6,35	15°	6,5	😐	☹						😐	☹						
	RDMT0803M0-D57	M	8	3,18	15°	3,4	☺	😐	☹	😐	☹			😐	☹			😐	☹		
	RDMT10T3M0-D57	M	10	3,97	15°	4,4	☺	😐	☹	😐	☹			😐	☹			😐	☹		
	RDMT1204M0-D57	M	12	4,76	15°	4,4	☺	😐	☹	😐	☹			😐	☹			😐	☹		
	RDMT1605M0-D57	M	16	5,56	15°	5,5	☺	😐	☹	😐	☹			😐	☹			😐	☹		
	RDMT2006M0-D57	M	20	6,35	15°	6,5	☺	😐	☹	😐	☹			😐	☹			😐	☹		

HC = Coated carbide
HW = Uncoated carbide
HF = Uncoated fine-grained carbide

WALTER SELECT
Optimum indexable insert for
Good Average Poor
machining conditions

Positive round
RDGX / RDHX / RDMX
Tiger·tec® Silver



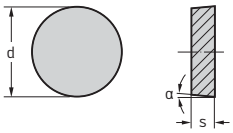
C 2

Indexable inserts

	Designation	Tolerance class	d mm	s mm	α	d_1 mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S	H HC WHH15	O HF WMG40
	RDGX07T1M0-G85	G	7	1,98	15°	2,8													☺
	RDGX1003M0-G85	G	10	3,18	15°	4,4													☺
	RDGX12T3M0-G85	G	12	3,97	15°	4,4													☺
	RDHX1003M0T-A27	H	10	3,18	15°	4,4	☺	☹						☺	☹				
	RDHX12T3M0T-A27	H	12	3,97	15°	4,4	☺	☹						☺	☹				
	RDHX1604M0T-A27	H	16	4,76	15°	5,5	☺	☹						☺	☹				
	RDHX2006M0T-A27	H	20	6,35	15°	5,5		☹							☹				
	RDHX0501M0-A57	H	5	1,59	15°	2,2												☺	
	RDHX07T1M0-A57	H	7	1,98	15°	2,8												☺	
	RDHX0702M0-A57	H	7	1,59	15°	2,8												☺	
	RDHX1003M0-A57	H	10	3,18	15°	4,4												☺	
	RDHX12T3M0-A57	H	12	3,97	15°	4,4												☺	
	RDHX1604M0-A57	H	16	4,76	15°	5,5												☺	
	RDMX1003M0T-A27	M	10	3,18	15°	4,4	☺	☹						☺	☹				
	RDMX12T3M0T-A27	M	12	3,97	15°	4,4	☺	☹						☺	☹				
	RDMX1604M0T-A27	M	16	4,76	15°	5,5	☺	☹						☺	☹				

HC = Coated carbide
HF = Uncoated fine-grained carbide

Ceramic – Positive round
RPGN



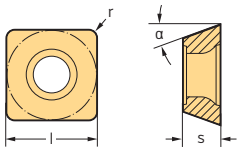
Indexable inserts

Designation	d mm	α	s mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S	CN WIS10
RPGN090300T01020	9,53	11°	3,18												☺
RPGN120400T01020	12,7	11°	4,76												☺

See the ISO 1832 designation key for dimensions

HC = Coated carbide
CN = Silicon nitride Si_3N_4

Positive square
SDMW / SDMT
Tiger·tec® Silver



Indexable inserts

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

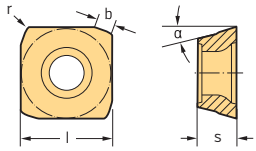
HC = Coated carbide

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

C 2

Positive square SDMT

Tiger·tec® Silver



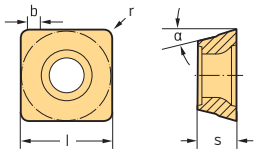
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	SDMT06T2ZDR-D57	M	4	6,4	2,78	15°	0,4	1,2		☹	☠		☠				☠		☠
	SDMT09T3ZDR-D57	M	4	9,5	3,97	15°	0,8	1,2		☹	☠		☠				☠		☠
	SDMT1204ZDR-D57	M	4	12,7	4,76	15°	0,8	1,8		☹	☠		☠				☠		☠

HC = Coated carbide

Positive square SDGT

Tiger·tec® Silver

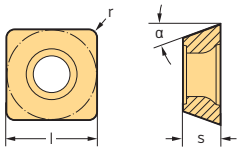


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	SDGT06T2PDR-D57	G	4	6,4	2,78	15°	0,4	1,2	☺	☹	☠	☹	☠			☹	☠	☹	☠
	SDGT09T3PDR-D57	G	4	9,5	3,97	15°	0,8	1,2	☺	☹	☠	☹	☠			☹	☠	☹	☠
	SDGT1204PDR-D57	G	4	12,7	4,76	15°	0,8	1,6	☺	☹	☠	☹	☠			☹	☠	☹	☠

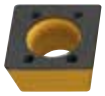
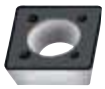
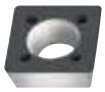
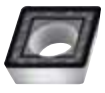
HC = Coated carbide

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



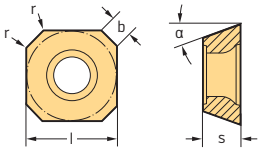
C 2

Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	SPGT120606-F57	G	4	12,7	6,35	11°	0,6		☹	☹		☺		☹					☹				☺		☹	
	SPHW120416-A57	H	4	12,7	4,76	11°	1,6													☺						
	SPHW120412-A57	H	4	12,7	4,76	11°	1,2													☺						
	SPHW120606-A57	H	4	12,7	6,35	11°	0,6									☺										
	SPHT060304-G88	H	4	6,35	3,18	11°	0,4														☺	☺				
	SPHT09T308-G88	H	4	9,52	3,97	11°	0,8														☺	☺				
	SPHT120408-G88	H	4	12,7	4,76	11°	0,8														☺	☺				
	SPMW060304T-A27	M	4	6,35	3,18	11°	0,4	☺	☹									☺	☹							
	SPMW09T308T-A27	M	4	9,52	3,97	11°	0,8	☺	☹									☺	☹							
	SPMW120408T-A27	M	4	12,7	4,76	11°	0,8	☺	☹									☺	☹							
	SPMW120606T-A27	M	4	12,7	6,35	11°	0,6		☹										☹							
	SPMW060304-A57	M	4	6,35	3,18	11°	0,4	☺	☹							☺		☺	☹							
	SPMW09T308-A57	M	4	9,52	3,97	11°	0,8	☺	☹							☺		☺	☹							
	SPMW120408-A57	M	4	12,7	4,76	11°	0,8	☺	☹							☺		☺	☹							
	SPMT060304-D51	M	4	6,35	3,18	11°	0,4	☺	☺		☹		☺		☹			☺	☹					☺		☹
	SPMT09T308-D51	M	4	9,52	3,97	11°	0,8	☺	☺		☹		☺		☹			☺	☹					☺		☹
	SPMT120408-D51	M	4	12,7	4,76	11°	0,8	☺	☺		☹		☺		☹			☺	☹					☺		☹
	SPMT120606-D51	M	4	12,7	6,35	11°	0,6		☺	☹			☺	☹					☹					☺	☹	
	SPMT120606-D57	M	4	12,7	6,35	11°	0,6	☺	☺	☹				☹		☺		☺	☹						☹	
	SPMT060304-F55	M	4	6,35	3,18	11°	0,4		☺		☹		☺		☹	☺			☹					☺		☹
	SPMT09T308-F55	M	4	9,52	3,97	11°	0,8		☺		☹		☺		☹	☺			☹					☺		☹
	SPMT120408-F55	M	4	12,7	4,76	11°	0,8		☺		☹		☺		☹	☺			☹					☺		☹
	SDHW09T312-A57	H	4	9,52	3,97	15°	1,2													☺						

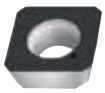
HC = Coated carbide
CN = Silicon nitride Si_3N_4
HW = Uncoated carbide

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



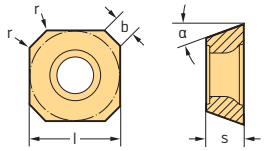
C 2

Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC				M HC				K HC				N HC	N HW	S HC			
									WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSP45S	WSP45
	SPGT1204AEN-K88	G	4	12,7	4,76	11°		1,5													☺	☺				
	SPKT1204AZN	K	4	12,7	4,76	11°		1,4		☹		☹		☺		☹	☺			☹				☺		☹
	SPKT1504AZN	K	4	15,9	4,76	11°		1,7		☹										☹						
	SPMW1204AETN-A27	M	4	12,7	4,76	11°	0,5	1,4	☺	☹									☺	☹						
	SPMW1204AEN-A57	M	4	12,7	4,76	11°	0,5	1,4	☺	☹							☺		☺	☹						
	SPMT1204AEN	M	4	12,7	4,76	11°	0,5	1,4	☺	☹		☹		☺		☹	☺		☺	☹				☺		☹
	SDGT09T3AEN-F57	G	4	9,5	3,97	15°	0,3	1,2		☺		☹		☺		☹				☹				☺		☹
	SDGT09T3AEN-G88	G	4	9,5	3,97	15°	0,3	1,2													☺	☺				
	SDHW09T3AEN-A57	H	4	9,5	3,97	15°	0,3	1,2	☺	☹							☺		☺	☹						
	SDMW09T3AETN-A27	M	4	9,5	3,97	15°	0,5	1,2	☺	☹									☺	☹						
	SDMW09T3AEN-A57	M	4	9,5	3,97	15°	0,5	1,2	☺	☹							☺		☺	☹						

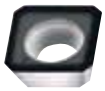
HC = Coated carbide
HW = Uncoated carbide

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



Indexable inserts

C 2

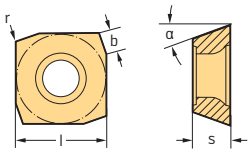
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	SDMT09T3AEN-D57	M	4	9,5	3,97	15°	0,5	1,2		😐		☹		😐		☹				☹				😐		☹
	SEHW1204AFN	H	4	12,7	4,76	20°	0,8	2		☹							☺			☹						
	SEHW1504AFN	H	4	15,9	4,76	20°	0,8	2,1		☹										☹						
	SEHT1204AFN	H	4	12,7	4,76	20°	0,8	2		☹		☹		😐		☹				☹		☺		😐		☹
	SEHT1204AFN-K88	H	4	12,7	4,76	20°	0,8	1,8														☺				

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Optimum indexable insert for
Good Average Poor
machining conditions

C 2

Positive square
SPJW / SPGT
Tiger·tec® Silver

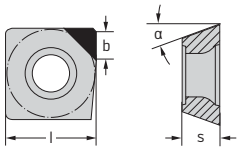


Indexable inserts

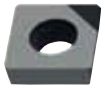
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	SPJW1204EDR	J	4	12,7	4,76	11°		1,4		✖							☻			✖				
	SPJW1504EDR	J	4	15,9	4,76	11°		1,5		✖										✖				
	SPGT1204EDR-F55	G	4	12,7	4,76	11°	0,5	1,3	☻	☻		✖		☻		✖	☻		☻	✖		☻		✖

HC = Coated carbide

Positive square
SPHW

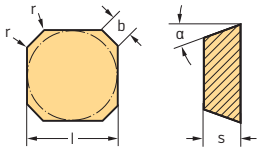


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N DP WCD10	S HC WSM35S	S HC WSP45S
	SPHW1204EDR-A88	H	1	12,7	4,76	11°	1,5										☻		
	SPHW1204PDR-A88	H	1	12,7	4,76	11°	1,5										☻		

HC = Coated carbide
DP = Polycrystalline diamond

Positive square
SEKN / SEKR / SEMR
Tiger·tec® Silver

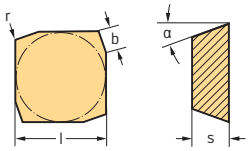


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	SEKN1203AFN	K	4	12,7	3,18	20°	0,63	1,9		☹							☹		
	SEKN1504AFN	K	4	15,9	4,76	20°	0,35	2		☹							☹		
	SEKR1203AFTN	K	4	12,7	3,18	20°	0,43	1,9		☹							☹		
	SEKR1204AFN	K	4	12,7	4,76	20°	0,34	1,9		☹							☹		
	SEMR1203AFTN	M	4	12,7	3,18	20°	0,5	1,9		☹							☹		

HC = Coated carbide

Positive square
SPFN / SPFR / SPKN / SPMN
Tiger·tec® Silver



Indexable inserts

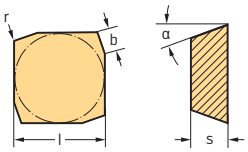
	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	SPFN1204EDN	F	4	12,7	4,76	11°	0,5	1,7		☹				☺			☹		
	SPFN1204ZPN	F	4	12,7	4,76	11°	0,8	1,7		☹							☹		
	SPFR1204EDR	F	4	12,7	4,76	11°	0,5	2		☹				☺			☹		
	SPFR1204ZPR	F	4	12,7	4,76	11°	0,8	1,7		☹				☺			☹		
	SPFR1204ZPN	F	4	12,7	4,76	11°	0,8	1,7		☹							☹		

HC = Coated carbide

WALTER SELECT
Optimum indexable insert for
Good Average Poor
machining conditions

C 2

Positive square
SPFN / SPFR / SPKN / SPMN
Tiger·tec® Silver

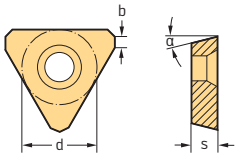


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	SPKN1203EDR	K	4	12,7	3,18	11°		1,4		☹							☹		
	SPKN1204EDR	K	4	12,7	4,76	11°		1,4		☹				☺			☹		
	SPKN1504EDR	K	4	15,9	4,76	11°		1,5		☹							☹		
	SPMN1203EDR	M	4	12,7	3,18	11°	0,2	1,4		☹							☹		

HC = Coated carbide

Positive triangular
TPAW / TPJW
Tiger·tec® Silver

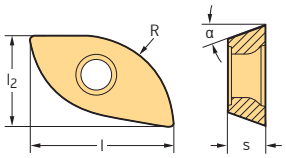


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	TPAW1604PPN	A	3	9,52	4,76	11°	1,2		☹							☹		
	TPAW2204PPN	A	3	12,7	4,76	11°	1,2		☹							☹		
	TPJW1604PPN	J	3	9,52	4,76	11°	1,2		☹				☺			☹		
	TPJW2204PPN	J	3	12,7	4,76	11°	1,2		☹				☺			☹		

HC = Coated carbide

Positive form inserts
XDGT / XDMT
Tiger·tec® Silver



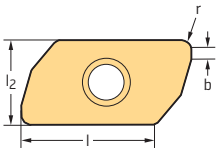
Indexable inserts

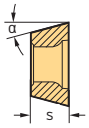
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	R mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S	S HC WSP45
	XDGT1303080R-D57	G	2	8,5	13,12	3	15°	8		Average	Poor			Poor					Poor		Poor	
	XDGT16T3100R-D57	G	2	9	15,93	3,74	15°	10		Average	Poor			Poor					Poor		Poor	
	XDGT2004125R-D57	G	2	11,3	19,94	4,68	15°	12,5		Average	Poor			Poor					Poor		Poor	
	XDGT2405150R-D57	G	2	13,5	23,94	5,62	15°	15		Average	Poor			Poor					Poor		Poor	
	XDGT2506160R-D57	G	2	14,4	25,54	6	15°	16		Average	Poor			Poor					Poor		Poor	
	XDGT3207200R-D57	G	2	18	31,95	7,5	15°	20		Average	Poor			Poor					Poor		Poor	
	XDGT4009250R-D57	G	2	22,5	39,95	9,39	15°	25		Average	Poor			Poor					Poor		Poor	
	XDMT1303080R-F55	M	2	8,5	13,12	3	15°	8	Good	Average	Poor		Average	Poor				Average	Poor	Average	Poor	
	XDMT16T3100R-F55	M	2	9	15,93	3,74	15°	10	Good	Average	Poor		Average	Poor				Average	Poor	Average	Poor	
	XDMT2004125R-F55	M	2	11,3	19,94	4,68	15°	12,5	Good	Average	Poor		Average	Poor				Average	Poor	Average	Poor	
	XDMT2405150R-F55	M	2	13,5	23,94	5,62	15°	15	Good	Average		Poor	Average		Poor			Average	Poor	Average		Poor
	XDMT2506160R-F55	M	2	14,4	25,54	6	15°	16	Good	Average		Poor	Average		Poor			Average	Poor	Average		Poor
	XDMT3207200R-F55	M	2	18	31,95	7,5	15°	20	Good	Average	Poor		Average	Poor				Average	Poor	Average	Poor	
	XDMT4009250R-F55	M	2	22,5	39,95	9,39	15°	25	Good	Average	Poor		Average	Poor				Average	Poor	Average	Poor	

HC = Coated carbide

WALTER SELECT
Optimum indexable insert for
Good Average Poor
machining conditions

Positive rhombic
ZDGT





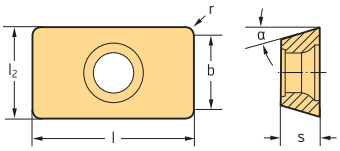
Indexable inserts

C 2

Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HC WNN15	N HW WK10	S HC WSM35S	S HC WSP45S	O HF WMG40
ZDGT150404R-K85	G	2	10,5	16,2	4,76	15°	0,4	1,2										☺	☺	☺			☺
ZDGT150408R-K85	G	2	10,5	16,2	4,76	15°	0,8	1,2										☺	☺	☺			☺
ZDGT150412R-K85	G	2	10,5	16,2	4,76	15°	1,2	1,2										☺	☺	☺			☺
ZDGT150416R-K85	G	2	10,5	16,2	4,76	15°	1,6	1,2										☺	☺	☺			☺
ZDGT150420R-K85	G	2	10,5	16,2	4,76	15°	2	1,2										☺	☺	☺			☺
ZDGT150425R-K85	G	2	10,5	16,2	4,76	15°	2,5	1,2										☺	☺	☺			☺
ZDGT150430R-K85	G	2	10,5	16,2	4,76	15°	3	1,2										☺	☺	☺			☺
ZDGT150440R-K85	G	2	10,5	16,2	4,76	15°	4	1,2										☺	☺	☺			☺
ZDGT200508R-K85	G	2	14	21,2	5,56	15°	0,8	1,2											☺	☺			☺
ZDGT200512R-K85	G	2	14	21,2	5,56	15°	1,2	1,2											☺	☺			☺
ZDGT200516R-K85	G	2	14	21,2	5,56	15°	1,6	1,2											☺	☺			☺
ZDGT200520R-K85	G	2	14	21,2	5,56	15°	2	1,2											☺	☺			☺
ZDGT200530R-K85	G	2	14	21,2	5,56	15°	3	1,2											☺	☺			☺
ZDGT200540R-K85	G	2	14	21,2	5,56	15°	4	1,2											☺	☺			☺
ZDGT200550R-K85	G	2	14	21,2	5,56	15°	5	1,2											☺	☺			☺
ZDGT200560R-K85	G	2	14	21,2	5,56	15°	6	1,2											☺	☺			☺
ZDGT200564R-K85	G	2	14	21,2	5,56	15°	6,4	1,2											☺	☺			☺

HC = Coated carbide
HW = Uncoated carbide
HF = Uncoated fine-grained carbide

Finishing inserts
ADGX
Tiger·tec®



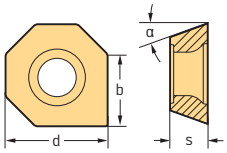
C 2

Indexable inserts

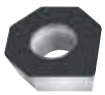
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	α	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	ADGX10T3PER-F56	G	2	7,25	11,3	3,97	15°	0,8	5						☺						☺	☺
	ADGX1606PER-F56	G	2	10,8	17,5	6,15	15°	0,8	8						☺						☺	☺

HC = Coated carbide

Finishing inserts
ODHX
Tiger·tec® Silver

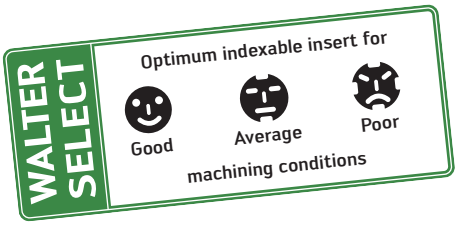


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	ODHX0504ZZR-A57	H	1	12,7	4,76	15°	7,2		☹				☺			☹			☺	☺
	ODHX0605ZZR-A57	H	1	15,88	5,56	15°	9,4		☹				☺			☹			☺	☺
	ODHX0605ZZN-A57	H	8	15,88	5,56	15°	6						☺						☺	☺
	ODHX0605ZZN-A88	H	8	15,88	5,56	15°	6						☺						☺	☺

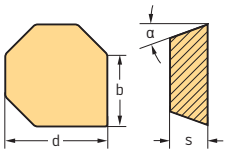
* ZZN for κ = 43° only

HC = Coated carbide

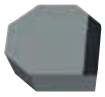
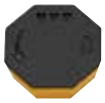
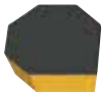
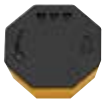


C 2

Finishing inserts
OPHX
Tiger·tec®

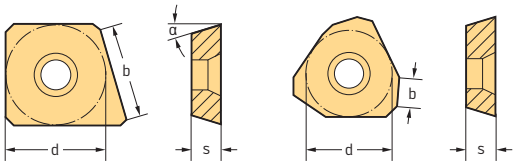


Indexable inserts

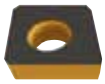
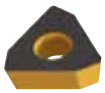
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	K BH WCB80	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	OPHX0504ZZR-A27	H	1	12,7	4,76	11°	7,8										☻				
	OPHX0504ZZN-A57	H	8	12,7	4,76	11°	5						☻							☻	
	OPHX0504ZZR-A57	H	1	12,7	4,76	11°	7,8						☻							☻	
	OPHX0504ZZN-A88	H	8	12,7	4,76	11°	5						☻							☻	☻

HC = Coated carbide
BH = CBN with high CBN content

Finishing inserts
P2901 / P2903 / P2905 / SPHX
Tiger·tec®



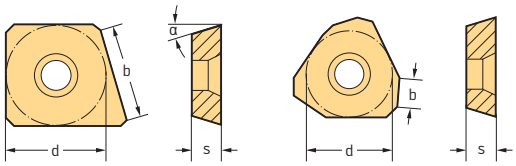
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HW WK10	N DP WCD10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	P2901-1R	H	1	12,7	4,76	11°	11						☻				☻				☻	☻
	P2903-2R	A	3	9,52	4,76	11°	3,5						☻				☻				☻	☻

HC = Coated carbide
HW = Uncoated carbide
DP = Polycrystalline diamond

Finishing inserts
P2901 / P2903 / P2905 / SPHX

Tiger·tec®



Indexable inserts

C 2

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	α	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HW WK10	N DP WCD10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	P2905-1	F	4	12,7	4,76	11°	10						☺				☺				☺	☺
	SPHX1204PDR-A88	H	1	12,7	4,76	11°	3,5											☺				

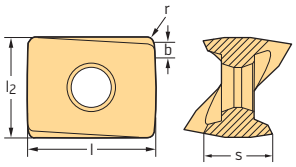
HC = Coated carbide
HW = Uncoated carbide
DP = Polycrystalline diamond

WALTER SELECT
Optimum indexable insert for
Good
Average
Poor
machining conditions

C 2

Negative rhombic LNGX

Tiger·tec® Silver



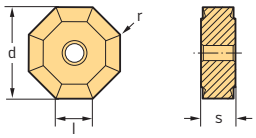
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSP45S	M HC WSP45	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 WSP45
	LNGX130708R-L55	G	4	11	13,6	7,74	0,8	1,2	☺	☺	☹		☺	☹		☺	☺	☺	☹			☺	☹	
	LNGX130712R-L55	G	4	11	13,6	7,74	1,2	1	☺	☺	☹			☹				☺	☹				☹	
	LNGX130716R-L55	G	4	11	13,6	7,74	1,6	0,9	☺	☺	☹			☹				☺	☹				☹	
	LNGX130720R-L55	G	4	11	13,6	7,74	2	0,7	☺	☺	☹	☹		☹	☹			☺	☹				☹	☹
	LNGX130725R-L55	G	4	11	13,6	7,74	2,5	0,6	☺	☺		☹			☹			☺	☹					☹
	LNGX130730R-L55	G	4	11	13,6	7,74	3	0,7	☺	☺		☹			☹			☺	☹					☹
	LNGX130708R-L88	G	4	11	13,6	7,74	0,8	1,2												☺	☺			
	LNGX130720R-L88	G	4	11	13,6	7,74	2	0,7												☺				
	LNGX130730R-L88	G	4	11	13,6	7,74	3	0,7												☺				

HC = Coated carbide
HW = Uncoated carbide

Negative octagonal ONHF

Tiger·tec® Silver



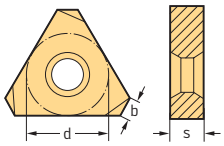
Indexable inserts

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

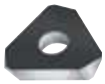
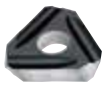
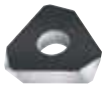
HC = Coated carbide
HW = Uncoated carbide

Wendelnovex® inserts
P2352 / P23522 / P2372

Tiger·tec® Silver



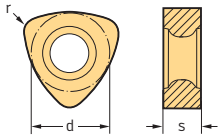
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	P2352-1R	A	6	15	4,5	1,1		☹				☺			☹				
	P2352-2R	A	6	18	4,5	1,1		☹							☹				
	P23522-1R	A	6	15	4,5	1,1		☹							☹				
	P2372-1R	A	6	15	4,5	1,1		☹							☹				

HC = Coated carbide
HW = Uncoated carbide

Negative triangular
P23696

Tiger·tec® Silver



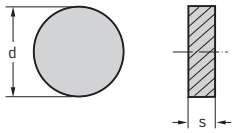
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	P23696-1.0	M	6	9,52	5	1,2	☺	☹	☹	😐	☹			😐	☹			😐	☹
	P23696-2.0	M	6	13,5	7	1,6	☺	☹	☹	😐	☹			😐	☹			😐	☹

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Optimum indexable insert for
Good Average Poor
machining conditions

Ceramic – Negative round
RNGN



C 2

Indexable inserts

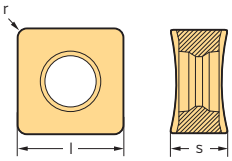
	Designation	d mm	s mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	S CN WIS10	S CR WWS20
	RNGN120700E	12,7	7,94														☺	☹
	RNGN250700E	25,4	7,94															☹
	RNGN120700T01020	12,7	7,94														☺	☹
	RNGN150700T01020	15,875	7,94															☹
	RNGN190700T01020	19,05	7,94															☹

See the ISO 1832 designation key for dimensions

CN = Silicon nitride Si_3N_4
CR = Reinforced ceramic

Negative square
SNGX / SNMX

Tiger·tec® Silver

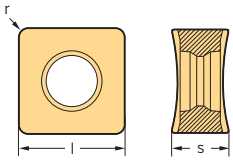


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNGX120512-F57	G	8	12,7	6,4	1,2	☺	☹	☠	☹	☠			☹	☠			☹	☠
	SNMX120512-D27	M	8	12,7	6,4	1,2	☺	☹					☹	☹	☠				
	SNMX120520-D27	M	8	12,7	6,4	2	☺	☹					☹	☹	☠				
	SNMX160620-D27	M	8	16	7,8	2	☺	☹					☹	☹	☠				
	SNMX160640-D27	M	8	16	7,8	4	☺	☹						☹	☠				
	SNMX120512-F27	M	8	12,7	6,4	1,2	☺	☹						☹	☠				
	SNMX160620-F27	M	8	16	7,8	2	☺	☹						☹	☠				

HC = Coated carbide
HW = Uncoated carbide

Negative square
SNGX / SNMX
Tiger·tec® Silver



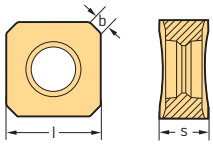
C2

Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNMX120512-F57	M	8	12,7	6,4	1,2	☺	😐	☹		☹		😐	😐	☹				☹
	SNMX120520-F57	M	8	12,7	6,4	2	☺	😐	☹		☹		😐	😐	☹				☹
	SNMX160620-F57	M	8	16	7,8	2	☺	😐	☹		☹		😐	😐	☹				☹
	SNMX160640-F57	M	8	16	7,8	4	☺	😐	☹	😐	☹			😐	☹			😐	☹
	SNMX120512-F67	M	8	12,7	6,4	1,2	☺	😐	☹		☹	☺		😐	☹				☹

HC = Coated carbide
HW = Uncoated carbide

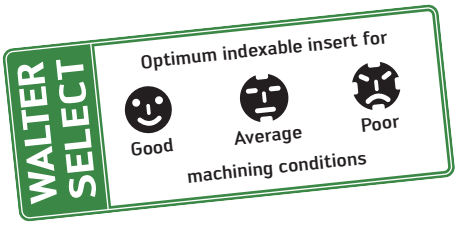
Negative square
SNGX / SNHX / SNMX
Tiger·tec® Silver



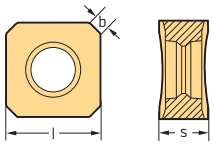
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSP45S	M HC WSP45	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 WSP45
	SNGX1606ANN-D27	G	8	16	7,7	1,8		😐									☹					
	SNGX1205ANN-F27	G	8	12,7	6,4	1,5	☺	😐								😐	☹					
	SNGX1205ANN-F57	G	8	12,7	6,4	1,5	☺	😐	☹		😐	☹			😐	😐	☹			😐	☹	
	SNGX1606ANN-F57	G	8	16	7,7	1,8		😐	☹			☹					☹				☹	

HC = Coated carbide
HW = Uncoated carbide



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



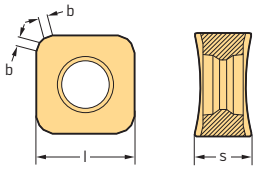
C 2

Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSP45S	M HC WSP45	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 WSP45
	SNGX1205ANN-F67	G	8	12,7	6,4	1,5	☺	☺	☹		☺	☹		☺		☺	☹			☺	☹	
	SNGX1606ANN-F67	G	8	16	7,7	1,8																
	SNHX1205ANN-K88	H	8	12,7	6,4	1,5												☺	☺			
	SNMX1205ANN-F27	M	8	12,7	6,4	1,5	☺	☺								☺	☹					
	SNMX1205ANN-F57	M	8	12,7	6,4	1,5	☺	☺							☺	☺	☹					
	SNMX1205ANN-F67	M	8	12,7	6,4	1,5	☺	☺						☺		☺	☹					

HC = Coated carbide
HW = Uncoated carbide

Negative square
SNGX
Tiger·tec® Silver



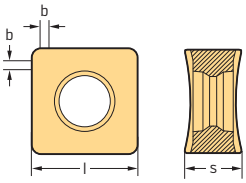
C 2

Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSP45S	M HC WSP45	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 WSP45
	SNGX1205ENN-F27	G	8	12,7	6,4	1,2	☺	😐								😐	☹					
	SNGX1205ENN-F57	G	8	12,7	6,4	1,2	☺	😐	☹		😐	☹			😐	😐	☹			😐	☹	
	SNGX1205ENN-F67	G	8	12,7	6,4	1,2	☺	😐		☹	😐		☹	☺		😐	☹			😐		☹

HC = Coated carbide
HW = Uncoated carbide

Negative square
SNGX
Tiger·tec® Silver



Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNGX1205ZNN-F27	G	8	12,7	6,4	1,2	☺	😐						😐	☹				
	SNGX1205ZNN-F57	G	8	12,7	6,4	1,2	☺	😐	☹	😐	☹		😐	😐	☹			😐	☹

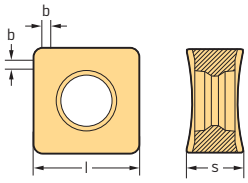
HC = Coated carbide
HW = Uncoated carbide

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

C 2

Negative square
SNGX

Tiger·tec® Silver



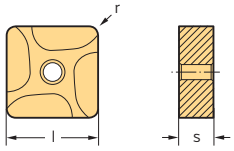
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNGX1205ZNN-F67	G	8	12,7	6,4	1,2	●	●	●	●	●	●		●	●			●	●

HC = Coated carbide
HW = Uncoated carbide

Negative square
SNEF

Tiger·tec® Silver

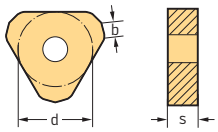


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNEF120408R-B67	E	8	12,7	4,76	0,8	2,1	●	●					●	●	●				
	SNEF120408R-D67	E	8	12,7	4,76	0,8	2,1	●	●				●		●	●				

HC = Coated carbide
HW = Uncoated carbide

Negative triangular
TNEF
Tiger·tec® Silver

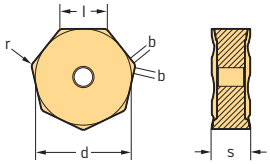


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	TNEF1204AN-D57	E	6	12,7	4,76	1,8	☺	😐				☺	😐	😐	☹				

HC = Coated carbide
HW = Uncoated carbide

Negative heptagonal
XNHF
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	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	XNHF070508-D27	H	14	14,5	7	5,8	0,8							😐	😐	☹				
	XNHF090612-D27	H	14	19,05	9	6,35	1,2							😐	😐	☹				
	XNHF070508-D57	H	14	14,5	7	5,8	0,8							😐	😐	☹				
	XNHF090612-D57	H	14	19,05	9	6,35	1,2							😐	😐	☹				
	XNHF070508-D67	H	14	14,5	7	5,8	0,8						☺		😐	☹				
	XNHF090612-D67	H	14	19,05	9	6,35	1,2						☺		😐	☹				

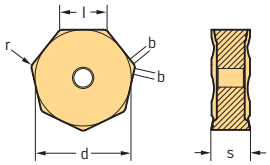
HC = Coated carbide
HW = Uncoated carbide

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

C 2

Negative heptagonal XNHF

Tiger·tec® Silver



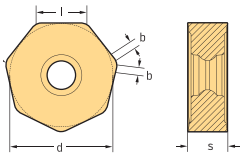
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	XNHF0705ANN-D27	H	14	14,5	7	5,8	0,8	1,1							☹	☹	☹				
	XNHF0906ANN-D27	H	14	19,05	9	6,35	0,8	1,4							☹	☹	☹				
	XNHF0705ANN-D57	H	14	14,5	7	5,8	0,8	1,1							☹	☹	☹				
	XNHF0906ANN-D57	H	14	19,05	9	6,35	0,8	1,4							☹	☹	☹				
	XNHF0705ANN-D67	H	14	14,5	7	5,8	0,8	1,1						☺		☹	☹				
	XNHF0906ANN-D67	H	14	19,05	9	6,35	0,8	1,4						☺		☹	☹				

HC = Coated carbide
HW = Uncoated carbide

Negative heptagonal XNGU / XNMU

Tiger·tec® Silver

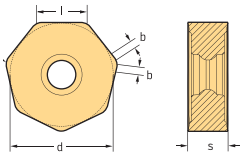


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	XNGU0705ANN-F57	G	14	14,5	6,98	4,6	0,8	1,1	☺	☹	☹	☹	☹			☹	☹				
	XNGU0705ANN-F67	G	14	14,5	6,98	4,6	0,8	1,1	☺	☹	☹	☹	☹			☹	☹				
	XNMU0705ANN-F27	M	14	14,5	6,98	4,6	0,8	1,1	☹	☹					☹	☹	☹				

HC = Coated carbide
HW = Uncoated carbide

Negative heptagonal
XNGU / XNMU
Tiger·tec® Silver

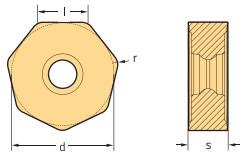


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	XNMU0705ANN-F57	M	14	14,5	6,98	4,6	0,8	1,1		😐	☹		☹				☹				
	XNMU0705ANN-F57	M	28	14,5	6,98	4,6	0,8	1,1	☺							😐					
	XNMU0705ANN-F67	M	14	14,5	6,98	4,6	0,8	1,1	☺	😐						😐	☹				

HC = Coated carbide
HW = Uncoated carbide

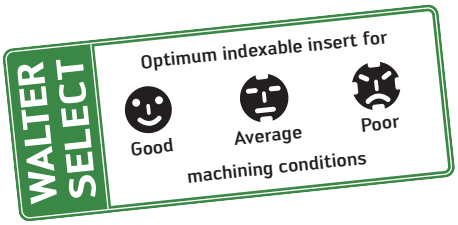
Negative heptagonal
XNMU
Tiger·tec® Silver



Indexable inserts

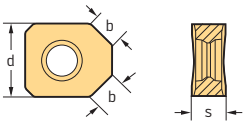
	Designation	Tolerance class	Number of cutting edges	d mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	XNMU070508-F57	M	14	14,5	6,98	4,6	0,8	☺	😐	☹		☹			😐	☹				

HC = Coated carbide
HW = Uncoated carbide

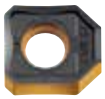


C 2

Finishing inserts
XNGX
Tiger·tec®

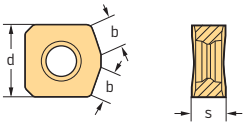


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC			M HC		K HC				N HC	N HW	S HC		H HC	O HC
							WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WHH15	WXM15
	XNGX1205ANN-F67	G	2	12,7	6,02	4,7						☻								☻	☻

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts
XNGX
Tiger·tec®



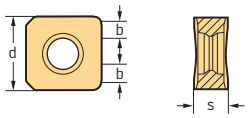
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC			M HC		K HC				N HC	N HW	S HC		H HC	O HC
							WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WHH15	WXM15
	XNGX1205ENN-F67	G	2	12,7	6,08	4,5						☻								☻	☻

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts
XNGX

Tiger·tec®



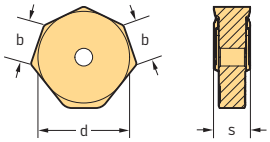
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	XNGX1205ZNN-F67	G	2	12,7	6,47	4						☺								☺	☺

HC = Coated carbide
HW = Uncoated carbide

Finishing inserts
XNHX

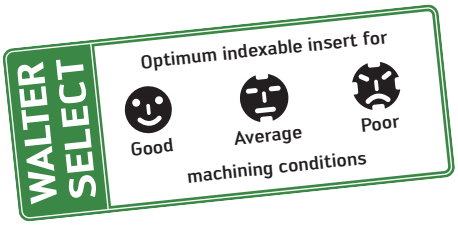
Tiger·tec®



Indexable inserts

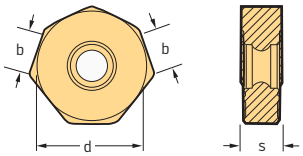
	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15
	XNHX0705ANN-D67	H	2	14,5	4,2	5,8						☺								☺

HC = Coated carbide
HW = Uncoated carbide



Finishing inserts
XNGX

Tiger·tec®



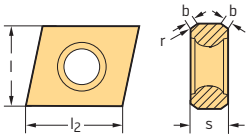
C 2

Indexable inserts

	Designation	Tolerance class	Number of cutting edges	d mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	XNGX0705ANN-F67	G	2	14,5	4,6	5,7						☺								☺	☺

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic
CNHQ / CNHU / CNMQ / CNMU
Tiger·tec® Silver



C 2

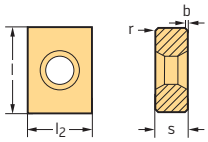
Indexable inserts

	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 WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	CNHQ0805PPN-A57T	H	2	9	8	5	0,8	1,2		☹										☹						
	CNHQ1206PPN-A57T	H	2	13	12	6,5	0,8	1,5		☹										☹						
	CNHU0805PPN-D57T	H	2	9	8	5	0,8	1,2		😐		☹				☹				☹						☹
	CNHU1206PPN-D57T	H	2	13	12	6,5	0,8	1,5		😐		☹				☹				☹						☹
	CNMQ080508T-A27T	M	2	9	8	5	0,8			☹										☹						
	CNMQ120608T-A27T	M	2	13	12	6,5	0,8			☹										☹						
	CNMQ160812T-A27T	M	2	15	16	8	1,2			☹										☹						
	CNMQ080508-A57T	M	2	9	8	5	0,8			☹							☺			☹						
	CNMQ120608-A57T	M	2	13	12	6,5	0,8			☹										☹						
	CNMQ160812-A57T	M	2	15	16	8	1,2			☹										☹						
	CNMU080508-D57T	M	2	9	8	5	0,8			😐		☹		😐		☹				☹				😐		☹
	CNMU120608-D57T	M	2	13	12	6,5	0,8			😐		☹				☹				☹						☹
	CNMU160812-D57T	M	2	15	16	8	1,2			😐		☹				☹				☹						☹

Note: l_2 = Width of cut

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic
LNKU
Tiger·tec® Silver



Indexable inserts

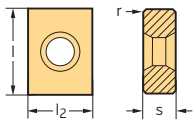
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNKU2010DPTR-F27T	K	4	15	20	10,5	0,6	1,2	😐							😐					
	LNKU2010DPR-F57T	K	4	15	20	10,5	0,6	1,2	☺	😐						😐	☹				
	LNKU3010DPR-F57T	K	4	15	30	10,5	0,6	1,2	☺	😐						😐	☹				

HC = Coated carbide
HW = Uncoated carbide

C 2

Tangential rhombic LNMU

Tiger·tec® Silver



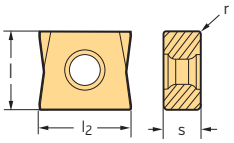
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNMU150812T-F27T	M	4	14	15	8	1,2	😐	☹						😐	☹				
	LNMU201012T-F27T	M	4	16	20	8	1,2	😐	☹						😐	☹				
	LNMU150812-F57T	M	4	14	15	8	1,2	☺	😐				☺		😐	☹				
	LNMU201012-F57T	M	4	16	20	8	1,2	☺	😐				☺		😐	☹				

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic LNHU / LNMU

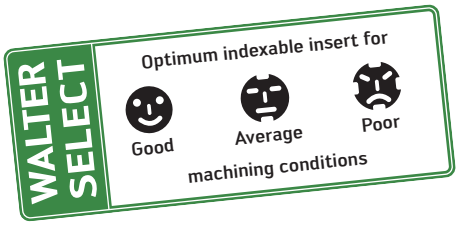
Tiger·tec® Silver



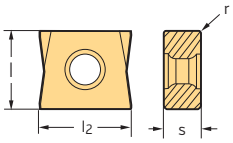
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	LNHU080304-B57T	H	4	9	8	3,5	0,4		☹								😐		☹						
	LNHU080404-B57T	H	4	9,4	8	4,5	0,4		☹								😐		☹						
	LNHU100508-B57T	H	4	12,3	10	5,5	0,8		☹								😐		☹						
	LNHU120608-B57T	H	4	13,9	12	6,5	0,8		☹								😐		☹						
	LNHU160812-B57T	H	4	16,9	16	8	1,2		☹										☹						
	LNHU080304-F57T	H	4	9	8	3,5	0,4	☺	😐		☹		😐		☹			😐	☹				😐		☹
	LNHU080404-F57T	H	4	9,4	8	4,5	0,4	☺	😐		☹		😐		☹			😐	☹				😐		☹
	LNHU100508-F57T	H	4	12,3	10	5,5	0,8	☺	😐		☹		😐		☹			😐	☹				😐		☹
	LNHU120608-F57T	H	4	13,9	12	6,5	0,8	☺	😐		☹		😐		☹			😐	☹				😐		☹
	LNHU160812-F57T	H	4	16,9	16	8	1,2	☺	😐		☹		😐		☹			😐	☹				😐		☹

HC = Coated carbide
HW = Uncoated carbide



Tangential rhombic
LNHU / LNMU
Tiger·tec® Silver



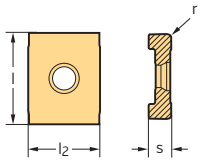
Indexable inserts

C2

	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 WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	LNMU080304-B57T	M	4	9	8	3,5	0,4		✖								☻		✖						
	LNMU080404-B57T	M	4	9,4	8	4,5	0,4		✖								☻		✖						
	LNMU100508-B57T	M	4	12,3	10	5,5	0,8		✖								☻		✖						
	LNMU120608-B57T	M	4	13,9	12	6,5	0,8		✖								☻		✖						
	LNMU160812-B57T	M	4	16,9	16	8	1,2		✖										✖						
	LNMU080304-F57T	M	4	9	8	3,5	0,4	☻	☻		✖		☻		✖			☻	✖				☻		✖
	LNMU080404-F57T	M	4	9,4	8	4,5	0,4	☻	☻		✖		☻		✖			☻	✖				☻		✖
	LNMU100508-F57T	M	4	12,3	10	5,5	0,8	☻	☻		✖		☻		✖			☻	✖				☻		✖
	LNMU120608-F57T	M	4	13,9	12	6,5	0,8	☻	☻		✖		☻		✖			☻	✖				☻		✖
	LNMU160812-F57T	M	4	16,9	16	8	1,2	☻	☻		✖		☻		✖			☻	✖				☻		✖

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic
LNHX / LNMX
Tiger·tec® Silver



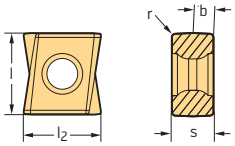
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	LNHX070204-D57T	H	4	7	9	2,4	0,4		☻								☻		✖						
	LNHX070204-F57T	H	4	7	9	2,4	0,4	☻	☻		✖		☻		✖			☻	✖				☻		✖
	LNMX070204-D57T	M	4	7	9	2,4	0,4		☻								☻		✖						
	LNMX070204-F57T	M	4	7	9	2,4	0,4	☻	☻		✖		☻		✖			☻	✖				☻		✖

HC = Coated carbide
HW = Uncoated carbide

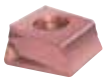
Tangential rhombic
LNHU

Tiger·tec® Silver



Indexable inserts

C 2

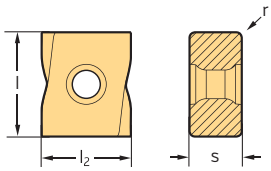
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNHU090404R-L55T	H	4	8,5	9	4,5	0,4	1,5	☺	😐	☹	😐	☹	☺	😐	😐	☹			😐	☹
	LNHU090408R-L55T	H	4	8,5	9	4,5	0,8	1,1	☺	😐	☹	😐	☹		😐	😐	☹			😐	☹
	LNHU090412R-L55T	H	4	8,5	9	4,5	1,2	0,8		😐	☹	😐	☹				☹			😐	☹
	LNHU090416R-L55T	H	4	8,5	9	4,5	1,6			😐	☹	😐	☹				☹			😐	☹
	LNHU090420R-L55T	H	4	8,5	9	4,5	2			😐	☹	😐	☹				☹			😐	☹
	LNHU130608R-L55T	H	4	12	13	6,8	0,8	2,2	☺	😐	☹	😐	☹	☺	😐	😐	☹			😐	☹
	LNHU130612R-L55T	H	4	12	13	6,8	1,2	1,9		😐	☹	😐	☹				☹			😐	☹
	LNHU130616R-L55T	H	4	12	13	6,8	1,6	1,5		😐	☹	😐	☹				☹			😐	☹
	LNHU130620R-L55T	H	4	12	13	6,8	2	1,2		😐	☹	😐	☹				☹			😐	☹
	LNHU130625R-L55T	H	4	12	13	6,8	2,5	0,7		😐	☹	😐	☹				☹			😐	☹
	LNHU130630R-L55T	H	4	12	13	6,8	3			😐	☹	😐	☹				☹			😐	☹
	LNHU130632R-L55T	H	4	12	13	6,8	3,2			😐	☹	😐	☹				☹			😐	☹
	LNHU160708R-L55T	H	4	15,5	16	7,2	0,8	2,3	☺	😐	☹	😐	☹	☺	😐	😐	☹			😐	☹
	LNHU160712R-L55T	H	4	15,5	16	7,2	1,2	1,9		😐	☹	😐	☹				☹			😐	☹
	LNHU160716R-L55T	H	4	15,5	16	7,2	1,6	1,6		😐	☹	😐	☹				☹			😐	☹
	LNHU160720R-L55T	H	4	15,5	16	7,2	2	1,2		😐	☹	😐	☹				☹			😐	☹
	LNHU160725R-L55T	H	4	15,5	16	7,2	2,5	0,8		😐	☹	😐	☹				☹			😐	☹
	LNHU090404R-L65T	H	4	8,5	9	4,5	0,4	1,5			☹		☹								☹
	LNHU130608R-L65T	H	4	12	13	6,8	0,8	2,2			☹		☹								☹
	LNHU160708R-L65T	H	4	15,5	16	7,2	0,8	2,3			☹		☹								☹
	LNHU090404R-L85T	H	4	8,5	9	4,5	0,4	1,5										☺	☺		
	LNHU130608R-L85T	H	4	12	13	6,8	0,8	2,2										☺	☺		
	LNHU160708R-L85T	H	4	15,5	16	7,2	0,8	2,3										☺	☺		

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Optimum indexable insert for
Good Average Poor
machining conditions

Tangential rhombic
LNMX

Tiger·tec® Silver



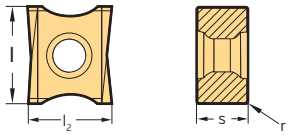
Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNMX201012R-F27T	M	4	17,05	20	10	1,2	☻	☹					☻	☻	☹				
	LNMX201012R-F57T	M	4	17,05	20	10	1,2	☻	☻	☹		☹		☻	☻	☹				☹

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic
LNHX

Tiger·tec® Silver



Indexable inserts

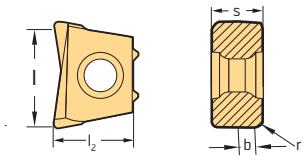
	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
	LNHX120604R-L65T	H	4	11	12,7	6,8	0,4														☹	☹

HC = Coated carbide
HW = Uncoated carbide

C 2

Tangential rhombic XNHX

Tiger·tec® Silver



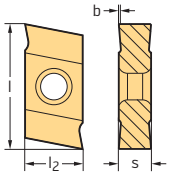
Indexable inserts

Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
XNHX130608R-L65T	H	2	10,5	14	6,8	0,8	2														✖	✖
XNHX130612R-L65T	H	2	10,5	14	6,8	1,2	2														✖	✖
XNHX130616R-L65T	H	2	10,5	14	6,8	1,6	2														✖	✖
XNHX130620R-L65T	H	2	10,5	14	6,8	2	2														✖	✖
XNHX130624R-L65T	H	2	10,5	14	6,8	2,4	2														✖	✖
XNHX130630R-L65T	H	2	10,5	14	6,8	3	1,4														✖	✖
XNHX130632R-L65T	H	2	10,5	14	6,8	3,2	1,3														✖	✖
XNHX130640R-L65T	H	2	10,5	14	6,8	4	0,5														✖	✖

HC = Coated carbide
HW = Uncoated carbide

Positive rhombic P20200

Tiger·tec® Silver



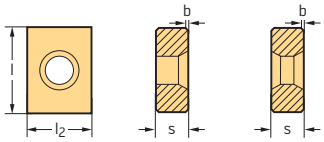
Indexable inserts

Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
P20200-1.1	H	2	5,5	9	2,35	0,1		✖							✖				
P20200-1.2	H	2	5,5	9	2,35	0,15		✖							✖				
P20200-1.3	H	2	5,5	9	2,35	0,15		✖							✖				
P20200-1.4	H	2	5,5	9	2,35	0,15		✖							✖				
P20200-1.5	H	2	5,5	9	2,35	0,15		✖							✖				
P20200-2.1	H	2	7	12	3,4	0,15		✖							✖				
P20200-2.2	H	2	7	12	3,4	0,15		✖							✖				
P20200-2.3	H	2	7	12	3,4	0,15		✖							✖				
P20200-3.1	H	2	9,52	18,5	5,4	0,15		✖							✖				
P20200-3.2	H	2	9,52	18,5	5,4	0,15		✖							✖				
P20200-3.3	H	2	9,52	18,5	5,4	0,15		✖							✖				

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Optimum indexable insert for
Good
Average
Poor
machining conditions

Tangential rhombic
P4406 / P44462
Tiger·tec® Silver

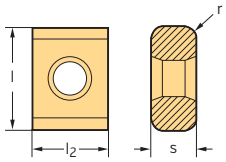


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	P4406-1	H	2	9,52	12,7	3,5	0,5		☹				☺			☹				
	P4406-2	H	2	9,52	12,7	4	0,5		☹				☺			☹				
	P4406-3	H	4	9,52	12,7	4,75	0,4		☹				☺			☹				
	P4406-4	H	4	9,52	12,7	5,5	0,4		☹				☺			☹				
	P4406-5	H	4	9,52	12,7	6,35	0,4		☹				☺			☹				
	P44462-1	H	2	9,52	12,7	3,5	0,5		☹							☹				
	P44462-3	H	4	9,52	12,7	4,75	0,4		☹							☹				

HC = Coated carbide
HW = Uncoated carbide

Tangential rhombic
P44280 / P44290
Tiger·tec® Silver

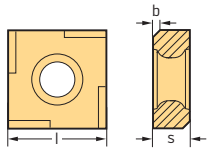


Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM35	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S
	P44280-1R08-D57	H	8	9,52	12,7	5,5	0,8				☺	☺								☺	☺	
	P44280-1R10-D57	H	8	9,52	12,7	5,5	1					☺									☺	
	P44280-1R125-D57	H	8	9,52	12,7	5,5	1,25					☺									☺	
	P44280-1R15-D57	H	8	9,52	12,7	5,5	1,5					☺									☺	
	P44280-1R20-D57	H	8	9,52	12,7	5,5	2				☺									☺		
	P44280-2R25-D57	H	8	9,52	12,7	6,35	2,5					☺									☺	
	P44280-2R30-D57	H	8	9,52	12,7	6,35	3					☺									☺	
	P44280-2R40-D57	H	4	9,52	12,7	6,35	4				☺	☺								☺	☺	
	P44290-1R08-D57	M	8	9,52	12,7	5,5	0,8					☺									☺	
	P44290-1R10-D57	M	8	9,52	12,7	5,5	1					☺									☺	
	P44290-1R125-D57	M	8	9,52	12,7	5,5	1,25					☺									☺	
	P44290-1R20-D57	M	8	9,52	12,7	5,5	2					☺									☺	
	P44290-2R25-D57	M	8	9,52	12,7	6,35	2,5					☺									☺	
	P44290-2R30-D57	M	8	9,52	12,7	6,35	3					☺									☺	
	P44290-2R40-D57	M	4	9,52	12,7	6,35	4					☺									☺	

HC = Coated carbide
HW = Uncoated carbide

Negative square
SNHQ
Tiger·tec® Silver



C 2

Indexable inserts

	Designation	Tolerance class	Number of cutting edges	l mm	s mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	SNHQ1205ZZR-A57T	H	8	12	5	0,8						☺		😐	☹				

HC = Coated carbide
HW = Uncoated carbide

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

Cutting inserts

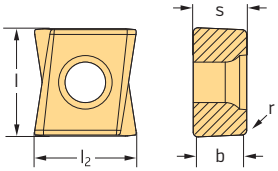
	Designation	s mm	r mm	S_{Tol} mm	P HC WKP23S	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM23S	M HC WSM33S	M HC WSM35S	M HC WSM43S	M HC WSP45S	K HC WAK15	K HC WKP23S	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM23S	S HC WSM33S	S HC WSM35S	S HC WSM43S	S HC WSP45S
	SX-1E150N01-CE4	1,5	0,15	±0,05						😐		☹										😐		☹	
	SX-2E200N02-CE4	2	0,2	±0,05	☺				☺	😐		☹			😐						☺	😐		☹	
	SX-3E300N02-CE4	3	0,2	±0,05	☺				☺	😐		☹			😐						☺	😐		☹	
	SX-4E400N02-CE4	4	0,2	±0,05	☺				☺	😐		☹			😐						☺	😐		☹	
	SX-1E150N01-CF6	1,5	0,15	±0,05						😐		☹										😐		☹	
	SX-2E200N02-CF6	2	0,2	±0,05						😐		☹										😐		☹	
	SX-3E300N02-CF6	3	0,2	±0,05						😐		☹										😐		☹	
	SX-1E150N01-SF5	1,5	0,15	±0,05						😐		☹										😐		☹	
	SX-2E200N02-SF5	2	0,2	±0,05						😐		☹										😐		☹	
	SX-3E300N02-SF5	3	0,2	±0,05						😐		☹										😐		☹	
	SX-4E400N02-SF5	4	0,2	±0,05						😐		☹										😐		☹	
	SX-5E500N04-SF5	5	0,4	±0,05						😐		☹										😐		☹	

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

HC = Coated carbide
HW = Uncoated carbide

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

Finishing inserts
LNHX
Tiger·tec®

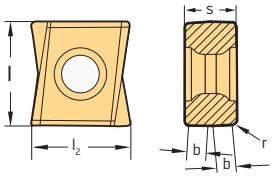


Indexable inserts

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	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	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

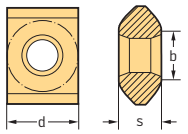
Designation	Tolerance class	Number of cutting edges	l_2 mm	l mm	s mm	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
LNHX130608R-L55T	H	4	12	13	6,8	0,8	2,2						☻		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

HC = Coated carbide
HW = Uncoated carbide

C 2

Finishing inserts
P45420

Tiger·tec®



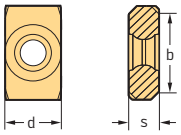
Indexable inserts

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

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Optimum indexable insert for
Good Average Poor
machining conditions

Walter Green

C 2

Indexable insert milling cutters product range overview

Face milling cutters

Machining						
κ	15°			21°		42°
Designation	**F2010**	**F2330**	**M4002**	**F2010**	**F4030 Xtra·tec®**	**M2025 / M2026**
Dia. range [mm]	70–305	10–71	8–102	71–306	13–82	80–250
Page	C 356	C 392	C 424	C 358	C 394	C 418

Machining						
κ	43°			45°		
Designation	**F2010**	**F2146**	**F4080 Xtra·tec®**	**F2010**	**F2233**	**F4033 Xtra·tec®**
Dia. range [mm]	80–315	80–250	24–160	80–315	20–160	40–200
Page	C 360	C 376	C 414	C 362	C 378	C 396

Machining						
κ	45°		60°		75°	
Designation	**F4045 Xtra·tec®**	**M3024 Walter BLAXX**	**F2260**	**M3016 Walter BLAXX**	**F2010**	**F2235**
Dia. range [mm]	63–200	40–160	100–315	125–315	80–315	40–80
Page	C 400	C 422	C 390	C 420	C 368	C 382

C 2

Machining						
K		**75° / 90°**	**88°**		**89°**	**90°**
Designation	**F4047 Xtra·tec®**	**F4050**	**F2010**	**F4048 Xtra·tec®**	**F2254**	**F2250**
Dia. range [mm]	50–160	80–200	80–315	40–160	50–160	63–200
Page	C 404	C 408	C 372	C 406	C 388	C 384

Shoulder milling cutters

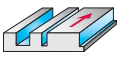
Machining						
K	**90°**					
Designation	**F2010**	**F2338F**	**F4038 / F4138 F4238 Xtra·tec®**	**F4041 Xtra·tec®**	**F4042 / F4042R Xtra·tec®**	**F5038 / F5138 Walter BLAXX**
Dia. range [mm]	80–315	63–100	20–125	40–160	10–160	25–80
Page	C 432	C 468	C 470	C 444	C 446	C 480

Machining			
K	**90°**		
Designation	**F5041 / F5141 F5241 Walter BLAXX**	**M2131**	**M4132**
Dia. range [mm]	25–160	25–80	16–125
Page	C 458	C 464	C 466

C 2

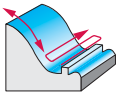
Indexable insert milling cutters product range overview

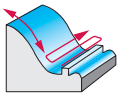
Slot milling cutters

Machining						
κ	90°					
Designation	**F2238 / F2238CE**	**F2252**	**F4053 / F4153 F4253 Xtra·tec®**	**F5055 Walter BLAXX**	**M3255 Walter BLAXX**	**M4256 / M4257 M4258**
Dia. range [mm]	20–125	80–315	80–315	63–250	50–80	20–100
Page	C 488	C 500	C 524	C 530	C 496	C 498

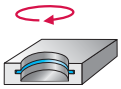
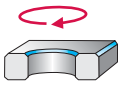
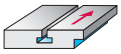
Machining	
κ	
Designation	**M4792**
Dia. range [mm]	18–40
Page	C 486

Copy milling cutter

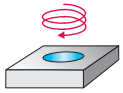
Machining						
κ						
Designation	**F2010**	**F2139**	**F2231**	**F2234**	**F2239**	**F2334 / F2334R**
Dia. range [mm]	83–318	8–32	10–40	12–160	20–63	25–160
Page	C 536	C 538	C 540	C 542	C 552	C 546

Machining		
κ		
Designation	**F2339**	**F2239B**
Dia. range [mm]	16–50	20–40
Page	C 554	C 552

Profiling cutters

Machining			
κ	**90°**	45°	**90°**
Designation	**F2036**	**M4574**	**M4575**
Dia. range [mm]	16–63	12–40	21–50
Page	C 560	C 562	C 564

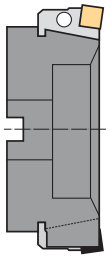
Circular interpolation cutters

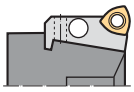
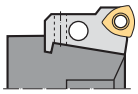
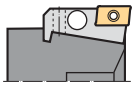
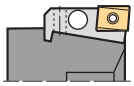
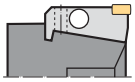
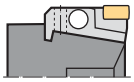
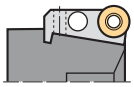
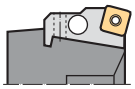
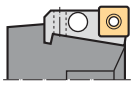
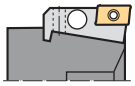
Machining						
κ	**15°**		**43°**	**90°**		
Designation	**F2330**	**M4002**	**F4080 Xtra·tec®**	**F4042 Xtra·tec®**	**M2131**	**F2234 / F2334 / F2334R**
Dia. range [mm]	10–71	8–102	24–160	10–160	25–80	8–140
Page	C 392	C 424	C 414	C 446	C 464	C 542

F2010 adjustable face milling cutter system overview

C 2

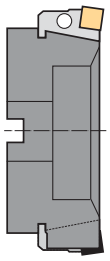
F2010

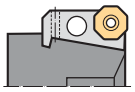
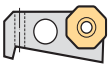
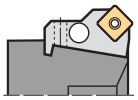
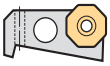
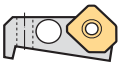
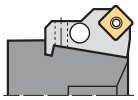
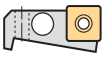
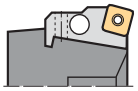
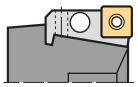
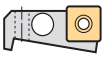
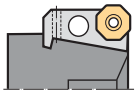
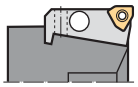


Cartridge design	D_c [mm]	Max. depth of cut [mm]	Indexable inserts	As supplement to tool
 κ = 0–15° F2010 . . . **R729M** Page C 356	70–305	2,0	P2633 . -R25	**F2330** D_a = 52–85 mm Page C 392
 κ = 0–15° F2010 . . . **R750M** Page C 358	70,2–305,6	2,0	P23696-2.0	**F4030** D_a = 42–100 mm Page C 394
 κ = 90° F2010 . . . **R718M** Page C 434	80–315	11,7	AD . . 1204 . .	**F4042 . . . 11** D_c = 22–80 mm Page C 450
 κ = 90° F2010 . . . **R722M** Page C 438	80–315	13,0	LNGX1307 . .	**F4041** D_c = 40–160 mm Page C 444
 κ = 90° F2010 . . . **R751M** Page C 440	80–315	8,0	LNHU0904 . . Finishing insert: LNHX0904PDR-L55T	**F5041** D_c = 25–63 mm Page C 458
 κ = 90° F2010 . . . **R752M** Page C 442	80–315	12,0	LNHU1306 . . Finishing inserts: LNHX1306PDR-L55T LNHX130608R-L55T	**F5141** D_c = 40–125 mm Page C 460
 F2010 . . . **R723M** Page C 536	74–309	8,0	RO . X1605 .	**F2334 . . . 08** D_a = 52–141 mm Page C 546
 κ = 75° F2010 . . . **R727M** Page C 370	80–315	8,0	SN . . 1205ENN SN . X120512 SN . X120520 Finishing insert: XNGX1205ENN	**F4047** D_c = 40–200 mm Page C 404
 κ = 88° F2010 . . . **R728M** Page C 372	80–315	10,0	SN . . 1205ZNN SN . X120512 SN . X120520 Finishing insert: XNGX1205ZNN	**F4048** D_c = 40–200 mm Page C 406
 κ = 90° F2010 . . . **R719M** Page C 436	80–315	15,0	AD . . 1606 . . Finishing insert: ADGX1606PER	**F4042 . . . 15** D_c = 25–160 mm Page C 452

C 2

F2010



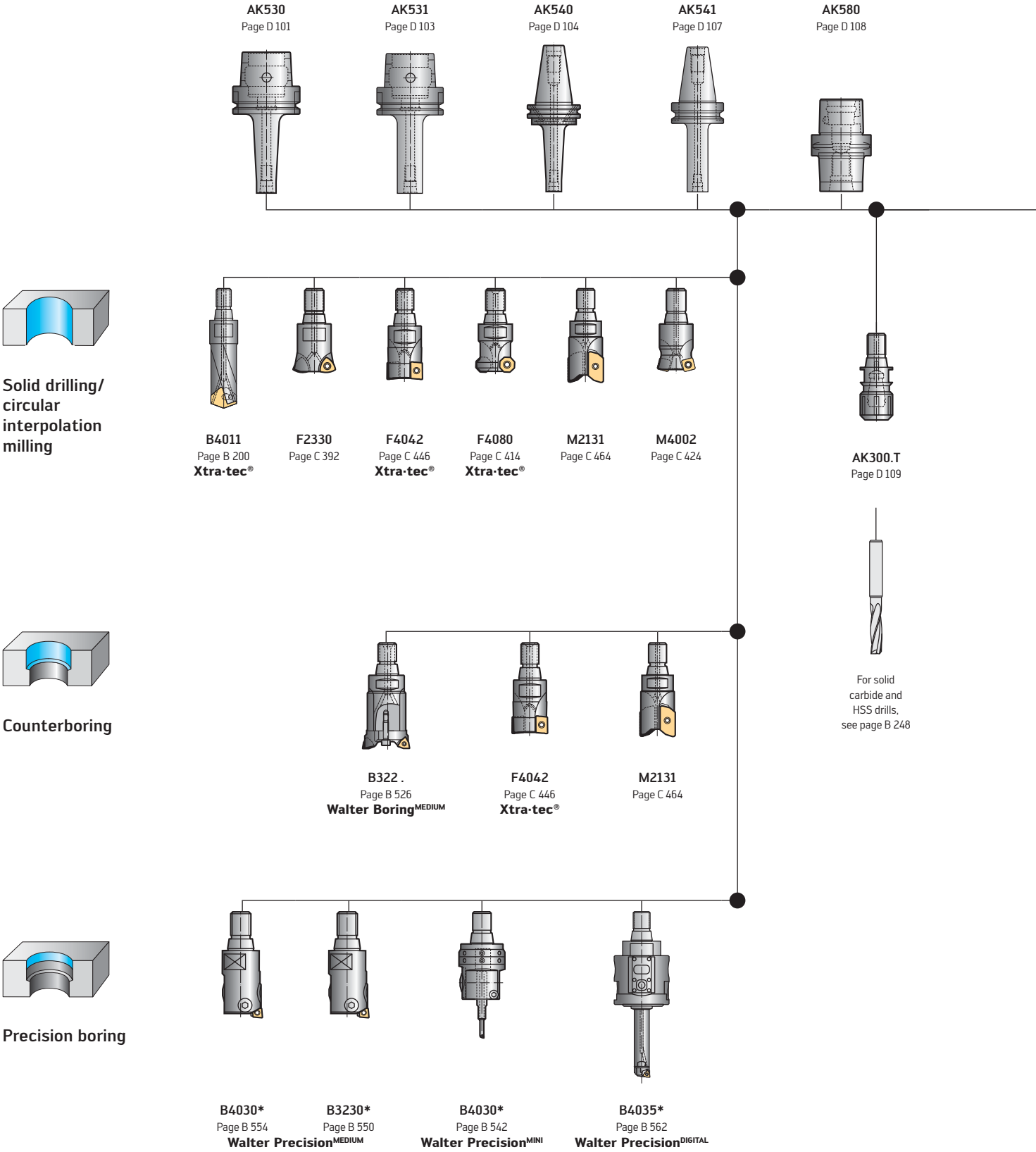
Cartridge design	D_c [mm]	Max. depth of cut [mm]	Indexable inserts	Finishing cartridges for roughing/finishing combination*	As supplement to tool
 κ = 43° F2010 . . . **R592M** Page C 360	80–315	4,0	OD . . 0605 . . ODHX0605ZZR finishing insert is installed in FR592M cartridge	 Cartridge: FR681M Indexable insert: ODHX0605ZZN	**F4080** D_c = 40–160 mm Page C 416
 κ = 45° F2010 . . . **R720M** Page C 366	80–315	6,5	SN . X1205ANN SN . X120512 SN . X120520	 Cartridge: FR720M Indexable insert: SN . X 1205 . .  Cartridge: FR730M Indexable insert: XNGX1205ANN	**F4033** D_c = 40–200 mm Page C 396
 κ = 45° F2010 . . . **R495M** Page C 364	80–315	7,0	SP . . 1204AE . .	 Cartridge: FR448M Indexable insert: P2905–1	**F2233 . . . 07** D_c = 25–160 mm Page C 380
 κ = 75° F2010 . . . **R441M** Page C 368	80–315	10,0	SP . . 1204E . . . P2901–1 finishing insert is installed in FR441M cartridge		**F2235** D_c = 32–100 mm Page C 382
 κ = 89°45' F2010 . . . **R445M** Page C 432	80–315	11,0	SP . . 120408 . .	 Cartridge: FR448M Indexable insert: P2905–1	
 κ = 45° F2010 . . . **R681M** Page C 362	80–315	0,5–2,0 (4,0)	ODHX0605ZZN		
 κ = 90° F2010 . . . **R500M** Page C 374	80–315	0,5–1,0 (9,0)	P2903–2R		

* When using this finishing method, one or several roughing cartridges must be replaced with a finishing cartridge.

ScrewFit for drilling and circular interpolation milling system overview

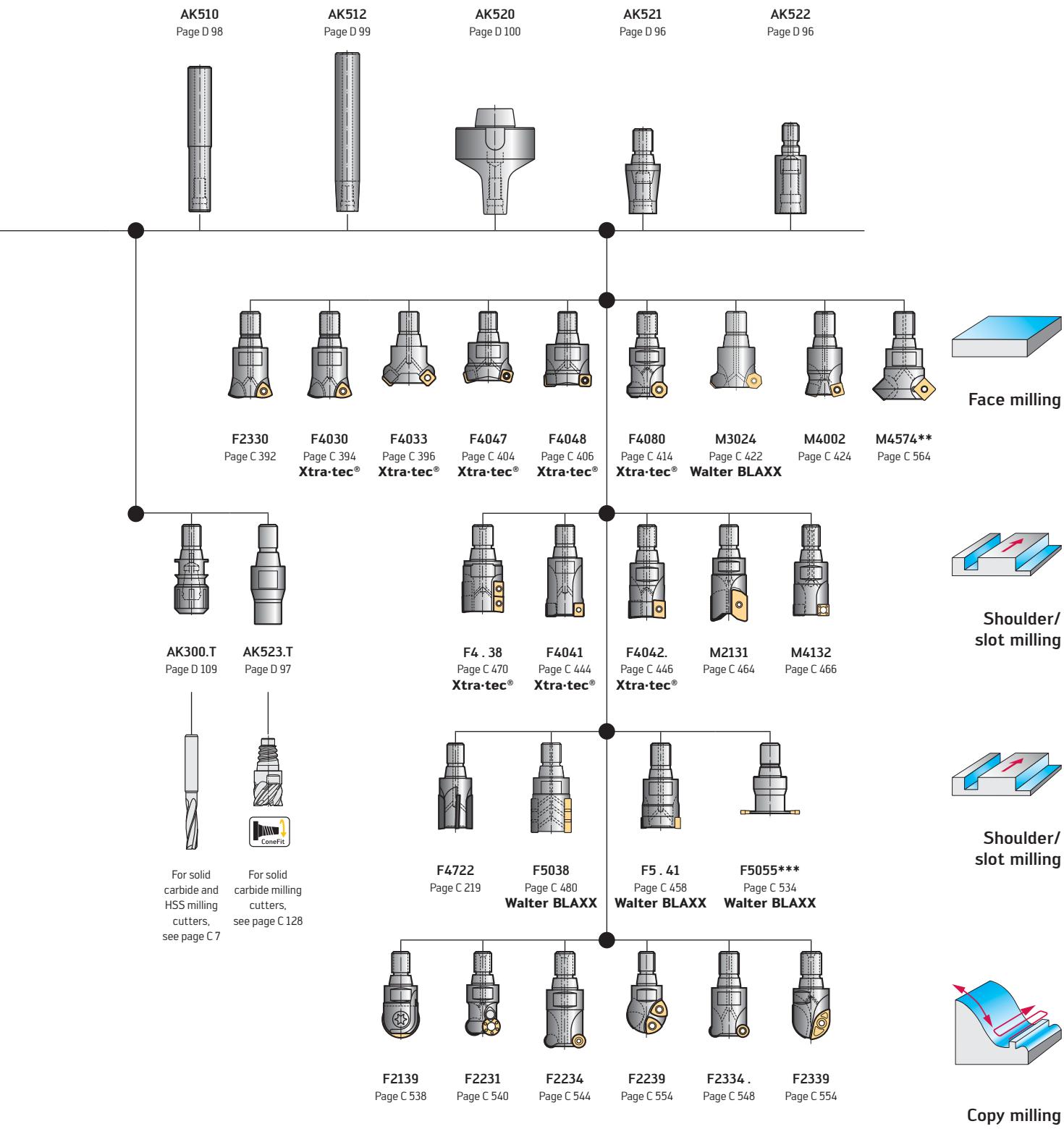
ScrewFit

C 2



* Only in combination with AK53 . CO and AK54 . CO.
For cutting orientation for ScrewFit precision boring tools, see page B 650.

ScrewFit for milling system overview

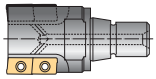
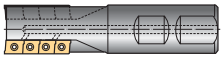
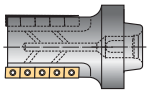
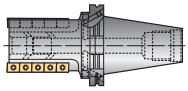
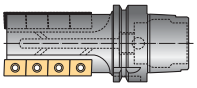
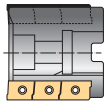
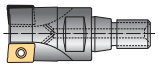
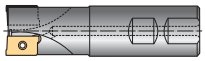
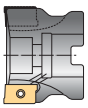
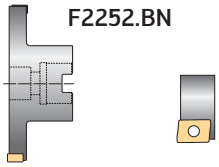
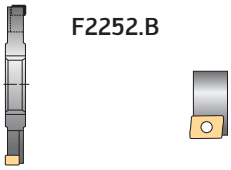
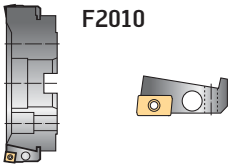


** for chamfering 45°
*** for slot milling and slitting

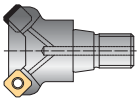
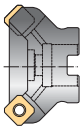
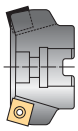
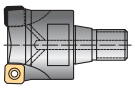
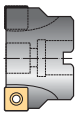
Overview of AD . . system inserts

C 2

AD . .

suitable for cutter type	AD . . 0803 . .	AD . . 10T3 . .	AD . . 1204 . .	AD . . 1606 . .	AD . . 1807 . .
	F4038.T Page C 470		F4138.T Page C 472	F4238.T Page C 476	
	F4038.W Page C 470		F4138.W Page C 472		
			F4138.N Page C 472	F4238.N Page C 476	F4338.N Page C 478
			F4138.S Page C 472	F4238.S Page C 476	F4338.S Page C 478
			F4138.H Page C 474	F4238.H Page C 476	F4338.H Page C 478
			F4138.B Page C 474	F4238.B Page C 476	F4338.B Page C 478
	F4042.T Page C 446	F4042R.T Page C 448	F4042.T Page C 450	F4042.T Page C 452	
	F4042.W Page C 446	F4042R.W Page C 448	F4042.W Page C 450	F4042.W Page C 452	
	F4042.Z Page C 446	F4042R.Z Page C 448	F4042.Z Page C 450	F4042.Z Page C 452	
	F4042.B Page C 446	F4042R.B Page C 448	F4042.B Page C 450	F4042.B Page C 454	F4042.B Page C 456
F2252.BN 	FR/L724 Page C 508		FR/L725 Page C 510	FR/L726 Page C 514	
F2252.B 	FR/L724 Page C 508		FR/L725 Page C 510	FR/L726 Page C 514	
F2010 			FR718M Page C 434	FR719M Page C 436	

Overview of SN . X system inserts

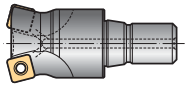
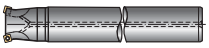
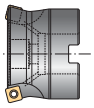
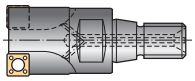
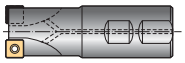
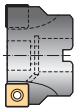
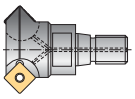
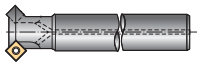
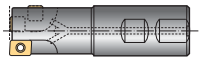
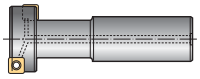
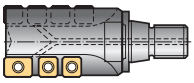
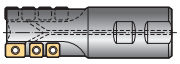
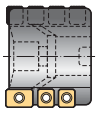
	suitable for cutter type	SN . X 120512 . . 120520 . .	SN . X 160620 . . 160640 . .	SN . X 1205ANN . .	SN . X 1606ANN . .	SN . X 1205ENN . .	SN . X 1205ZNN . .
SN . X	 κ = 45°	F4033.T Page C 396		F4033.T Page C 396			
	 κ = 45°	F4033.B Page C 396	F4033.B Page C 398	F4033.B Page C 396	F4033.B Page C 398		
	 κ = 75°	F4047.B Page C 404				F4047.B Page C 404	
	 κ = 88°	F4048.T Page C 406					F4048.T Page C 406
	 κ = 88°	F4048.B Page C 406					F4048.B Page C 406
	F2010 κ = 45°	FR720M Page C 366		FR720M Page C 366			
	κ = 75°	FR727M Page C 370				FR727M Page C 370	
	κ = 88°	FR728M Page C 372					FR728M Page C 372

Overview of SD . ./LD . . system inserts

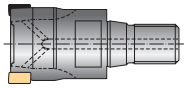
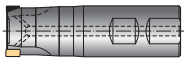
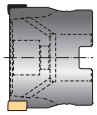
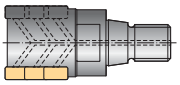
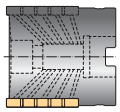
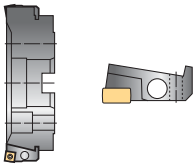
C 2

SD . .

LD . .

suitable for cutter type	SD . . 06T2	SD . . 09T3	SD . . 1204	LDM . 08T204	LDM . 14T308	LDM . 170408
 κ = 15°	M4002 . . . T Page C 424	M4002 . . . T Page C 424				
 κ = 15°	M4002 . . . A Page C 424					
 κ = 15°	M4002 . . . B Page C 426	M4002 . . . B Page C 426	M4002 . . . B Page C 426			
 κ = 90°	M4132 . . . T Page C 466	M4132 . . . T Page C 466				
 κ = 90°	M4132 . . . W Page C 466	M4132 . . . W Page C 466				
 κ = 90°		M4132 . . . B Page C 466	M4132 . . . B Page C 466			
 κ = 45°	M4574 . . . T Page C 562	M4574 . . . T Page C 562	M4574 . . . T Page C 562			
 κ = 45°	M4574 . . . Z Page C 562	M4574 . . . Z Page C 562	M4574 . . . Z Page C 562			
 κ = 90°	M4792 . . . W Page C 486	M4792 . . . W Page C 486	M4792 . . . W Page C 486	M4792 . . . W Page C 486	M4792 . . . W Page C 486	M4792 . . . W Page C 486
 κ = 90°	M4575 . . . W Page C 564	M4575 . . . W Page C 564	M4575 . . . W Page C 564			
 κ = 90°	M4256 . . . T Page C 498	M4257 . . . T Page C 498		M4256 . . . T Page C 498	M4257 . . . T Page C 498	
 κ = 90°	M4256 . . . W Page C 498	M4257 . . . W Page C 498		M4256 . . . W Page C 498	M4257 . . . W Page C 498	
 κ = 90°		M4257 . . . B Page C 498	M4258 . . . B Page C 498		M4257 . . . B Page C 498	M4258 . . . B Page C 498

Overview of LNHU system inserts

	suitable for cutter type	LNHU 0904 . .	LNHU 1306 . .	LNHU 1607 . .
LNHU . .	 κ = 90°	F5041.T Page C 458	F5141.T Page C 460	
	 κ = 90°	F5041.W Page C 458	F5141.W Page C 460	
	κ = 90°	F5041.Z Page C 458	F5141.Z Page C 460	
	 κ = 90°	F5041.B Page C 458	F5141.B Page C 460	F5241.B Page C 462
	 κ = 90°	F5038.T Page C 480	F5138.T Page C 482	
	κ = 90°	F5038.W Page C 480	F5138.W Page C 482	
	 κ = 90°	F5038.B Page C 480	F5138.B Page C 482	
F2010	 κ = 90°	FR751M Page C 440	FR752M Page C 442	

C 2

Designation key for Walter milling tools

Example:

F	4	0	42	.	T	45	.	050	.	Z05	.	15	
1	2	3	4		5	6		7		8		9	10

1
Tool range
F Milling tools

2
Generation

3
Version or insert size

4	
Tool type	
10 Face milling cutters with cartridges	**46** Face milling cutters κ = 43°, wedge-clamped
30 High-feed face milling cutters	**47** Face milling cutters κ = 75°
33 Face milling cutters κ = 45°, screw-clamped	**48** Shoulder milling cutters κ = 88°
34 Round insert milling cutters	**50** Face milling cutters for PCD indexable inserts
35 Face milling cutters κ = 75°	**52** Slotting cutters with cartridges
36 Circular slot milling cutters	**53** Slotting cutters with tangential insert arrangement
38 Porcupine milling cutters	**54** Close pitch cutters for cast iron κ = 89°
39 Copy milling cutters with ball shape	**55** Slitting cutters
41 Shoulder milling cutters with four cutting edges per indexable insert	**60** Heavy-duty cutters κ = 60°
42 Shoulder milling cutters with two cutting edges per indexable insert	**80** Octagon milling cutters κ = 43°
45 Heptagon milling cutters κ = 45°	

5
Interface
B Bore
BN Bore with hub
H HSK
N NCT
S Steep taper
T ScrewFit
W Weldon shank
Z Parallel shank

6
Interface size

7
Cutting diameter

8
Number of teeth

9
Maximum depth of cut or cutting width

10
Cutting direction and cartridge type
only for F2010/F2146/ F2250/F2252:
R Right
L Left
S Cuts on three sides

C 2

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

3 – Tool type

0	Face milling cutters
1	Shoulder milling cutters
2	Shoulder/slot/ porcupine milling cutters
5	Profiling cutters
7	Routing cutters

4 – Type

02	High-feed face milling cutters, κ = 0–15°, radial, positive, four cutting edges per indexable insert
16	Heavy-duty cutters, κ = 60°, tangential, negative, four cutting edges per indexable insert
24	Heptagon face milling cutters, κ = 45°, radial, negative, 14 cutting edges per indexable insert, screw clamping
25	Octagon face milling cutters for finishing, κ = 42°, radial, negative, 16 cutting edges per indexable insert, finishing face milling cutters
26	Octagon face milling cutters for finishing, κ = 42°, radial, negative, 16 cutting edges per indexable insert
31	Ramping milling cutters, κ = 90°, radial, positive, two cutting edges per indexable insert
32	Shoulder milling cutters, κ = 90°, radial, positive, four cutting edges per indexable insert
55	Porcupine milling cutters, κ = 90°, tangential, negative, two or four cutting edges per indexable insert
56	Porcupine milling cutters, κ = 90°, radial, positive, two or four cutting edges per indexable insert
57	Porcupine milling cutters, κ = 90°, radial, positive, two or four cutting edges per indexable insert
58	Porcupine milling cutters, κ = 90°, radial, positive, two or four cutting edges per indexable insert
74	Chamfer milling cutters, κ = 45°, radial, positive, four cutting edges per indexable insert
75	T-slot milling cutters, κ = 90°, radial, positive, four cutting edges per indexable insert
92	Routing cutters, κ = 90°, radial, positive, two or four cutting edges per indexable insert

5 – 1. Delimiters

–	Metric
.	Inches

6 – Cutting diameter

7 – Adaptor type

A	Parallel shank
B	Bore
T	ScrewFit
W	Weldon shank
H	HSK

8 – Adaptor size

9 – Number of teeth

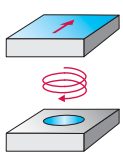
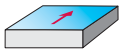
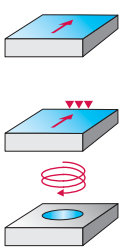
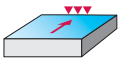
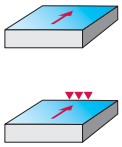
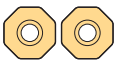
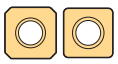
10 – Depth of cut

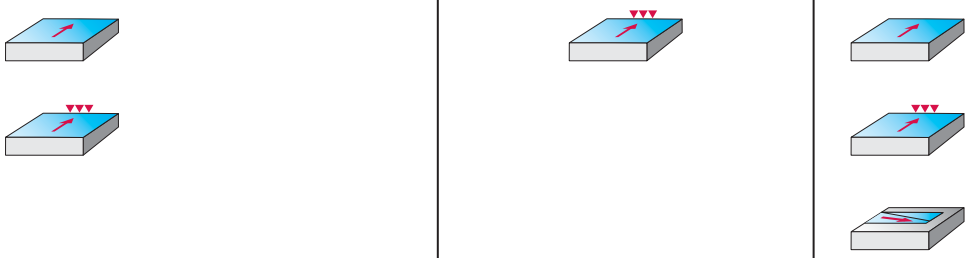
11 – Version acc. to length or manufacturer-specific adaptors

S	Short version
L	Long version
D	Dörries Scharmann machines

C 2

Walter Select – Indexable insert milling cutters
Face milling cutters

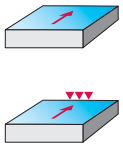
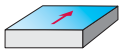
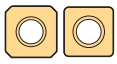
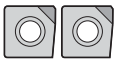
Machining						
WALTER SELECT ●● Primary application ● Other application						
Lead angle κ	**15°**	**21°**	**43°**	**45°**	**45°**	
Designation	**F2010**	**F2010**	**F2010**	**F2010**	**F2010**	
Dia. range [mm]	70–305	71–306	80–315	80–315	80–315	
Adaption Range	Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore	
Page	C 356	C 358	C 360	C 362	C 364	
P Steel	●●	●●	●●	●●	●●	
M Stainless steel	●●	●●	●●	●	●●	
K Cast iron	●●	●●	●●	●●	●●	
N NF metals			●●		●●	
S Materials with difficult cutting properties	●●	●●	●●		●●	
H Hard materials			●		●	
O Other			●		●	
Indexable inserts						
Type	P2633 . R25 P26379-R25	P23696-2 . 0	OD .. 0605 .. ODHX0605ZZR	ODHX0605ZZN	SP .. 1204 ..	
Number of cutting edges	3	6	8 / 1	8	4	
Max. depth of cut [mm]	2	2	4	2	7	

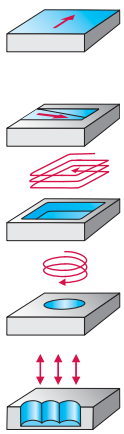
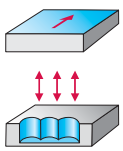
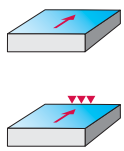
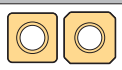
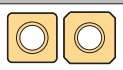
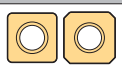


	45°	75°		88°	90°	43°	45°
	F2010	F2010	F2010	F2010	F2010	F2146	F2233
	80–315	80–315	80–315	80–315	80–315	80–250	20–100
	Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore	Parallel shank Cylindrical bore
	C 366	C 368	C 370	C 372	C 374	C 376	C 378
	●●	●●	●●	●●	●●		●●
	●●	●●	●●	●●	●		●●
	●●	●●	●●	●●	●●	●●	●●
	●●	●●					●●
	●●	●●	●●	●●			●●
	●	●	●	●	●	●	●
	●	●					●
	SN . X1205 ..	SP .. 1204 .. P2901-1R	SN . X1205 .. XNGX1205ENN	SN . X1205 .. XNGX1205ZNN	P2903-2R	OPHN0504ZZN OPHX0504ZZN	SD .. 09T3 ..
	8 / 2	4 / 1	8 / 2	8 / 2	3	8	4
	6,5	10	8	10	9	3	5

C 2

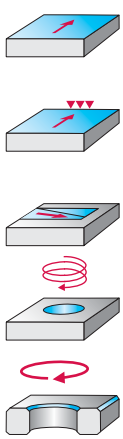
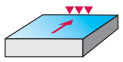
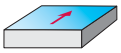
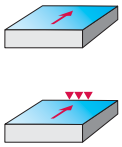
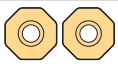
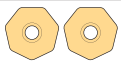
Walter Select – Indexable insert milling cutters
Face milling cutters

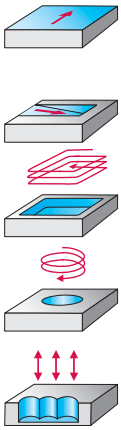
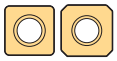
Machining						
WALTER SELECT ●● Primary application ● Other application						
Lead angle κ	**45°**	**75°**	**90°**	**89°**	**60°**	
Designation	**F2233**	**F2235**	**F2250**	**F2254**	**F2260**	
Dia. range [mm]	32–160	40–80	63–200	50–160	100–315	
Adaption range	DIN 1835 B Cylindrical bore	DIN 1835 B Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore	
Page	C 380	C 382	C 384	C 388	C 390	
P Steel	●●	●●			●	
M Stainless steel	●●	●●				
K Cast iron	●●	●●		●●	●●	
N NF metals	●●	●●	●●			
S Materials with difficult cutting properties	●●	●●				
H Hard materials	●	●			●	
O Other	●	●				
Indexable inserts						
Type	SP .. 1204 ..	SP .. 1204 .. P2901-1R	SPH . 1204 . DR	SNHQ1205ZZR	LNMU150812 LNMU201012	
Number of cutting edges	4	4 / 1	1	8	4	
Max. depth of cut [mm]	7	10	3	7	11 / 15	

							
	15°	**21°**	**45°**		**75°**	**88°**	**75° / 90°**
	F2330	**F4030**	**F4033**	**F4045**	**F4047**	**F4048**	**F4050**
	10–71	13–82	40–200	63–200	50–160	40–160	80–200
	ScrewFit Parallel shank Cylindrical bore	ScrewFit Parallel shank Cylindrical bore	ScrewFit Cylindrical bore	Cylindrical bore	Cylindrical bore	ScrewFit Cylindrical bore	Cylindrical bore
	C 392	C 394	C 396	C 400	C 404	C 406	C 408
	●●	●●	●●		●●	●●	
	●●	●●	●●		●●	●●	
	●●	●●	●●	●●	●●	●●	
			●●				●●
	●●	●●	●●		●●	●●	
			●	●	●	●	
			●				
							
	P2633 . R10 P26379-R10 P2633 . R14 P26379-R14 ...	P23696-1 . 0 P23696-2 . 0	SN . X1205 .. XNGX1205ANN SN . X1606 ..	XNHF0705 .. XNHX0705ANN XNHF0906 ..	SN . X1205 .. XNGX1205ENN	SN . X1205 .. XNGX1205ZNN	
	3	6	8 / 2	14 / 2	8 / 2	8 / 2	
	1 / 1,5 / 2	1 / 2	6,5 / 9	4 / 6	8	10	1,1 / 4

C 2

Walter Select – Indexable insert milling cutters
Face milling cutters

Machining						
WALTER SELECT ●● Primary application ● Other application						
Lead angle κ	**43°**	**42°**		**60°**	**45°**	
Designation	**F4080**	**M2025**	**M2026**	**M3016**	**M3024**	
Dia. range [mm]	24–160	80–160	200–250	125–315	40–160	
Adaption range	ScrewFit DIN 1835 B Parallel shank Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore	ScrewFit DIN 1835 B Cylindrical bore	
Page	C 414	C 418	C 418	C 420	C 422	
P Steel	●●			●●	●●	
M Stainless steel	●●			●	●	
K Cast iron	●●	●●	●●	●●	●●	
N NF metals	●●					
S Materials with difficult cutting properties	●●			●		
H Hard materials	●	●	●	●		
O Other	●					
Indexable inserts						
Type	OD .. 0504 .. ODHX0504ZZR OD .. 0605 .. ODHX0605ZZR	ONHF050408 P45424-1-G67	ONHF050408 P45424-2-G67	LNMX201012R	XN . U0705 .. XNGX0705ANN	
Number of cutting edges	8/1	16/4	16/4	4	14/2	
Max. depth of cut [mm]	3 / 4	3	3	16	4	

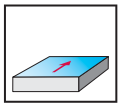
	
	15°
	M4002
	8–102
	ScrewFit Parallel shank Cylindrical bore
	C 424
	●●
	●●
	●●
	●●
	●
	
	SDM . 06T2 .. SDM . 09T3 .. SDM . 1204 ..
	4
	1 / 1,5 / 2

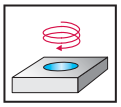
Face milling cutters
F2010

P2633 . R25 / P26379-R25

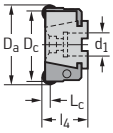
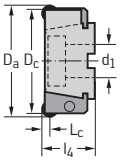
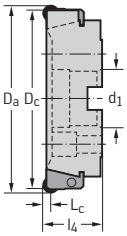
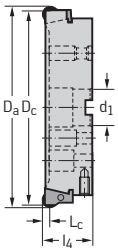
C 2

– f_z up to 3.5 mm
– Three cutting edges per indexable insert, adjustable runout





	P	M	K	N	S	H	O
F2010	●●	●●	●●		●●		

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.02.R729M	70	87	27	50	2	6	1,2	6	P2633 . R25 P26379-R25
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.02.R729M	90	107	32	50	2	7	1,8	7	P2633 . R25 P26379-R25
	F2010.B.125.Z08.02.R729M	115	132	40	63	2	8	3,5	8	
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.02.R729M	150	167	40/40 B	63	2	10	5,5	10	P2633 . R25 P26379-R25
	F2010.B.200.Z12.02.R729M	190	207	60/50 B	63	2	12	8,2	12	
	F2010.B.250.Z12.02.R729M	240	257	60/50 B	63	2	12	14,6	12	
	F2010.B.250.Z16.02.R729M	240	257	60/50 B	63	2	16	14,5	16	
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.02.R729M	305	322	60/50-60 BB	80	2	14	26,3	14	P2633 . R25 P26379-R25
	F2010.B.315.Z18.02.R729M	305	322	60/50-60 BB	80	2	18	26,2	18	
										

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

C 2

Assembly parts

	D_c [mm]	70–305
	Cartridge for tool body	FR729M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
	Clamping screw for indexable insert Tightening torque	FS1030 (Torx 20) 5,0 Nm
	Adjusting pin	FS303 (Torx 20)

Accessories

	D_c [mm]	70–305
	Screwdriver for indexable insert	FS228 (Torx 20)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
	P26335R25	2		☺	☹	☹	☺	☹			☺	☹	☺	☹
	P26337R25	2		☺	☹	☹		☹			☺	☹		☹
	P26339R25	2		☺	☹	☹	☺	☹			☺	☹	☺	☹
	P26379-R25	2	1,1		☹	☹		☹				☹		☹

HC = Coated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

☺ Very good ☹ Good ☹ Moderate

●● Primary application

● Other application

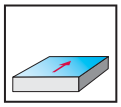
C 294 D 1 C 568 C 592 C 627 C 621

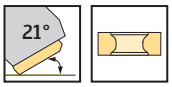
Face milling cutters
F2010

P23696-2 . 0

C 2

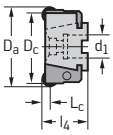
– f_z up to 3.5 mm
– Six cutting edges per indexable insert, adjustable runout

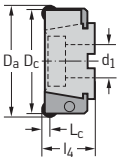


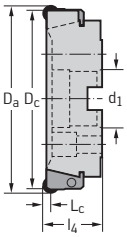


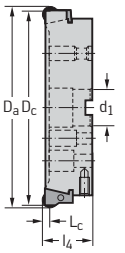
	P	M	K	N	S	H	O
F2010	●●	●●	●●		●●		

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.02.R750M	71	90	27	50	2	6	1,2	6	P23696-2 . 0
	F2010.B.100.Z07.02.R750M	90	110	32	50	2	7	1,9	7	P23696-2 . 0
	F2010.B.125.Z08.02.R750M	115	135	40	63	2	8	3,6	8	
	F2010.B.160.Z10.02.R750M	150	170	40/40 B	63	2	10	5,6	10	P23696-2 . 0
	F2010.B.200.Z12.02.R750M	191	210	60/50 B	63	2	12	8,3	12	
	F2010.B.250.Z12.02.R750M	241	260	60/50 B	63	2	12	14,8	12	
	F2010.B.250.Z16.02.R750M	241	260	60/50 B	63	2	16	14,6	16	
	F2010.B.315.Z14.02.R750M	306	325	60/50-60 BB	80	2	14	26,3	14	P23696-2 . 0
	F2010.B.315.Z18.02.R750M	306	325	60/50-60 BB	80	2	18	26,2	18	





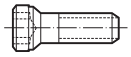




Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

	D_c [mm]	71–306
	Cartridge for tool body	FR750M
	Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
	Clamping screw for indexable insert Tightening torque	FS1031 (Torx 20) 5,0 Nm
	Adjusting pin	FS303 (Torx 20)

Accessories

	D_c [mm]	71–306
	Screwdriver for indexable insert	FS228 (Torx 20)
	Screwdriver for adjusting pin	FS228 (Torx 20)
	ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	P			M		K				N		S	
			HC			HC		HC				HC	HW	HC	
			WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S
	P23696-2.0	1,6	☺	☹	☹	☺	☹			☺	☹			☺	☹

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

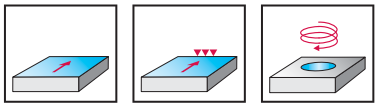
C 313 | D 1 | C 568 | C 593 | C 627 | C 621

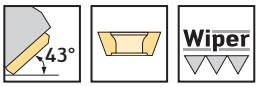
Face milling cutters
F2010

OD .. 0605 ..

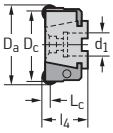
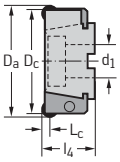
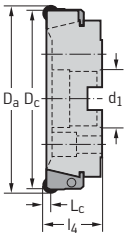
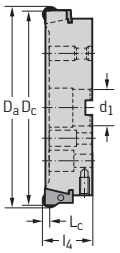
C 2

– Adjustable runout
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.04.R592M	80	90	27	50	4	6	1,2	6	OD .. 0605 ..
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.04.R592M	100	110	32	50	4	7	1,8	7	OD .. 0605 ..
	F2010.B.125.Z08.04.R592M	125	135	40	63	4	8	3,5	8	
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.04.R592M	160	170	40/40 B	63	4	10	5,5	10	OD .. 0605 ..
	F2010.B.200.Z12.04.R592M	200	210	60/50 B	63	4	12	8,2	12	
	F2010.B.250.Z12.04.R592M	250	260	60/50 B	63	4	12	14,7	12	
	F2010.B.250.Z16.04.R592M	250	260	60/50 B	63	4	16	14,6	16	
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.04.R592M	315	325	60/50-60 BB	80	4	14	26,3	14	OD .. 0605 ..
	F2010.B.315.Z18.04.R592M	315	325	60/50-60 BB	80	4	18	26,2	18	
										

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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR592M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS1030 (Torx 20) 5,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

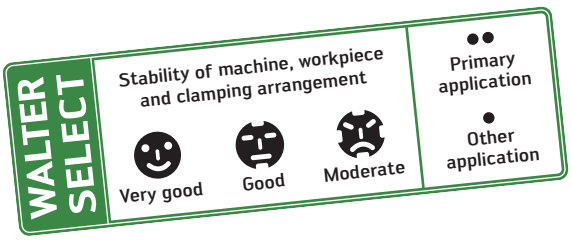
D_c [mm]	80–315
Cartridge: ODHX0605ZZN... finishing insert	FR681M
Screwdriver for indexable insert	FS228 (Torx 20)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

			P			M				K					N		S				H	O
			HC			HC				HC				CN	HC	HW	HC				HC	HC
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSM35S	WSM35	WSM45X	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WSN10	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WHH15	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-G88	0,8	1,6													●	●						
ODHW0605ZZN-A57	0,8	1,6	●	●●						●		●	●●									
ODMT0605ZZN-D57	0,8	1,6	●	●●	●●	●		●●	●●		●	●	●●				●		●●	●●		

ODHX0605ZZR-A57 wiper insert only in combination with ODH.0605ZZN . .

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



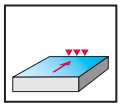
C 291 D 1 C 568 C 586 C 627 C 621

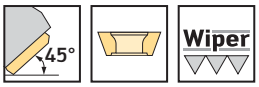
Face milling cutters
F2010

ODHX0605ZZN

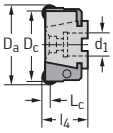
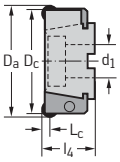
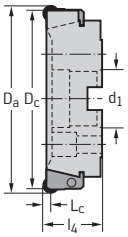
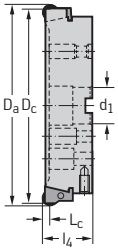
C 2

– Adjustable runout
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
F2010	●●	●	●●				

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.02.R681M	80	90	27	50	2	6	1,2	6	ODHX0605ZZN
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.02.R681M	100	110	32	50	2	7	1,8	7	ODHX0605ZZN
	F2010.B.125.Z08.02.R681M	125	135	40	63	2	8	3,5	8	
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.02.R681M	160	170	40/40 B	63	2	10	5,5	10	ODHX0605ZZN
	F2010.B.200.Z12.02.R681M	200	210	60/50 B	63	2	12	8,2	12	
	F2010.B.250.Z16.02.R681M	250	260	60/50 B	63	2	16	14,6	16	
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z18.02.R681M	315	325	60/50-60 BB	80	2	18	26,2	18	ODHX0605ZZN
										

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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR681M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS1030 (Torx 20) 5,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Screwdriver for indexable insert	FS228 (Torx 20)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

			P			M		K				S		H	O
			HC			HC		HC				HC		HC	HC
Designation	b mm		WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WSM35S	WSP45S	WHH15	WXM15
ODHX0605ZZN-A57	6							☺						☺	☺
ODHX0605ZZN-A88	6							☺						☺	☺

HC = Coated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

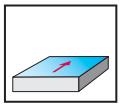
C 309 | D 1 | C 568 | C 586 | C 627 | C 621

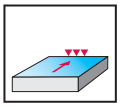
Face milling cutters
F2010

SP .. 1204 ..

C 2

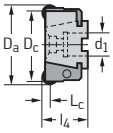
– Adjustable runout
– Four cutting edges per indexable insert

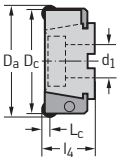


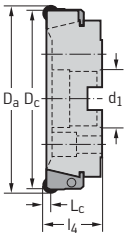


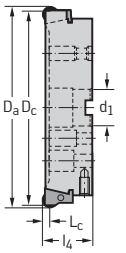
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.07.R495M	80	94	27	50	7	6	1,2	6	SP .. 1204 ..
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.07.R495M	100	114	32	50	7	7	1,8	7	SP .. 1204 ..
	F2010.B.125.Z08.07.R495M	125	139	40	63	7	8	3,5	8	
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.07.R495M	160	174	40/40 B	63	7	10	5,5	10	SP .. 1204 ..
	F2010.B.200.Z12.07.R495M	200	214	60/50 B	63	7	12	8,3	12	
	F2010.B.250.Z12.07.R495M	250	264	60/50 B	63	7	12	14,7	12	
	F2010.B.250.Z16.07.R495M	250	264	60/50 B	63	7	16	14,6	16	
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.07.R495M	315	329	60/50-60 BB	80	7	14	26,3	14	SP .. 1204 ..
	F2010.B.315.Z18.07.R495M	315	329	60/50-60 BB	80	7	18	26,2	18	









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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR495M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS243 (Torx 20) 5,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Cartridge: P2905-1 finishing insert	FR448M
Screwdriver for indexable insert	FS228 (Torx 20)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

			P				M				K					N		S			
			HC				HC				HC				CN	HC	HW	HC			
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WSN10	WXN15	WK10	WSM35S	WSM35	WSP45S	WSP45
SPGT1204AEN-K88		1,5														☺	☺				
SPKT1204AZN		1,4		☹		☹		☹		☹	☺			☹					☹		☹
SPMT1204AEN	0,5	1,4	☺	☹		☹		☹		☹	☺		☹	☹					☹		☹
SPMW1204AEN-A57	0,5	1,4	☹	☹							☺		☹	☹							
SPMW1204AETN-A27	0,5	1,4	☹	☹									☹	☹							
SPHW120416-A57	1,6														☺						

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

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

☺ Very good ☹ Good ☹ Moderate

●● Primary application
● Other application

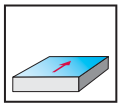
C 302 | D 1 | C 568 | C 587 | C 627 | C 621

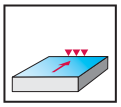
Face milling cutters
F2010

SN . X1205 ..

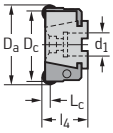
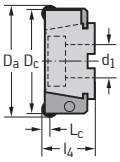
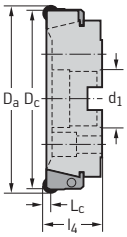
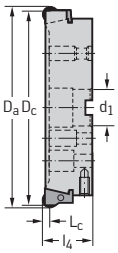
C 2

– Adjustable runout
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.06.R720M	80	94	27	50	6,5	6	1,2	6	SN . X1205 ..
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.06.R720M	100	114	32	50	6,5	7	1,9	7	SN . X1205 ..
	F2010.B.125.Z08.06.R720M	125	139	40	63	6,5	8	3,6	8	
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.06.R720M	160	174	40/40 B	63	6,5	10	5,6	10	SN . X1205 ..
	F2010.B.200.Z12.06.R720M	200	214	60/50 B	63	6,5	12	8,3	12	
	F2010.B.250.Z12.06.R720M	250	264	60/50 B	63	6,5	12	14,8	12	
	F2010.B.250.Z16.06.R720M	250	264	60/50 B	63	6,5	16	14,6	16	
										
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.06.R720M	315	329	60/50-60 BB	80	6,5	14	26,3	14	SN . X1205 ..
	F2010.B.315.Z18.06.R720M	315	329	60/50-60 BB	80	6,5	18	26,2	18	
										

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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR720M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS1459 (Torx 15IP) 4,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Cartridge: XNGX1205ANN-F67 finishing insert	FR730M
Screwdriver for indexable insert	FS1485 (Torx 15IP)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
SNGX1205ANN-F27		1,5	●	◐						◐	○				
SNGX1205ANN-F57		1,5	●	◐	○	◐	○		◐	◐	○			◐	○
SNGX1205ANN-F67		1,5	●	◐	○	◐	○	●		◐	○			◐	○
SNHX1205ANN-K88		1,5										●	●		
SNMX1205ANN-F27		1,5	●	◐						◐	○				
SNMX1205ANN-F57		1,5	●	◐					◐	◐	○				
SNMX1205ANN-F67		1,5	●	◐				●		◐	○				
SNGX120512-F57	1,2		●	◐	○	◐	○			◐	○			◐	○
SNMX120512-D27	1,2		●	◐					◐	◐	○				
SNMX120512-F27	1,2		●	◐						◐	○				
SNMX120520-D27	2		●	◐					◐	◐	○				
SNMX120520-F57	2		●	◐	○		○		◐	◐	○				○

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

● Very good ◐ Good ○ Moderate

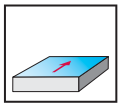
●● Primary application
● Other application

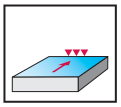
C 314 D 1 C 568 C 587 C 627 C 621

Face milling cutters
F2010
SP .. 1204 ..

C 2

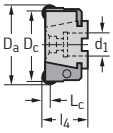
– Adjustable runout
– Four cutting edges per indexable insert

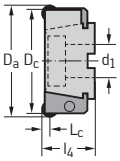


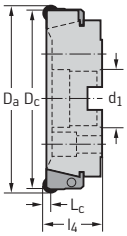


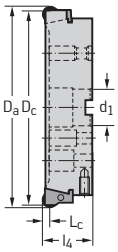
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.10.R441M	80	86	27	50	10	6	1,2	6	SP .. 1204 .. P2901-1R
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.10.R441M	100	106	32	50	10	7	1,8	7	SP .. 1204 .. P2901-1R
	F2010.B.125.Z08.10.R441M	125	131	40	63	10	8	3,5	8	
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.10.R441M	160	166	40/40 B	63	10	10	5,5	10	SP .. 1204 .. P2901-1R
	F2010.B.200.Z12.10.R441M	200	206	60/50 B	63	10	12	8,2	12	
	F2010.B.250.Z12.10.R441M	250	256	60/50 B	63	10	12	14,6	12	
	F2010.B.250.Z16.10.R441M	250	256	60/50 B	63	10	16	14,5	16	
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.10.R441M	315	321	60/50-60 BB	80	10	14	26,2	14	SP .. 1204 .. P2901-1R
	F2010.B.315.Z18.10.R441M	315	321	60/50-60 BB	80	10	18	26,0	18	









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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR441M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS243 (Torx 20) 5,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Cartridge: P2905-1 finishing insert	FR448M
Screwdriver for indexable insert	FS228 (Torx 20)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

			P				M				K					N		S				H	O
			HC				HC				HC				CN	HC	HW	HC				HC	HC
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WSN10	WXN15	WK10	WSM35S	WSM35	WSP45S	WSP45	WHH15	WXM15
P2901-1R		11									☺						☺					☺	☺
SPGT1204EDR-F55	0,5	1,3	☺	☹		☹		☹		☹	☺		☹	☹					☹		☹		
SPJW1204EDR		1,4		☹							☺			☹									
SPHT120408-G88	0,8															☺	☺						
SPHW120416-A57	1,6														☺								
SPMT120408-D51	0,8		☺	☹		☹		☹		☹			☹	☹					☹		☹		
SPMT120408-F55	0,8			☹		☹		☹		☹	☺			☹					☹		☹		
SPMW120408-A57	0,8		☹	☹							☺		☹	☹									
SPMW120408T-A27	0,8		☹	☹									☹	☹									

P2901-1R wiper insert only in combination with SP..1204EDR . .

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

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

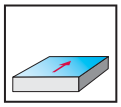
C 301 | D 1 | C 568 | C 589 | C 627 | C 621

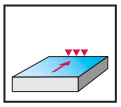
Face milling cutters
F2010

SN . X1205 ..

C 2

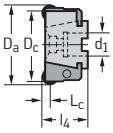
– Adjustable runout
– Eight cutting edges per indexable insert

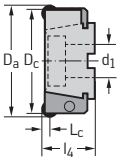


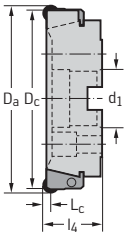


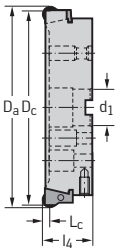
	P	M	K	N	S	H	O
F2010	●●	●●	●●		●●	●	

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.08.R727M	80	86	27	50	8	6	1,1	6	SN . X1205 .. XNGX1205ENN
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.08.R727M	100	106	32	50	8	7	1,8	7	SN . X1205 .. XNGX1205ENN
	F2010.B.125.Z08.08.R727M	125	131	40	63	8	8	3,5	8	
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.08.R727M	160	166	40/40 B	63	8	10	5,5	10	SN . X1205 .. XNGX1205ENN
	F2010.B.200.Z12.08.R727M	200	206	60/50 B	63	8	12	8,2	12	
	F2010.B.250.Z12.08.R727M	250	256	60/50 B	63	8	12	14,6	12	
	F2010.B.250.Z16.08.R727M	250	256	60/50 B	63	8	16	14,5	16	
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.08.R727M	315	321	60/50-60 BB	80	8	14	26,3	14	SN . X1205 .. XNGX1205ENN
	F2010.B.315.Z18.08.R727M	315	321	60/50-60 BB	80	8	18	26,2	18	









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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR727M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS1459 (Torx 15IP) 4,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Screwdriver for indexable insert	FS1485 (Torx 15IP)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

			P				M			K				N		S			H	O
			HC				HC			HC				HC	HW	HC			HC	HC
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45	WHH15	WXM15
SNGX1205ENN-F27		1,2	☺	😐								😐	☹							
SNGX1205ENN-F57		1,2	☺	😐	☹		😐	☹			😐	😐	☹			😐	☹			
SNGX1205ENN-F67		1,2	☺	😐		☹	😐		☹	☺		😐	☹			😐		☹		
SNGX120512-F57	1,2		☺	😐	☹		😐	☹				😐	☹			😐	☹			
SNMX120512-D27	1,2		☺	😐							😐	😐	☹							
SNMX120512-F27	1,2		☺	😐								😐	☹							
SNMX120520-D27	2		☺	😐							😐	😐	☹							
SNMX120520-F57	2		☺	😐	☹			☹			😐	😐	☹				☹			
XNGX1205ENN-F67		4,5								☺									☺	☺

XNGX1205ENN-F67 wiper insert only in combination with SNGX1205ENN . .

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

Primary application

Other application

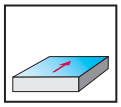
C 314 | D 1 | C 568 | C 589 | C 627 | C 621

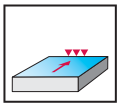
Face milling cutters
F2010

SN . X1205 ..

C 2

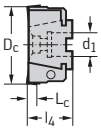
– Adjustable runout
– Eight cutting edges per indexable insert

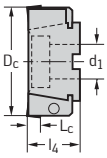


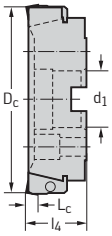


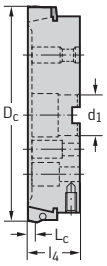
	P	M	K	N	S	H	O
F2010	●●	●●	●●		●●	●	

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.10.R728M	80	81	27	50	10	6	1,2	6	SN . X1205 .. XNGX1205ZNN
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.10.R728M	100	101	32	50	10	7	1,8	7	SN . X1205 .. XNGX1205ZNN
	F2010.B.125.Z08.10.R728M	125	126	40	63	10	8	3,5	8	
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.10.R728M	160	161	40/40 B	63	10	10	5,5	10	SN . X1205 .. XNGX1205ZNN
	F2010.B.200.Z12.10.R728M	200	201	60/50 B	63	10	12	8,2	12	
	F2010.B.250.Z12.10.R728M	250	251	60/50 B	63	10	12	14,6	12	
	F2010.B.250.Z16.10.R728M	250	251	60/50 B	63	10	16	14,5	16	
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.10.R728M	315	316	60/50-60 BB	80	10	14	26,3	14	SN . X1205 .. XNGX1205ZNN
	F2010.B.315.Z18.10.R728M	315	316	60/50-60 BB	80	10	18	26,2	18	









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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR728M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS1459 (Torx 15IP) 4,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

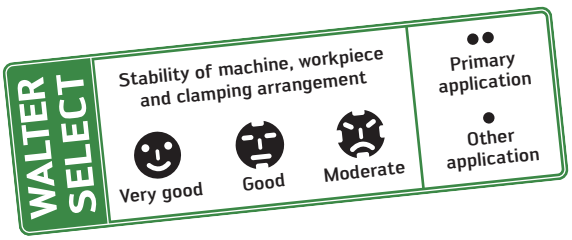
D_c [mm]	80–315
Screwdriver for indexable insert	FS1485 (Torx 15IP)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
SNGX1205ZNN-F27		1,2	☺	😐						😐	☹						
SNGX1205ZNN-F57		1,2	☺	😐	☹	😐	☹		😐	😐	☹			😐	☹		
SNGX1205ZNN-F67		1,2	☺	😐	☹	😐	☹	☺		😐	☹			😐	☹		
SNGX120512-F57	1,2		☺	😐	☹	😐	☹			😐	☹			😐	☹		
SNMX120512-D27	1,2		☺	😐					😐	😐	☹						
SNMX120512-F27	1,2		☺	😐						😐	☹						
SNMX120520-D27	2		☺	😐					😐	😐	☹						
SNMX120520-F57	2		☺	😐	☹		☹		😐	😐	☹				☹		
XNGX1205ZNN-F67		4						☺								☺	☺

XNGX1205ZNN-F67 wiper insert only in combination with SNGX1205ZNN . .

HC = Coated carbide
HW = Uncoated carbide

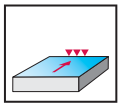


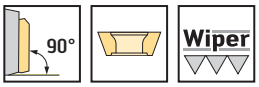
C 314 D 1 C 568 C 589 C 627 C 621

Face milling cutters
F2010
P2903-2R

C 2

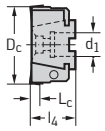
– Adjustable runout
– Three cutting edges per indexable insert

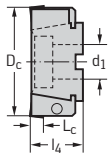


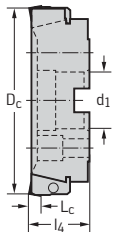


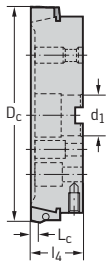
	P	M	K	N	S	H	O
F2010	●●	●	●●			●	

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.09.R500M	80	27	50	9	6	1,07	6	P2903-2R
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.09.R500M	100	32	50	9	7	1,65	7	P2903-2R
	F2010.B.125.Z08.09.R500M	125	40	63	9	8	3,31	8	
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.09.R500M	160	40/40 B	63	9	10	5,27	10	P2903-2R
	F2010.B.200.Z12.09.R500M	200	60/50 B	63	9	12	7,87	12	
	F2010.B.250.Z12.09.R500M	250	60/50 B	63	9	12	14,59	12	
	F2010.B.250.Z16.09.R500M	250	60/50 B	63	9	16	14,40	16	
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.09.R500M	315	60/50-60 BB	80	9	14	26,1	14	P2903-2R
	F2010.B.315.Z18.09.R500M	315	60/50-60 BB	80	9	18	25,97	18	









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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR500M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS244 (Torx 15) 3,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Screwdriver for indexable insert	FS229 (Torx 15)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

Designation	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
P2903-2R	3,5						☺				☺			☺	☺

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

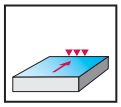
C 310 | D 1 | C 568 | C 627 | C 621

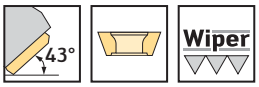
Octagon face milling cutters for finishing
F2146

OPHN0504ZZN

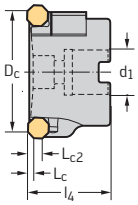
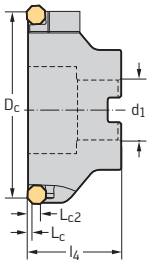
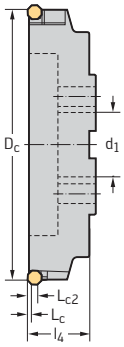
C 2

– Adjustable finishing inserts
– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
F2146			●●			●	

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	L_{c2} mm	Z*	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2146.B27.080.Z10.R683	80	27	50	3	8	10	1,3	2 8	OPHN0504ZZN OPHX0504ZZN
										
Cylindrical bore DIN 138 transverse keyway	F2146.B32.100.Z12.R683	100	32	50	3	8	12	2,1	2 10	OPHN0504ZZN OPHX0504ZZN
	F2146.B40.125.Z15.R683	125	40	63	3	8	15	3,9	3 12	
Cylindrical bore DIN 138 transverse keyway	F2146.B40.160.Z22.R683	160	40/40 B	63	3	8	22	6,2	4 18	OPHN0504ZZN OPHX0504ZZN
	F2146.B60.200.Z28.R683	200	60/50 B	63	3	8	28	9,5	4 24	
	F2146.B60.250.Z36.R683	250	60/50 B	63	3	8	36	15,0	6 30	

Outer diameter $D_a = D_c + 10$ mm
* Z = 8 + 2 (8 roughing inserts + 2 axially adjustable finishing inserts with finishing cartridge)
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

D_c [mm]	80–250
Finishing Cartridge K = 45° (for OPHX, etc.)	FR683
Eccentric pin for cartridge	FS1130 (SW 3)
Clamping wedge for indexable insert	FK281
Clamping wedge for adjustable indexable insert	FR600
Tension spring	FS1099
Clamping screw for cartridge Tightening torque	FS1149 (SW 4) 5,0 Nm
Clamping screw for clamping wedge	FS746 (Torx 15IP)

Accessories

D_c [mm]	80–250
Torque T-handle for interchangeable blade Tightening torque	FS2041 4,5–14 Nm
Interchangeable blade for clamping wedge	FS2047 (Torx 15IP)
Key for eccentric pin	FS227 (SW 3)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	K BH WCB80	K CN WSN10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	OPHN0504ZZN-A27	0,4	1,2										☺					
	OPHN0504ZZN-A57	0,4	1,2						☺		😐			☺				
	OPHX0504ZZN-A57		5						☺								☺	
	OPHX0504ZZN-A88		5						☺								☺	☺

HC = Coated carbide
BH = CBN with high CBN content
CN = Silicon nitride Si_3N_4

WALTER SELECT
Stability of machine, workpiece and clamping arrangement
Very good
Good
Moderate
●● Primary application
● Other application

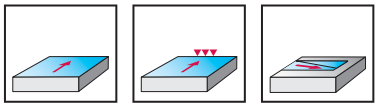
C 292 D 1 C 568 C 587 C 625 C 621

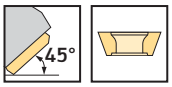
Face milling cutters
F2233

SD .. 09T3 ..

C 2

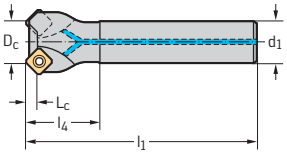
– Four cutting edges per indexable insert

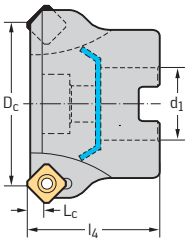




	P	M	K	N	S	H	O
F2233	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Parallel shank	F2233.Z20.020.Z02.05	20	20	35	110	5	2	0,3	2	SD .. 09T3 ..
	F2233.Z20.025.Z03.05	25	20	35	110	5	3	0,3	3	
Cylindrical bore DIN 138 transverse keyway	F2233.B.032.Z04.05	32	16	40		5	4	0,2	4	SD .. 09T3 ..
	F2233.B.032.Z05.05	32	16	40		5	5	0,2	5	
	F2233.B.040.Z04.05	40	16	40		5	4	0,3	4	
	F2233.B.040.Z06.05	40	16	40		5	6	0,3	6	
	F2233.B.050.Z05.05	50	22	40		5	5	0,4	5	
	F2233.B.050.Z08.05	50	22	40		5	8	0,4	8	
	F2233.B.063.Z05.05	63	22	40		5	5	0,6	5	
	F2233.B.063.Z06.05	63	22	40		5	6	0,6	6	
	F2233.B.063.Z10.05	63	22	40		5	10	0,6	10	
	F2233.B.080.Z07.05	80	27	50		5	7	1,2	7	
	F2233.B.080.Z12.05	80	27	50		5	12	1,2	12	
	F2233.B.100.Z14.05	100	32	50		5	14	2,0	14	





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

Assembly parts

	D_c [mm]	20–100
	Clamping screw for indexable insert Tightening torque	FS359 (Torx 15) 2,5 Nm

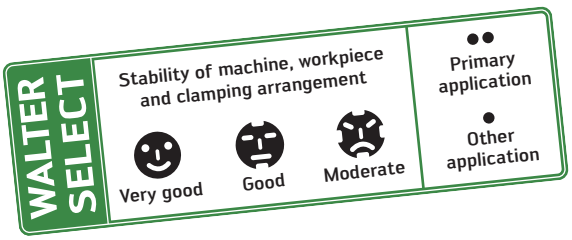
Accessories

	D_c [mm]	20–100
	Screwdriver for indexable insert	FS229 (Torx 15)

Indexable inserts

	Designation	r mm	b mm	P				M				K					N		S			
					HC				HC				HC			CN	HC	HW		HC		
				WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WSN10	WXN15	WK10	WSM35S	WSM35	WSP45S	WSP45
	SDGT09T3AEN-F57	0,3	1,2		●		☹		●		☹				☹					●		☹
	SDGT09T3AEN-G88	0,3	1,2														☺	☺				
	SDHW09T3AEN-A57	0,3	1,2	●	☹							☺		●	☹							
	SDMW09T3AEN-A57	0,5	1,2	●	☹							☺		●	☹							
	SDMW09T3AETN-A27	0,5	1,2	●	☹									●	☹							
	SDHW09T312-A57	1,2														☺						

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



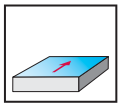
C 302 D 1 C 568 C 587 C 621

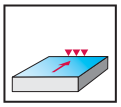
Face milling cutters
F2233

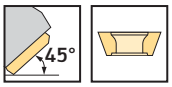
SP .. 1204 ..

C 2

– Four cutting edges per indexable insert

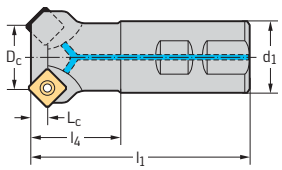


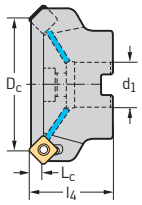


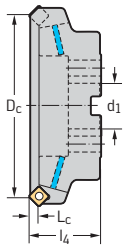


	P	M	K	N	S	H	O
F2233	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Shank DIN 1835 B	F2233.W.032.Z03.07	32	32	44	105	7	3	0,6	3	SP .. 1204 ..
	F2233.W.040.Z04.07	40	32	44	105	7	4	0,7	4	
Cylindrical bore DIN 138 transverse keyway	F2233.B.050.Z04.07	50	22	40		7	4	0,4	4	SP .. 1204 ..
	F2233.B.063.Z05.07	63	22	40		7	5	0,6	5	
	F2233.B.080.Z06.07	80	27	50		7	6	1,3	6	
	F2233.B.100.Z07.07	100	32	50		7	7	2,0	7	
	F2233.B.125.Z08.07	125	40	63		7	8	3,7	8	
Cylindrical bore DIN 138 transverse keyway	F2233.B.160.Z09.07	160	40/40 B	63		7	9	5,5	9	SP .. 1204 ..







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

Assembly parts

D_c [mm]	32–160
Clamping screw for indexable insert Tightening torque	FS1030 (Torx 20) 5,0 Nm

Accessories

D_c [mm]	32–125	160
Screwdriver for indexable insert	FS228 (Torx 20)	FS228 (Torx 20)
Sealing disc (gasket + screws)		FS936 COMPLETE SET
Gasket		O-R 96X4

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	K CN WSN10	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
SPGT1204AEN-K88		1,5														☺	☺				
SPKT1204AZN		1,4		☹		☹		☻		☹	☺			☹					☻		☹
SPMT1204AEN	0,5	1,4	☺	☹		☹		☻		☹	☺		☻	☹					☻		☹
SPMW1204AEN-A57	0,5	1,4	☻	☹							☺		☻	☹							
SPMW1204AETN-A27	0,5	1,4	☻	☹									☻	☹							
SPHW120416-A57	1,6														☺						

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

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

☺ Very good ☻ Good ☹ Moderate

●● Primary application
● Other application

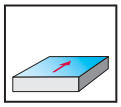
C 302 | D 1 | C 568 | C 587 | C 621

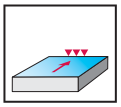
Face milling cutters
F2235

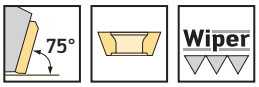
SP .. 1204 ..

C 2

– Four cutting edges per indexable insert

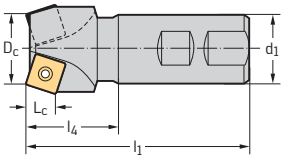


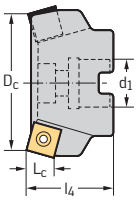




	P	M	K	N	S	H	O
F2235	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Shank DIN 1835 B	F2235.W.040.Z03.10	40	32	49	110	10	3	0,7	3	SP .. 1204 .. P2901-1R
Cylindrical bore DIN 138 transverse keyway	F2235.B.050.Z04.10	50	22	40		10	4	0,4	4	SP .. 1204 .. P2901-1R
	F2235.B.063.Z05.10	63	22	40		10	5	0,6	5	
	F2235.B.080.Z06.10	80	27	50		10	6	1,3	6	





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

Assembly parts

D_c [mm]	40–80
Clamping screw for indexable insert Tightening torque	FS1030 (Torx 20) 5,0 Nm

Accessories

D_c [mm]	40–80
Screwdriver for indexable insert	FS228 (Torx 20)

Indexable inserts

			P				M				K					N		S				H	O
			HC				HC				HC				CN	HC	HW	HC				HC	HC
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WSN10	WXN15	WK10	WSM35S	WSM35	WSP45S	WSP45	WHH15	WXM15
P2901-1R		11									☺						☺					☺	☺
SPGT1204EDR-F55	0,5	1,3	☺	😐		☹		😐		☹	☺		😐	☹					😐		☹		
SPJW1204EDR		1,4		☹							☺			☹									
SPHT120408-G88	0,8															☺	☺						
SPHW120416-A57	1,6														☺								
SPMT120408-D51	0,8		☺	😐		☹		😐		☹			😐	☹					😐		☹		
SPMT120408-F55	0,8			😐		☹		😐		☹	☺			☹					😐		☹		
SPMW120408-A57	0,8		😐	☹							☺		😐	☹									
SPMW120408T-A27	0,8		😐	☹									😐	☹									

P2901-1R wiper insert only in combination with SP..1204EDR . .

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

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

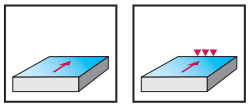
C 304 | D 1 | C 568 | C 589 | C 621

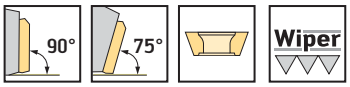
Face milling cutters for light alloys
F2250

SPH . 1204 . DR

C 2

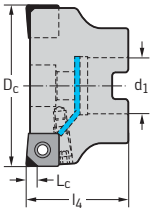
– Adjustable runout
– One cutting edge per indexable insert





	P	M	K	N	S	H	O
F2250				●●			

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2250.B22.063.Z05.03	63	22	40	3	5	0,4	5	SPH . 1204 . DR
	F2250.B27.080.Z06.03	80	27	50	3	6	0,8	6	
	F2250.B32.100.Z07.03	100	32	50	3	7	1,3	7	



Pre-balanced tools
D_c 80–100 mm, steel basic body; D_c 125–200 mm, aluminium basic body
* Approach angle κ = 75° (EDR)/κ = 90° (PDR)
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

D_c [mm]	63–100
Clamping screw for indexable insert Tightening torque	FS1030 (Torx 20) 5,0 Nm
Countersunk screw	FS1148 (SW 2,5)
Balancing screw	FS1145 (SW 2,5)

Accessories

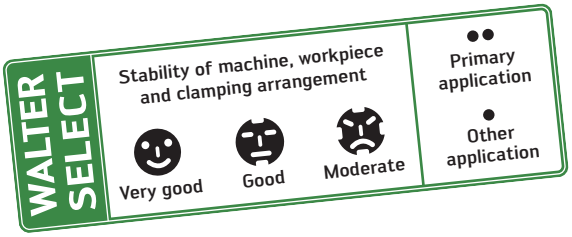
D_c [mm]	63–100
Screwdriver for indexable insert	FS228 (Torx 20)
ISO 2936 Allen key: Countersunk/balancing screw	ISO2936-2,5 (SW 2,5)

Indexable inserts

Designation	$a_{p\ max}$ mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N DP WCD10	S HC WSM35S	S HC WSP45S
SPHW1204EDR-A88	3	1,5										☺		
SPHW1204PDR-A88	4	1,5										☺		
SPHX1204PDR-A88	0,5	3,5										☺		

SPHX1204PDR-A88 wiper insert only in combination with SPHW1204PDR-A88 . .

HC = Coated carbide
DP = Polycrystalline diamond



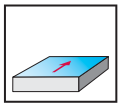
C 304 D 1 C 568 C 590 C 628 C 621

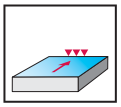
Face milling cutters for light alloys
F2250

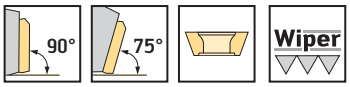
SPH . 1204 . DR

C 2

– Adjustable runout
– One cutting edge per indexable insert

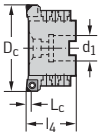


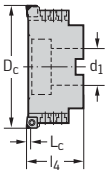


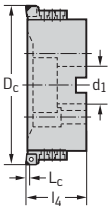


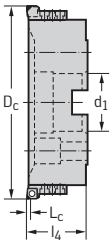
	P	M	K	N	S	H	O
F2250				●●			

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2250.B.080.Z06.03.R594	80	27	63	3	6	1,1	6	SPH . 1204 . DR
	F2250.B.100.Z07.03.R594	100	32	63	3	7	1,8	7	
Cylindrical bore DIN 138 transverse keyway	F2250.B.125.Z08.03.R594	125	40	63	3	8	1,2	8	SPH . 1204 . DR
Cylindrical bore DIN 138 transverse keyway	F2250.B.160.Z10.03.R594	160	40/40 B	63	3	10	1,9	10	SPH . 1204 . DR
Cylindrical bore DIN 138 transverse keyway	F2250.B.200.Z12.03.R594	200	60/50 B	63	3	12	4,1	12	SPH . 1204 . DR









Pre-balanced tools
D_c 80–100 mm, steel basic body; D_c 125–200 mm, aluminium basic body
* Approach angle κ = 75° (EDR)/κ = 90° (PDR)
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

D_c [mm]	80–100	125–200
Cartridge for tool body	FR594	FR594
Clamping screw for indexable insert Tightening torque	FS1030 (Torx 20) 5,0 Nm	FS1030 (Torx 20) 5,0 Nm
Clamping screw for cartridge	FS1146 (SW 5)	FS1147 (SW 5)
Conical spring washer	FS1100	FS1100
Balancing screw	FS1145 (SW 2,5)	FS1145 (SW 2,5)
Eccentric pin for cartridge	FS1131 (SW 2,5)	FS1131 (SW 2,5)

Accessories

D_c [mm]	80–200
Cartridge: SPHX1204PDR-A88 finishing insert	FR595
Screwdriver for indexable insert	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-5 (SW 5)
ISO 2936 Allen key for balancing screw	ISO2936-2,5 (SW 2,5)

Indexable inserts

Designation	$a_{p\ max}$ mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N DP WCD10	S HC WSM35S	S HC WSP45S
SPHW1204EDR-A88	3	1,5										☺		
SPHW1204PDR-A88	4	1,5										☺		
SPHX1204PDR-A88	0,5	3,5										☺		

SPHX1204PDR-A88 wiper insert only in combination with SPHW1204PDR-A88 . .

HC = Coated carbide
DP = Polycrystalline diamond

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

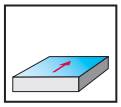
C 304 | D 1 | C 568 | C 590 | C 628 | C 621

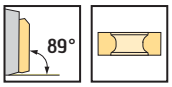
Face and shoulder milling cutters
F2254

SNHQ1205ZZR

C 2

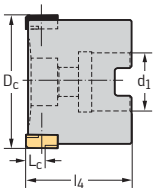
– Runout adjustable from D_c = 100 mm
– Eight cutting edges per indexable insert, tangential arrangement

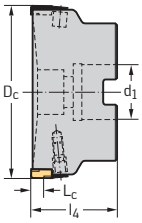


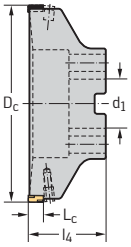


	P	M	K	N	S	H	O
F2254			●●				

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2254.B.050.Z09.07	50	22	40	7	9	0,4	9	SNHQ1205ZZR
	F2254.B.063.Z12.07	63	22	40	7	12	0,7	12	
	F2254.B.080.Z15.07	80	27	50	7	15	1,2	15	
Cylindrical bore DIN 138 transverse keyway	F2254.B.100.Z19.07	100	32	50	7	19	2	19	SNHQ1205ZZR
	F2254.B.125.Z23.07	125	40	63	7	23	3,5	23	
Cylindrical bore DIN 138 transverse keyway	F2254.B.160.Z30.07	160	40/40 B	63	7	30	4,3	30	SNHQ1205ZZR







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

C 2

Assembly parts

D_c [mm]	50–80	100–160
Clamping screw for indexable insert Tightening torque	FS1007 (Torx 15) 3,0 Nm	FS1007 (Torx 15) 3,0 Nm
Clamping screw for setting wedge		FS1160 (SW 3)
Setting wedge		FK324

Accessories

D_c [mm]	50–80	100–160
Screwdriver for indexable insert	FS229 (Torx 15)	FS229 (Torx 15)
Key for setting wedge		FS227 (SW 3)

Indexable inserts

Designation	b mm	P			M		K				N		S	
		HC			HC		HC				HC	HW	HC	
		WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S
SNHQ1205ZZR-A57T	0,8 × 45°						☺		☹	☹				

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

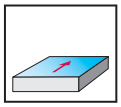
● Other application

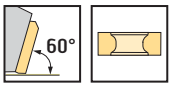
C 332 | D 1 | C 568 | C 590 | C 630 | C 621

Face milling cutters – Heavy Duty
F2260

C 2

– Tangential indexable insert arrangement
– Four cutting edges per indexable insert

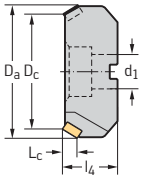




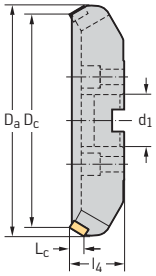
	P	M	K	N	S	H	O
F2260	●		●●			●	

Tool

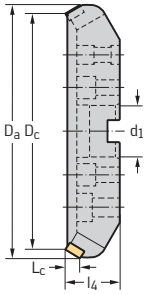
	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2260.B.100.Z06.11	100	113	32	50	11	6	2,2	6	LNMU150812
	F2260.B.125.Z08.11	125	138	40	63	11	8	3,5	8	
	F2260.B.125.Z06.15	125	143	40	63	15	6	4	6	LNMU201012



	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2260.B.160.Z10.11	160	173	40/40 B	63	11	10	5,4	10	LNMU150812
	F2260.B.160.Z08.15	160	178	40/40 B	63	15	8	5,9	8	LNMU201012
	F2260.B.200.Z12.11	200	213	60/50 B	63	11	12	10,8	12	LNMU150812
	F2260.B.200.Z10.15	200	218	60/50 B	63	15	10	10,8	10	LNMU201012
	F2260.B.250.Z14.11	250	263	60/50 B	63	11	14	15,6	14	LNMU150812
	F2260.B.250.Z12.15	250	268	60/50 B	63	15	12	16,6	12	LNMU201012



	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2260.B.315.Z16.11	315	328	60/50-60 BB	80	11	16	31	16	LNMU150812
	F2260.B.315.Z14.15	315	333	60/50-60 BB	80	15	14	33,8	14	LNMU201012



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

Assembly parts

	D_c mm	100-315
	Clamping screw for indexable insert Tightening torque	FS1009 (Torx 20) 5,0 Nm

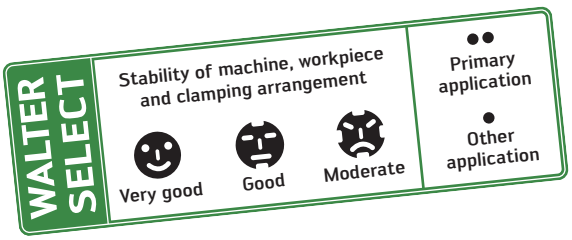
Accessories

	D_c mm	100-315
	Screwdriver for indexable insert	FS228 (Torx 20)

Indexable inserts

	Designation	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNMU150812-F57T	1,2	☺	😐				☺		😐	☹				
	LNMU150812T-F27T	1,2	😐	☹						😐	☹				
	LNMU201012-F57T	1,2	☺	😐				☺		😐	☹				
	LNMU201012T-F27T	1,2	😐	☹						😐	☹				

HC = Coated carbide
HW = Uncoated carbide

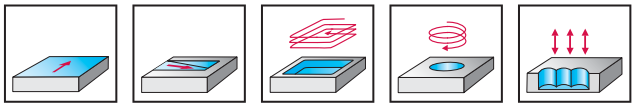


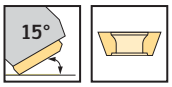
C 326 D 1 C 568 C 589 C 621

High-feed face milling cutters F2330

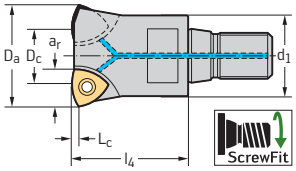
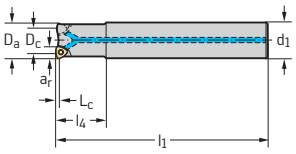
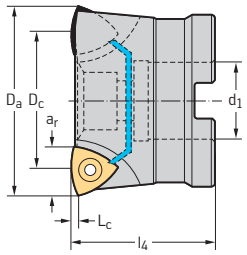
C 2

– f_z up to 3.5 mm
– Three cutting edges per indexable insert





	P	M	K	N	S	H	O
F2330	●●	●●	●●		●●		

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	a_r mm	Z	kg	No. of index-able inserts	Type
ScrewFit 	F2330.T18.020.Z02.01	10	20	T18	30		1	7	2	0,1	2	P2633 . R10 P26379-R10
	F2330.T22.025.Z03.01	15	25	T22	35		1	7	3	0,1	3	
	F2330.T28.032.Z03.01,5	18	32	T28	40		1,5	10	3	0,2	3	P2633 . R14 P26379-R14
	F2330.T28.035.Z03.01,5	21	35	T28	40		1,5	10	3	0,2	3	
	F2330.T36.040.Z03.01,5	26	40	T36	40		1,5	10	3	0,4	3	
	F2330.T36.042.Z03.01,5	28	42	T36	40		1,5	10	3	0,4	3	
Parallel shank 	F2330.Z20.020.Z02.01	10	20	20	30	200	1	7	2	0,5	2	P2633 . R10 P26379-R10
	F2330.Z25.025.Z03.01	15	25	25	35	200	1	7	3	0,8	3	
	F2330.Z32.032.Z03.01,5	18	32	32	40	250	1,5	10	3	1,5	3	P2633 . R14 P26379-R14
Cylindrical bore DIN 138 transverse keyway 	F2330.B22.050.Z04.01,5	30	50	22	40		1,5	10	4	0,4	4	P2633 . R14 P26379-R14
	F2330.B.052.Z03.02*	32	52	22	40		2	15	3	0,4	3	P2633 . R25 P26379-R25
	F2330.B.052.Z05.01,5	38	52	22	40		1,5	10	5	0,4	5	P2633 . R14 P26379-R14
	F2330.B22.063.Z04.02	43	63	22	50		2	15	4	0,6	4	P2633 . R25 P26379-R25
	F2330.B.066.Z04.02*	46	66	27	50		2	15	4	0,7	4	
	F2330.B22.063.Z05.01,5	49	63	22	50		1,5	10	5	0,7	5	P2633 . R14 P26379-R14
	F2330.B.066.Z06.01,5	52	66	27	50		1,5	10	6	0,8	6	
	F2330.B27.080.Z05.02	60	80	27	50		2	15	5	1,0	5	P2633 . R25 P26379-R25
	F2330.B.085.Z05.02*	65	85	27	50		2	15	5	1,0	5	
	F2330.B27.080.Z06.01,5	66	80	27	50		1,5	10	6	1,0	6	P2633 . R14 P26379-R14
	F2330.B.085.Z07.01,5	71	85	27	50		1,5	10	7	1,1	7	

Actual cutting diameter with D_a 52 = 51.3 mm, D_a 66 = 65.3, D_a 85 = 84.3 mm
* D_a measured via master insert P26325-R25 with R 0.8 mm
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type	P2633 . R10 P26379-R10	P2633 . R14 P26379-R14	P2633 . R25 P26379-R25
Clamping screw for indexable insert Tightening torque	FS923 (Torx 8) 1,2 Nm	FS359 (Torx 15) 2,5 Nm	FS1030 (Torx 20) 5,0 Nm

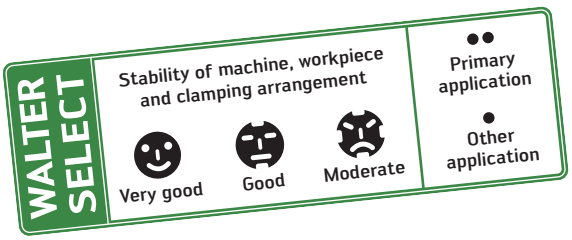
Accessories

Type	P2633 . R10 P26379-R10	P2633 . R14 P26379-R14	P2633 . R25 P26379-R25
Screwdriver for indexable insert	FS230 (Torx 8)	FS229 (Torx 15)	FS228 (Torx 20)

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S	S HC WSP45
P26335R10	0,8		☺	☹	☹		☺	☹				☺	☹	☺	☹	
P26337R10	0,8		☺	☹	☹			☹				☺	☹		☹	
P26339R10	0,8		☺	☹	☹		☺	☹				☺	☹	☺	☹	
P26379-R10	0,8	0,9		☹	☹			☹					☹		☹	
P26335R14	1,2		☺	☹	☹	☹	☺	☹	☹			☺	☹	☺	☹	☹
P26337R14	1,2		☺	☹	☹			☹				☺	☹		☹	
P26339R14	1,2		☺	☹	☹		☺	☹				☺	☹	☺	☹	
P26379-R14	1,2	1		☹	☹			☹					☹		☹	
P26335R25	2		☺	☹	☹		☺	☹				☺	☹	☺	☹	
P26337R25	2		☺	☹	☹			☹				☺	☹		☹	
P26339R25	2		☺	☹	☹		☺	☹				☺	☹	☺	☹	
P26379-R25	2	1,1		☹	☹			☹					☹		☹	

HC = Coated carbide



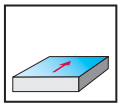
C 294 D 1 C 568 C 592 C 621 C 635

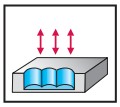
High-feed face milling cutters F4030

Xtra·tec®

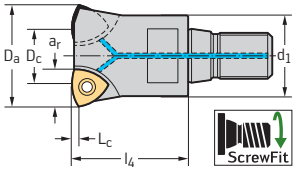
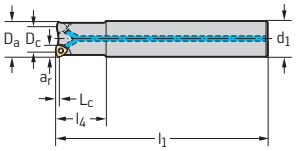
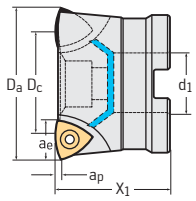
C 2

– f_z up to 3.5 mm
– Six cutting edges per indexable insert





	P	M	K	N	S	H	O
F4030	●●	●●	●●		●●		

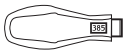
Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	a_r mm	Z	kg	No. of index-able inserts	Type
ScrewFit	F4030.T22.025.Z02.01	13,4	25	T22	35		1	6	2	0,1	2	
	F4030.T28.032.Z03.01	20,4	32	T28	40		1	7	3	0,2	3	P23696-1 . 0
	F4030.T28.035.Z03.01	23,4	35	T28	40		1	7	3	0,2	3	
	F4030.T36.042.Z02.02	24	42	T36	40		2	9,5	2	0,3	2	P23696-2 . 0
	F4030.T36.040.Z03.01	28,4	40	T36	40		1	7	3	0,3	3	
	F4030.T36.040.Z04.01	28,4	40	T36	40		1	7	4	0,3	4	P23696-1 . 0
	F4030.T36.042.Z03.01	28,4	42	T36	40		1	7	3	0,4	3	
	F4030.T45.050.Z03.02	32	50	T45	45		2	10	3	0,5	3	
	F4030.T45.050.Z04.02	32	50	T45	45		2	10	4	0,5	4	P23696-2 . 0
	F4030.T45.052.Z03.02	34	52	T45	45		2	10	3	0,5	3	
Parallel shank	F4030.Z25.025.Z02.01	13,4	25	25	35	200	1	6	2	0,7	2	P23696-1 . 0
	F4030.Z32.032.Z03.01	20,4	32	32	40	250	1	7	3	1,4	3	
Cylindrical bore DIN 138 transverse keyway	F4030.B22.050.Z04.01	38,4	52	22	40		1	7	4	0,6	4	
	F4030.B22.050.Z05.01	38,4	52	22	40		1	7	5	0,3	5	P23696-1 . 0
	F4030.B22.052.Z04.01	40,4	52	22	40		1	7	4	0,4	4	
	F4030.B22.063.Z04.02	45	63	22	50		2	10	4	0,7	4	
	F4030.B22.063.Z05.02	45	63	22	50		2	10	5	0,7	5	P23696-2 . 0
	F4030.B27.066.Z04.02	48	66	27	50		2	10	4	0,7	4	
	F4030.B22.063.Z05.01	51,4	63	22	50		1	7	5	0,7	5	P23696-1 . 0
	F4030.B22.063.Z06.01	51,4	63	22	50		1	7	6	0,7	6	
	F4030.B27.080.Z05.02	62	80	27	50		2	10	5	1,3	5	
	F4030.B27.080.Z06.02	62	80	27	50		2	10	6	1,1	6	
	F4030.B27.085.Z05.02	67	85	27	50		2	10	5	1,2	5	P23696-2 . 0
	F4030.B32.100.Z06.02	82	100	32	50		2	10	6	1,6	6	
	F4030.B32.100.Z07.02	82	100	32	50		2	10	7	1,6	7	

Pre-balanced tools
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	P23696-1 . 0	P23696-2 . 0
	Clamping screw for indexable insert Tightening torque	FS2081 (Torx 15IP) 4,0 Nm	FS1495 (Torx 20IP) 5,0 Nm

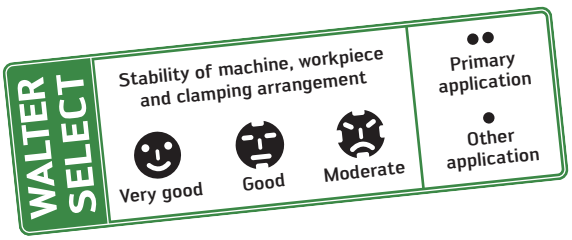
Accessories

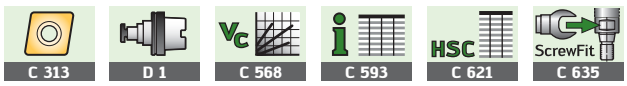
	Type	P23696-1 . 0	P23696-2 . 0
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
	Screwdriver	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

Indexable inserts

	Designation	r mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	P23696-1.0	1,2	☺	☹	☹	😐	☹			😐	☹			😐	☹
	P23696-2.0	1,6	☺	☹	☹	😐	☹			😐	☹			😐	☹

HC = Coated carbide
HW = Uncoated carbide



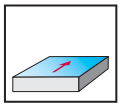


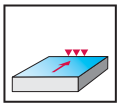
Face milling cutters
F4033

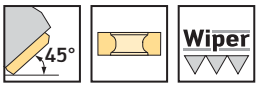
SN . X1205 ..
Xtra·tec®

C 2

– Eight cutting edges per indexable insert

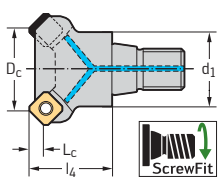


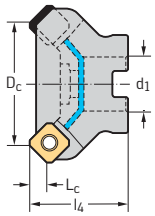


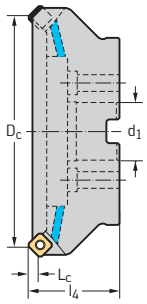


	P	M	K	N	S	H	O
F4033	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
ScrewFit	F4033.T36.040.Z03.06	40	T36	40	6,5	3	0,4	3	SN . X1205 .. XNGX1205ANN
	F4033.T36.040.Z04.06	40	T36	40	6,5	4	0,4	4	
	F4033.T45.050.Z04.06	50	T45	45	6,5	4	0,6	4	
	F4033.T45.050.Z06.06	50	T45	45	6,5	6	0,6	6	
Cylindrical bore DIN 138 transverse keyway	F4033.B22.050.Z04.06	50	22	40	6,5	4	0,6	4	SN . X1205 .. XNGX1205ANN
	F4033.B22.050.Z06.06	50	22	40	6,5	6	0,6	6	
	F4033.B22.063.Z06.06	63	22	40	6,5	6	0,8	6	
	F4033.B22.063.Z08.06	63	22	40	6,5	8	0,8	8	
	F4033.B27.063.Z06.06	63	27	50	6,5	6	1,0	6	
	F4033.B27.063.Z08.06	63	27	50	6,5	8	1,0	8	
	F4033.B27.080.Z05.06	80	27	50	6,5	5	1,6	5	
	F4033.B27.080.Z07.06	80	27	50	6,5	7	1,5	7	
	F4033.B27.080.Z10.06	80	27	50	6,5	10	1,5	10	
	F4033.B32.100.Z06.06	100	32	50	6,5	6	2,9	6	
	F4033.B32.100.Z08.06	100	32	50	6,5	8	2,7	8	
	F4033.B32.100.Z12.06	100	32	50	6,5	12	2,7	12	
	F4033.B40.125.Z07.06	125	40	63	6,5	7	4,0	7	
	F4033.B40.125.Z10.06	125	40	63	6,5	10	3,9	10	
	F4033.B40.125.Z16.06	125	40	63	6,5	16	3,9	16	
Cylindrical bore DIN 138 transverse keyway	F4033.B40.160.Z20.06	160	40/40 B	63	6,5	20	5,7	20	SN . X1205 .. XNGX1205ANN
	F4033.B40.160.Z12.06	160	40/40 B	63	6,5	12	6,3	12	







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

Assembly parts

D_c [mm]	40-160
Clamping screw for indexable insert Tightening torque	FS1459 (Torx 15IP) 4,0 Nm

Accessories

D_c [mm]	40-125	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 (gasket + screws)		FS936 COMPLETE SET
Gasket		O-R 96X4

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
SNGX1205ANN-F27		1,5	●	◐						◐	✖						
SNGX1205ANN-F57		1,5	●	◐	✖	◐	✖		◐	◐	✖			◐	✖		
SNGX1205ANN-F67		1,5	●	◐	✖	◐	✖	●		◐	✖			◐	✖		
SNHX1205ANN-K88		1,5										●	●				
SNMX1205ANN-F27		1,5	●	◐						◐	✖						
SNMX1205ANN-F57		1,5	●	◐					◐	◐	✖						
SNMX1205ANN-F67		1,5	●	◐				●		◐	✖						
SNGX120512-F57	1,2		●	◐	✖	◐	✖			◐	✖			◐	✖		
SNMX120512-D27	1,2		●	◐					◐	◐	✖						
SNMX120512-F27	1,2		●	◐						◐	✖						
SNMX120520-D27	2		●	◐					◐	◐	✖						
SNMX120520-F57	2		●	◐	✖		✖		◐	◐	✖				✖		
XNGX1205ANN-F67		4,7						●								●	●

XNGX1205ANN-F67 wiper insert only in combination with SNGX1205ANN . .

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

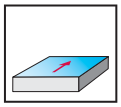
C 314 | D 1 | C 568 | C 587 | C 621 | C 635

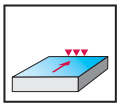
Face milling cutters
F4033

SN . X1606 ..
Xtra·tec®

C 2

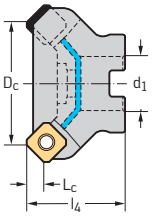
– Eight cutting edges per indexable insert

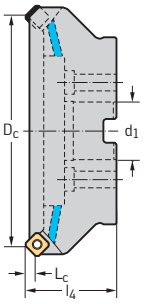




	P	M	K	N	S	H	O
F4033	●●	●●	●●		●●	●	

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F4033.B22.050.Z04.09	50	22	50	9	4	0,8	4	SN . X1606 ..
	F4033.B22.063.Z05.09	63	22	50	9	5	1,1	5	
	F4033.B27.080.Z06.09	80	27	63	9	6	1,9	6	
	F4033.B32.100.Z07.09	100	32	63	9	7	2,7	7	
	F4033.B40.125.Z08.09	125	40	63	9	8	4,6	8	
Cylindrical bore DIN 138 transverse keyway	F4033.B40.160.Z09.09	160	40/40 B	63	9	9	6,4	9	SN . X1606 ..
	F4033.B60.200.Z10.09*	200	60/50 B	63	9	10	8,9	10	





Bodies and assembly parts are included in the scope of delivery.
* Without internal coolant supply

Assembly parts

D_c [mm]	50–200
Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm

Accessories

D_c [mm]	50–125	160	200
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)	FS2014 (Torx 15IP)	FS2014 (Torx 15IP)
Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
Sealing disc (gasket + screws)		FS936 COMPLETE SET	
Gasket		O-R 96X4	

Indexable inserts

			P				M			K				N		S		
			HC				HC			HC				HC	HW	HC		
Designation	b mm	r mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45
SNGX1606ANN-D27	1,8			●									○					
SNGX1606ANN-F57	1,8			●	○			○					○				○	
SNGX1606ANN-F67	1,8																	
SNMX160620-D27		2	◉	●							●	●	○					
SNMX160620-F27		2	◉	●								●	○					
SNMX160620-F57		2	◉	●	○			○			●	●	○				○	
SNMX160640-D27		4	◉	●								●	○					
SNMX160640-F57		4	◉	●	○		●	○				●	○			●	○	

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good · Good · Moderate

●● Primary application

● Other application

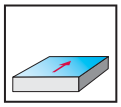
C 314 · D 1 · C 568 · C 587 · C 621

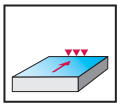
Heptagon face milling cutters F4045

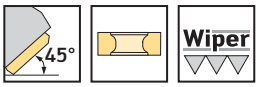
XNHF0705 ..
Xtra·tec®

C 2

– 14 cutting edges per indexable insert

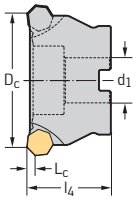


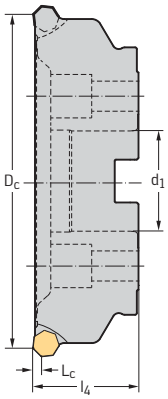




	P	M	K	N	S	H	O
F4045			●●			●	

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F4045.B27.063.Z06.04	63	27	50	4	6	1,0	6	XNHF0705 .. XNHX0705ANN
	F4045.B27.063.Z09.04	63	27	50	4	9	0,9	9	
	F4045.B27.080.Z08.04	80	27	50	4	8	1,5	8	
	F4045.B27.080.Z11.04	80	27	50	4	11	1,5	11	
	F4045.B32.100.Z10.04	100	32	50	4	10	2,1	10	
	F4045.B32.100.Z14.04	100	32	50	4	14	2,7	14	
	F4045.B40.125.Z12.04	125	40	63	4	12	4,1	12	
	F4045.B40.125.Z18.04	125	40	63	4	18	3,2	18	
Cylindrical bore DIN 138 transverse keyway	F4045.B40.160.Z16.04	160	40/40 B	63	4	16	8	16	XNHF0705 .. XNHX0705ANN
	F4045.B40.160.Z22.04	160	40/40 B	63	4	22	5,7	22	
	F4045.B60.200.Z20.04	200	60/50 B	63	4	20	9,3	20	
	F4045.B60.200.Z28.04	200	60/50 B	63	4	28	9,5	28	





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

C 2

Assembly parts

D_c [mm]	63–200
Clamping wedge	FK374
Clamping screw for clamping wedge Tightening torque	FS2134 (Torx 15IP) 6,0 Nm

Accessories

D_c [mm]	63–200
Torque T-handle Tightening torque	FS2041 4,5–14 Nm
Interchangeable blade for clamping wedge	FS2047 (Torx 15IP)
Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC			M HC		K HC				N HC	N HW	S HC		H HC
				WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WHH15
	XNHF070508-D27	0,8								☺	☺	☹					
	XNHF070508-D57	0,8								☺	☺	☹					
	XNHF070508-D67	0,8							☺		☺	☹					
	XNHF0705ANN-D27	0,8	1,1							☺	☺	☹					
	XNHF0705ANN-D57	0,8	1,1							☺	☺	☹					
	XNHF0705ANN-D67	0,8	1,1						☺		☺	☹					
	XNHX0705ANN-D67		5,8						☺								☺

XNHX0705ANN-D67 wiper insert only in combination with XNHF070508 . .

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

☺ Very good ☹ Good ☹ Moderate

●● Primary application
● Other application

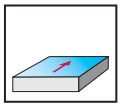
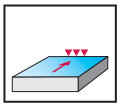
C 319 D 1 C 568 C 588 C 621

Heptagon face milling cutters F4045

XNHF0906 ..
Xtra·tec®

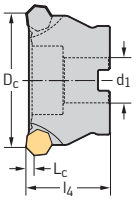
C 2

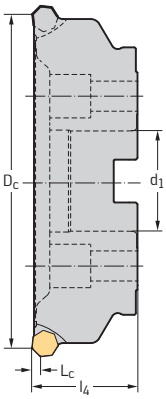
– 14 cutting edges per indexable insert

	P	M	K	N	S	H	O
F4045			●●			●	

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F4045.B27.080.Z06.06	80	27	50	6	6	1,2	6	XNHF0906 ..
	F4045.B27.080.Z09.06	80	27	50	6	9	1,5	9	
	F4045.B32.100.Z08.06	100	32	50	6	8	2,9	8	
	F4045.B32.100.Z12.06	100	32	50	6	12	2,0	12	
	F4045.B40.125.Z10.06	125	40	63	6	10	4,5	10	
	F4045.B40.125.Z16.06	125	40	63	6	16	4,0	16	
Cylindrical bore DIN 138 transverse keyway	F4045.B40.160.Z12.06	160	40/40 B	63	6	12	6,1	12	XNHF0906 ..
	F4045.B40.160.Z20.06	160	40/40 B	63	6	20	6,3	20	
	F4045.B60.200.Z16.06	200	60/50 B	63	6	16	9,3	16	
	F4045.B60.200.Z26.06	200	60/50 B	63	6	26	10,9	26	





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

C 2

Assembly parts

	D_c [mm]	80–200
	Clamping wedge	FK375
	Clamping screw for clamping wedge Tightening torque	FS2157 (Torx 25IP) 6,0 Nm

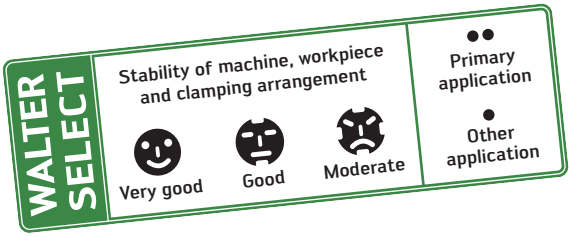
Accessories

	D_c [mm]	80–200
	Torque T-handle Tightening torque	FS2041 4,5–14 Nm
	Interchangeable blade for clamping wedge	FS2049 (Torx 25IP)
	Screwdriver	FS1487 (Torx 25IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	XNHF090612-D27	1,2								●	●	●				
	XNHF090612-D57	1,2								●	●	●				
	XNHF090612-D67	1,2							☺		●	●				
	XNHF0906ANN-D27	0,8	1,4							●	●	●				
	XNHF0906ANN-D57	0,8	1,4							●	●	●				
	XNHF0906ANN-D67	0,8	1,4						☺		●	●				

HC = Coated carbide
HW = Uncoated carbide



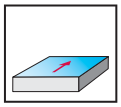
C 319 D 1 C 568 C 588 C 621

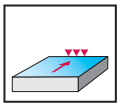
Face milling cutters
F4047

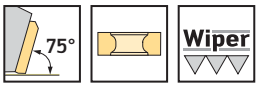
SN . X1205 ..
Xtra·tec®

C 2

– Eight cutting edges per indexable insert

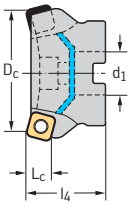


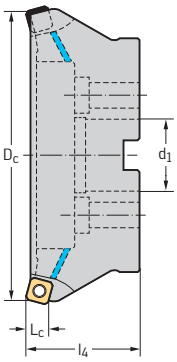




	P	M	K	N	S	H	O
F4047	●●	●●	●●		●●	●	

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F4047.B22.050.Z03.08	50	22	40	8	3	0,4	3	SN . X1205 .. XNGX1205ENN
	F4047.B22.050.Z04.08	50	22	40	8	4	0,5	4	
	F4047.B22.063.Z06.08	63	22	40	8	6	0,7	6	
	F4047.B22.063.Z07.08	63	22	40	8	7	0,7	7	
	F4047.B27.063.Z06.08	63	27	50	8	6	0,9	6	
	F4047.B27.063.Z07.08	63	27	50	8	7	0,9	7	
	F4047.B27.080.Z07.08	80	27	50	8	7	1,2	7	
	F4047.B27.080.Z09.08	80	27	50	8	9	1,2	9	
	F4047.B32.100.Z08.08	100	32	50	8	8	2,5	8	
	F4047.B32.100.Z11.08	100	32	50	8	11	2,6	11	
	F4047.B40.125.Z10.08	125	40	63	8	10	3,8	10	
	F4047.B40.125.Z14.08	125	40	63	8	14	3,8	14	
Cylindrical bore DIN 138 transverse keyway	F4047.B40.160.Z12.08	160	40/40 B	63	8	12	5,8	12	SN . X1205 .. XNGX1205ENN
	F4047.B40.160.Z18.08	160	40/40 B	63	8	18	5,9	18	



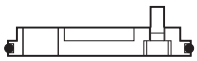


Bodies and assembly parts are included in the scope of delivery.

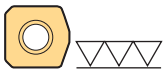
Assembly parts

	D_c [mm]	50–160
	Clamping screw for indexable insert Tightening torque	FS1459 (Torx 15IP) 4,0 Nm

Accessories

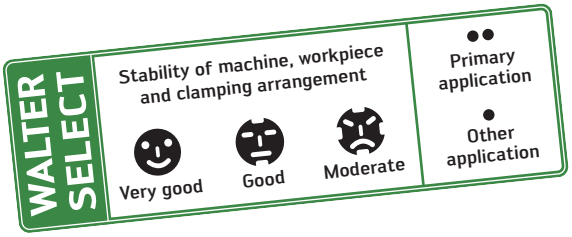
	D_c [mm]	50–125	160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
	Sealing disc set, complete		FS936 COMPLETE SET
	Gasket		O-R 96X4

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSP45S	M HC WSP45	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 WSP45	H HC WHH15	O HC WXM15
	SNGX1205ENN-F27		1,2	☺	😐								😐	☹							
	SNGX1205ENN-F57		1,2	☺	😐	☹		😐	☹			😐	😐	☹			😐	☹			
	SNGX1205ENN-F67		1,2	☺	😐		☹	😐		☹	☺		😐	☹			😐		☹		
	SNGX120512-F57	1,2		☺	😐	☹		😐	☹				😐	☹			😐	☹			
	SNMX120512-D27	1,2		☺	😐							😐	😐	☹							
	SNMX120512-F27	1,2		☺	😐								😐	☹							
	SNMX120520-D27	2		☺	😐							😐	😐	☹							
	SNMX120520-F57	2		☺	😐	☹			☹			😐	😐	☹				☹			
	XNGX1205ENN-F67		4,5								☺									☺	☺

XNGX1205ENN-F67 wiper insert only in combination with SNGX1205ENN . .

HC = Coated carbide
HW = Uncoated carbide

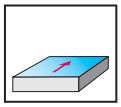


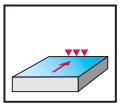
Face milling cutters
F4048

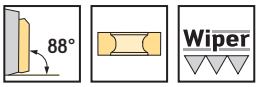
SN . X1205 ..
Xtra·tec®

C 2

– Eight cutting edges per indexable insert

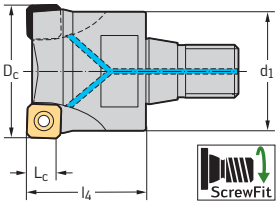


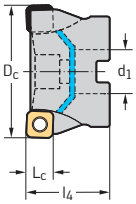


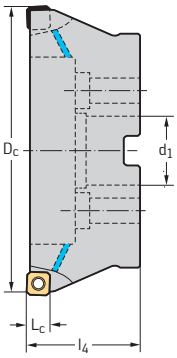


	P	M	K	N	S	H	O
F4048	●●	●●	●●		●●	●	

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
ScrewFit	F4048.T36.040.Z03.10	40	T36	40	10	3	0,3	3	SN . X1205 .. XNGX1205ZNN
	F4048.T45.050.Z04.10	50	T45	45	10	4	0,5	4	
Cylindrical bore DIN 138 transverse keyway	F4048.B22.050.Z04.10	50	22	40	10	4	0,4	4	SN . X1205 .. XNGX1205ZNN
	F4048.B22.063.Z07.10	63	22	40	10	7	0,7	7	
	F4048.B22.063.Z06.10	63	22	40	10	6	0,7	6	
	F4048.B27.063.Z07.10	63	27	50	10	7	0,8	7	
	F4048.B27.063.Z06.10	63	27	50	10	6	0,8	6	
	F4048.B27.080.Z09.10	80	27	50	10	9	1,1	9	
	F4048.B27.080.Z05.10	80	27	50	10	5	1,2	5	
	F4048.B27.080.Z07.10	80	27	50	10	7	1,1	7	
	F4048.B32.100.Z11.10	100	32	50	10	11	2,6	11	
	F4048.B32.100.Z08.10	100	32	50	10	8	2,3	8	
	F4048.B40.125.Z14.10	125	40	63	10	14	3,7	14	
	F4048.B40.125.Z10.10	125	40	63	10	10	3,6	10	
Cylindrical bore DIN 138 transverse keyway	F4048.B40.160.Z18.10	160	40/40 B	63	10	18	5,7	18	SN . X1205 .. XNGX1205ZNN
	F4048.B40.160.Z12.10	160	40/40 B	63	10	12	5,6	12	







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

C 2

Assembly parts

D_c [mm]	40–160
Clamping screw for indexable insert Tightening torque	FS1459 (Torx 15IP) 4,0 Nm

Accessories

D_c [mm]	40–125	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)
Gasket		O-R 96X4
Sealing disc (gasket + screws)		FS936 COMPLETE SET
Sealing disc set, complete		FS936 COMPLETE SET

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
SNGX1205ZNN-F27		1,2	☺	😐						😐	☹						
SNGX1205ZNN-F57		1,2	☺	😐	☹	😐	☹		😐	😐	☹			😐	☹		
SNGX1205ZNN-F67		1,2	☺	😐	☹	😐	☹	☺		😐	☹			😐	☹		
SNGX120512-F57	1,2		☺	😐	☹	😐	☹			😐	☹			😐	☹		
SNMX120512-D27	1,2		☺	😐					😐	😐	☹						
SNMX120512-F27	1,2		☺	😐						😐	☹						
SNMX120520-D27	2		☺	😐					😐	😐	☹						
SNMX120520-F57	2		☺	😐	☹		☹		😐	😐	☹				☹		
XNGX1205ZNN-F67		4						☺								☺	☺

XNGX1205ZNN-F67 wiper insert only in combination with SNGX1205ZNN . .

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

☺ Very good · 😐 Good · ☹ Moderate

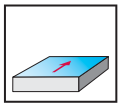
●● Primary application
● Other application

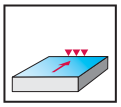
C 314 · D 1 · C 568 · C 589 · C 621 · C 635

PCD face milling cutters
F4050

C 2

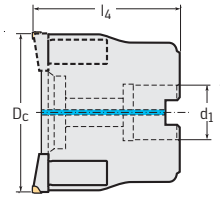
– Adjustable runout
– One brazed PCD cutting edge per cartridge

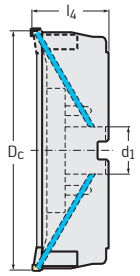




	P	M	K	N	S	H	O
F4050				●●			

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of cartridges	Type
Cylindrical bore DIN 138 transverse keyway	F4050.B27.080.Z06.R734	79,4	27	73	1,1	6	0,9	6	FR734
	F4050.B32.100.Z12.R734	99,4	32	63	1,1	12	1,4	12	
	F4050.B40.125.Z18.R734	124,4	40	63	1,1	18	2,0	18	
Cylindrical bore DIN 138 transverse keyway	F4050.B40.160.Z24.R734	159,4	40/40 B	63	1,1	24	3,7	24	FR734
	F4050.B40.200.Z28.R734	199,4	40/40 B	63	1,1	28	5,4	28	





Pre-balanced tools
Bodies and assembly parts are included in the scope of delivery.

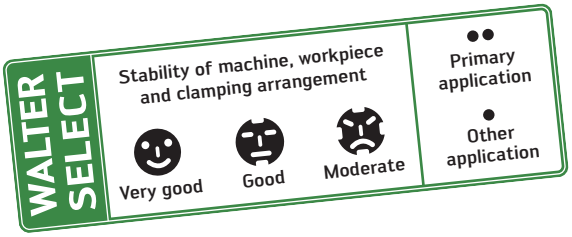
C 2

Assembly parts

D_c [mm]	79,4	99,4	124,4	159,4–199,4
Cartridge κ = 75°	FR734 WCD10	FR734 WCD10	FR734 WCD10	FR734 WCD10
Adjusting key	FK376	FK376	FK376	FK376
Compound screw for adjusting key	FS746 (Torx 15IP)	FS746 (Torx 15IP)	FS746 (Torx 15IP)	FS746 (Torx 15IP)
Conical spring washer	FS2171	FS2171	FS2171	FS2171
Clamping screw for cartridge	FS2170	FS2170	FS2170	FS2170
Balancing screw	FS2169 (Torx 15)	FS2169 (Torx 15)	FS2169 (Torx 15)	FS2169 (Torx 15)
Milling cutter fastening bolt with internal coolant	FS2160	FS2161	FS2162	

Accessories

D_c [mm]	79,4	99,4	124,4	159,4–199,4
Finishing cartridge only for κ = 75°	FR735 WCD10	FR735 WCD10	FR735 WCD10	FR735 WCD10
Wrench for milling cutter fastening bolt	FS438	FS439	FS440	
Screwdriver for compound screw	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
Screwdriver for balancing screw	FS229 (Torx 15)	FS229 (Torx 15)	FS229 (Torx 15)	FS229 (Torx 15)
Torque T-handle for cartridge Tightening torque	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm
Interchangeable blade for cartridge	FS2051 (SW 4)	FS2051 (SW 4)	FS2051 (SW 4)	FS2051 (SW 4)
Gasket				O-R 96X4
Sealing disc set				FS2140 COMPLETE SET

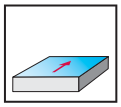


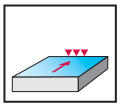
D 1 C 568 C 633 C 621

PCD face milling cutters
F4050

C 2

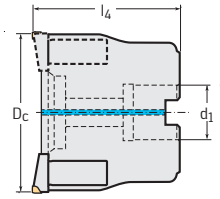
– Adjustable runout
– One brazed PCD cutting edge per cartridge

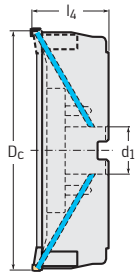




	P	M	K	N	S	H	O
F4050				●●			

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of cartridges	Type
Cylindrical bore DIN 138 transverse keyway	F4050.B27.080.Z06.R733	80	27	73	4	6	0,9	6	FR733
	F4050.B32.100.Z12.R733	100	32	63	4	12	1,4	12	
	F4050.B40.125.Z18.R733	125	40	63	4	18	2,0	18	
Cylindrical bore DIN 138 transverse keyway	F4050.B40.160.Z24.R733	160	40/40 B	63	4	24	3,7	24	FR733
	F4050.B40.200.Z28.R733	200	40/40 B	63	4	28	5,4	28	





Pre-balanced tools
Bodies and assembly parts are included in the scope of delivery.

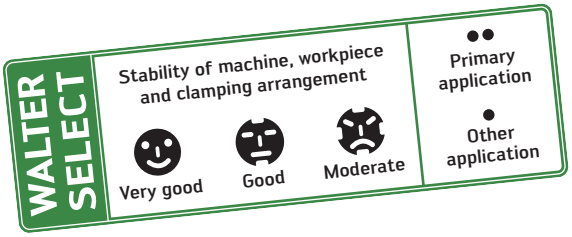
C 2

Assembly parts

D_c [mm]	80	100	125	160–200
Cartridge κ = 90°	FR733 WCD10	FR733 WCD10	FR733 WCD10	FR733 WCD10
Adjusting key	FK376	FK376	FK376	FK376
Compound screw for adjusting key	FS746 (Torx 15IP)	FS746 (Torx 15IP)	FS746 (Torx 15IP)	FS746 (Torx 15IP)
Conical spring washer	FS2171	FS2171	FS2171	FS2171
Clamping screw for cartridge	FS2170	FS2170	FS2170	FS2170
Balancing screw	FS2169 (Torx 15)	FS2169 (Torx 15)	FS2169 (Torx 15)	FS2169 (Torx 15)
Milling cutter fastening bolt with internal coolant	FS2160	FS2161	FS2162	

Accessories

D_c [mm]	80	100	125	160–200
Wrench for milling cutter fastening bolt	FS438	FS439	FS440	
Screwdriver for compound screw	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
Screwdriver for balancing screw	FS229 (Torx 15)	FS229 (Torx 15)	FS229 (Torx 15)	FS229 (Torx 15)
Torque T-handle for cartridge Tightening torque	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm
Interchangeable blade for cartridge	FS2051 (SW 4)	FS2051 (SW 4)	FS2051 (SW 4)	FS2051 (SW 4)
Gasket				O-R 96X4
Sealing disc set				FS2140 COMPLETE SET



D 1 C 568 C 633 C 621

PCD face milling cutters
F4050

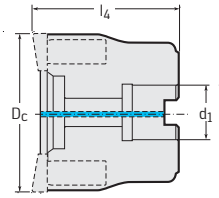
C 2

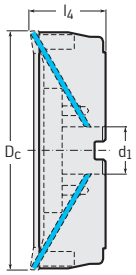
– Basic body for aluminium milling cutter F4050
– Without cartridges

	P	M	K	N	S	H	O
F4050				●●			

Tool

	Designation	D_c mm	d_1 mm	l_4 mm	Z	kg	No. of cartridges
Cylindrical bore DIN 138 transverse keyway	F4050.B27.080.Z06.R001	77	27	65	6	1	6
	F4050.B32.100.Z12.R001	97	32	55	12	1	12
	F4050.B40.125.Z18.R001	122	40	55	18	2	18
Cylindrical bore DIN 138 transverse keyway	F4050.B40.160.Z24.R001	157	40/40 B	55	24	3	24
	F4050.B40.200.Z28.R001	197	40/40 B	55	28	5	28





Pre-balanced tools
Bodies and assembly parts are included in the scope of delivery.

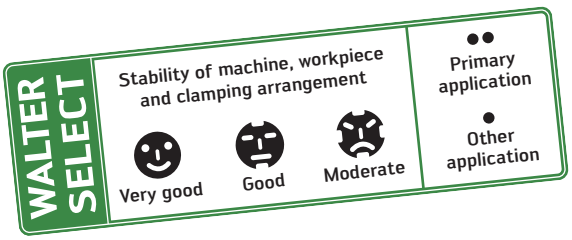
C 2

Assembly parts

D_c [mm]	77	97	122	157–197
Adjusting key	FK376	FK376	FK376	FK376
Compound screw for adjusting key	FS746 (Torx 15IP)	FS746 (Torx 15IP)	FS746 (Torx 15IP)	FS746 (Torx 15IP)
Conical spring washer	FS2171	FS2171	FS2171	FS2171
Clamping screw for cartridge	FS2170	FS2170	FS2170	FS2170
Balancing screw	FS2169 (Torx 15)	FS2169 (Torx 15)	FS2169 (Torx 15)	FS2169 (Torx 15)
Milling cutter fastening bolt with internal coolant	FS2160	FS2161	FS2162	

Accessories

D_c [mm]	77	97	122	157–197
Wrench for milling cutter fastening bolt	FS438	FS439	FS440	
Screwdriver for compound screw	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
Screwdriver for balancing screw	FS229 (Torx 15)	FS229 (Torx 15)	FS229 (Torx 15)	FS229 (Torx 15)
Torque T-handle for cartridge Tightening torque	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm
Interchangeable blade for cartridge	FS2051 (SW 4)	FS2051 (SW 4)	FS2051 (SW 4)	FS2051 (SW 4)
Gasket				O-R 96X4
Sealing disc set				FS2140 COMPLETE SET



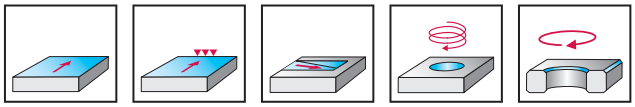
Octagon face milling cutters F4080

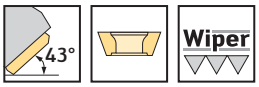
OD .. 0504 ..

Xtra·tec®

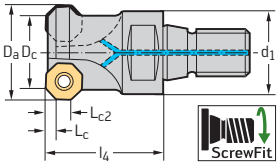
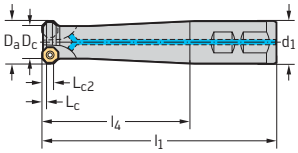
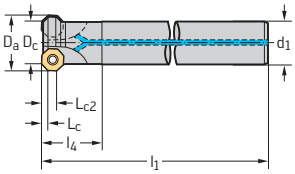
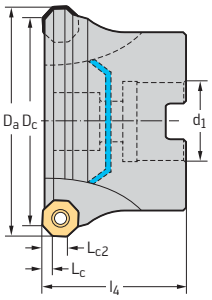
C 2

– Eight cutting edges per indexable insert





	P	M	K	N	S	H	O
F4080	●●	●●	●●	●●	●●	●	●

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 index-able inserts	Type
ScrewFit 	F4080.T28.032.Z02.03	24	32	T28	40		3	8	2	0,2	2	OD .. 0504 .. ODHX0504ZZR
	F4080.T36.040.Z03.03	32	40	T36	40		3	8	3	0,3	3	
Shank DIN 1835 B 	F4080.W32.032.Z02.03	24	32	32	114	175	3	8	2	0,1	2	OD .. 0504 .. ODHX0504ZZR
	F4080.W32.040.Z03.03	32	40	32	114	175	3	8	3	0,9	3	
Parallel shank 	F4080.Z20.032.Z02.03	24	32	20	35	110	3	8	2	0,3	2	OD .. 0504 .. ODHX0504ZZR
	F4080.Z25.032.Z02.03	24	32	25	35	150	3	8	2	0,5	2	
	F4080.Z20.040.Z03.03	32	40	20	35	110	3	8	3	0,3	3	
	F4080.Z25.040.Z03.03	32	40	25	35	150	3	8	3	0,6	3	
Cylindrical bore DIN 138 transverse keyway 	F4080.B16.050.Z04.03	42	50	16	40		3	8	4	0,4	4	OD .. 0504 .. ODHX0504ZZR
	F4080.B22.052.Z04.03	44	52	22	45		3	8	4	0,5	4	
	F4080.B16.050DC.Z04.03	50	58	16	40		3	8	4	0,5	4	
	F4080.B22.063.Z05.03	55	63	22	40		3	8	5	0,6	5	
	F4080.B22.063.Z06.03	55	63	22	40		3	8	6	0,6	6	
	F4080.B27.066.Z05.03	58	66	27	50		3	8	5	0,1	5	
	F4080.B22.063DC.Z06.03	63	71	22	40		3	8	6	0,7	6	
	F4080.B27.080.Z06.03	72	80	27	50		3	8	6	1,1	6	
	F4080.B27.080.Z07.03	72	80	27	50		3	8	7	1,0	7	
	F4080.B27.080DC.Z07.03	80	88	27	50		3	8	7	1,3	7	
	F4080.B32.100.Z06.03	92	100	32	50		3	8	6	2,4	6	
	F4080.B32.100.Z08.03	92	100	32	50		3	8	8	2,5	8	
	F4080.B32.100DC.Z08.03	100	108	32	50		3	8	8	2,7	8	
	F4080.B40.125.Z07.03	117	125	40	63		3	8	7	3,7	7	
	F4080.B40.125.Z10.03	117	125	40	63		3	8	10	3,9	10	
	F4080.B40.125DC.Z10.03	125	133	40	63		3	8	10	4,1	10	

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

C 2

Assembly parts

D_c [mm]	24–55	58–125
Clamping screw for indexable insert Tightening torque	FS2119 (Torx 15IP) 3,0 Nm	FS2110 (Torx 15IP) 3,0 Nm

Accessories

D_c [mm]	24–125
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)
Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

			P			M				K					N		S				H	O
				HC			HC				HC			CN	HC	HW		HC			HC	HC
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSM35S	WSM35	WSM45X	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WSN10	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WHH15	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-G88	0,8	1,2													☺	☺						
ODHW0504ZZN-A57	0,8	1,2	☹	☹						☺		☹	☹									
ODMT0504ZZN-D57	0,8	1,2	☺	☹	☹	☹		☹	☹		☹	☹	☹				☹		☹	☹		

ODHX0504ZZR-A57 wiper insert only in combination with ODH.0504ZZN . .

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

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

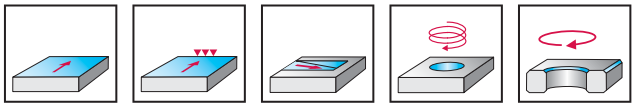
C 291 | D 1 | C 568 | C 586 | C 621 | C 635

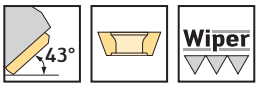
Octagon face milling cutters
F4080

OD .. 0605 ..
Xtra·tec®

C 2

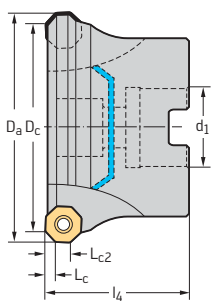
– Eight cutting edges per indexable insert

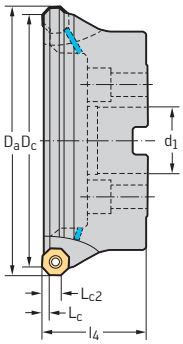




	P	M	K	N	S	H	O
F4080	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	L_{c2} mm	Z	kg	No. of index-able inserts	Type
Cylindrical bore DIN 138 transverse keyway	F4080.B16.050.Z03.04	40	50	16	40	4	10	3	0,4	3	OD .. 0605 .. ODHX0605ZZR
	F4080.B22.052.Z03.04	42	52	22	45	4	10	3	0,5	3	
	F4080.B16.050DC.Z03.04	50	60	16	40	4	10	3	0,5	3	
	F4080.B22.063.Z04.04	53	63	22	40	4	10	4	0,6	4	
	F4080.B22.063.Z05.04	53	63	22	40	4	10	5	0,6	5	
	F4080.B27.066.Z05.04	56	66	27	50	4	10	5	0,7	5	
	F4080.B22.063DC.Z05.04	63	73	22	40	4	10	5	0,7	5	
	F4080.B27.080.Z05.04	70	80	27	50	4	10	5	1,0	5	
	F4080.B27.080.Z06.04	70	80	27	50	4	10	6	1,1	6	
	F4080.B27.080DC.Z06.04	80	90	27	50	4	10	6	1,2	6	
	F4080.B32.100.Z05.04	90	100	32	50	4	10	5	2,3	5	
	F4080.B32.100.Z07.04	90	100	32	50	4	10	7	2,4	7	
	F4080.B32.100DC.Z07.04	100	110	32	50	4	10	7	2,6	7	
	F4080.B40.125.Z06.04	115	125	40	63	4	10	6	3,6	6	
	F4080.B40.125.Z08.04	115	125	40	63	4	10	8	3,8	8	
	F4080.B40.125DC.Z08.04	125	135	40	63	4	10	8	4,1	8	
Cylindrical bore DIN 138 transverse keyway	F4080.B40.160.Z07.04	150	160	40/40 B	63	4	10	7	4,8	7	OD .. 0605 .. ODHX0605ZZR
	F4080.B40.160.Z09.04	150	160	40/40 B	63	4	10	9	5,1	9	
	F4080.B40.160DC.Z09.04	160	170	40/40 B	63	4	10	9	5,6	9	





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

Assembly parts

D_c [mm]	40–160
Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm

Accessories

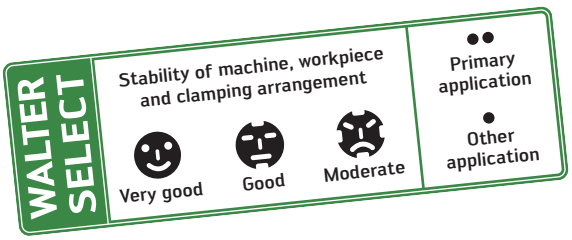
D_c [mm]	40–125	150–160
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2015 (Torx 20IP)	FS2015 (Torx 20IP)
Screwdriver	FS1486 (Torx 20IP)	FS1486 (Torx 20IP)
Sealing disc (gasket + screws)		FS936 COMPLETE SET
Gasket		O-R 96X4

Indexable inserts

			P			M				K					N		S				H	O
			HC			HC				HC				CN	HC	HW	HC				HC	HC
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSM35S	WSM35	WSM45X	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WSN10	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WHH15	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-G88	0,8	1,6													●	●						
ODHW0605ZZN-A57	0,8	1,6	●	●●						●		●	●●									
ODMT0605ZZN-D57	0,8	1,6	●	●●	●●	●		●●	●●		●	●	●●				●		●●	●●		

ODHX0605ZZR-A57 wiper insert only in combination with ODH.0605ZZN . .

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



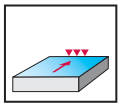
C 291 D 1 C 568 C 586 C 621

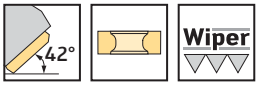
Octagon face milling cutters for finishing M2025 / M2026

ONHF050408

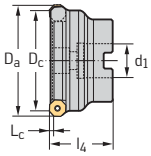
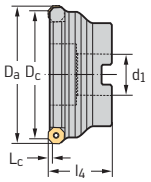
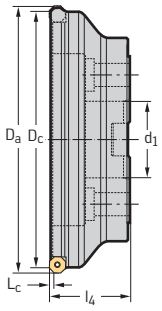
C 2

– 16 cutting edges per indexable insert





	P	M	K	N	S	H	O
M2025			●●			●	
M2026			●●			●	

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z*	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	M2025-080-B27-12-03	80	88	27	50	3	12	1,5	9 3	ONHF050408 P45424-1-G67
										
Cylindrical bore DIN 138 transverse keyway	M2025-100-B32-15-03	100	108	32	50	3	15	2,0	12 3	ONHF050408 P45424-1-G67
	M2025-125-B40-18-03	125	133	40	63	3	18	4,2	15 3	
	M2025-160-B40-21-03	160	168	40	63	3	21	6,0	18 3	
Cylindrical bore DIN 138 transverse keyway	M2026-200-B60-27-03	200	208	60/50 B	63	3	27	9,3	24 3	ONHF050408 P45424-2-G67
	M2026-250-B60-33-03	250	258	60/50 B	63	3	33	15,2	30 3	

* Example: Z = 9 + 3 (9 roughing inserts + 3 wiper cutting edges)
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

Type	ONHF050408 P45424-1-G67	ONHF050408 P45424-2-G67
Clamping wedge	FK379	FK379
Clamping screw for clamping wedge Tightening torque	K24-111 (Torx 15IP) 6,5 Nm	K24-111 (Torx 15IP) 6,5 Nm
Clamping screw for indexable insert Tightening torque	FS1458 (Torx 15IP) 2,5 Nm	FS1495 (Torx 20IP) 5,0 Nm

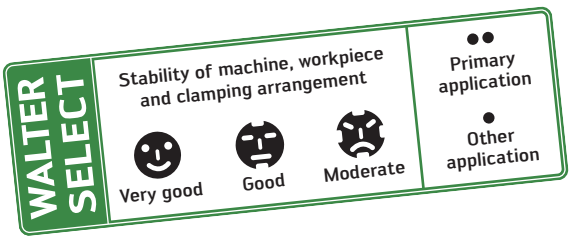
Accessories

Type	ONHF050408 P45424-1-G67	ONHF050408 P45424-2-G67
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 for indexable insert screw	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
Torque T-handle Tightening torque	FS2041 4,5–14 Nm	FS2041 4,5–14 Nm
Interchangeable blade for clamping wedge	FS2047 (Torx 15IP)	FS2047 (Torx 15IP)
Screwdriver for clamping screw	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)
Screwdriver for clamping wedge	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15
ONHF050408-F67	0,8							☺		●●						☺
P45424-1-G67		8						☺								☺
P45424-2-G67		15						☺								☺

HC = Coated carbide
HW = Uncoated carbide



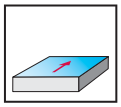
C 312 D 1 C 568 C 586 C 621

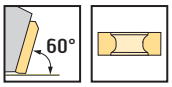
Face milling cutters – Heavy Duty
M3016

LNMX201012R
Walter BLAXX

C 2

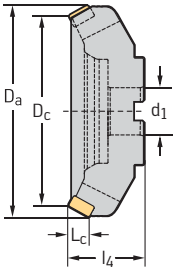
– Tangential indexable insert arrangement
– Four cutting edges per indexable insert

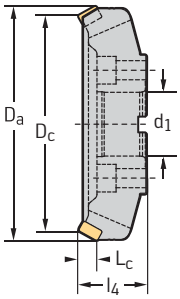


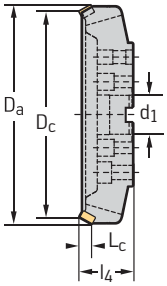


	P	M	K	N	S	H	O
M3016	●●	●	●●			●	

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	M3016-125-B40-06-16	125	144	40	63	16	6	5,2	6	LNMX201012R
	M3016-160-B40-07-16	160	179	40	63	16	7	4	7	
Cylindrical bore DIN 138 transverse keyway	M3016-200-B60-09-16	200	219	60/50-60 BB	63	16	9	11,4	9	LNMX201012R
	M3016-250-B60-11-16	250	269	60/50-60 BB	63	16	11	20	11	
Cylindrical bore DIN 138 transverse keyway	M3016-315-B60-13-16	315	334	60/50-60 BB	80	16	13	30,9	13	LNMX201012R







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

C 2

Assembly parts

D_c [mm]	125–315
Clamping screw for indexable insert Tightening torque	FS2090 (Torx 20IP) 6,4 Nm
Clamping screw for finishing cartridge Tightening torque	FS2081 (Torx 15IP) 4,0 Nm
Insert Shim	FR753

Accessories

D_c [mm]	125–315
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
Interchangeable blade for insert shim	FS2014 (Torx 15IP)
Torque T-handle Tightening torque	FS2041 4,5–14 Nm
Interchangeable blade for indexable insert	FS2048 (Torx 20IP)
Screwdriver for indexable insert	FS1486 (Torx 20IP)
Screwdriver for insert shim	FS1485 (Torx 15IP)

Indexable inserts

Designation	r mm	P			M		K				N		S	
		HC			HC		HC				HC	HW	HC	
		WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S
LNMX201012R-F27T	1,2	●●	●					●●	●●	●				
LNMX201012R-F57T	1,2	●	●●	●		●		●●	●●	●				●

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

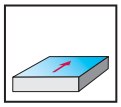
C 329 | D 1 | C 568 | C 589 | C 621

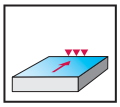
Heptagon face milling cutters M3024

XN . U0705 ..
Walter BLAXX

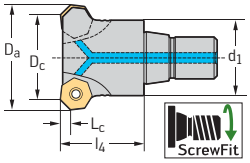
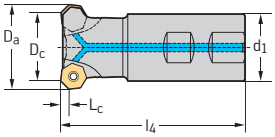
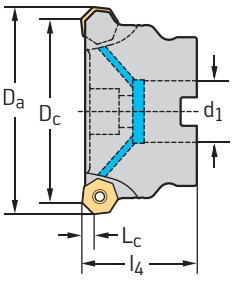
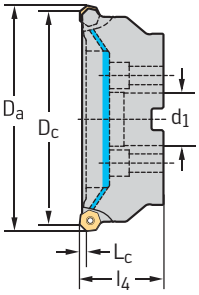
C 2

– 14 cutting edges per indexable insert





	P	M	K	N	S	H	O
M3024	●●	●	●●				

Tool	Designation	D_c mm	D_a mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of index-able inserts	Type
ScrewFit 	M3024-040-T36-03-04	40	50	T36	40		4	3	0,5	3	XN . U0705 .. XNGX0705ANN
Shank DIN 1835 B 	M3024-040-W40-03-04	40	50	40	40	110	4	3	1,0	3	XN . U0705 .. XNGX0705ANN
Cylindrical bore DIN 138 transverse keyway 	M3024-040-B16-03-04	40	50	16	40		4	3	0,5	3	XN . U0705 .. XNGX0705ANN
	M3024-050-B22-04-04	50	60	22	40		4	4	0,5	4	
	M3024-050-B22-05-04	50	60	22	40		4	5	0,5	5	
	M3024-063-B22-05-04	63	73	22	40		4	5	0,8	5	
	M3024-063-B22-06-04	63	73	22	40		4	6	0,8	6	
	M3024-080-B27-06-04	80	90	27	50		4	6	1,5	6	
	M3024-080-B27-07-04	80	90	27	50		4	7	1,5	7	
	M3024-100-B32-07-04	100	110	32	50		4	7	2,7	7	
	M3024-100-B32-08-04	100	110	32	50		4	8	2,7	8	
	M3024-125-B40-08-04	125	135	40	63		4	8	4,3	8	
	M3024-125-B40-10-04	125	135	40	63		4	10	4,3	10	
Cylindrical bore DIN 138 transverse keyway 	M3024-160-B40-09-04	160	170	40/40 B	63		4	9	6,5	9	XN . U0705 .. XNGX0705ANN
	M3024-160-B40-12-04	160	170	40/40 B	63		4	12	6,5	12	

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

C 2

Assembly parts

D_c [mm]	40–160
Shim for indexable insert	AP800-XN0705 H81
Clamping screw for shim	FS2068 (SW 3,5)
Clamping screw for indexable insert Tightening torque	FS2279 (Torx 15IP) 3,0 Nm

Accessories

D_c [mm]	40–125	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	ISO2936-3,5 (SW 3,5)	ISO2936-3,5 (SW 3,5)
Sealing disc set, complete		FS936 COMPLETE SET
Gasket		O-R 96X4

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
XNGU0705ANN-F57	0,8	1,1	☺	😐	☹	😐	☹			😐	☹						
XNGU0705ANN-F67	0,8	1,1	☺	😐	☹	😐	☹			😐	☹						
XNGX0705ANN-F67		5,7						☺								☺	☺
XNMU070508-F57	0,8		☺	😐	☹		☹			😐	☹						
XNMU0705ANN-F27	0,8	1,1	😐	☹					😐	😐	☹						
XNMU0705ANN-F57	0,8	1,1	☺	😐	☹		☹			😐	☹						
XNMU0705ANN-F67	0,8	1,1	☺	😐						😐	☹						

XNGX0705ANN-F67 wiper insert only in combination with XNGU0705ANN . .

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

☺ Very good
😐 Good
☹ Moderate

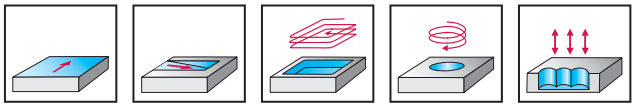
●● Primary application
● Other application

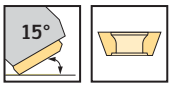
C 320 D 1 C 568 C 588 C 621 C 635

High-feed face milling cutters
M4002

C 2

– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
M4002	●●	●●	●●		●●	●	

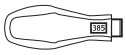
Tool	Designation	D_c mm	D_a * mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	a_r mm	Z	kg	No. of index-able inserts	Type
ScrewFit	M4002-020-T18-02-01	8	20	T18	30		1	5,7	2	0,1	2	SDM . 06T2 ..
	M4002-025-T22-02-01,5	8	25	T22	40		1,5	8,4	2	0,1	2	SDM . 09T3 ..
	M4002-025-T22-03-01	13	25	T22	35		1	5,7	3	0,1	3	SDM . 06T2 ..
	M4002-032-T28-03-01,5	15	32	T28	40		1,5	8,4	3	0,2	3	SDM . 09T3 ..
	M4002-032-T28-04-01	20	32	T28	40		1	5,7	4	0,2	4	SDM . 06T2 ..
	M4002-035-T28-03-01,5	18	35	T28	40		1,5	8,4	3	0,2	3	SDM . 09T3 ..
	M4002-035-T28-03-01	23	35	T28	40		1	5,7	3	0,2	3	SDM . 06T2 ..
	M4002-035-T28-04-01	23	35	T28	40		1	5,7	4	0,2	4	
	M4002-040-T36-04-01,5	23	40	T36	40		1,5	8,4	4	0,3	4	SDM . 09T3 ..
	M4002-040-T36-05-01	28	40	T36	40		1	5,7	5	0,4	5	SDM . 06T2 ..
	M4002-042-T36-03-01,5	25	42	T36	40		1,5	8,4	3	0,3	3	SDM . 09T3 ..
	M4002-042-T36-04-01	30	42	T36	40		1	5,7	4	0,4	4	SDM . 06T2 ..
	M4002-042-T36-05-01	30	42	T36	40		1	5,7	5	0,4	5	
Parallel shank	M4002-020-A20-02-01	8	20	20	30	200	1	5,7	2	0,5	2	SDM . 06T2 ..
	M4002-025-A25-03-01	13	25	25	35	200	1	5,7	3	0,8	3	
	M4002-032-A32-04-01	20	32	40	40	250	1	5,7	4	1,5	4	

* Measured using SDM.06T204, SDM.09T308, SDM.120408
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	SDM . 06T2 ..	SDM . 09T3 ..
	Clamping screw for indexable insert Tightening torque	FS2084 (Torx 7IP) 0,9 Nm	FS2266 (Torx 10IP) 2,0 Nm

Accessories

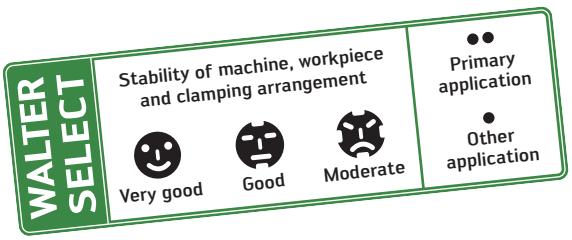
	Type	SDM . 06T2 ..	SDM . 09T3 ..
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)
	Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDMT06T2ZDR-D57	0,4	1,2		●	●●			●●				●●			●●
	SDMT09T3ZDR-D57	0,8	1,2		●	●●			●●				●●			●●
	SDMT06T204-D57	0,4		●●●	●	●●	●		●●		●	●	●●	●		●●
	SDMT06T204-F57	0,4		●●●	●	●●	●	●●	●●	●●		●	●●	●	●●	●●
	SDMT06T212-F57	1,2			●	●●	●	●●	●●				●●	●	●●	●●
	SDMW06T204-A57	0,4		●	●●							●	●●			
	SDMT09T308-D57	0,8		●●●	●	●●	●		●●		●	●	●●	●		●●
	SDMT09T308-F57	0,8		●●●	●	●●	●	●●	●●	●●		●	●●	●	●●	●●
	SDMT09T320-F57	2			●	●●	●	●●	●●				●●	●	●●	●●
	SDMW09T308-A57	0,8		●	●●							●	●●			

For SD..120425 indexable inserts, the circumference of the body must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

HC = Coated carbide

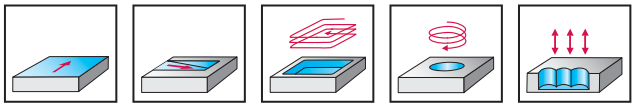


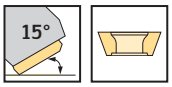
C 299 D 1 C 568 C 593 C 621 C 635

High-feed face milling cutters
M4002

C 2

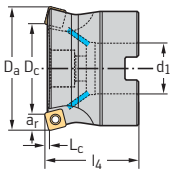
– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
M4002	●●	●●	●●		●●	●	

Tool	Designation	D_c mm	D_a * mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	a_r mm	Z	kg	No. of index-able inserts	Type
Cylindrical bore DIN 138 transverse keyway	M4002-040-B16-05-01	28	40	16	40		1	5,7	5	0,2	5	SDM . 06T2 ..
	M4002-042-B16-04-01,5	25	42	16	40		1,5	8,4	4	0,2	4	SDM . 09T3 ..
	M4002-042-B16-04-01	30	42	16	40		1	5,7	4	0,2	4	SDM . 06T2 ..
	M4002-042-B16-05-01	30	42	16	40		1	5,7	5	0,2	5	
	M4002-050-B22-04-02	27	50	22	40		2	11,4	4	0,3	4	SDM . 1204 ..
	M4002-050-B22-05-01,5	33	50	22	40		1,5	8,4	5	0,3	5	SDM . 09T3 ..
	M4002-050-B22-07-01	38	50	22	40		1	5,7	7	0,4	7	SDM . 06T2 ..
	M4002-052-B22-03-02	29	52	22	40		2	11,4	3	0,3	3	SDM . 1204 ..
	M4002-052-B22-04-02	29	52	22	40		2	11,4	4	0,3	4	
	M4002-052-B22-04-01,5	35	52	22	40		1,5	8,4	4	0,4	4	SDM . 09T3 ..
	M4002-052-B22-05-01,5	35	52	22	40		1,5	8,4	5	0,4	5	
	M4002-052-B22-06-01	40	52	22	40		1	5,7	6	0,4	6	SDM . 06T2 ..
	M4002-052-B22-07-01	40	52	22	40		1	5,7	7	0,4	7	
	M4002-063-B22-05-02	40	63	22	50		2	11,4	5	0,6	5	SDM . 1204 ..
	M4002-063-B22-06-01,5	46	63	22	50		1,5	8,4	6	0,8	6	SDM . 09T3 ..
	M4002-063-B22-08-01	51	63	22	50		1	5,7	8	0,6	8	SDM . 06T2 ..
	M4002-066-B27-04-02	43	66	27	50		2	11,4	4	0,8	4	SDM . 1204 ..
	M4002-066-B27-05-02	43	66	27	50		2	11,4	5	0,8	5	
	M4002-066-B27-05-01,5	49	66	27	50		1,5	8,4	5	0,8	5	SDM . 09T3 ..
	M4002-066-B27-06-01,5	49	66	27	50		1,5	8,4	6	0,8	6	
	M4002-066-B27-07-01	54	66	27	50		1	5,7	7	0,8	7	SDM . 06T2 ..
	M4002-066-B27-08-01	54	66	27	40		1	5,7	8	0,8	8	
	M4002-080-B27-06-02	57	80	27	50		2	11,4	6	1,3	6	SDM . 1204 ..
	M4002-085-B27-05-02	62	85	27	50		2	11,4	5	1,5	5	
	M4002-085-B27-06-02	62	85	27	50		2	11,4	6	1,4	6	
	M4002-100-B32-07-02	77	100	32	60		2	11,4	7	2,6	7	
	M4002-125-B40-08-02	102	125	40	60		2	11,4	8	3,0	8	

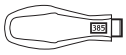


* Measured using SDM.06T204, SDM.09T308, SDM.120408
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	Type	SDM . 06T2 ..	SDM . 09T3 ..	SDM . 1204 ..
	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

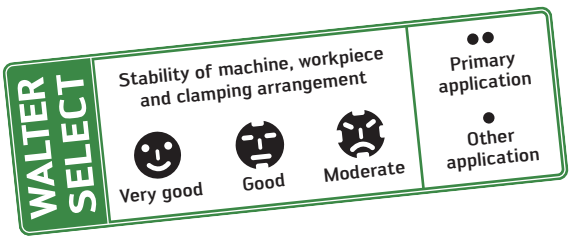
	Type	SDM . 06T2 ..	SDM . 09T3 ..	SDM . 1204 ..
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
	SDMT06T2ZDR-D57	0,4	1,2		Good	Moderate			Moderate				Moderate			Moderate
	SDMT09T3ZDR-D57	0,8	1,2		Good	Moderate			Moderate				Moderate			Moderate
	SDMT1204ZDR-D57	0,8	1,8		Good	Moderate			Moderate				Moderate			Moderate
	SDMT06T204-D57	0,4		Very good	Good	Moderate	Good		Moderate		Good	Good	Moderate	Good		Moderate
	SDMT06T204-F57	0,4		Very good	Good	Moderate	Good	Moderate	Moderate	Very good		Good	Moderate	Good	Moderate	Moderate
	SDMT06T212-F57	1,2			Good	Moderate	Good	Moderate	Moderate				Moderate	Good	Moderate	Moderate
	SDMW06T204-A57	0,4		Good	Moderate							Good	Moderate			
	SDMT09T308-D57	0,8		Very good	Good	Moderate	Good		Moderate		Good	Good	Moderate	Good		Moderate
	SDMT09T308-F57	0,8		Very good	Good	Moderate	Good	Moderate	Moderate	Very good		Good	Moderate	Good	Moderate	Moderate
	SDMT09T320-F57	2			Good	Moderate	Good	Moderate	Moderate				Moderate	Good	Moderate	Moderate
	SDMW09T308-A57	0,8		Good	Moderate							Good	Moderate			
	SDMT120408-D57	0,8		Very good	Good	Moderate	Good		Moderate		Good	Good	Moderate	Good		Moderate
	SDMT120408-F57	0,8		Very good	Good	Moderate	Good	Moderate	Moderate	Very good		Good	Moderate	Good	Moderate	Moderate
	SDMT120425-F57	2,5			Good	Moderate	Good	Moderate	Moderate				Moderate	Good	Moderate	Moderate
	SDMW120408-A57	0,8		Good	Moderate							Good	Moderate			

For SD..120425 indexable inserts, the circumference of the body must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

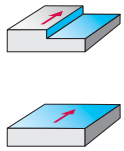
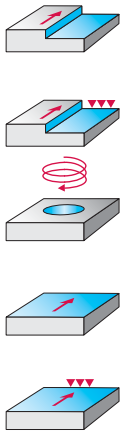
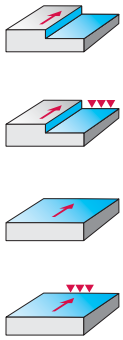
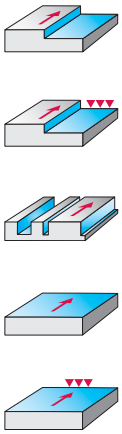
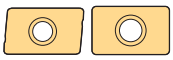
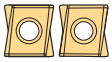
HC = Coated carbide

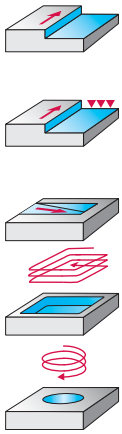
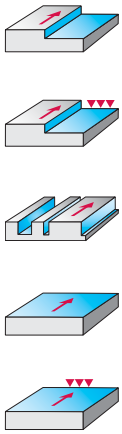
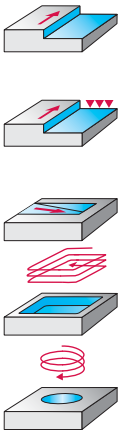
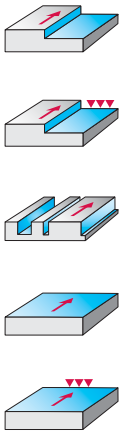
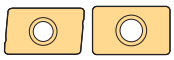
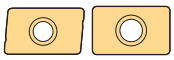
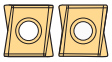
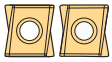
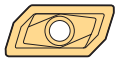
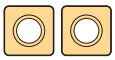


C 299 D 1 C 568 C 593 C 621 C 635

C 2

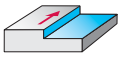
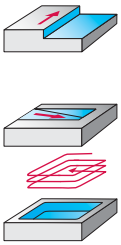
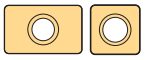
Walter Select – Indexable insert milling cutters
Shoulder milling cutters

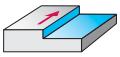
Machining					
WALTER SELECT ●● Primary application ● Other application					
Lead angle κ	**90°**	**90°**	**90°**		**90°**
Designation	**F2010**	**F2010**	**F2010**	**F2010**	**F4041**
Dia. range [mm]	80–315	80–315	80–315	80–315	40–160
Adaption range	Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore	ScrewFit DIN 1835 B Cylindrical bore
Page	C 432	C 434	C 438	C 440	C 444
P Steel	●●	●●	●●	●●	●●
M Stainless steel	●●	●●	●●	●●	●●
K Cast iron	●●	●●	●●	●●	●●
N NF metals	●●	●●	●●	●●	●●
S Materials with difficult cutting properties	●●	●●	●●	●●	●●
H Hard materials	●	●	●	●	●
O Other	●	●	●	●	●
Indexable inserts					
Type	SP .. 1204 ..	AD . T1204 .. R AD .. 1606 .. R	LNGX1307 .. R	LNH . 0904 .. R LNH . 1306 .. R	LNGX1307 .. R
Number of cutting edges	4	2	4	4 / 2	4
Max. depth of cut [mm]	11	12 / 15	13		13

							
	90°		90°			90°	90°
	F4042	F4042R	F5041	F5141	F5241	M2131	M4132
	10–160	16–63	25–63	40–160	50–160	25–80	16–125
	ScrewFit DIN 1835 B Parallel shank Cylindrical bore	ScrewFit DIN 1835 B Parallel shank Cylindrical bore	ScrewFit DIN 1835 B Parallel shank Cylindrical bore	ScrewFit DIN 1835 B Parallel shank Cylindrical bore	Cylindrical bore	ScrewFit Parallel shank Similar to HSK-A DIN 69893 Cylindrical bore	ScrewFit DIN 1835 B Cylindrical bore
	C 446	C 448	C 458	C 460	C 462	C 464	C 466
	●●	●●	●●	●●	●●		●●
	●●	●●	●●	●●	●●		●●
	●●	●●	●●	●●	●●		●●
	●●	●●	●●	●●	●●	●●	
	●●	●●	●●	●●	●●		●●
	●	●	●	●	●		●
	●	●	●	●	●	●	
							
	AD . T0803 .. R AD . T1204 .. R AD .. 1606 .. R AD . T1807 .. R	AD .. 10T3 .. R	LNH . 0904 .. R	LNH . 1306 .. R	LNHU1607 .. R	ZDGT1504 .. R ZDGT2005 .. R	SD .. 06T2 .. SD .. 09T3 .. SD .. 1204 ..
	2	2	4 / 2	4 / 2	4	2	4
	8 / 12 / 15 / 17	10	8	12	15	15 / 20	8 / 6 / 12

C 2

Walter Select – Indexable insert milling cutters
Shoulder milling cutters

Machining					
WALTER SELECT ●● Primary application ● Other application					
Lead angle κ	**90°**	**90°**			
Designation	**F2338F**	**F4038**	**F4138**	**F4238**	**F4338**
Dia. range [mm]	63–100	20–32	32–80	40–85	63–125
Adaption range	Modular NCT adaptor Cylindrical bore	ScrewFit DIN 1835 B	ScrewFit DIN 1835 B Modular NCT adaptor Cylindrical bore	ScrewFit Modular NCT adaptor Cylindrical bore	Modular NCT adaptor Cylindrical bore
Page	C 468	C 470	C 472	C 476	C 478
P Steel	●●	●●	●●	●●	●●
M Stainless steel	●	●●	●●	●●	●●
K Cast iron	●●	●●	●●	●●	●●
N NF metals		●●	●●	●●	
S Materials with difficult cutting properties	●	●●	●●	●●	●●
H Hard materials					
O Other		●	●	●	
Indexable inserts					
Type	LP .. 1506 .. SP .. 120606	AD . T0803 .. R	AD . T1204 .. R	AD . T1606 .. R	AD . T1807 .. R
Number of cutting edges	2 / 4	2	2	2	2
Max. depth of cut [mm]	81 / 103 / 48 / 59 / 70	15 / 22 / 30 / 37	33 / 54 / 43 / 65 / 76	43 / 29 / 85 / 99 / 112 / 57 / 71	94 / 109 / 124 / 31 / 47 / 63 / 78



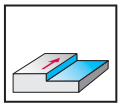
	90°	
	F5038	**F5138**
	25–40	40–80
	ScrewFit DIN 1835 B Cylindrical bore	ScrewFit DIN 1835 B Cylindrical bore
	C 480	C 482
	●●	●●
	●●	●●
	●●	●●
	●●	●●
	●●	●●
	●	●
	LNHU0904 .. R	LNHU1306 .. R
	4	4
	24 / 32 / 40 / 48	34 / 23 / 45 / 56

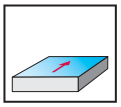
Shoulder milling cutters
F2010

SP .. 1204 ..

C 2

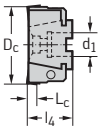
– Adjustable runout
– Four cutting edges per indexable insert

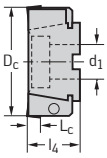


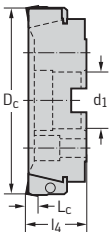


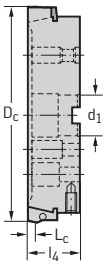
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.11.R445M	80	27	50	11	6	1,14	6	SP .. 1204 ..
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.11.R445M	100	32	50	11	7	1,73	7	SP .. 1204 ..
	F2010.B.125.Z08.11.R445M	125	40	63	11	8	3,42	8	
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.11.R445M	160	40/40 B	63	11	10	5,41	10	SP .. 1204 ..
	F2010.B.200.Z12.11.R445M	200	60/50 B	63	11	12	8,10	12	
	F2010.B.250.Z12.11.R445M	250	60/50 B	63	11	12	14,57	12	
	F2010.B.250.Z16.11.R445M	250	60/50 B	63	11	16	14,38	16	
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.11.R445M	315	60/50-60 BB	80	11	14	26,08	14	SP .. 1204 ..
	F2010.B.315.Z18.11.R445M	315	60/50-60 BB	80	11	18	25,94	18	









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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR445M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS243 (Torx 20) 5,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Cartridge: P2905-1 finishing insert	FR448M
Screwdriver for indexable insert	FS228 (Torx 20)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

			P				M				K					N		S			
			HC				HC				HC				CN	HC	HW	HC			
Designation	r mm		WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WSN10	WXN15	WK10	WSM35S	WSM35	WSP45S	WSP45
SPHT120408-G88	0,8															☺	☺				
SPHW120416-A57	1,6														☺						
SPMT120408-D51	0,8		☺	😐		☹		😐		☹			😐	☹					😐		☹
SPMT120408-F55	0,8			😐		☹		😐		☹	☺			☹					😐		☹
SPMW120408-A57	0,8		😐	☹							☺		😐	☹							
SPMW120408T-A27	0,8		😐	☹									😐	☹							

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

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

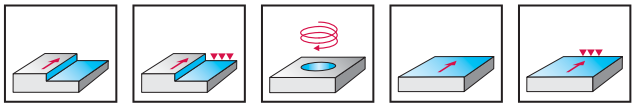
C 301 | D 1 | C 568 | C 590 | C 627 | C 621

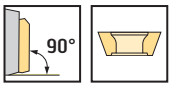
Shoulder milling cutter
F2010

AD . T1204 .. R

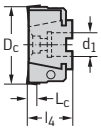
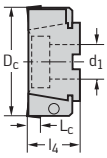
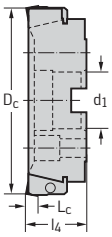
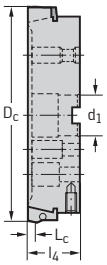
C 2

– Adjustable runout
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.11.R718M	80	27	50	11,7	6	1,2	6	AD . T1204 .. R
									
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.11.R718M	100	32	50	11,7	7	1,7	7	AD . T1204 .. R
	F2010.B.125.Z08.11.R718M	125	40	63	11,7	8	3,4	8	
									
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.11.R718M	160	40/40 B	63	11,7	10	5,4	10	AD . T1204 .. R
	F2010.B.200.Z12.11.R718M	200	60/50 B	63	11,7	12	8,1	12	
	F2010.B.250.Z12.11.R718M	250	60/50 B	63	11,7	12	14,6	12	
	F2010.B.250.Z16.11.R718M	250	60/50 B	63	11,7	16	14,4	16	
									
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.11.R718M	315	60/50-60 BB	80	11,7	14	26,3	14	AD . T1204 .. R
	F2010.B.315.Z18.11.R718M	315	60/50-60 BB	80	11,7	18	26,2	18	
									

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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR718M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS1457 (Torx 9IP) 2,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Screwdriver for indexable insert	FS1484 (Torx 9IP)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

			P				M					K				N		S				
			HC				HC					HC				HC	HW	HC				
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WSP45
ADGT120404R-F56	0,4	1,2			✖			☺		✖									☺		✖	
ADGT120416R-D67	1,6	1			✖			☺		✖									☺		✖	
ADGT120430R-D67	3	0,8				✖		☺			✖								☺			✖
ADGT120430R-F56	3	0,8			✖					✖											✖	
ADGT120440R-F56	4	0,4			✖					✖											✖	
ADGT1204PER-D51	0,8	1,2	☻	☺	✖					✖				☺	✖						✖	
ADGT1204PER-D56	0,8	1,2	☻	☺	✖					✖			☺	☺	✖						✖	
ADGT1204PER-D67	0,8	1,2		☺	✖		☺			✖					✖			☺			✖	
ADGT1204PER-F56	0,8	1,2			✖		☺			✖								☺			✖	
ADGT1204PER-G77	0,8	1,2			☺			☻		☺									☻		☺	
ADHT120416R-G88	1,6	1														☻	☻					
ADHT120425R-G88	2,5	0,8															☻					
ADHT120430R-G88	3	0,8														☻	☻					
ADHT120440R-G88	4	0,4															☻					
ADHT1204PER-G88	0,8	1,2														☻	☻					
ADKT1204PER-F56	0,8	1,2	☻	☺	✖					✖		☻		☺	✖						✖	
ADMT120404R-F56	0,4	1,2		☺	✖		☺	☺	✖	✖					✖			☺	☺	✖	✖	
ADMT120408R-D56	0,8	1,2	☻	☺	✖					✖		☻	☺	☺	✖						✖	
ADMT120408R-F56	0,8	1,2	☻	☺	✖	✖	☺	☺	✖	✖	✖	☻	☺	☺	✖			☺	☺	✖	✖	✖
ADMT120408R-G56	0,8	1,2		☻	☺		☺			☺					☺			☺			☺	
ADMT120412R-F56	1,2	1,2		☺	✖		☺		✖	✖					✖			☺		✖	✖	
ADMT120416R-F56	1,6	1		☺	✖	✖	☺	☺	✖	✖	✖				✖			☺	☺	✖	✖	✖
ADMT120420R-F56	2	1		☺	✖		☺	☺	✖	✖					✖			☺	☺	✖	✖	
ADMT120425R-F56	2,5	0,8		☺		✖	☺				✖				✖			☺				✖
ADMT120430R-F56	3	0,8		☺	✖		☺	☺	✖	✖					✖			☺	☺	✖	✖	
ADMT120432R-F56	3,2	0,8		☺	✖		☺		✖	✖					✖			☺		✖	✖	
ADMT120440R-F56	4	0,4		☺	✖	✖	☺	☺	✖	✖	✖				✖			☺	☺	✖	✖	✖

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm

HC = Coated carbide
HW = Uncoated carbide

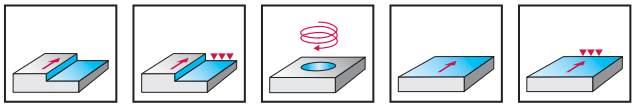
C 284 D 1 C 568 C 591 C 627 C 621

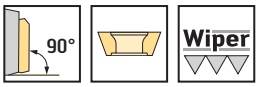
Shoulder milling cutter
F2010

AD .. 1606 .. R

C 2

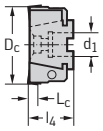
– Adjustable runout
– Two cutting edges per indexable insert

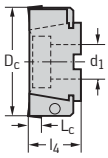


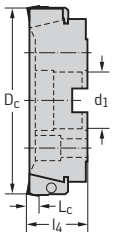


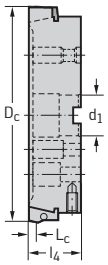
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.15.R719M	80	27	50	15	6	1,2	6	AD .. 1606 .. R
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.15.R719M	100	32	50	15	7	1,8	7	AD .. 1606 .. R
	F2010.B.125.Z08.15.R719M	125	40	63	15	8	3,5	8	
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.15.R719M	160	40/40 B	63	15	10	5,5	10	AD .. 1606 .. R
	F2010.B.200.Z12.15.R719M	200	60/50 B	63	15	12	8,2	12	
	F2010.B.250.Z12.15.R719M	250	60/50 B	63	15	12	14,7	12	
	F2010.B.250.Z16.15.R719M	250	60/50 B	63	15	16	14,6	16	
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.15.R719M	315	60/50-60 BB	80	15	14	26,3	14	AD .. 1606 .. R
	F2010.B.315.Z18.15.R719M	315	60/50-60 BB	80	15	18	26,2	18	









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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR719M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Screwdriver for indexable insert	FS1485 (Torx 15IP)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

			P				M					K				N		S					H	O
			HC				HC					HC				HC	HW	HC					HC	HC
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WHH15	WXM15
ADGT1606PER-D51	0,8	1,6	☺	☹	☹					☹				☹	☹						☹			
ADGT1606PER-D56	0,8	1,6	☺	☹	☹					☹			☹	☹	☹						☹			
ADGT1606PER-F56	0,8	1,6			☹		☹			☹								☹			☹			
ADHT160616R-G88	1,6	1,4														☺	☺							
ADHT160625R-G88	2,5	1,2															☺							
ADHT160630R-G88	3	1,2															☺							
ADHT160640R-G88	4	1															☺							
ADHT1606PER-G88	0,8	1,6														☺	☺							
ADKT1606PER-F56	0,8	1,6	☺	☹	☹					☹		☺		☹	☹						☹			
ADMT160608R-D56	0,8	1,6	☺	☹	☹					☹		☺	☹	☹	☹						☹			
ADMT160608R-F56	0,8	1,6	☺	☹	☹	☹	☹	☹	☹	☹	☹	☺	☹	☹	☹			☹	☹	☹	☹	☹		
ADMT160608R-G56	0,8	1,6		☺	☹		☹			☹					☹			☹			☹			
ADMT160612R-F56	1,2	1,6		☹	☹		☹		☹	☹					☹			☹		☹	☹			
ADMT160616R-F56	1,6	1,4		☹	☹	☹	☹		☹	☹	☹				☹			☹		☹	☹	☹		
ADMT160620R-F56	2	1,4		☹	☹		☹	☹	☹	☹					☹			☹	☹	☹	☹			
ADMT160625R-F56	2,5	1,2		☹	☹		☹			☹					☹			☹			☹			
ADMT160630R-F56	3	1,2		☹	☹		☹		☹	☹					☹			☹		☹	☹			
ADMT160632R-F56	3,2	1,2		☹	☹		☹		☹	☹					☹			☹		☹	☹			
ADMT160640R-F56	4	1		☹	☹	☹	☹	☹	☹	☹	☹				☹			☹	☹	☹	☹	☹		
ADMT160650R-F56	5			☹	☹		☹		☹	☹					☹			☹		☹	☹			
ADMT160660R-F56	6			☹	☹	☹	☹	☹	☹	☹	☹				☹			☹	☹	☹	☹	☹		
ADGX1606PER-F56	0,8	8										☺											☺	☺

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm
ADGX1606PER-F56 wiper insert only in combination with ADGT1606PER-F56, ADGT1606PER-D67 or ADGT1606PER-G77

HC = Coated carbide
HW = Uncoated carbide

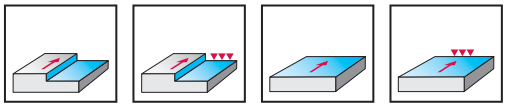
C 284 D 1 C 568 C 591 C 627 C 621

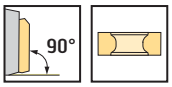
Shoulder milling cutter
F2010

LNGX1307 .. R

C 2

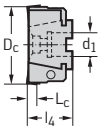
– Adjustable runout
– Four cutting edges per indexable insert

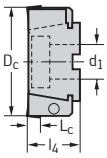


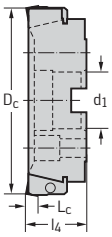


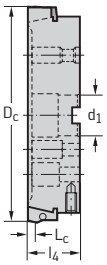
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.13.R722M	80	27	50	13	6	1,2	6	LNGX1307 .. R
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.13.R722M	100	32	50	13	7	1,8	7	LNGX1307 .. R
	F2010.B.125.Z08.13.R722M	125	40	63	13	8	3,5	8	
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.13.R722M	160	40/40 B	63	13	10	5,5	10	LNGX1307 .. R
	F2010.B.200.Z12.13.R722M	200	60/50 B	63	13	12	8,2	12	
	F2010.B.250.Z12.13.R722M	250	60/50 B	63	13	12	14,6	12	
	F2010.B.250.Z16.13.R722M	250	60/50 B	63	13	16	14,5	16	
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.13.R722M	315	60/50-60 BB	80	13	14	26,3	14	LNGX1307 .. R
	F2010.B.315.Z18.13.R722M	315	60/50-60 BB	80	13	18	26,2	18	









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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR722M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS1458 (Torx 15IP) 2,5 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Screwdriver for indexable insert	FS1485 (Torx 15IP)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

			P				M			K				N		S		
			HC				HC			HC				HC	HW	HC		
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WSP45
LNGX130708R-L55	0,8	1,2	●	●●	●●●		●●	●●●		●	●●	●●	●●●			●●	●●●	
LNGX130708R-L88	0,8	1,2												●	●			
LNGX130712R-L55	1,2	1	●	●●	●●●			●●●				●●	●●●				●●●	
LNGX130716R-L55	1,6	0,9	●	●●	●●●			●●●				●●	●●●				●●●	
LNGX130720R-L55	2	0,7	●	●●	●●●	●●●		●●●	●●●			●●	●●●				●●●	●●●
LNGX130720R-L88	2	0,7												●				
LNGX130725R-L55	2,5	0,6	●	●●		●●●			●●●			●●	●●●					●●●
LNGX130730R-L55	3	0,7	●	●●		●●●			●●●			●●	●●●					●●●
LNGX130730R-L88	3	0,7												●				

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
$R_{(body)} = r_{(indexable\ insert)}$

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Stability of machine, workpiece and clamping arrangement
Very good · Good · Moderate
●● Primary application
● Other application

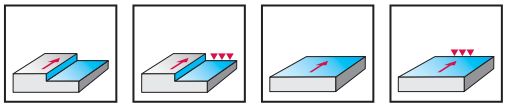
C 312 · D 1 · C 568 · C 590 · C 627 · C 621

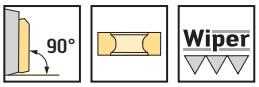
Shoulder milling cutter
F2010

LNH . 0904 .. R

C 2

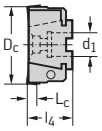
– Adjustable runout
– Four cutting edges per indexable insert, tangential arrangement

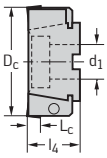


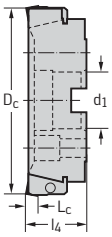


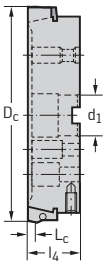
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.08.R751M	80	27	50	8	6	1,2	6	LNH . 0904 .. R
Cylindrical bore DIN 138 transverse keyway	F2010.B.100.Z07.08.R751M	100	32	50	8	7	1,8	7	LNH . 0904 .. R
	F2010.B.125.Z08.08.R751M	125	40	63	8	8	3,5	8	
Cylindrical bore DIN 138 transverse keyway	F2010.B.160.Z10.08.R751M	160	40/40 B	63	8	10	5,5	10	LNH . 0904 .. R
	F2010.B.200.Z12.08.R751M	200	60/50 B	63	8	12	8,2	12	
	F2010.B.250.Z12.08.R751M	250	60/50 B	63	8	12	14,6	12	
	F2010.B.250.Z16.08.R751M	250	60/50 B	63	8	16	14,5	16	
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.08.R751M	315	60/50-60 BB	80	8	14	26,3	14	LNH . 0904 .. R
	F2010.B.315.Z18.08.R751M	315	60/50-60 BB	80	8	18	26,2	18	









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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR751M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS1457 (Torx 9IP) 2,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

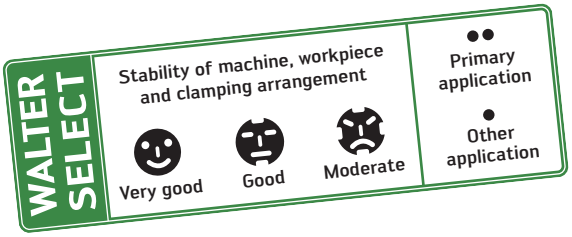
D_c [mm]	80–315
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2013 (Torx 9IP)
Screwdriver for indexable insert	FS1484 (Torx 9IP)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

			P			M		K				N		S		H	O
			HC			HC		HC				HC	HW	HC		HC	HC
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSM35S	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSP45S	WHH15	WXM15
LNHU090404R-L55T	0,4	1,5	●	◐	○	◐	○	●	◐	◐	○			◐	○		
LNHU090404R-L65T	0,4	1,5			○		○								○		
LNHU090404R-L85T	0,4	1,5										●	●				
LNHU090408R-L55T	0,8	1,1	●	◐	○	◐	○		◐	◐	○			◐	○		
LNHU090412R-L55T	1,2	0,8		◐	○	◐	○				○			◐	○		
LNHU090416R-L55T	1,6			◐	○	◐	○				○			◐	○		
LNHU090420R-L55T	2			◐	○	◐	○				○			◐	○		
LNHX0904PDR-L55T	0,4	3,5						●								●	●

LNHX0904PDR-L55T wiper insert only in combination with LNHU090404R-L55T . .

HC = Coated carbide
HW = Uncoated carbide



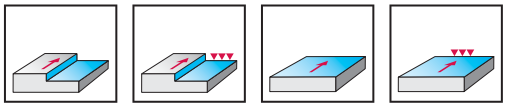
C 328 D 1 C 568 C 591 C 627 C 621

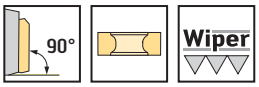
Shoulder milling cutter
F2010

LNH . 1306 .. R

C 2

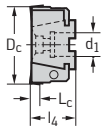
– Adjustable runout
– Four cutting edges per indexable insert, tangential arrangement

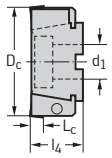


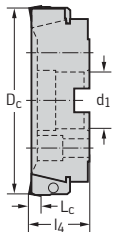


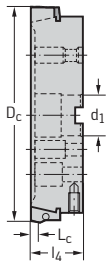
	P	M	K	N	S	H	O
F2010	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F2010.B.080.Z06.12.R752M	80	27	50	12	6	1,2	6	LNH . 1306 .. R
	F2010.B.100.Z07.12.R752M	100	32	50	12	7	1,8	7	LNH . 1306 .. R
	F2010.B.125.Z08.12.R752M	125	40	63	12	8	3,5	8	
	F2010.B.160.Z10.12.R752M	160	40/40 B	63	12	10	5,5	10	LNH . 1306 .. R
	F2010.B.200.Z12.12.R752M	200	60/50 B	63	12	12	8,2	12	
	F2010.B.250.Z12.12.R752M	250	60/50 B	63	12	12	14,6	12	
	F2010.B.250.Z16.12.R752M	250	60/50 B	63	12	16	14,5	16	
Cylindrical bore DIN 138 transverse keyway	F2010.B.315.Z14.12.R752M	315	60/50-60 BB	80	12	14	26,3	14	LNH . 1306 .. R
	F2010.B.315.Z18.12.R752M	315	60/50-60 BB	80	12	18	26,2	18	









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

C 2

Assembly parts

D_c [mm]	80–315
Cartridge for tool body	FR752M
Clamping screw for cartridge Tightening torque	FS247 (SW 4) 8,0 Nm
Clamping screw for indexable insert Tightening torque	FS2081 (Torx 15IP) 4,0 Nm
Adjusting pin	FS303 (Torx 20)

Accessories

D_c [mm]	80–315
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)
Screwdriver for indexable insert	FS1485 (Torx 15IP)
Screwdriver for adjusting pin	FS228 (Torx 20)
ISO 2936 Allen key for cartridge	ISO2936-4 (SW 4)

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
LNHU130608R-L55T	0,8	2,2	☺	😐	☹	😐	☹	☺	😐	😐	☹			😐	☹		
LNHU130608R-L65T	0,8	2,2			☹		☹								☹		
LNHU130608R-L85T	0,8	2,2										☺	☺				
LNHU130612R-L55T	1,2	1,9		😐	☹	😐	☹				☹			😐	☹		
LNHU130616R-L55T	1,6	1,5		😐	☹	😐	☹				☹			😐	☹		
LNHU130620R-L55T	2	1,2		😐	☹	😐	☹				☹			😐	☹		
LNHU130625R-L55T	2,5	0,7		😐	☹	😐	☹				☹			😐	☹		
LNHU130630R-L55T	3			😐	☹	😐	☹				☹			😐	☹		
LNHU130632R-L55T	3,2			😐	☹	😐	☹				☹			😐	☹		
LNHX130608R-L55T	0,8	2,2						☺								☺	☺
LNHX1306PDR-L55T	0,6	5						☺								☺	☺

LNHX130608R-L55T wiper insert only in combination with LNHU130608R-L55T . .
LNHX1306PDR-L55T wiper insert only in combination with LNHU130608R-L55T . .

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

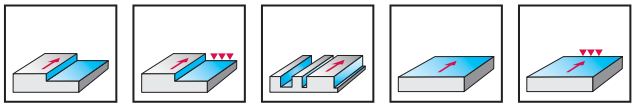
C 328 | D 1 | C 568 | C 591 | C 627 | C 621

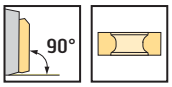
Shoulder milling cutters
F4041

LNGX1307 .. R
Xtra·tec®

C 2

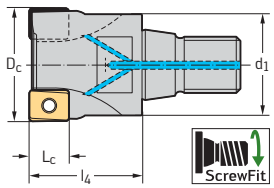
– Four cutting edges per indexable insert

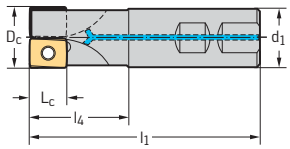


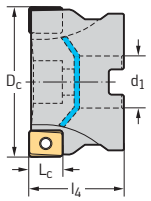


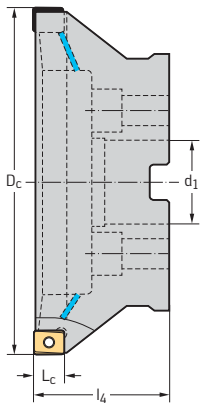
	P	M	K	N	S	H	O
F4041	●●	●●	●●	●●	●●	●	●

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	F4041.T36.040.Z03.13	40	T36	40	13		3	0,33	3	
	F4041.T45.050.Z03.13	50	T45	40	13		3	0,48	3	LNGX1307 .. R
	F4041.T45.050.Z04.13	50	T45	40	13		4	0,49	4	
Shank DIN 1835 B	F4041.W32.040.Z03.13	40	32	49	13	110	3	0,68	3	LNGX1307 .. R
Cylindrical bore DIN 138 transverse keyway	F4041.B16.040.Z03.13	40	16	40	13		3	0,39	3	
	F4041.B22.050.Z03.13	50	22	40	13		3	0,50	3	
	F4041.B22.050.Z04.13	50	22	40	13		4	0,50	4	
	F4041.B22.063.Z04.13	63	22	40	13		4	0,76	4	
	F4041.B27.063.Z04.13	63	27	50	13		4	0,71	4	
	F4041.B22.063.Z06.13	63	22	40	13		6	0,75	6	
	F4041.B27.063.Z06.13	63	27	50	13		6	0,89	6	LNGX1307 .. R
	F4041.B27.080.Z05.13	80	27	50	13		5	1,22	5	
	F4041.B27.080.Z07.13	80	27	50	13		7	1,26	7	
	F4041.B32.100.Z05.13	100	32	50	13		5	2,66	5	
	F4041.B32.100.Z08.13	100	32	50	13		8	2,64	8	
	F4041.B40.125.Z07.13	125	40	63	13		7	4,17	7	
	F4041.B40.125.Z10.13	125	40	63	13		10	4,23	10	
Cylindrical bore DIN 138 transverse keyway	F4041.B40.160.Z08.13	160	40/40 B	63	13		8	5,08	8	LNGX1307 .. R
	F4041.B40.160.Z12.13	160	40/40 B	63	13		12	5,16	12	









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

Assembly parts

D_c [mm]	40–160
Clamping screw for indexable insert Tightening torque	FS1458 (Torx 15IP) 2,5 Nm

Accessories

D_c [mm]	40–125	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 (gasket + screws)		FS936 COMPLETE SET
Gasket		O-R 96X4

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSP45S	M HC WSP45	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 WSP45
LNGX130708R-L55	0,8	1,2	●	◐	○		◐	○		●	◐	◐	○			◐	○	
LNGX130708R-L88	0,8	1,2												●	●			
LNGX130712R-L55	1,2	1	●	◐	○			○				◐	○				○	
LNGX130716R-L55	1,6	0,9	●	◐	○			○				◐	○				○	
LNGX130720R-L55	2	0,7	●	◐	○	○		○	○			◐	○				○	○
LNGX130720R-L88	2	0,7												●				
LNGX130725R-L55	2,5	0,6	●	◐		○			○			◐	○					○
LNGX130730R-L55	3	0,7	●	◐		○			○			◐	○					○
LNGX130730R-L88	3	0,7												●				

If the corner radius is r = 1.2 mm or above, the corner area of the body must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Stability of machine, workpiece and clamping arrangement
Very good · Good · Moderate
●● Primary application
● Other application

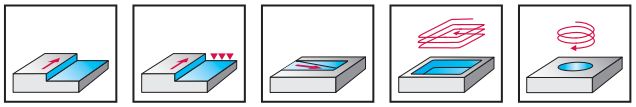
C 312 · D 1 · C 568 · C 590 · C 621 · C 635

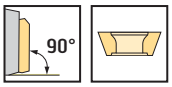
Shoulder milling cutters
F4042

AD . T0803 .. R
Xtra·tec®

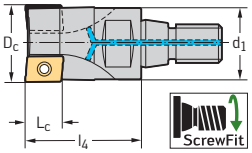
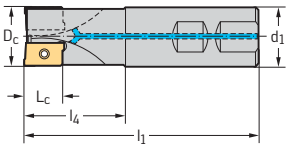
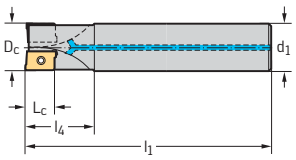
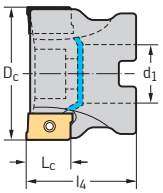
C 2

– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
F4042	●●	●●	●●	●●	●●	●	●

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 	F4042.T09.010.Z01.08	10	T09	20	8		1	0,02	1	AD . T0803 .. R
	F4042.T09.012.Z01.08	12	T09	20	8		1	0,02	1	
	F4042.T14.016.Z02.08	16	T14	25	8		2	0,04	2	
	F4042.T14.018.Z02.08	18	T14	25	8		2	0,04	2	
	F4042.T18.020.Z02.08	20	T18	30	8		2	0,07	2	
	F4042.T18.020.Z03.08	20	T18	30	8		3	0,06	3	
	F4042.T18.022.Z03.08	22	T18	30	8		3	0,07	3	
	F4042.T22.025.Z03.08	25	T22	35	8		3	0,11	3	
	F4042.T22.025.Z04.08	25	T22	35	8		4	0,11	4	
	F4042.T28.032.Z04.08	32	T28	40	8		4	0,20	4	
	F4042.T28.032.Z05.08	32	T28	40	8		5	0,20	5	
	F4042.T36.040.Z06.08	40	T36	40	8		6	0,37	6	
Shank DIN 1835 B 	F4042.W16.010.Z01.08	10	16	31	8	80	1	0,10	1	AD . T0803 .. R
	F4042.W16.012.Z01.08	12	16	31	8	80	1	0,10	1	
	F4042.W16.016.Z02.08	16	16	41	8	90	2	0,12	2	
	F4042.W20.020.Z02.08	20	20	39	8	90	2	0,19	2	
	F4042.W20.020.Z03.08	20	20	39	8	90	3	0,19	3	
	F4042.W25.025.Z03.08	25	25	43	8	100	3	0,34	3	
	F4042.W25.025.Z04.08	25	25	43	8	100	4	0,33	4	
	F4042.W32.032.Z04.08	32	32	49	8	110	4	0,58	4	
	F4042.W32.032.Z05.08	32	32	49	8	110	5	0,57	5	
	F4042.W32.040.Z04.08	40	32	49	8	110	4	0,71	4	
	F4042.W32.040.Z06.08	40	32	49	8	110	6	0,71	6	
Parallel shank 	F4042.Z16.010.Z01.08	10	16	31	8	160	1	0,22	1	AD . T0803 .. R
	F4042.Z16.012.Z01.08	12	16	31	8	160	1	0,23	1	
	F4042.Z16.016.Z02.08	16	16	41	8	180	2	0,27	2	
	F4042.Z16.018.Z02.08	18	16	41	8	180	2	0,27	2	
	F4042.Z20.020.Z02.08	20	20	39	8	200	2	0,46	2	
	F4042.Z20.020.Z03.08	20	20	39	8	200	3	0,45	3	
	F4042.Z20.022.Z03.08	22	20	39	8	200	3	0,46	3	
	F4042.Z25.025.Z03.08	25	25	43	8	200	3	0,72	3	
	F4042.Z25.025.Z04.08	25	25	43	8	200	4	0,73	4	
Cylindrical bore DIN 138 transverse keyway 	F4042.B16.040.Z04.08	40	16	40	8		4	0,40	4	AD . T0803 .. R
	F4042.B16.040.Z06.08	40	16	40	8		6	0,44	6	
	F4042.B22.050.Z05.08	50	22	40	8		5	0,53	5	
	F4042.B22.050.Z07.08	50	22	40	8		7	0,54	7	

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

Assembly parts

D_c [mm]	10–12	16–40
Clamping screw for indexable insert Tightening torque	FS1455 (Torx 8IP) 1,2 Nm	FS1454 (Torx 8IP) 1,2 Nm

Accessories

D_c [mm]	10–40
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 WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
ADGT0803PER-D51	0,4	1,2	Very good	Good	Moderate				Moderate				Good	Moderate					Moderate	
ADGT0803PER-D56	0,4	1,2			Moderate				Moderate										Moderate	
ADGT0803PER-F56	0,4	1,2			Moderate		Good		Moderate								Good		Moderate	
ADHT0803PER-G88	0,4	1,2													Very good	Very good				
ADKT0803PER-F56	0,4	1,2	Very good	Good	Moderate				Moderate		Very good		Good	Moderate					Moderate	
ADMT080302R-F56	0,2	1,2		Good	Moderate		Good		Moderate					Moderate			Good		Moderate	
ADMT080304R-D56	0,4	1,2	Very good	Good	Moderate				Moderate		Very good	Good	Good	Moderate					Moderate	
ADMT080304R-F56	0,4	1,2	Very good	Good	Moderate		Good	Good	Moderate		Very good	Good	Good	Moderate			Good	Good	Moderate	
ADMT080304R-G56	0,4	1,2		Very good		Good	Good			Good				Good			Good			Good
ADMT080308R-F56	0,8	1,2		Good	Moderate	Moderate	Good	Good	Moderate	Moderate				Moderate			Good	Good	Moderate	Moderate
ADMT080312R-F56	1,2	1		Good	Moderate		Good		Moderate					Moderate			Good		Moderate	
ADMT080316R-F56	1,6	1		Good	Moderate		Good		Moderate					Moderate			Good		Moderate	
ADMT080320R-F56	2	1		Good	Moderate		Good	Good	Moderate					Moderate			Good	Good	Moderate	
ADGT080308R-F56	0,8	1,2			Moderate			Good	Moderate									Good	Moderate	

If the corner radius is r = 1.6 mm or above, the corner area of the body must be reworked.
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT
Stability of machine, workpiece and clamping arrangement
Very good | Good | Moderate
●● Primary application
● Other application

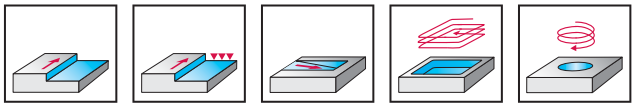
C 284 | D 1 | C 568 | C 591 | C 621 | C 635

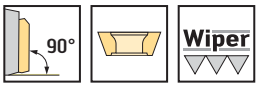
Shoulder milling cutters
F4042R

AD .. 10T3 .. R
Xtra·tec®

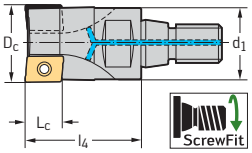
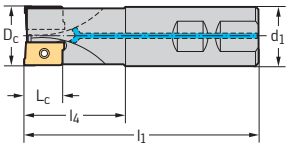
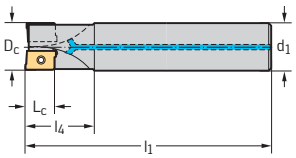
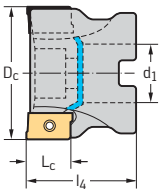
C 2

– Reinforced design
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
F4042R	●●	●●	●●	●●	●●	●	●

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 	F4042R.T14.016.Z02.10	16	T14	25	10		2	0,04	2	
	F4042R.T18.020.Z02.10	20	T18	30	10		2	0,07	2	
	F4042R.T18.020.Z03.10	20	T18	30	10		3	0,06	3	
	F4042R.T22.025.Z03.10	25	T22	35	10		3	0,12	3	AD .. 10T3 .. R
	F4042R.T22.025.Z04.10	25	T22	35	10		4	0,12	4	
	F4042R.T28.032.Z04.10	32	T28	35	10		4	0,18	4	
	F4042R.T28.032.Z05.10	32	T28	35	10		5	0,19	5	
Shank DIN 1835 B 	F4042R.W16.016.Z02.10	16	16	26	10	85	2	0,12	2	
	F4042R.W20.020.Z02.10	20	20	30	10	90	2	0,2	2	
	F4042R.W20.020.Z03.10	20	20	30	10	90	3	0,20	3	
	F4042R.W25.025.Z02.10	25	25	30	10	100	2	0,35	2	
	F4042R.W25.025.Z03.10	25	25	30	10	100	3	0,34	3	AD .. 10T3 .. R
	F4042R.W25.025.Z04.10	25	25	30	10	100	4	0,34	4	
	F4042R.W32.032.Z03.10	32	32	30	10	110	3	0,62	3	
	F4042R.W32.032.Z04.10	32	32	30	10	110	4	0,62	4	
	F4042R.W32.032.Z05.10	32	32	30	10	110	5	0,62	5	
Parallel shank 	F4042R.Z16.016.Z02.10	16	16	26	10	180	2	0,27	2	
	F4042R.Z20.020.Z02.10	20	20	30	10	200	2	0,46	2	
	F4042R.Z20.020.Z03.10	20	20	30	10	200	3	0,46	3	
	F4042R.Z25.025.Z02.10	25	25	32	10	200	2	0,73	2	AD .. 10T3 .. R
	F4042R.Z25.025.Z03.10	25	25	32	10	200	3	0,72	3	
	F4042R.Z32.032.Z03.10	32	32	40	10	200	3	1,18	3	
	F4042R.Z32.032.Z04.10	32	32	40	10	200	4	1,18	4	
Cylindrical bore DIN 138 transverse keyway 	F4042R.B16.040.Z04.10	40	16	40	10		4	0,23	4	
	F4042R.B16.040.Z05.10	40	16	40	10		5	0,02	5	
	F4042R.B16.040.Z06.10	40	16	40	10		6	0,25	6	
	F4042R.B22.050.Z05.10	50	22	40	10		5	0,38	5	
	F4042R.B22.050.Z06.10	50	22	40	10		6	0,04	6	AD .. 10T3 .. R
	F4042R.B22.050.Z07.10	50	22	40	10		7	0,04	7	
	F4042R.B22.063.Z06.10	63	22	40	10		6	0,65	6	
	F4042R.B22.063.Z07.10	63	22	40	10		7	0,07	7	
	F4042R.B22.063.Z09.10	63	22	40	10		9	0,68	9	

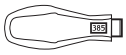
Balanced construction
Bodies and assembly parts are included in the scope of delivery.

C 2

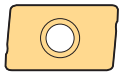
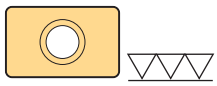
Assembly parts

	D_c [mm]	16–63
	Clamping screw for indexable insert Tightening torque	FS1454 (Torx 8IP) 1,2 Nm

Accessories

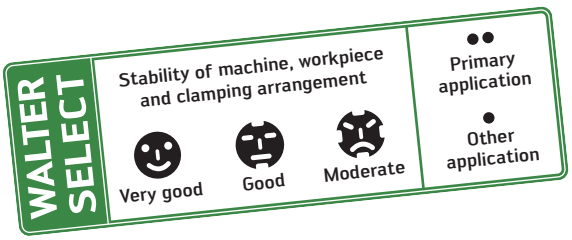
	D_c [mm]	16–63
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2012 (Torx 8IP)
	Screwdriver	FS1483 (Torx 8IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P WSP45	M HC WSM35S	M HC WSM35	M HC WSM45X	M HC WSP45S	M WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSM45X	S HC WSP45S	S WSP45	H HC WHH15	O HC WXM15
	ADGT10T3PER-D67	0,8	1,2		●	●●		●			●●					●●			●			●●			
	ADGT10T3PER-G77	0,8	1,2			●			☺		●									☺		●			
	ADHT10T3PER-G88	0,8	1,2														☺	☺							
	ADKT10T3PER-F56	0,8	1,2	☺	●	●●		●			●●		☺		●	●●			●			●●			
	ADMT10T304R-F56	0,4	1,2		●	●●		●			●●					●●			●			●●			
	ADMT10T308R-F56	0,8	1,2	☺	●	●●		●		●●	●●		☺	●	●	●●			●		●●	●●			
	ADMT10T308R-G56	0,8	1,2		☺		●	●				●				●			●				●		
	ADMT10T312R-F56	1,2	1,2		●	●●		●			●●					●●			●			●●			
	ADGX10T3PER-F56	0,8	5										☺											☺	☺

If the corner radius is r = 1.6 mm or above, the corner area of the body must be reworked.
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm
ADGX10T3PER-F56 wiper insert only in combination with ADGT10T3PER-D67 or ADGT10T3PER-G77

HC = Coated carbide
HW = Uncoated carbide



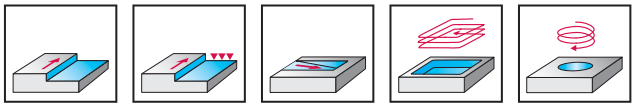
C 284 D 1 C 568 C 591 C 621 C 635

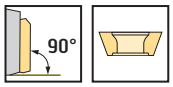
Shoulder milling cutter
F4042

AD . T1204 .. R
Xtra·tec®

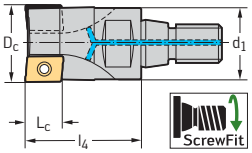
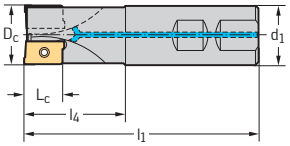
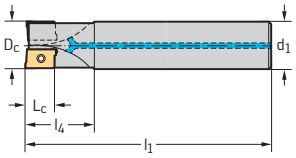
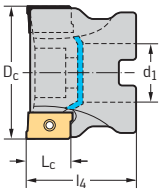
C 2

– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
F4042	●●	●●	●●	●●	●●	●	●

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 	F4042.T18.022.Z02.11	22	T18	30	11,7		2	0,07	2	AD . T1204 .. R
	F4042.T22.025.Z03.11	25	T22	35	11,7		3	0,11	3	
	F4042.T28.032.Z03.11	32	T28	40	11,7		3	0,20	3	
	F4042.T28.032.Z04.11	32	T28	40	11,7		4	0,21	4	
	F4042.T36.040.Z03.11	40	T36	40	11,7		3	0,36	3	
	F4042.T36.040.Z04.11	40	T36	40	11,7		4	0,35	4	
	F4042.T36.040.Z05.11	40	T36	40	11,7		5	0,36	5	
	F4042.T45.050.Z04.11	50	T45	40	11,7		4	0,51	4	
	F4042.T45.050.Z06.11	50	T45	40	11,7		6	0,53	6	
Shank DIN 1835 B 	F4042.W25.025.Z02.11	25	25	43	11,7	100	2	0,34	2	AD . T1204 .. R
	F4042.W25.025.Z03.11	25	25	43	11,7	100	3	0,33	3	
	F4042.W32.032.Z02.11	32	32	49	11,7	110	2	0,59	2	
	F4042.W32.032.Z03.11	32	32	49	11,7	110	3	0,07	3	
	F4042.W32.032.Z04.11	32	32	49	11,7	110	4	0,57	4	
	F4042.W40.040.Z03.11	40	40	49	11,7	120	3	1,05	3	
	F4042.W40.040.Z04.11	40	40	49	11,7	120	4	1,04	4	
	F4042.W32.040.Z05.11	40	32	49	11,7	110	5	0,7	5	
Parallel shank 	F4042.Z20.022.Z02.11	22	20	38	11,7	200	2	0,46	2	AD . T1204 .. R
	F4042.Z25.025.Z02.11	25	25	38	11,7	200	2	0,74	2	
	F4042.Z25.025.Z03.11	25	25	38	11,7	200	3	0,73	3	
	F4042.Z32.032.Z03.11	32	32	39	11,7	250	3	1,47	3	
	F4042.Z32.032.Z04.11	32	32	39	11,7	250	4	1,46	4	
	F4042.Z40.040.Z04.11	40	40	44	11,7	250	4	2,33	4	
	F4042.Z32.040.Z05.11	40	32	44	11,7	250	5	1,6	5	
Cylindrical bore DIN 138 transverse keyway 	F4042.B16.040.Z03.11	40	16	40	11,7		3	0,20	3	AD . T1204 .. R
	F4042.B16.040.Z04.11	40	16	40	11,7		4	0,40	4	
	F4042.B16.040.Z05.11	40	16	40	11,7		5	0,40	5	
	F4042.B22.050.Z03.11	50	22	40	11,7		3	0,53	3	
	F4042.B22.050.Z04.11	50	22	40	11,7		4	0,54	4	
	F4042.B22.050.Z06.11	50	22	40	11,7		6	0,53	6	
	F4042.B22.063.Z04.11	63	22	40	11,7		4	0,82	4	
	F4042.B27.063.Z04.11	63	27	50	11,7		4	0,93	4	
	F4042.B22.063.Z05.11	63	22	40	11,7		5	0,78	5	
	F4042.B27.063.Z05.11	63	27	50	11,7		5	0,74	5	
	F4042.B22.063.Z07.11	63	22	40	11,7		7	0,79	7	
	F4042.B27.063.Z07.11	63	27	50	11,7		7	0,75	7	
	F4042.B27.080.Z05.11	80	27	50	11,7		5	1,31	5	
	F4042.B27.080.Z06.11	80	27	50	11,7		6	1,12	6	
	F4042.B27.080.Z08.11	80	27	50	11,7		8	1,31	8	

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

Assembly parts

D_c [mm]	22–25	32–80
Clamping screw for indexable insert Tightening torque	FS1456 (Torx 9IP) 2,0 Nm	FS1457 (Torx 9IP) 2,0 Nm

Accessories

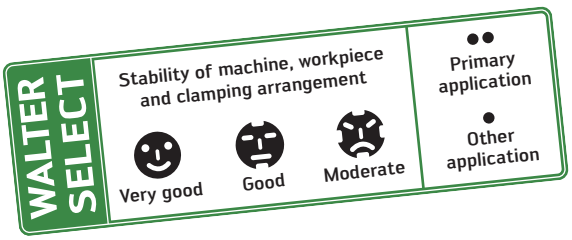
D_c [mm]	22–80
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2013 (Torx 9IP)
Screwdriver	FS1484 (Torx 9IP)

Indexable inserts

			P				M					K				N		S				
			HC				HC					HC				HC	HW	HC				
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WSP45
ADGT120416R-D67	1,6	1			●			●●		●									●●		●	
ADGT120430R-D67	3	0,8				●		●●			●								●●			●
ADGT120430R-F56	3	0,8			●					●											●	
ADGT120440R-F56	4	0,4			●					●											●	
ADGT1204PER-D51	0,8	1,2	●	●●	●					●				●●	●						●	
ADGT1204PER-D56	0,8	1,2	●	●●	●					●			●●	●●	●						●	
ADGT1204PER-D67	0,8	1,2		●●	●		●●			●					●			●●			●	
ADGT1204PER-F56	0,8	1,2			●		●●			●								●●			●	
ADGT1204PER-G77	0,8	1,2			●●			●		●●									●		●●	
ADHT120416R-G88	1,6	1														●	●					
ADHT120425R-G88	2,5	0,8															●					
ADHT120430R-G88	3	0,8														●	●					
ADHT120440R-G88	4	0,4															●					
ADHT1204PER-G88	0,8	1,2														●	●					
ADKT1204PER-F56	0,8	1,2	●	●●	●					●		●		●●	●						●	
ADMT120408R-D56	0,8	1,2	●	●●	●					●		●	●●	●●	●						●	
ADMT120408R-F56	0,8	1,2	●	●●	●	●	●●	●●	●	●	●	●	●●	●●	●			●●	●●	●	●	●
ADMT120408R-G56	0,8	1,2		●	●●		●●			●●					●●			●●			●●	
ADMT120412R-F56	1,2	1,2		●●	●		●●		●	●					●			●●		●	●	
ADMT120416R-F56	1,6	1		●●	●	●	●●	●●	●	●	●				●			●●	●●	●	●	●
ADMT120420R-F56	2	1		●●	●		●●	●●	●	●					●			●●	●●	●	●	
ADMT120425R-F56	2,5	0,8		●●		●	●●				●				●			●●				●
ADMT120430R-F56	3	0,8		●●	●		●●	●●	●	●					●			●●	●●	●	●	
ADMT120432R-F56	3,2	0,8		●●	●		●●		●	●					●			●●		●	●	
ADMT120440R-F56	4	0,4		●●	●	●	●●	●●	●	●	●				●			●●	●●	●	●	●

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm

HC = Coated carbide
HW = Uncoated carbide



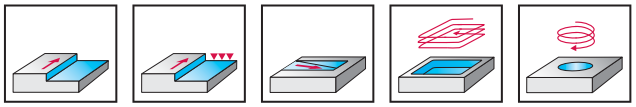
C 284 D 1 C 568 C 591 C 621 C 635

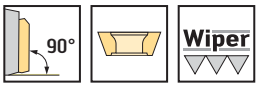
Shoulder milling cutter F4042

AD .. 1606 .. R
Xtra·tec®

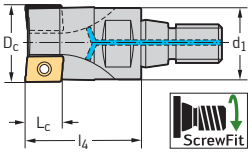
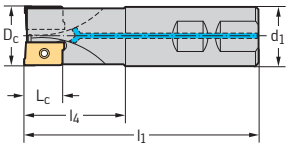
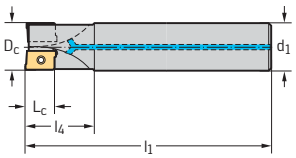
C 2

– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
F4042	●●	●●	●●	●●	●●	●	●

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 	F4042.T28.032.Z03.15	32	T28	40	15		3	0,18	3	AD .. 1606 .. R
	F4042.T28.036.Z03.15	36	T28	40	15		3	0,23	3	
	F4042.T36.040.Z03.15	40	T36	40	15		3	0,32	3	
	F4042.T36.040.Z04.15	40	T36	40	15		4	0,32	4	
	F4042.T36.044.Z03.15	44	T36	40	15		3	0,36	3	
	F4042.T45.050.Z03.15	50	T45	40	15		3	0,48	3	
	F4042.T45.050.Z05.15	50	T45	40	15		5	0,48	5	
Shank DIN 1835 B 	F4042.W25.025.Z02.15	25	25	43	15	100	2	0,32	2	AD .. 1606 .. R
	F4042.W32.032.Z03.15	32	32	49	15	110	3	0,57	3	
Parallel shank 	F4042.Z25.025.Z02.15	25	25	38	15	200	2	0,69	2	AD .. 1606 .. R
	F4042.Z32.032.Z03.15	32	32	38	15	250	3	1,46	3	

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

Assembly parts

	D_c [mm]	25	32–50
	Clamping screw for indexable insert Tightening torque	FS2080 (Torx 15IP) 2,5 Nm	FS1453 (Torx 15IP) 3,5 Nm

Accessories

D_c [mm]	25–50
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)
Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

			P				M					K				N		S					H	O
			HC				HC					HC				HC	HW	HC					HC	HC
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WHH15	WXM15
ADGT160616R-D67	1,6	1			⊗			☺		⊗									☺		⊗			
ADGT160616R-F56	1,6	1,4			⊗					⊗											⊗			
ADGT160620R-F56	2	1,4			⊗					⊗											⊗			
ADGT160630R-D67	3	0,8			⊗			☺		⊗									☺		⊗			
ADGT160632R-F56	3,2	1,2			⊗					⊗											⊗			
ADGT160640R-F56	4	1			⊗					⊗											⊗			
ADGT1606PER-D51	0,8	1,6	☻	☺	⊗					⊗				☺	⊗						⊗			
ADGT1606PER-D56	0,8	1,6	☻	☺	⊗					⊗			☺	☺	⊗						⊗			
ADGT1606PER-D67	0,8	1,6		☺	⊗		☺			⊗					⊗			☺			⊗			
ADGT1606PER-F56	0,8	1,6			⊗		☺			⊗								☺			⊗			
ADGT1606PER-G77	0,8	1,2			☺			☻		☺									☻		☺			
ADHT160616R-G88	1,6	1,4														☻	☻							
ADHT160625R-G88	2,5	1,2															☻							
ADHT160630R-G88	3	1,2															☻							
ADHT160640R-G88	4	1															☻							
ADHT1606PER-G88	0,8	1,6														☻	☻							
ADKT1606PER-F56	0,8	1,6	☻	☺	⊗					⊗		☻		☺	⊗						⊗			
ADMT160608R-D56	0,8	1,6	☻	☺	⊗					⊗		☻	☺	☺	⊗						⊗			
ADMT160608R-F56	0,8	1,6	☻	☺	⊗	⊗	☺	☺	⊗	⊗	⊗	☻	☺	☺	⊗			☺	☺	⊗	⊗	⊗		
ADMT160608R-G56	0,8	1,6		☻	☺		☺			☺					☺			☺			☺			
ADMT160612R-F56	1,2	1,6		☺	⊗		☺		⊗	⊗					⊗			☺		⊗	⊗			
ADMT160616R-F56	1,6	1,4		☺	⊗	⊗	☺		⊗	⊗	⊗				⊗			☺		⊗	⊗	⊗		
ADMT160620R-F56	2	1,4		☺	⊗		☺	☺	⊗	⊗					⊗			☺	☺	⊗	⊗			
ADMT160625R-F56	2,5	1,2		☺	⊗		☺			⊗					⊗			☺			⊗			
ADMT160630R-F56	3	1,2		☺	⊗		☺		⊗	⊗					⊗			☺		⊗	⊗			
ADMT160632R-F56	3,2	1,2		☺	⊗		☺		⊗	⊗					⊗			☺		⊗	⊗			
ADMT160640R-F56	4	1		☺	⊗	⊗	☺	☺	⊗	⊗	⊗				⊗			☺	☺	⊗	⊗	⊗		
ADMT160650R-F56	5			☺	⊗		☺		⊗	⊗					⊗			☺		⊗	⊗			
ADMT160660R-F56	6			☺	⊗	⊗	☺	☺	⊗	⊗	⊗				⊗			☺	☺	⊗	⊗	⊗		
ADGT160612R-F56	1,2	1,6			⊗			☺		⊗									☺		⊗			
ADGT160650R-F56	5	0,4			⊗			☺		⊗									☺		⊗			
ADGX1606PER-F56	0,8	8										☻											☻	☻

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm
ADGX1606PER-F56 wiper insert only in combination with ADGT1606PER-F56, ADGT1606PER-D67 or ADGT1606PER-G77

HC = Coated carbide
HW = Uncoated carbide

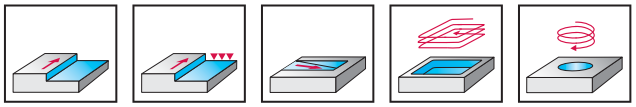
C 284 | D 1 | C 568 | C 591 | C 621 | C 635

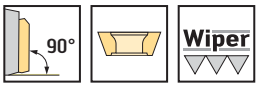
Shoulder milling cutters
F4042

AD .. 1606 .. R
Xtra·tec®

C 2

– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
F4042	●●	●●	●●	●●	●●	●	●

Tool

Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	l_1 mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway									
F4042.B16.040.Z03.15	40	16	40	15		3	0,39	3	AD .. 1606 .. R
F4042.B16.040.Z04.15	40	16	40	15		4	0,38	4	
F4042.B16.044.Z03.15	44	16	40	15		3	0,26	3	
F4042.B22.050.Z03.15	50	22	40	15		3	0,50	3	
F4042.B22.050.Z05.15	50	22	40	15		5	0,50	5	
F4042.B22.054.Z03.15	54	22	40	15		3	0,40	3	
F4042.B22.063.Z04.15	63	22	40	15		4	0,75	4	
F4042.B27.063.Z04.15	63	27	50	15		4	0,70	4	
F4042.B22.063.Z06.15	63	22	40	15		6	0,78	6	
F4042.B27.063.Z06.15	63	27	50	15		6	0,89	6	
F4042.B27.066.Z04.15	66	27	50	15		4	0,80	4	
F4042.B27.080.Z05.15	80	27	50	15		5	1,04	5	
F4042.B27.080.Z07.15	80	27	50	15		7	1,24	7	
F4042.B27.084.Z05.15	84	27	50	15		5	1,19	5	
F4042.B32.100.Z05.15	100	32	50	15		5	2,39	5	
F4042.B32.100.Z08.15	100	32	50	15		8	2,51	8	
F4042.B40.125.Z07.15	125	40	63	15		7	3,93	7	
F4042.B40.125.Z10.15	125	40	63	15		10	4,25	10	
Cylindrical bore DIN 138 transverse keyway									
F4042.B40.160.Z08.15	160	40/40 B	63	15		8	4,84	8	AD .. 1606 .. R
F4042.B40.160.Z12.15	160	40/40 B	63	15		12	5,02	12	

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

Assembly parts

	D_c [mm]	40–160
	Clamping screw for indexable insert	FS1453 (Torx 15IP)
	Tightening torque	3,5 Nm

Accessories

D_c [mm]	40–125	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 (gasket + screws)		FS936 COMPLETE SET
Gasket		O-R 96X4

Indexable inserts

			P				M					K				N		S					H	O
			HC				HC					HC				HC	HW	HC					HC	HC
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WHH15	WXM15
ADGT160616R-D67	1,6	1			☹			☺		☹									☺		☹			
ADGT160616R-F56	1,6	1,4			☹					☹											☹			
ADGT160620R-F56	2	1,4			☹					☹											☹			
ADGT160630R-D67	3	0,8			☹			☺		☹									☺		☹			
ADGT160632R-F56	3,2	1,2			☹					☹											☹			
ADGT160640R-F56	4	1			☹					☹											☹			
ADGT1606PER-D51	0,8	1,6	☻	☺	☹					☹				☺	☹						☹			
ADGT1606PER-D56	0,8	1,6	☻	☺	☹					☹			☺	☺	☹						☹			
ADGT1606PER-D67	0,8	1,6		☺	☹		☺			☹					☹			☺			☹			
ADGT1606PER-F56	0,8	1,6			☹		☺			☹								☺			☹			
ADGT1606PER-G77	0,8	1,2			☺			☻		☺									☻		☺			
ADHT160616R-G88	1,6	1,4														☻	☻							
ADHT160625R-G88	2,5	1,2															☻							
ADHT160630R-G88	3	1,2															☻							
ADHT160640R-G88	4	1															☻							
ADHT1606PER-G88	0,8	1,6														☻	☻							
ADKT1606PER-F56	0,8	1,6	☻	☺	☹					☹		☻		☺	☹						☹			
ADMT160608R-D56	0,8	1,6	☻	☺	☹					☹		☻	☺	☺	☹						☹			
ADMT160608R-F56	0,8	1,6	☻	☺	☹	☹	☺	☺	☹	☹	☹	☻	☺	☺	☹			☺	☺	☹	☹	☹		
ADMT160608R-G56	0,8	1,6		☻	☺		☺			☺					☺			☺			☺			
ADMT160612R-F56	1,2	1,6		☺	☹		☺		☹	☹					☹			☺		☹	☹			
ADMT160616R-F56	1,6	1,4		☺	☹	☹	☺		☹	☹	☹				☹			☺		☹	☹	☹		
ADMT160620R-F56	2	1,4		☺	☹		☺	☺	☹	☹					☹			☺	☺	☹	☹			
ADMT160625R-F56	2,5	1,2		☺	☹		☺			☹					☹			☺			☹			
ADMT160630R-F56	3	1,2		☺	☹		☺		☹	☹					☹			☺		☹	☹			
ADMT160632R-F56	3,2	1,2		☺	☹		☺		☹	☹					☹			☺		☹	☹			
ADMT160640R-F56	4	1		☺	☹	☹	☺	☺	☹	☹	☹				☹			☺	☺	☹	☹	☹		
ADMT160650R-F56	5			☺	☹		☺		☹	☹					☹			☺		☹	☹			
ADMT160660R-F56	6			☺	☹	☹	☺	☺	☹	☹	☹				☹			☺	☺	☹	☹	☹		
ADGT160612R-F56	1,2	1,6			☹			☺		☹									☺		☹			
ADGT160650R-F56	5	0,4			☹			☺		☹									☺		☹			
ADGX1606PER-F56	0,8	8										☻											☻	☻

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm
ADGX1606PER-F56 wiper insert only in combination with ADGT1606PER-F56, ADGT1606PER-D67 or ADGT1606PER-G77

HC = Coated carbide
HW = Uncoated carbide

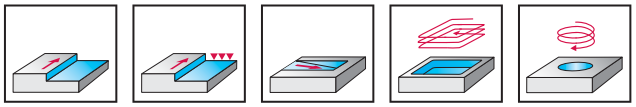
C 284 D 1 C 568 C 591 C 621 C 635

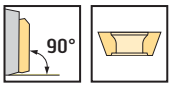
Shoulder milling cutters
F4042

AD . T1807 .. R
Xtra·tec®

C 2

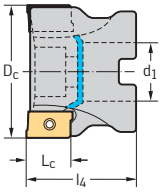
– Two cutting edges per indexable insert

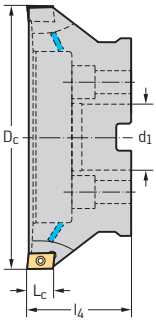




	P	M	K	N	S	H	O
F4042	●●	●●	●●		●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F4042.B27.063.Z05.16	63	27	50	16,7	5	0,62	5	AD . T1807 .. R
	F4042.B27.080.Z05.16	80	27	50	16,7	5	0,09	5	
	F4042.B27.080.Z06.16	80	27	50	16,7	6	1,14	6	
	F4042.B32.100.Z07.16	100	32	50	16,7	7	2,55	7	
	F4042.B40.125.Z08.16	125	40	63	16,7	8	4,04	8	
Cylindrical bore DIN 138 transverse keyway	F4042.B40.160.Z10.16	160	40/40 B	63	16,7	10	4,99	10	AD . T1807 .. R





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

Assembly parts

D_c [mm]	63–160
Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm

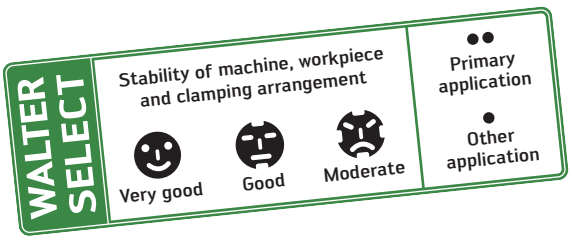
Accessories

D_c [mm]	63–125	160
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2015 (Torx 20IP)	FS2015 (Torx 20IP)
Screwdriver	FS1486 (Torx 20IP)	FS1486 (Torx 20IP)
Sealing disc (gasket + screws)		FS936 COMPLETE SET
Gasket		O-R 96X4

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
ADGT1807PER-D51	1,2	1,8	☺	●	●		●			●	●		●
ADGT1807PER-D56	1,2	1,8	☺	●	●		●			●	●		●
ADMT180712R-D56	1,2	1,8	☺	●	●		●		●	●	●		●
ADMT180712R-F56	1,2	1,8	☺	●	●		●		●	●	●		●

HC = Coated carbide



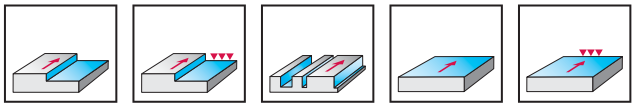
C 284 D 1 C 568 C 591 C 621

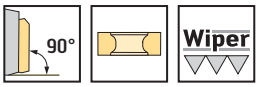
Shoulder milling cutters
F5041

LNH . 0904 .. R
Walter BLAXX

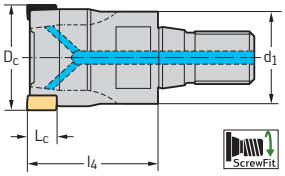
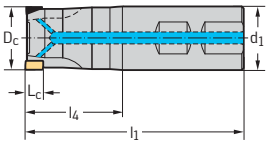
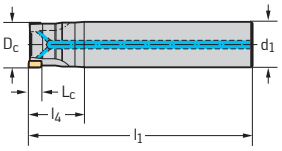
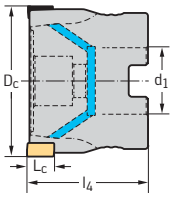
C 2

– Tangential indexable insert arrangement
– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
F5041	●●	●●	●●	●●	●●	●	●

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 	F5041.T22.025.Z03.08	25	T22	35	8		3	0,12	3	LNH . 0904 .. R
	F5041.T22.025.Z04.08	25	T22	35	8		4	0,12	4	
	F5041.T28.032.Z04.08	32	T28	40	8		4	0,22	4	
	F5041.T28.032.Z05.08	32	T28	40	8		5	0,22	5	
Shank DIN 1835 B 	F5041.W25.025.Z03.08	25	25	43	8	100	3	0,34	3	LNH . 0904 .. R
	F5041.W25.025.Z04.08	25	25	43	8	100	4	0,34	4	
	F5041.W32.032.Z04.08	32	32	49	8	110	4	0,61	4	
	F5041.W32.032.Z05.08	32	32	49	8	110	5	0,61	5	
	F5041.W32.040.Z04.08	40	32	49	8	110	4	0,70	4	
	F5041.W32.040.Z06.08	40	32	49	8	110	6	0,79	6	
Parallel shank 	F5041.Z25.025.Z03.08	25	25	38	8	200	3	0,79	3	LNH . 0904 .. R
	F5041.Z25.025.Z04.08	25	25	38	8	200	4	0,74	4	
	F5041.Z32.032.Z04.08	32	32	39	8	250	4	1,53	4	
	F5041.Z32.032.Z05.08	32	32	39	8	250	5	1,53	5	
Cylindrical bore DIN 138 transverse keyway 	F5041.B16.040.Z04.08	40	16	40	8		4	0,45	4	LNH . 0904 .. R
	F5041.B16.040.Z06.08	40	16	40	8		6	0,44	6	
	F5041.B22.050.Z05.08	50	22	40	8		5	0,57	5	
	F5041.B22.050.Z07.08	50	22	40	8		7	0,60	7	
	F5041.B22.063.Z07.08	63	22	40	8		7	0,84	7	
	F5041.B22.063.Z10.08	63	22	40	8		10	0,82	10	

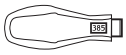
Balanced construction
Bodies and assembly parts are included in the scope of delivery.

C 2

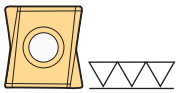
Assembly parts

	D_c [mm]	25–63
	Clamping screw for indexable insert Tightening torque	FS1457 (Torx 9IP) 2,0 Nm

Accessories

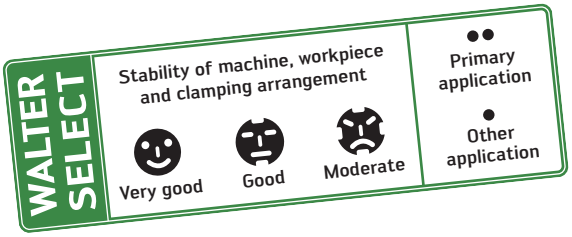
	D_c [mm]	25–63
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2013 (Torx 9IP)
	Screwdriver	FS1484 (Torx 9IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	LNHU090404R-L55T	0,4	1,5	●	●●	●●	●●	●●	●	●●	●●	●●			●●	●●		
	LNHU090404R-L65T	0,4	1,5			●●		●●								●●		
	LNHU090404R-L85T	0,4	1,5										●	●				
	LNHU090408R-L55T	0,8	1,1	●	●●	●●	●●	●●		●●	●●	●●			●●	●●		
	LNHU090412R-L55T	1,2	0,8		●●	●●	●●	●●				●●			●●	●●		
	LNHU090416R-L55T	1,6			●●	●●	●●	●●				●●			●●	●●		
	LNHU090420R-L55T	2			●●	●●	●●	●●				●●			●●	●●		
	LNHX0904PDR-L55T	0,4	3,5						●								●	●

LNHX0904PDR-L55T wiper insert only in combination with LNHU090404R-L55T . .

HC = Coated carbide
HW = Uncoated carbide

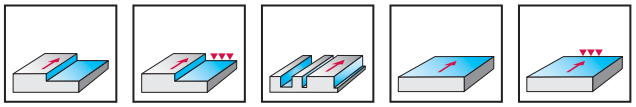


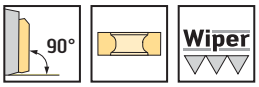
Shoulder milling cutters
F5141

LNH . 1306 .. R
Walter BLAXX

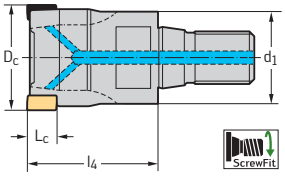
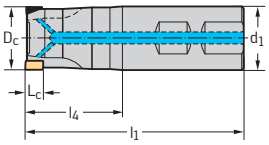
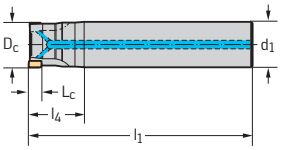
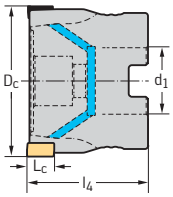
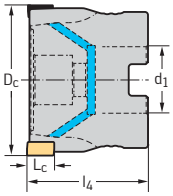
C 2

– Tangential indexable insert arrangement
– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
F5141	●●	●●	●●	●●	●●	●	●

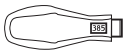
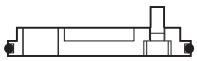
Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	l_1 mm	Z	kg	No. of indexable inserts	Type
ScrewFit 	F5141.T36.040.Z05.12	40	T36	40	12		5	0,36	5	LNH . 1306 .. R
	F5141.T45.050.Z06.12	50	T45	40	12		6	0,51	6	
Shank DIN 1835 B 	F5141.W32.040.Z03.12	40	32	49	12	110	3	0,69	3	LNH . 1306 .. R
	F5141.W32.040.Z05.12	40	32	49	12	110	5	0,74	5	
Parallel shank 	F5141.Z32.040.Z03.12	40	32	44	12	250	3	1,57	3	LNH . 1306 .. R
	F5141.Z32.040.Z05.12	40	32	44	12	250	5	1,57	5	
Cylindrical bore DIN 138 transverse keyway 	F5141.B16.040.Z04.12	40	16	40	12		4	0,41	4	LNH . 1306 .. R
	F5141.B16.040.Z05.12	40	16	40	12		5	0,42	5	
	F5141.B22.050.Z05.12	50	22	40	12		5	0,54	5	
	F5141.B22.050.Z06.12	50	22	40	12		6	0,42	6	
	F5141.B22.063.Z06.12	63	22	40	12		6	0,80	6	
	F5141.B22.063.Z08.12	63	22	40	12		8	0,79	8	
	F5141.B27.080.Z07.12	80	27	50	12		7	1,29	7	
	F5141.B27.080.Z10.12	80	27	50	12		10	1,27	10	
	F5141.B32.100.Z09.12	100	32	50	12		9	2,72	9	
	F5141.B32.100.Z13.12	100	32	50	12		13	2,68	13	
	F5141.B40.125.Z11.12	125	40	63	12		11	4,3	11	
	F5141.B40.125.Z16.12	125	40	63	12		16	4,35	16	
Cylindrical bore DIN 138 transverse keyway 	F5141.B40.160.Z13.12	160	40/40 B	63	12		13	5,38	13	LNH . 1306 .. R
	F5141.B40.160.Z18.12	160	40/40 B	63	12		18	5,40	18	

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

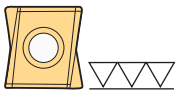
Assembly parts

	D_c [mm]	40–160
	Clamping screw for insert Tightening torque	FS2081 (Torx 15IP) 4,0 Nm

Accessories

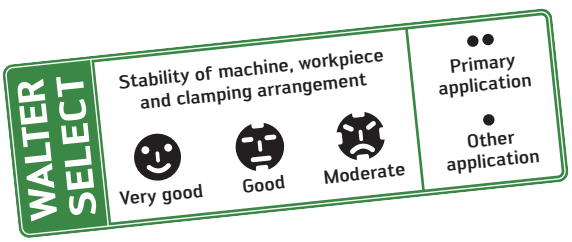
	D_c [mm]	40-125	160
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)	FS1485 (Torx 15IP)
	Sealing disc (gasket + screws)		FS936 COMPLETE SET
	Gasket		O-R 96X4

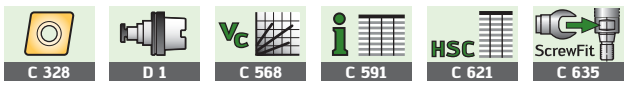
Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S	H HC WHH15	O HC WXM15
	LNHU130608R-L55T	0,8	2,2	☺	😐	☹	😐	☹	☺	😐	😐	☹			😐	☹		
	LNHU130608R-L65T	0,8	2,2			☹		☹								☹		
	LNHU130608R-L85T	0,8	2,2										☺	☺				
	LNHU130612R-L55T	1,2	1,9		😐	☹	😐	☹				☹			😐	☹		
	LNHU130616R-L55T	1,6	1,5		😐	☹	😐	☹				☹			😐	☹		
	LNHU130620R-L55T	2	1,2		😐	☹	😐	☹				☹			😐	☹		
	LNHU130625R-L55T	2,5	0,7		😐	☹	😐	☹				☹			😐	☹		
	LNHU130630R-L55T	3			😐	☹	😐	☹				☹			😐	☹		
	LNHU130632R-L55T	3,2			😐	☹	😐	☹				☹			😐	☹		
	LNHX130608R-L55T	0,8	2,2						☺								☺	☺
	LNHX1306PDR-L55T	0,6	5						☺								☺	☺

LNHX130608R-L55T wiper insert only in combination with LNHU130608R-L55T . .
LNHX1306PDR-L55T wiper insert only in combination with LNHU130608R-L55T . .

HC = Coated carbide
HW = Uncoated carbide



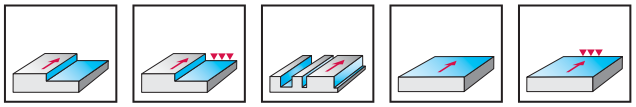


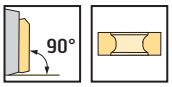
Shoulder milling cutters
F5241

LNHU1607 .. R
Walter BLAXX

C 2

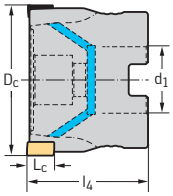
– Tangential indexable insert arrangement
– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
F5241	●●	●●	●●	●●	●●	●	●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	F5241.B22.050.Z03.15	50	22	40	15	3	0,52	3	LNHU1607 .. R
	F5241.B22.050.Z05.15	50	22	40	15	5	0,52	5	
	F5241.B22.063.Z04.15	63	22	40	15	4	0,74	4	
	F5241.B22.063.Z06.15	63	22	40	15	6	0,76	6	
	F5241.B27.080.Z05.15	80	27	50	15	5	1,21	5	
	F5241.B27.080.Z07.15	80	27	50	15	7	1,27	7	
	F5241.B32.100.Z06.15	100	32	50	15	6	2,52	6	
	F5241.B32.100.Z08.15	100	32	50	15	8	2,61	8	
	F5241.B40.125.Z07.15	125	40	63	15	7	4,11	7	
	F5241.B40.125.Z10.15	125	40	63	15	10	4,21	10	
	F5241.B40.160.Z08.15	160	40/40 B	63	15	8	5,29	8	
	F5241.B40.160.Z12.15	160	40/40 B	63	15	12	5,4	12	

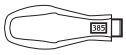
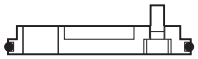


Balanced construction
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	D_c [mm]	50	63–160
	Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm	FS2112 (Torx 20IP) 5,0 Nm

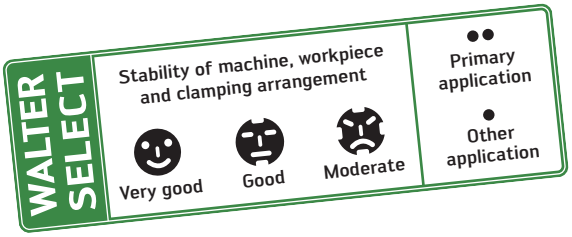
Accessories

	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	FS2015 (Torx 20IP)	FS2015 (Torx 20IP)
	Screwdriver	FS1486 (Torx 20IP)	FS1486 (Torx 20IP)
	Gasket		O-R 96X4
	Sealing disc set, complete		FS936 COMPLETE SET

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNHU160708R-L55T	0,8	2,3	☺	●	●●	●	●●	☺	●	●	●●			●	●●
	LNHU160708R-L65T	0,8	2,3			●●		●●								●●
	LNHU160708R-L85T	0,8	2,3										☺	☺		
	LNHU160712R-L55T	1,2	1,9		●	●●	●	●●				●●			●	●●
	LNHU160716R-L55T	1,6	1,6		●	●●	●	●●				●●			●	●●
	LNHU160720R-L55T	2	1,2		●	●●	●	●●				●●			●	●●
	LNHU160725R-L55T	2,5	0,8		●	●●	●	●●				●●			●	●●

HC = Coated carbide
HW = Uncoated carbide

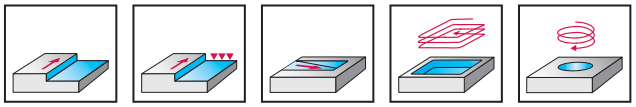


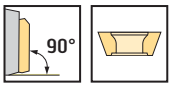
C 328 D 1 C 568 C 591 C 621

Ramping milling cutter
M2131

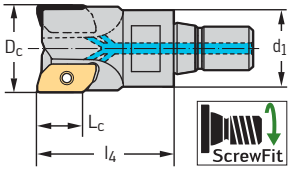
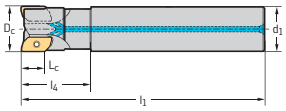
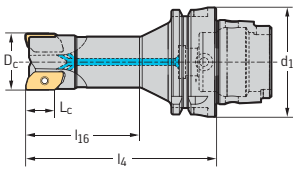
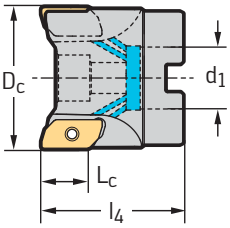
C 2

– For pocket machining
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
M2131				●●			●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	l_1 mm	L_c mm	Z	kg	No. of index-able inserts	Type
ScrewFit 	M2131-025-T22-02-15	25	T22	45			15	2	0,1	2	ZDGT1504 .. R
	M2131-032-T28-02-15	32	T28	50			15	2	0,2	2	
	M2131-032-T28-02-20	32	T28	50			20	2	0,2	2	ZDGT2005 .. R
	M2131-032-T28-03-15	32	T28	50			15	3	0,2	3	ZDGT1504 .. R
	M2131-040-T36-02-20	40	T36	50			20	2	0,4	2	ZDGT2005 .. R
	M2131-040-T36-03-15	40	T36	50			15	3	0,4	3	ZDGT1504 .. R
Parallel shank 	M2131-025-A20-02-15-S	25	20	40		110	15	2	0,3	2	ZDGT1504 .. R
	M2131-025-A25-02-15-L	25	25	40		150	15	2	0,5	2	
	M2131-032-A20-02-15-S	32	20	40		110	15	2	0,3	2	
	M2131-032-A20-03-15-S	32	20	40		110	15	3	0,3	3	
	M2131-032-A25-02-15-L	32	25	40		175	15	2	0,6	2	
	M2131-032-A25-03-15-L	32	25	40		175	15	3	0,6	3	
	M2131-032-A25-02-20-L	32	25	40		175	20	2	0,6	2	ZDGT2005 .. R
	M2131-032-A32-02-15-L	32	32	50		175	15	2	1,0	2	ZDGT1504 .. R
	M2131-032-A32-02-20-L	32	32	50		175	20	2	0,9	2	ZDGT2005 .. R
	M2131-032-A32-03-15-L	32	32	50		175	15	3	1,0	3	ZDGT1504 .. R
	M2131-040-A32-02-20-L	40	32	50		175	20	2	1,0	2	ZDGT2005 .. R
	M2131-040-A32-03-15-L	40	32	50		175	15	3	1,1	3	ZDGT1504 .. R
HSK DIN 69893/1-A 	M2131-025-H63-02-15	25	HSK-A63	110	60		15	2	1,0	2	ZDGT1504 .. R
	M2131-032-H63-02-15	32	HSK-A63	110	65		15	2	1,1	2	
	M2131-040-H63-02-20	40	HSK-A63	110	65		20	2	1,3	2	ZDGT2005 .. R
	M2131-050-H63-04-15	50	HSK-A63	110	80		15	4	1,5	4	ZDGT1504 .. R
	M2131-050-H63-03-20	50	HSK-A63	110	80		20	3	1,4	3	ZDGT2005 .. R
	M2131-050-H80-04-15-D	50	HSK-A80/A63	110	80		15	4	1,9	4	ZDGT1504 .. R
	M2131-050-H80-03-20-D	50	HSK-A80/A63	110	80		20	3	1,9	3	ZDGT2005 .. R
	M2131-063-H63-04-20	63	HSK-A63	110	80		20	4	1,7	4	
	M2131-063-H63-05-15	63	HSK-A63	110	80		15	5	1,7	5	ZDGT1504 .. R
Cylindrical bore DIN 138 transverse keyway 	M2131-040-B16-03-15	40	16	50			15	3	0,3	3	ZDGT1504 .. R
	M2131-050-B22-03-20	50	22	60			20	3	0,5	3	ZDGT2005 .. R
	M2131-050-B22-04-15	50	22	50			15	4	0,4	4	ZDGT1504 .. R
	M2131-063-B22-04-20	63	22	50			20	4	0,5	4	ZDGT2005 .. R
	M2131-063-B22-05-15	63	22	50			15	5	0,6	5	ZDGT1504 .. R
	M2131-080-B27-05-15	80	27	60			15	5	1,4	5	

Pre-balanced tools
For information on high-speed applications, see "Technical information/Information on high-speed applications"
Tools with HSK have a residual imbalance of 3 gmm – with chip hole, without chip
M2131-...-D special interface for Dörries Scharmann (similar to HSK-A DIN 69893)
For HSK accessories, see "Assembly parts and accessories/Transfer units for HSK"
For tools with locating bores, use longer fastening bolts in accordance with ISO 4762, see "Assembly parts and accessories/Other"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type D_c [mm]	ZDGT1504 .. R 25–32	ZDGT1504 .. R 40–80	ZDGT2005 .. R 32	ZDGT2005 .. R 40–63
Clamping screw for indexable insert Tightening torque	FS1222 (Torx 15IP) 3,5 Nm	FS1453 (Torx 15IP) 3,5 Nm	FS2139 (Torx 20IP) 5,0 Nm	FS2281 (Torx 20IP) 5,0 Nm

Accessories

Type	ZDGT1504 .. R	ZDGT2005 .. R
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)	FS2015 (Torx 20IP)
Screwdriver	FS1485 (Torx 15IP)	FS1486 (Torx 20IP)

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HC WNN15	N HW WK10	S HC WSM35S	S HC WSP45S	O HF WMG40
ZDGT150404R-K85	0,4	1,2										☺	☺	☺			☹
ZDGT150408R-K85	0,8	1,2										☺	☺	☺			☹
ZDGT150412R-K85	1,2	1,2										☺	☺	☺			☹
ZDGT150416R-K85	1,6	1,2										☺	☺	☺			☹
ZDGT150420R-K85	2	1,2										☺	☺	☺			☹
ZDGT150425R-K85	2,5	1,2										☺	☺	☺			☹
ZDGT150430R-K85	3	1,2										☺	☺	☺			☹
ZDGT150440R-K85	4	1,2										☺	☺	☺			☹
ZDGT200508R-K85	0,8	1,2											☺	☺			☹
ZDGT200512R-K85	1,2	1,2											☺	☺			☹
ZDGT200516R-K85	1,6	1,2											☺	☺			☹
ZDGT200520R-K85	2	1,2											☺	☺			☹
ZDGT200530R-K85	3	1,2											☺	☺			☹
ZDGT200540R-K85	4	1,2											☺	☺			☹
ZDGT200550R-K85	5	1,2											☺	☺			☹
ZDGT200560R-K85	6	1,2											☺	☺			☹
ZDGT200564R-K85	6,4	1,2											☺	☺			☹

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm

HC = Coated carbide
HW = Uncoated carbide
HF = Uncoated fine-grained carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

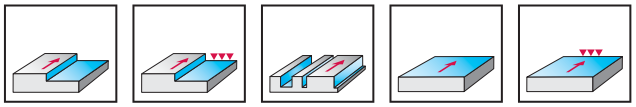
● Other application

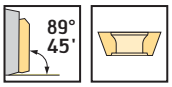
C 308 | D 1 | C 568 | C 591 | C 658 | C 634

Shoulder milling cutters
M4132

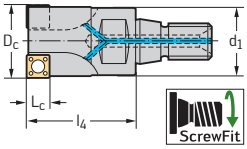
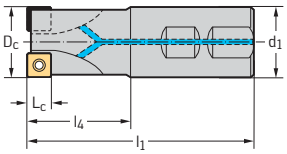
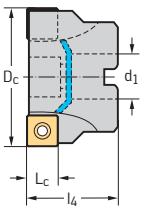
C 2

– Four cutting edges per indexable insert





	P	M	K	N	S	H	O
M4132	●●	●●	●●		●●	●	

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 	M4132-016-T14-02-06	16	T14	25	5,6		2	0,03	2	
	M4132-020-T18-02-06	20	T18	30	5,6		2	0,07	2	SD .. 06T2 ..
	M4132-020-T18-03-06	20	T18	30	5,6		3	0,07	3	
	M4132-025-T22-02-09	25	T22	35	8,4		2	0,12	2	SD .. 09T3 ..
	M4132-025-T22-03-06	25	T22	35	5,6		3	0,11	3	SD .. 06T2 ..
	M4132-025-T22-04-06	25	T22	35	5,6		4	0,13	4	
	M4132-032-T28-02-09	32	T28	40	8,4		2	0,22	2	
	M4132-032-T28-03-09	32	T28	40	8,4		3	0,21	3	
	M4132-040-T36-03-09	40	T36	40	8,4		3	0,23	3	SD .. 09T3 ..
	M4132-040-T36-04-09	40	T36	40	8,4		4	0,36	4	
	M4132-050-T45-04-09	50	T45	40	8,4		4	0,37	4	
	M4132-050-T45-06-09	50	T45	40	8,4		6	0,37	6	
Shank DIN 1835 B 	M4132-016-W16-02-06	16	16	31	5,6	80	2	0,12	2	
	M4132-020-W20-02-06	20	20	39	5,6	90	2	0,20	2	SD .. 06T2 ..
	M4132-020-W20-03-06	20	20	39	5,6	90	3	0,20	3	
	M4132-025-W25-02-09	25	25	43	8,4	100	2	0,35	2	SD .. 09T3 ..
	M4132-025-W25-03-06	25	25	43	5,6	100	3	0,35	3	SD .. 06T2 ..
	M4132-025-W25-04-06	25	25	43	5,6	100	4	0,33	4	
	M4132-032-W32-02-09	32	32	49	8,4	110	2	0,61	2	
	M4132-032-W32-03-09	32	32	49	8,4	110	3	0,49	3	SD .. 09T3 ..
	M4132-040-W40-03-09	40	40	49	8,4	120	3	1,08	3	
	M4132-040-W40-04-09	40	40	49	8,4	120	4	1,05	4	
Cylindrical bore DIN 138 transverse keyway 	M4132-040-B16-04-09	40	16	40	8,4		4	0,22	4	
	M4132-040-B16-05-09	40	16	40	8,4		5	0,22	5	SD .. 09T3 ..
	M4132-050-B22-04-09	50	22	40	8,4		4	0,35	4	
	M4132-050-B22-04-12	50	22	40	11,6		4	0,26	4	SD .. 1204 ..
	M4132-050-B22-05-12	50	22	40	11,6		5	0,32	5	
	M4132-050-B22-06-09	50	22	40	8,4		6	0,34	6	SD .. 09T3 ..
	M4132-063-B22-05-09	63	22	40	8,4		5	0,55	5	
	M4132-063-B22-05-12	63	22	40	11,6		5	0,52	5	SD .. 1204 ..
	M4132-063-B22-06-12	63	22	40	11,6		6	0,54	6	
	M4132-063-B22-07-09	63	22	40	8,4		7	0,57	7	SD .. 09T3 ..
	M4132-080-B27-06-09	80	27	50	8,4		6	1,14	6	
	M4132-080-B27-06-12	80	27	50	11,6		6	1,00	6	SD .. 1204 ..
	M4132-080-B27-08-09	80	27	50	8,4		8	1,17	8	SD .. 09T3 ..
	M4132-080-B27-08-12	80	27	50	11,6		8	1,12	8	
	M4132-100-B32-07-12	100	32	50	11,6		7	1,8	7	
	M4132-100-B32-09-12	100	32	50	11,6		9	1,83	9	SD .. 1204 ..
	M4132-125-B40-08-12	125	40	63	11,6		8	3,37	8	
	M4132-125-B40-10-12	125	40	63	11,6		10	3,43	10	

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

Assembly parts

Type	SD .. 06T2 ..	SD .. 09T3 ..	SD .. 1204 ..
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 .. 06T2 ..	SD .. 09T3 ..	SD .. 1204 ..
Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)	FS2014 (Torx 15IP)
Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)	FS1485 (Torx 15IP)

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM45X	S HC WSP45S
SDGT06T2PDR-D57	0,4	1,2	☺	😐	☹	😐		☹			😐	☹	😐		☹
SDGT09T3PDR-D57	0,8	1,2	☺	😐	☹	😐		☹			😐	☹	😐		☹
SDGT1204PDR-D57	0,8	1,6	☺	😐	☹	😐		☹			😐	☹	😐		☹
SDMT06T204-D51	0,4		☺	☹	☹			☹			😐	☹			☹
SDMT06T204-D57	0,4		☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
SDMT06T204-F57	0,4		☺	😐	☹	😐	☹	☹	☺		😐	☹	😐	☹	☹
SDMT06T212-F57	1,2			😐	☹	😐	☹	☹				☹	😐	☹	☹
SDMW06T204-A57	0,4		😐	☹							😐	☹			
SDMT09T308-D51	0,8		☺	☹	☹			☹			😐	☹			☹
SDMT09T308-D57	0,8		☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
SDMT09T308-F57	0,8		☺	😐	☹	😐	☹	☹	☺		😐	☹	😐	☹	☹
SDMT09T320-F57	2			😐	☹	😐	☹	☹				☹	😐	☹	☹
SDMW09T308-A57	0,8		😐	☹							😐	☹			
SDMT120408-D51	0,8		☺	☹	☹			☹			😐	☹			☹
SDMT120408-D57	0,8		☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
SDMT120408-F57	0,8		☺	😐	☹	😐	☹	☹	☺		😐	☹	😐	☹	☹
SDMT120425-F57	2,5			😐	☹	😐	☹	☹				☹	😐	☹	☹
SDMW120408-A57	0,8		😐	☹							😐	☹			

SD..06T2.. : If the corner radius is r > 0.4 mm, the corner area of the body must be reworked.
SD..09T3.. : If the corner radius is r > 0.8 mm, the corner area of the body must be reworked.
SD..1204.. : If the corner radius is r > 0.8 mm, the corner area of the body must be reworked.
$R_{(body)} = r_{(indexable\ insert)}$

HC = Coated carbide

WALTER SELECT
Stability of machine, workpiece and clamping arrangement
Very good · Good · Moderate
●● Primary application
● Other application

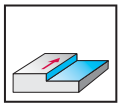
C 299 · D 1 · C 568 · C 591 · C 621 · C 635

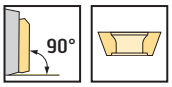
Porcupine milling cutters F2338F

LP .. 1506 .. / SP .. 120606

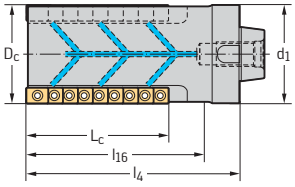
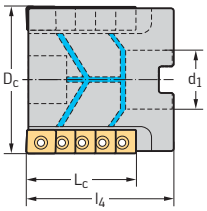
C 2

– Full effective design
– Two or four cutting edges per indexable insert





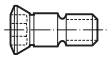
	P	M	K	N	S	H	O
F2338F	●●	●	●●		●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	L_c mm	Z	kg	No. of indexable inserts	Type
Modular NCT adaptor 	F2338F.N8.063.Z03.81	63	NCT 80	135	106	81	3	2,7	3 18	LP .. 1506 .. SP .. 120606
	F2338F.N8.080.Z05.103	80	NCT 80	155	132	103	5	4,3	5 40	
Cylindrical bore DIN 138 transverse keyway 	F2338F.B.063.Z03.48	63	27	70		48	3	0,9	3 9	LP .. 1506 .. SP .. 120606
	F2338F.B.066.Z04.48	66	27	70		48	4	1	4 12	
	F2338F.B.080.Z04.59	80	32	80		59	4	1,7	4 16	
	F2338F.B.080.Z05.70	80	32	95		70	5	2,1	5 25	
	F2338F.B.085.Z05.70	85	32	95		70	5	2,6	5 25	
	F2338F.B.100.Z06.81	100	40	105		81	6	4,0	6 36	

For tools with locating bores, use longer tightening screws in accordance with ISO 4762, see "Assembly parts and accessories/Other"
Bodies and assembly parts are included in the scope of delivery.

C 2

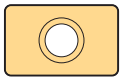
Assembly parts

	D_c [mm]	63–100
	Clamping screw for insert LP . . Tightening torque	FS1153 (Torx 20) 5 Nm
	Clamping screw for indexable insert SP . . Tightening torque	FS1031 (Torx 20) 5,0 Nm

Accessories

	D_c [mm]	63–100
	Screwdriver for indexable insert	FS228 (Torx 20)

Indexable inserts

	Designation	r mm	b mm	P HC				M HC				K HC				S HC			
				WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WSM35S	WSM35	WSP45S	WSP45
	LPGT1506PPR-F57	1,2	1,6		●	●●			●	●●					●●		●	●●	
	LPMT150612R-D51	1,2			●	●●			●	●●					●●		●	●●	
	LPMT150612R-D57	1,2		●●	●		●●				●●	●●		●	●●				●●
	LPMW150612TR-A27	1,2			●●										●●				
	SPGT120606-F57	0,6			●●	●●		●		●●					●●	●		●●	
	SPHW120606-A57	0,6										●●							
	SPMT120606-D51	0,6			●	●●			●	●●					●●		●	●●	
	SPMT120606-D57	0,6		●●	●	●●				●●		●●		●	●●			●●	
	SPMW120606T-A27	0,6			●●										●●				

HC = Coated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good · Good · Moderate

●● Primary application

● Other application

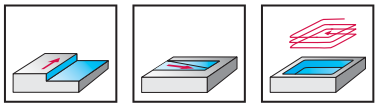
C 289 · D 1 · C 570 · C 594 · C 658

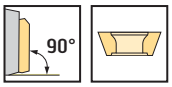
Porcupine milling cutters
F4038

AD . T0803 .. R
Xtra·tec®

C 2

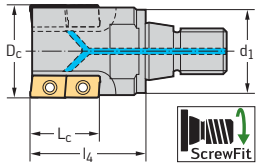
– Full effective design
– Two cutting edges per indexable insert

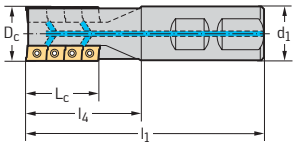




	P	M	K	N	S	H	O
F4038	●●	●●	●●	●●	●●		●

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	F4038.T18.020.Z01.15	20	T18	30	15		1	0,06	3	AD . T0803 .. R
	F4038.T22.025.Z02.22	25	T22	40	22		2	0,12	6	
	F4038.T28.032.Z03.30	32	T28	50	30		3	0,22	12	
Shank DIN 1835 B	F4038.W20.020.Z01.30	20	20	45	30	96	1	0,19	5	AD . T0803 .. R
	F4038.W25.025.Z02.30	25	25	50	30	100	2	0,34	8	
	F4038.W32.032.Z03.30	32	32	50	30	105	3	0,59	12	
	F4038.W32.032.Z03.37	32	32	50	37	111	3	0,56	15	



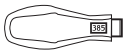


Bodies and assembly parts are included in the scope of delivery.

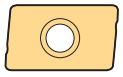
Assembly parts

	D_c [mm]	20–32
	Clamping screw for indexable insert Tightening torque	FS1454 (Torx 8IP) 1,2 Nm

Accessories

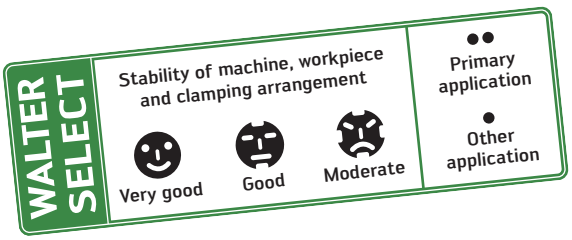
	D_c [mm]	20–32
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2012 (Torx 8IP)
	Screwdriver	FS1483 (Torx 8IP)

Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	ADGT0803PER-D51	0,4	1,2	☺	●	●●				●●				●	●●					●●	
	ADGT0803PER-D56	0,4	1,2			●●				●●										●●	
	ADGT0803PER-F56	0,4	1,2			●●		●		●●								●		●●	
	ADHT0803PER-G88	0,4	1,2													☺	☺				
	ADKT0803PER-F56	0,4	1,2	☺	●	●●				●●		☺		●	●●					●●	
	ADMT080302R-F56	0,2	1,2		●	●●		●		●●					●●			●		●●	
	ADMT080304R-D56	0,4	1,2	☺	●	●●				●●		☺	●	●	●●					●●	
	ADMT080304R-F56	0,4	1,2	☺	●	●●		●	●	●●		☺	●	●	●●			●	●	●●	
	ADMT080304R-G56	0,4	1,2		☺		●	●			●				●			●			●
	ADMT080308R-F56	0,8	1,2		●	●●	●●	●	●	●●	●●				●●			●	●	●●	●●
	ADMT080312R-F56	1,2	1		●	●●		●		●●					●●			●		●●	
	ADMT080316R-F56	1,6	1		●	●●		●		●●					●●			●		●●	
	ADMT080320R-F56	2	1		●	●●		●	●	●●					●●			●	●	●●	
	ADGT080308R-F56	0,8	1,2			●●			●	●●									●	●●	

If the corner radius is r = 1.6 mm or above, the corner area of the body must be reworked.
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm
Indexable inserts with r > 0.4 mm can only be used as front inserts.

HC = Coated carbide
HW = Uncoated carbide



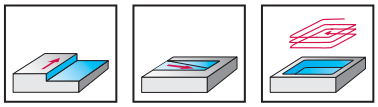
C 284 D 1 C 570 C 594 C 621 C 635

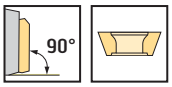
Porcupine milling cutters
F4138

AD . T1204 .. R
Xtra·tec®

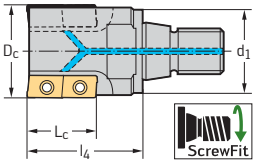
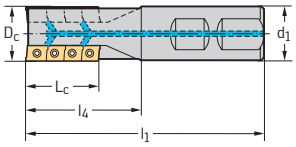
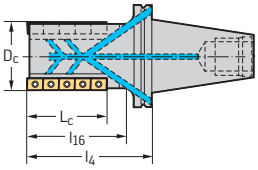
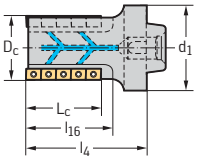
C 2

– Full effective design
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
F4138	●●	●●	●●	●●	●●		●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	l_1 mm	L_c mm	Z	kg	No. of index-able inserts	Type
ScrewFit 	F4138.T28.032.Z02.33	32	T28	50			33	2	0,2	6	AD . T1204 .. R
	F4138.T36.040.Z03.33	40	T36	55			33	3	0,4	9	
Shank DIN 1835 B 	F4138.W32.032.Z02.43	32	32	64		125	43	2	0,6	8	AD . T1204 .. R
	F4138.W40.040.Z03.54	40	40	79		150	54	3	1,4	15	
SK DIN 69871 AD/B 	F4138.S4.040.Z03.54	40	SK40	100	64		54	3	1,3	15	AD . T1204 .. R
	F4138.S5.040.Z03.65	40	SK50	120	75		65	3	3,5	18	
Modular NCT adaptor 	F4138.N6.040.Z03.54	40	NCT 63	105	69		54	3	1,1	15	AD . T1204 .. R
	F4138.N8.050.Z04.65	50	NCT 80	116	80		65	4	1,8	24	
	F4138.N8.063.Z05.76	63	NCT 80	125	99		76	5	2,6	35	

For pull studs for steep tapers, see "D – Adaptors catalogue/General information"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

D_c [mm]	32–63
Clamping screw for indexable insert Tightening torque	FS1457 (Torx 9IP) 2,0 Nm

Accessories

D_c [mm]	32–63
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2013 (Torx 9IP)
Screwdriver	FS1484 (Torx 9IP)

Indexable inserts

			P				M					K				N		S				
			HC				HC					HC				HC	HW	HC				
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WSP45
ADGT120416R-D67	1,6	1			✗			☺		✗									☺		✗	
ADGT120430R-D67	3	0,8				✗		☺			✗								☺			✗
ADGT120430R-F56	3	0,8			✗					✗											✗	
ADGT120440R-F56	4	0,4			✗					✗											✗	
ADGT1204PER-D51	0,8	1,2	☻	☺	✗					✗				☺	✗						✗	
ADGT1204PER-D56	0,8	1,2	☻	☺	✗					✗			☺	☺	✗						✗	
ADGT1204PER-D67	0,8	1,2		☺	✗		☺			✗					✗			☺			✗	
ADGT1204PER-F56	0,8	1,2			✗		☺			✗								☺			✗	
ADGT1204PER-G77	0,8	1,2			☺			☻		☺									☻		☺	
ADHT120416R-G88	1,6	1														☻	☻					
ADHT120425R-G88	2,5	0,8															☻					
ADHT120430R-G88	3	0,8														☻	☻					
ADHT120440R-G88	4	0,4															☻					
ADHT1204PER-G88	0,8	1,2														☻	☻					
ADKT1204PER-F56	0,8	1,2	☻	☺	✗					✗		☻		☺	✗						✗	
ADMT120404R-F56	0,4	1,2		☺	✗		☺	☺	✗	✗					✗			☺	☺	✗	✗	
ADMT120408R-D56	0,8	1,2	☻	☺	✗					✗		☻	☺	☺	✗						✗	
ADMT120408R-F56	0,8	1,2	☻	☺	✗	✗	☺	☺	✗	✗	✗	☻	☺	☺	✗			☺	☺	✗	✗	✗
ADMT120408R-G56	0,8	1,2		☻	☺		☺			☺					☺			☺			☺	
ADMT120412R-F56	1,2	1,2		☺	✗		☺		✗	✗					✗			☺		✗	✗	
ADMT120416R-F56	1,6	1		☺	✗	✗	☺	☺	✗	✗	✗				✗			☺	☺	✗	✗	✗
ADMT120420R-F56	2	1		☺	✗		☺	☺	✗	✗					✗			☺	☺	✗	✗	
ADMT120425R-F56	2,5	0,8		☺		✗	☺				✗				✗			☺				✗
ADMT120430R-F56	3	0,8		☺	✗		☺	☺	✗	✗					✗			☺	☺	✗	✗	
ADMT120432R-F56	3,2	0,8		☺	✗		☺		✗	✗					✗			☺		✗	✗	
ADMT120440R-F56	4	0,4		☺	✗	✗	☺	☺	✗	✗	✗				✗			☺	☺	✗	✗	✗
ADGT120404R-F56	0,4	1,2			✗			☺		✗									☺		✗	

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm
Indexable inserts with r > 0.8 mm can only be used as front inserts.

HC = Coated carbide
HW = Uncoated carbide

C 284 D 1 C 570 C 594 C 658 C 621

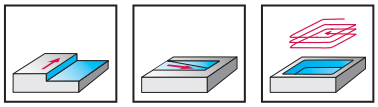
Porcupine milling cutters F4138

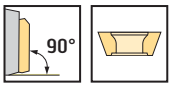
AD . T1204 .. R

Xtra·tec®

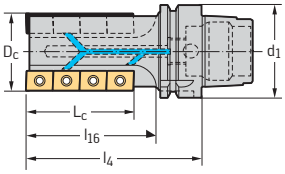
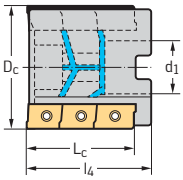
C 2

– Full effective design
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
F4138	●●	●●	●●	●●	●●		●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	l_1 mm	L_c mm	Z	kg	No. of index-able inserts	Type
HSK DIN 69893/1-A 	F4138.H63A.040.Z03.54	40	HSK-A63	101	64		54	3	1,1	15	AD . T1204 .. R
	F4138.H63A.050.Z04.43	50	HSK-A63	90	53		43	4	1,3	16	
	F4138.H100A.050.Z04.43	50	HSK-A100	100	53		43	4	2,8	16	
Cylindrical bore DIN 138 transverse keyway 	F4138.B16.040.Z03.33	40	16	55			33	3	0,3	9	AD . T1204 .. R
	F4138.B16.040.Z03.43	40	16	65			43	3	0,3	12	
	F4138.B22.050.Z04.43	50	22	65			43	4	0,6	16	
	F4138.B22.050.Z04.54	50	22	75			54	4	0,6	20	
	F4138.B27.063.Z05.43	63	27	70			43	5	1,0	20	
	F4138.B27.063.Z05.54	63	27	80			54	5	1,1	25	
	F4138.B32.080.Z06.54	80	32	85			54	6	2,1	30	
	F4138.B32.080.Z06.65	80	32	95			65	6	2,4	36	

For HSK accessories, see “Assembly parts and accessories/Transfer units for HSK”
For tools with locating bores, use longer tightening screws in accordance with ISO 4762, see “Assembly parts and accessories/Other”
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

D_c [mm]	40–80
Clamping screw for indexable insert Tightening torque	FS1457 (Torx 9IP) 2,0 Nm

Accessories

D_c [mm]	40–80
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2013 (Torx 9IP)
Screwdriver	FS1484 (Torx 9IP)

Indexable inserts

			P				M					K				N		S				
			HC				HC					HC				HC	HW	HC				
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WSP45
ADGT120416R-D67	1,6	1			✗			☺		✗									☺		✗	
ADGT120430R-D67	3	0,8				✗		☺			✗								☺			✗
ADGT120430R-F56	3	0,8			✗					✗											✗	
ADGT120440R-F56	4	0,4			✗					✗											✗	
ADGT1204PER-D51	0,8	1,2	☻	☺	✗					✗				☺	✗						✗	
ADGT1204PER-D56	0,8	1,2	☻	☺	✗					✗			☺	☺	✗						✗	
ADGT1204PER-D67	0,8	1,2		☺	✗		☺			✗					✗			☺			✗	
ADGT1204PER-F56	0,8	1,2			✗		☺			✗								☺			✗	
ADGT1204PER-G77	0,8	1,2			☺			☻		☺									☻		☺	
ADHT120416R-G88	1,6	1														☻	☻					
ADHT120425R-G88	2,5	0,8															☻					
ADHT120430R-G88	3	0,8														☻	☻					
ADHT120440R-G88	4	0,4															☻					
ADHT1204PER-G88	0,8	1,2														☻	☻					
ADKT1204PER-F56	0,8	1,2	☻	☺	✗					✗		☻		☺	✗						✗	
ADMT120404R-F56	0,4	1,2		☺	✗		☺	☺	✗	✗					✗			☺	☺	✗	✗	
ADMT120408R-D56	0,8	1,2	☻	☺	✗					✗		☻	☺	☺	✗						✗	
ADMT120408R-F56	0,8	1,2	☻	☺	✗	✗	☺	☺	✗	✗	✗	☻	☺	☺	✗			☺	☺	✗	✗	✗
ADMT120408R-G56	0,8	1,2		☻	☺		☺			☺					☺			☺			☺	
ADMT120412R-F56	1,2	1,2		☺	✗		☺		✗	✗					✗			☺		✗	✗	
ADMT120416R-F56	1,6	1		☺	✗	✗	☺	☺	✗	✗	✗				✗			☺	☺	✗	✗	✗
ADMT120420R-F56	2	1		☺	✗		☺	☺	✗	✗					✗			☺	☺	✗	✗	
ADMT120425R-F56	2,5	0,8		☺		✗	☺				✗				✗			☺				✗
ADMT120430R-F56	3	0,8		☺	✗		☺	☺	✗	✗					✗			☺	☺	✗	✗	
ADMT120432R-F56	3,2	0,8		☺	✗		☺		✗	✗					✗			☺		✗	✗	
ADMT120440R-F56	4	0,4		☺	✗	✗	☺	☺	✗	✗	✗				✗			☺	☺	✗	✗	✗
ADGT120404R-F56	0,4	1,2			✗			☺		✗									☺		✗	

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm
Indexable inserts with r > 0.8 mm can only be used as front inserts.

HC = Coated carbide
HW = Uncoated carbide

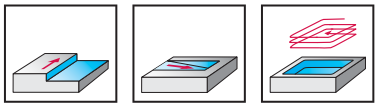
C 284 D 1 C 570 C 594 C 658 C 621

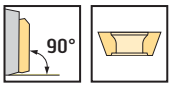
Porcupine milling cutters
F4238

AD . T1606 .. R
Xtra·tec®

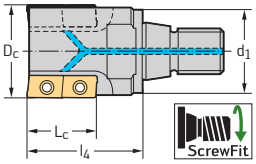
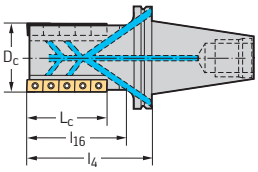
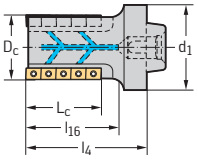
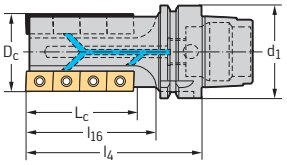
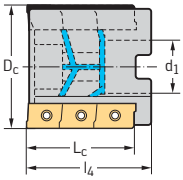
C 2

– Full effective design
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
F4238	●●	●●	●●	●●	●●		●

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	L_c mm	Z	kg	No. of indexable inserts	Type
ScrewFit 	F4238.T36.040.Z03.29	40	T36	55		29	3	0,4	6	AD . T1606 .. R
	F4238.T45.050.Z03.43	50	T45	70		43	3	0,7	9	
SK DIN 69871 AD/B 	F4238.S4.040.Z03.29	40	SK40	75	54	29	3	1,2	6	AD . T1606 .. R
	F4238.S4.050.Z03.43	50	SK40	85	65	43	3	1,5	9	
	F4238.S5.050.Z03.85	50	SK50	140	106	85	3	3,9	18	
	F4238.S5.063.Z03.99	63	SK50	153	121	99	3	4,6	21	
	F4238.S5.080.Z04.112	80	SK50	163	138	112	4	6,2	32	
Modular NCT adaptor 	F4238.N6.040.Z03.57	40	NCT 63	108	80	57	3	1,1	12	AD . T1606 .. R
	F4238.N8.040.Z03.57	40	NCT 80	105	68	57	3	1,5	12	
	F4238.N8.050.Z03.71	50	NCT 80	122	93	71	3	2,1	15	
	F4238.N8.063.Z04.85	63	NCT 80	136	111	85	4	2,7	24	
	F4238.N8.080.Z05.99	80	NCT 80	150	130	99	5	4,4	35	
HSK DIN 69893/1-A 	F4238.H100A.063.Z03.71	63	HSK-A100	125	82	71	3	3,5	15	AD . T1606 .. R
	F4238.H100A.080.Z04.85	80	HSK-A100	140	96	85	4	4,8	24	
Cylindrical bore DIN 138 transverse keyway 	F4238.B22.050.Z03.43	50	22	60		43	3	0,5	9	ADGT160612R
	F4238.B27.063.Z04.57	63	27	85		57	4	1,1	16	
	F4238.B27.063.Z04.43	63	27	70		43	4	0,9	12	
	F4238.B27.066.Z04.57	66	27	85		57	4	1,4	16	
	F4238.B32.080.Z05.57	80	32	85		57	5	2	20	
	F4238.B32.080.Z05.71	80	32	100		71	5	2,4	25	
	F4238.B32.085.Z05.71	85	32	100		71	5	2,9	25	

For pull studs for steep tapers, see "D – Adaptors catalogue/General information"
For HSK accessories, see "Assembly parts and accessories/Transfer units for HSK"
For tools with locating bores, use longer fastening bolts in accordance with ISO 4762, see "Assembly parts and accessories/Other"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

D_c [mm]	40–85
Clamping screw for indexable insert Tightening torque	FS1453 (Torx 15IP) 3,5 Nm

Accessories

D_c [mm]	40–85
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

			P				M					K				N		S				
			HC				HC					HC				HC	HW	HC				
Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSM45X	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSM45X	WSP45S	WSP45
ADGT160616R-D67	1,6	1			✗			☺		✗									☺		✗	
ADGT160616R-F56	1,6	1,4			✗					✗											✗	
ADGT160620R-F56	2	1,4			✗					✗											✗	
ADGT160630R-D67	3	0,8			✗			☺		✗									☺		✗	
ADGT160632R-F56	3,2	1,2			✗					✗											✗	
ADGT160640R-F56	4	1			✗					✗											✗	
ADGT1606PER-D51	0,8	1,6	☻	☺	✗					✗				☺	✗						✗	
ADGT1606PER-D56	0,8	1,6	☻	☺	✗					✗			☺	☺	✗						✗	
ADGT1606PER-D67	0,8	1,6		☺	✗		☺			✗					✗			☺			✗	
ADGT1606PER-F56	0,8	1,6			✗		☺			✗								☺			✗	
ADGT1606PER-G77	0,8	1,2			☺			☻		☺									☻		☺	
ADHT160616R-G88	1,6	1,4														☻	☻					
ADHT160625R-G88	2,5	1,2															☻					
ADHT160630R-G88	3	1,2															☻					
ADHT160640R-G88	4	1															☻					
ADHT1606PER-G88	0,8	1,6														☻	☻					
ADKT1606PER-F56	0,8	1,6	☻	☺	✗					✗		☻		☺	✗						✗	
ADMT160608R-D56	0,8	1,6	☻	☺	✗					✗		☻	☺	☺	✗						✗	
ADMT160608R-F56	0,8	1,6	☻	☺	✗	✗	☺	☺	✗	✗	✗	☻	☺	☺	✗			☺	☺	✗	✗	✗
ADMT160608R-G56	0,8	1,6		☻	☺		☺			☺					☺			☺			☺	
ADMT160612R-F56	1,2	1,6		☺	✗		☺		✗	✗					✗			☺		✗	✗	
ADMT160616R-F56	1,6	1,4		☺	✗	✗	☺		✗	✗	✗				✗			☺		✗	✗	✗
ADMT160620R-F56	2	1,4		☺	✗		☺	☺	✗	✗					✗			☺	☺	✗	✗	
ADMT160625R-F56	2,5	1,2		☺	✗		☺			✗					✗			☺			✗	
ADMT160630R-F56	3	1,2		☺	✗		☺		✗	✗					✗			☺		✗	✗	
ADMT160632R-F56	3,2	1,2		☺	✗		☺		✗	✗					✗			☺		✗	✗	
ADMT160640R-F56	4	1		☺	✗	✗	☺	☺	✗	✗	✗				✗			☺	☺	✗	✗	✗
ADMT160650R-F56	5			☺	✗		☺		✗	✗					✗			☺		✗	✗	
ADMT160660R-F56	6			☺	✗	✗	☺	☺	✗	✗	✗				✗			☺	☺	✗	✗	✗
ADGT160612R-F56	1,2	1,6			✗			☺		✗									☺		✗	
ADGT160650R-F56	5	0,4			✗			☺		✗									☺		✗	

If the corner radius r = 2.0 mm or above, the corner area of the body must be reworked:
$R_{(body)} = r_{(indexable\ insert)} - 1$ mm
Indexable inserts with r > 0.8 mm can only be used as front inserts.

HC = Coated carbide
HW = Uncoated carbide

C 284 D 1 C 570 C 595 C 658 C 621

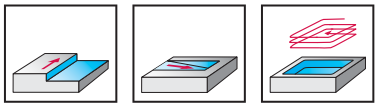
Porcupine milling cutters F4338

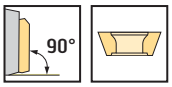
AD . T1807 .. R

Xtra·tec®

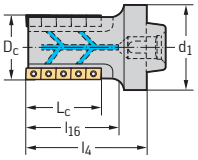
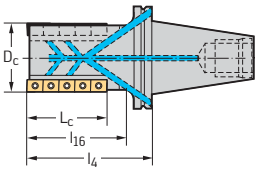
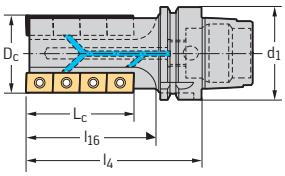
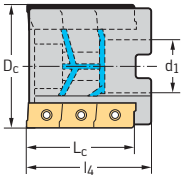
C 2

– Full effective design
– Two cutting edges per indexable insert





	P	M	K	N	S	H	O
F4338	●●	●●	●●		●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	L_c mm	Z	kg	No. of indexable inserts	Type
Modular NCT adaptor 	F4338.N8.063.Z04.94	63	NCT 80	117	117	94	4	2,6	24	AD . T1807 .. R
	F4338.N8.080.Z05.109	80	NCT 80	140	124	109	5	4,8	35	
SK DIN 69871 AD/B 	F4338.S5.063.Z04.109	63	SK50	125	125	109	4	4,5	28	AD . T1807 .. R
	F4338.S5.080.Z05.124	80	SK50	163	140	124	5	6,0	40	
HSK DIN 69893/1-A 	F4338.H100A.063.Z04.109	63	HSK-A100	165	126	109	4	3,8	28	AD . T1807 .. R
	F4338.H100A.080.Z05.124	80	HSK-A100	180	140	124	5	5,5	40	
Cylindrical bore DIN 138 transverse keyway 	F4338.B27.063.Z04.31	63	27	53		31	4	0,6	8	AD . T1807 .. R
	F4338.B27.063.Z04.47	63	27	69		47	4	0,8	12	
	F4338.B27.063.Z04.63	63	27	85		63	4	1,0	16	
	F4338.B32.080.Z05.31	80	32	53		31	5	1,2	10	
	F4338.B32.080.Z05.63	80	32	85		63	5	1,8	20	
	F4338.B32.080.Z05.78	80	32	100		78	5	2,0	25	
	F4338.B40.100.Z05.78	100	40	105		78	5	3,8	25	
	F4338.B40.125.Z06.94	125	40	120		94	6	8,1	36	

For pull studs for steep tapers, see "D – Adaptors catalogue/General information"
For HSK accessories, see "Assembly parts and accessories/Transfer units for HSK"
For tools with locating bores, use longer fastening bolts in accordance with ISO 4762, see "Assembly parts and accessories/Other"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

D_c [mm]	63–125
Clamping screw for indexable insert Tightening torque	FS1495 (Torx 20IP) 5,0 Nm

Accessories

D_c [mm]	63–125
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 WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSP45S
ADGT1807PER-D51	1,2	1,8	●●	●	○		○			●	○		○
ADGT1807PER-D56	1,2	1,8	●●	●	○		○			●	○		○
ADMT180712R-D56	1,2	1,8	●●	●	○		○		●	●	○		○
ADMT180712R-F56	1,2	1,8	●●	●	○		○		●	●	○		○

HC = Coated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good · Good · Moderate

●● Primary application

● Other application

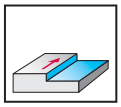
C 284 · D 1 · C 570 · C 595 · C 658 · C 621

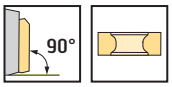
Porcupine milling cutters
F5038

LNHU0904 .. R
Walter BLAXX

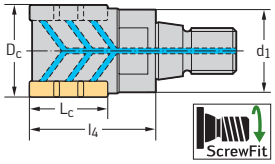
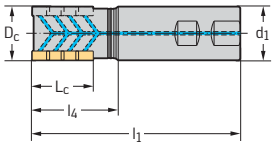
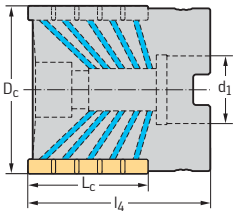
C 2

– Full effective design
– Four cutting edges per indexable insert, tangential arrangement





	P	M	K	N	S	H	O
F5038	●●	●●	●●	●●	●●		●

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	F5038.T22.025.Z02.24	25	T22	40	24		2	0,12	6	LNHU0904 .. R
	F5038.T28.032.Z02.24	32	T28	40	24		2	0,20	6	
	F5038.T28.032.Z02.32	32	T28	50	32		2	0,24	8	
Shank DIN 1835 B	F5038.W25.025.Z02.32	25	25	43	32	100	2	0,31	8	LNHU0904 .. R
	F5038.W32.032.Z02.32	32	32	44	32	105	2	0,54	8	
	F5038.W32.032.Z02.40	32	32	50	40	111	2	0,57	10	
	F5038.W40.040.Z03.40	40	40	54	40	125	3	1	15	
	F5038.W40.040.Z03.48	40	40	59	48	130	3	1,06	18	
Cylindrical bore DIN 138 transverse keyway	F5038.B16.040.Z03.32	40	16	55	32		3	0,33	12	LNHU0904 .. R
	F5038.B16.040.Z03.40	40	16	65	40		3	0,39	15	

For tools with locating bores, use longer fastening bolts in accordance with ISO 4762, see "Assembly parts and accessories/Other"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

D_c [mm]	25–40
Clamping screw for indexable insert Tightening torque	FS1457 (Torx 9IP) 2,0 Nm

Accessories

D_c [mm]	25	32–40
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	FS2013 (Torx 9IP)	FS2013 (Torx 9IP)
Screwdriver	FS1484 (Torx 9IP)	FS1484 (Torx 9IP)
Coolant nozzle		FS2250 (SW 1,5)

The FS2250 coolant nozzle must be secured to prevent it from coming loose

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
LNHU090404R-L55T	0,4	1,5	●●	●	○	●	○	●●	●	●	○			●	○
LNHU090404R-L65T	0,4	1,5			○		○								○
LNHU090404R-L85T	0,4	1,5										●●	●●		
LNHU090408R-L55T	0,8	1,1	●●	●	○	●	○		●	●	○			●	○
LNHU090412R-L55T	1,2	0,8		●	○	●	○				○			●	○
LNHU090416R-L55T	1,6			●	○	●	○				○			●	○
LNHU090420R-L55T	2			●	○	●	○				○			●	○

Indexable inserts with r > 0.4 mm can only be used as front inserts.

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

● Other application

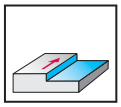
C 328 | D 1 | C 570 | C 595 | C 658 | C 621

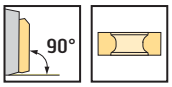
Porcupine milling cutters
F5138

LNHU1306 .. R
Walter BLAXX

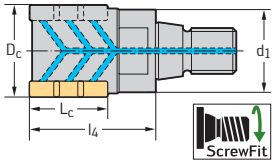
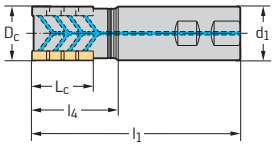
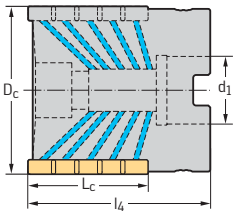
C 2

– Full effective design
– Four cutting edges per indexable insert, tangential arrangement





	P	M	K	N	S	H	O
F5138	●●	●●	●●	●●	●●		●

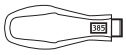
Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	l_1 mm	Z	kg	No. of indexable inserts	Type
ScrewFit 	F5138.T36.040.Z02.23	40	T36	45	23		2	0,38	4	LNHU1306 .. R
	F5138.T36.040.Z02.34	40	T36	55	34		2	0,43	6	
Shank DIN 1835 B 	F5138.W40.040.Z02.34	40	40	54	34	120	2	1	6	LNHU1306 .. R
	F5138.W40.040.Z02.45	40	40	64	45	135	2	1,08	8	
Cylindrical bore DIN 138 transverse keyway 	F5138.B16.040.Z02.34	40	16	55	34		2	0,03	6	LNHU1306 .. R
	F5138.B16.040.Z02.45	40	16	65	45		2	0,34	8	
	F5138.B22.050.Z03.34	50	22	55	34		3	0,50	9	
	F5138.B22.050.Z03.45	50	22	65	45		3	0,57	12	
	F5138.B27.063.Z04.45	63	27	70	45		4	1,06	16	
	F5138.B27.063.Z04.56	63	27	80	56		4	1,19	20	
	F5138.B32.080.Z05.56	80	32	85	56		5	2,23	25	

For tools with locating bores, use longer fastening bolts in accordance with ISO 4762, see "Assembly parts and accessories/Other"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	D_c [mm]	40–80
	Clamping screw for indexable insert Tightening torque	FS2081 (Torx 15IP) 4,0 Nm

Accessories

	D_c [mm]	40–80
	Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2014 (Torx 15IP)
	Screwdriver	FS1485 (Torx 15IP)
	Coolant nozzle	FS2250 (SW 1,5)

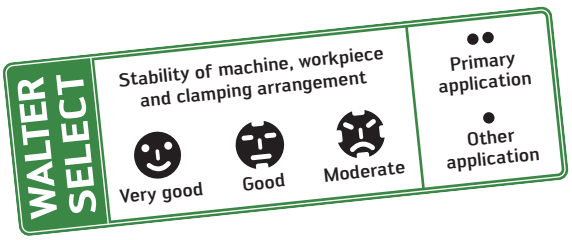
The FS2250 coolant nozzle must be secured to prevent it from coming loose

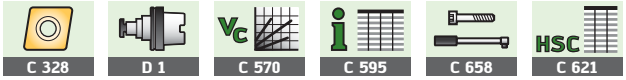
Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSP45S
	LNHU130608R-L55T	0,8	2,2	●	●●	●●●	●●	●●●	●	●●	●●	●●●			●●	●●●
	LNHU130608R-L65T	0,8	2,2			●●●		●●●								●●●
	LNHU130608R-L85T	0,8	2,2										●	●		
	LNHU130612R-L55T	1,2	1,9		●●	●●●	●●	●●●				●●●			●●	●●●
	LNHU130616R-L55T	1,6	1,5		●●	●●●	●●	●●●				●●●			●●	●●●
	LNHU130620R-L55T	2	1,2		●●	●●●	●●	●●●				●●●			●●	●●●
	LNHU130625R-L55T	2,5	0,7		●●	●●●	●●	●●●				●●●			●●	●●●
	LNHU130630R-L55T	3			●●	●●●	●●	●●●				●●●			●●	●●●
	LNHU130632R-L55T	3,2			●●	●●●	●●	●●●				●●●			●●	●●●

Indexable inserts with r > 0.8 mm can only be used as front inserts.

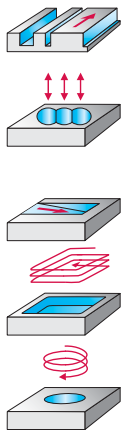
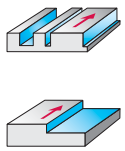
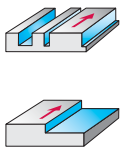
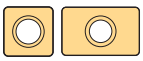
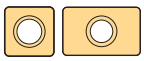
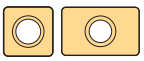
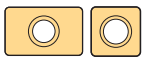
HC = Coated carbide
HW = Uncoated carbide

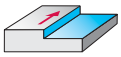
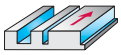
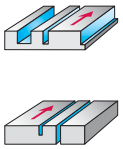
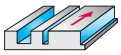




C 2

Walter Select – Indexable insert milling cutters
Slot milling cutters

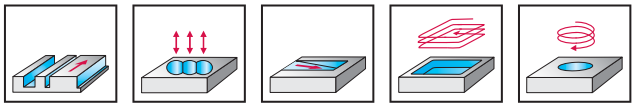
Machining					
WALTER SELECT ●● Primary application ● Other application					
Lead angle κ	**90°**	**90°**		**90°**	
Designation	**M4792**	**F2238**	**F2238CE / F2238C**	**M3255**	**M4256 / M4257 M4258**
Dia. range [mm]	18–40	20–125	50–80	50–80	20–100
Adaption Range	DIN 1835 B	DIN 1835 B Modular NCT adaptor Cylindrical bore	Modular NCT adaptor	Cylindrical bore	ScrewFit DIN 1835 B Cylindrical bore
Page	C 486	C 488	C 490	C 496	C 498
P Steel	●●	●●	●●		●●
M Stainless steel	●●	●●	●●		●●
K Cast iron	●●	●●	●●		●●
N NF metals					
S Materials with difficult cutting properties	●●	●●	●●	●●	●●
H Hard materials					
O Other					
Indexable inserts					
Type	SDM . 06T204 LDM . 08T204R SDM . 09T308 LDM . 14T308R ...	SPM . 060304 LP .. 070304 .. SPM . 09T308 LP .. 15T308	SPM . 120408 LP .. 150412 ..	XNHX1306 .. R LNHX120604R	LDM . 08T204R SDM . 06T204 LDM . 14T308R SDM . 09T308 ...
Number of cutting edges	4 / 2	4 / 2	4 / 2	2 / 4	2 / 4
Max. depth of cut [mm]/max. width of cut [mm]	8 / 13 / 21 / 27	22 / 27 / 37 / 50 / 42 / 67 / 77 / 87	97 / 117 / 56 / 77 / 87 / 107	58 / 46	27 / 37 / 54 / 67 / 77

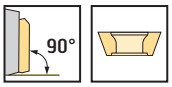
					
90°		**90°**	**90°**		**90°**
F2252	**F2252**	**F4053**	**F4153**	**F4253**	**F5055**
80–315	80–315	80–160	80–200	100–315	63–250
Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore	Cylindrical bore ScrewFit
C 500	C 508	C 524	C 526	C 528	C 530
●●	●●	●●	●●	●●	●●
●●	●●	●●	●●	●●	●
●●	●●	●●	●●	●●	●●
●●	●●				
●●	●●	●●	●●	●●	●
●	●				
AD . T0803 .. R AD . T0803 .. L AD . T1204 .. R AD . T1204 .. L ...	AD . T0803 .. R AD . T0803 .. L AD . T1204 .. R AD . T1204 .. L ...	LN . X070204	LN . U080304 LN . U080404 LN . U100508	LN . U080404 LN . U100508 LN . U120608 LN . U160812	SX-1 SX-2 SX-3 SX-4
2	2	4	4	4	1
6 / 8 / 11,7 / 12 / 15	9 / 10 / 12 / 14 / 16 / 19 / 22 / 23,5 / 25	4	6 / 8 / 10	12 / 14 / 16 / 20 / 25	1,5 / 2 / 3 / 4

Routing cutters
M4792

C 2

– Two or four cutting edges per indexable insert

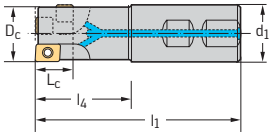




	P	M	K	N	S	H	O
M4792	●●	●●	●●		●●		

Tool

Shank DIN 1835 B



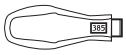
Designation	D_c mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
M4792-018-W16-01-08	18	16	31	80	8,3	1	0,1	1 1	SDM . 06T204 LDM . 08T204R
M4792-020-W20-01-13	20	20	34	85	13,3	1	0,2	2 1	
M4792-025-W25-01-13	25	25	43	100	13,3	1	0,3	1 1	SDM . 09T308 LDM . 14T308R
M4792-030-W32-01-20	30	32	54	115	20,8	1	0,6	2 1	
M4792-032-W32-01-20	32	32	54	115	20,8	1	0,6	2 1	
M4792-040-W32-01-26	40	32	69	130	26,9	1	0,8	2 1	SDM . 120408 LDM . 170408R

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

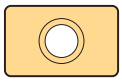
Assembly parts

	Type	SDM . 06T204 LDM . 08T204R	SDM . 09T308 LDM . 14T308R	SDM . 120408 LDM . 170408R
	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

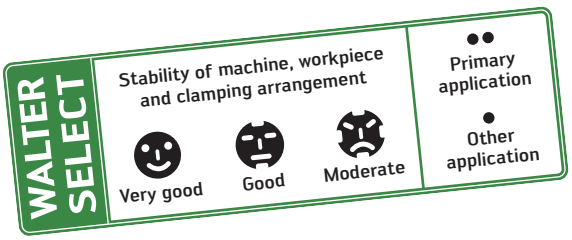
Accessories

	Type	SDM . 06T204 LDM . 08T204R	SDM . 09T308 LDM . 14T308R	SDM . 120408 LDM . 170408R
	Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
	Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
	Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)	FS2014 (Torx 15IP)
	Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)	FS1485 (Torx 15IP)

Indexable inserts

	Designation	r mm	b mm	P HC			M HC			K HC				S HC		
				WKP25S	WKP35S	WSP45S	WSM35S	WSM45X	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WSM35S	WSM45X	WSP45S
	LDMT08T204R-D51	0,4	0,8	☺	😐	☹			☹			😐	☹			☹
	LDMT08T204R-D57	0,4	0,8	☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
	LDMT08T204R-F57	0,4	0,8	☺	😐	☹	😐		☹	☺		😐	☹	😐		☹
	LDMW08T204R-A57	0,4	0,8	😐	☹							😐	☹			
	LDMT14T308R-D51	0,8	1,2	☺	😐	☹			☹			😐	☹			☹
	LDMT14T308R-D57	0,8	1,2	☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
	LDMT14T308R-F57	0,8	1,2	☺	😐	☹	😐		☹	☺		😐	☹	😐		☹
	LDMW14T308R-A57	0,8	1,2	😐	☹							😐	☹			
	LDMT170408R-D51	0,8	1,6	☺	😐	☹			☹			😐	☹			☹
	LDMT170408R-D57	0,8	1,6	☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
	LDMT170408R-F57	0,8	1,6	☺	😐	☹	😐		☹	☺		😐	☹	😐		☹
	LDMW170408R-A57	0,8	1,6	😐	☹							😐	☹			
	SDMT06T204-D51	0,4		☺	☹	☹			☹			😐	☹			☹
	SDMT06T204-D57	0,4		☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
	SDMT06T204-F57	0,4		☺	😐	☹	😐	☹	☹	☺		😐	☹	😐	☹	☹
	SDMW06T204-A57	0,4		😐	☹							😐	☹			
	SDMT09T308-D51	0,8		☺	☹	☹			☹			😐	☹			☹
	SDMT09T308-D57	0,8		☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
	SDMT09T308-F57	0,8		☺	😐	☹	😐	☹	☹	☺		😐	☹	😐	☹	☹
	SDMW09T308-A57	0,8		😐	☹							😐	☹			
	SDMT120408-D51	0,8		☺	☹	☹			☹			😐	☹			☹
	SDMT120408-D57	0,8		☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
	SDMT120408-F57	0,8		☺	😐	☹	😐	☹	☹	☺		😐	☹	😐	☹	☹
	SDMW120408-A57	0,8		😐	☹							😐	☹			

HC = Coated carbide

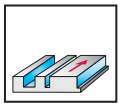


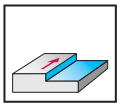
C 288 D 1 C 572 C 596 C 621

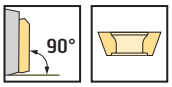
Porcupine milling cutters
F2238

C 2

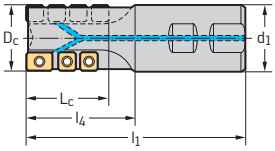
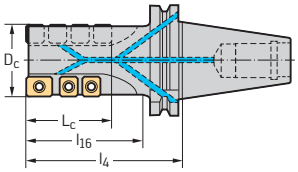
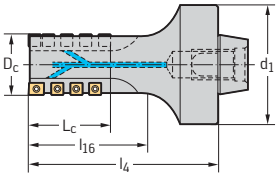
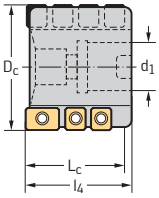
– Half effective design
– Two or four cutting edges per indexable insert







	P	M	K	N	S	H	O
F2238	●●	●●	●●		●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_1 mm	l_{16} mm	L_c mm	Z	kg	No. of index-able inserts	Type
Shank DIN 1835 B 	F2238.W.020.Z01.22	20	20	34	85		22	1	0,2	4 1	SPM . 060304 LP .. 070304 ..
	F2238.W.025.Z02.27	25	25	43	100		27	2	0,3	10 2	
	F2238.W.032.Z02.37	32	32	54	115		37	2	0,6	14 2	
	F2238.W.040.Z02.50	40	40	69	140		50	2	1,1	12 2	SPM . 09T308 LP .. 15T308 ..
SK DIN 69871 + 2080 	F2238.S4.040.Z02.50	40	SK40	95		75	50	2	1,2	12 2	SPM . 09T308 LP .. 15T308 ..
Modular NCT adaptor 	F2238.N6.032.Z02.42	32	NCT 63	100		63	42	2	1,0	16 2	SPM . 060304 LP .. 070304 ..
	F2238.N6.040.Z02.50	40	NCT 63	105		73	50	2	1,1	12 2	SPM . 09T308 LP .. 15T308 ..
Cylindrical bore DIN 138 transverse keyway 	F2238.B.050.Z02.42*	50	22	53			42	2	0,5	10 2	SPM . 09T308 LP .. 15T308 ..
	F2238.B.063.Z03.50*	63	27	54			50	3	0,7	18 3	
	F2238.B.065.Z03.50*	65	27	54			50	3	0,8	18 3	
	F2238.B.080.Z03.67*	80	32	80			67	3	1,6	18 3	SPM . 120408 LP .. 150412 ..
	F2238.B.082.Z03.67*	82	32	80			67	3	1,8	18 3	
	F2238.B.100.Z04.77*	100	40	90			77	4	3,2	28 4	
	F2238.B.125.Z05.87*	125	50	100			87	5	5,9	40 5	

For pull studs for steep tapers, see "D – Adaptors catalogue/General information"
When used in DIN 2080 adaptors: Remove one of the drive pins.
For tools with locating bores, use longer fastening bolts in accordance with ISO 4762, see "Assembly parts and accessories/Other"
Bodies and assembly parts are included in the scope of delivery.
* Without internal coolant supply

Assembly parts

Type	SPM . 060304 LP .. 070304 ..	SPM . 09T308 LP .. 15T308 ..	SPM . 120408 LP .. 150412 ..
Clamping screw for indexable insert Tightening torque	FS925 (Torx 8) 0,8 Nm	FS359 (Torx 15) 2,5 Nm	FS1030 (Torx 20) 5,0 Nm

Accessories

Type	SPM . 060304 LP .. 070304 ..	SPM . 09T308 LP .. 15T308 ..	SPM . 120408 LP .. 150412 ..
Screwdriver for indexable insert	FS230 (Torx 8)	FS229 (Torx 15)	FS228 (Torx 20)

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
LPGT070304R-F55	0,4	1,2		●		○		●		○				○		●		○
LPGW070304R-A57	0,4	1,2	●	○							◐		●	○				
LPMT070304R-D51	0,4	1,2	◐	●		○		●		○			●	○		●		○
LPMW070304TR-A27	0,4		●	○									●	○				
LPGT15T308R-F55	0,8	1,4		●		○		●		○				○		●		○
LPGW15T308R-A57	0,8	1,4	●	○							◐		●	○				
LPMT15T308R-D51	0,8	1,4	◐	●		○		●		○			●	○		●		○
LPMW15T308TR-A27	0,8		●	○									●	○				
LPGT150412R-F55	1,2	1,6		●		○		●		○	◐			○		●		○
LPGW150412R-A57	1,2	1,6	●	○							◐		●	○				
LPMT150412R-D51	1,2	1,6	◐	●		○		●		○			●	○		●		○
LPMW150412TR-A27	1,2		●	○									●	○				
SPMT060304-D51	0,4		◐	●		○		●		○			●	○		●		○
SPMT060304-F55	0,4			●		○		●		○	◐			○		●		○
SPMW060304-A57	0,4		●	○							◐		●	○				
SPMW060304T-A27	0,4		●	○									●	○				
SPMT09T308-D51	0,8		◐	●		○		●		○			●	○		●		○
SPMT09T308-F55	0,8			●		○		●		○	◐			○		●		○
SPMW09T308-A57	0,8		●	○							◐		●	○				
SPMW09T308T-A27	0,8		●	○									●	○				
SPMT120408-D51	0,8		◐	●		○		●		○			●	○		●		○
SPMT120408-F55	0,8			●		○		●		○	◐			○		●		○
SPMW120408-A57	0,8		●	○							◐		●	○				
SPMW120408T-A27	0,8		●	○									●	○				

HC = Coated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good · Good · Moderate

●● Primary application

● Other application

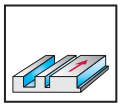
C 289 · D 1 · C 572 · C 596 · C 658

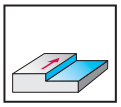
Porcupine milling cutters with front piece F2238CE

SPM . 120408 / LP . . 150412

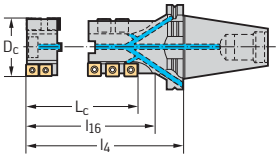
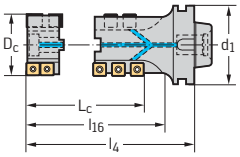
C 2

– Half effective design with front piece
– Two or four cutting edges per indexable insert





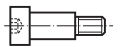
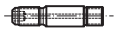
	P	M	K	N	S	H	O
F2238CE	●●	●●	●●		●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	L_c mm	Z	kg	No. of indexable inserts	Type
SK DIN 69871 + 2080 	F2238CE.S5.050.Z02.056	50	SK50	120	84	56	2	3,7	10 2	SPM . 120408 LP .. 150412 ..
	F2238CE.S5.063.Z02.077	63	SK50	135	102	77	2	4,3	14 2	
	F2238CE.S5.063.Z02.087	63	SK50	145	112	87	2	4,5	16 2	
	F2238CE.S5.063.Z02.097	63	SK50	155	122	97	2	4,6	18 2	
	F2238CE.S5.080.Z03.097	80	SK50	150	130	97	3	6,9	27 3	
	F2238CE.S5.080.Z03.107	80	SK50	160	140	107	3	7,1	30 3	
	F2238CE.S5.080.Z03.117	80	SK50	170	150	117	3	7,2	33 3	
Modular NCT adaptor 	F2238CE.N8.050.Z02.056	50	NCT 80	115	81	56	2	2,0	10 2	SPM . 120408 LP .. 150412 ..
	F2238CE.N8.050.Z02.077	50	NCT 80	135	101	77	2	2,2	14 2	
	F2238CE.N8.063.Z02.077	63	NCT 80	125	95	77	2	2,5	14 2	
	F2238CE.N8.063.Z02.087	63	NCT 80	135	105	87	2	2,6	16 2	
	F2238CE.N8.063.Z02.097	63	NCT 80	145	115	97	2	2,7	18 2	
	F2238CE.N8.080.Z03.097	80	NCT 80	145	126	97	3	4,0	27 3	
	F2238CE.N8.080.Z03.107	80	NCT 80	155	136	107	3	4,2	30 3	
	F2238CE.N8.080.Z03.117	80	NCT 80	165	146	117	3	4,3	33 3	

Order tool pull studs that are suitable for the required DIN standard.
When used in DIN 2080 adaptors: Remove one of the drive pins.
For pull studs for steep tapers, see "D – Adaptors catalogue/General information"
Bodies and assembly parts are included in the scope of delivery.

C 2

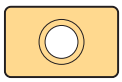
Assembly parts

	D_c mm L_c mm	50 56	50 77	63 77	63 87	63 97	80 97	80 107	80 117
	Clamping screw for indexable insert	FS1030 (Torx 20)	FS1030 (Torx 20)	FS1030 (Torx 20)	FS1030 (Torx 20)	FS1030 (Torx 20)	FS1030 (Torx 20)	FS1030 (Torx 20)	FS1030 (Torx 20)
	Tightening torque	5,0 Nm	5,0 Nm	5,0 Nm	5,0 Nm	5,0 Nm	5,0 Nm	5,0 Nm	5,0 Nm
	Clamping screw for front piece	FS370 (SW10)	FS370 (SW10)						
	Tightening torque	40,0 Nm	40,0 Nm						
	Clamping screw for front piece			FS371 (SW10)	FS372 (SW10)		FS373 (SW12)	FS374 (SW2)	
	Tightening torque			120,0 Nm	120,0 Nm		120,0 Nm	120,0 Nm	
	Clamping screw for front piece					FS1032 (SW8)			FS1033 (SW8)
	Tightening torque					120,0 Nm			120,0 Nm
	Front piece	F2238CE.C. 050.Z02.024	F2238CE.C. 050.Z02.034	F2238CE.C. 063.Z02.024	F2238CE.C. 063.Z02.034	F2238CE.C. 063.Z02.0244	F2238CE.C. 080.Z03.024	F2238CE.C. 080.Z03.034	F2238CE.C. 080.Z03.044

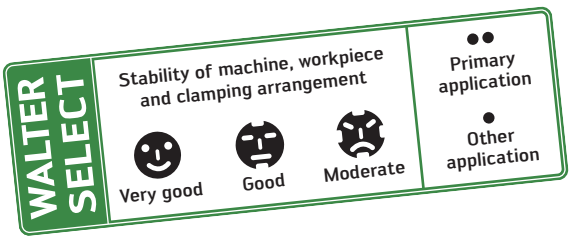
Accessories

	D_c mm L_c mm	50 56	50 77	63 77	63 87	63 97	80 97	80 107	80 117
	Screwdriver	FS228 (Torx 20)	FS228 (Torx 20)	FS228 (Torx 20)	FS228 (Torx 20)	FS228 (Torx 20)	FS228 (Torx 20)	FS228 (Torx 20)	FS228 (Torx 20)
	Socket wrench					FS1043 (SW8)			FS1043 (SW8)

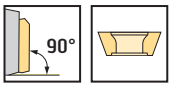
Indexable inserts

	Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
	LPGT150412R-F55	1,2	1,6		😐		🙁		😐		🙁	☺			🙁		😐		🙁
	LPGW150412R-A57	1,2	1,6	😐	🙁							☺		😐	🙁				
	LPMT150412R-D51	1,2	1,6	☺	😐		🙁		😐		🙁			😐	🙁		😐		🙁
	LPMW150412TR-A27	1,2		😐	🙁									😐	🙁				
	SPMT120408-D51	0,8		☺	😐		🙁		😐		🙁			😐	🙁		😐		🙁
	SPMT120408-F55	0,8			😐		🙁		😐		🙁	☺			🙁		😐		🙁
	SPMW120408-A57	0,8		😐	🙁							☺		😐	🙁				
	SPMW120408T-A27	0,8		😐	🙁									😐	🙁				

HC = Coated carbide

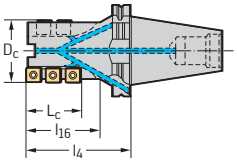
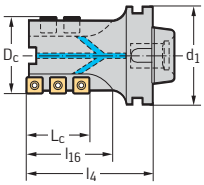


Porcupine milling cutter basic bodies F2238CK



– Basic body for porcupine milling cutters
– Four cutting edges per indexable insert

	P	M	K	N	S	H	O
F2238CK	●●	●●	●●		●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_{16} mm	L_c mm	Z	kg	No. of indexable inserts	Type
SK DIN 69871 + 2080 	F2238CK.S5.050.Z02.032	50	SK50	96	60	32	2	3,5	6	SPM . 120408
	F2238CK.S5.063.Z02.053	63	SK50	111	78	53	2	4,0	10	
	F2238CK.S5.080.Z03.073	80	SK50	126	105	73	3	5,2	21	
Modular NCT adaptor 	F2238CK.N8.050.Z02.032	50	NCT 80	91	56	32	2	1,7	6	SPM . 120408
	F2238CK.N8.050.Z02.053	50	NCT 80	111	77	53	2	1,7	10	
	F2238CK.N8.063.Z02.053	63	NCT 80	101	71	53	2	2,1	10	
	F2238CK.N8.080.Z03.073	80	NCT 80	121	98	73	3	2,3	21	

For pull studs for steep tapers, see "D – Adaptors catalogue/General information"
When used in DIN 2080 adaptors: Remove one of the drive pins!
Order tool pull studs that are suitable for the required DIN standard.
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

D_c [mm]	50–80
Clamping screw for indexable insert Tightening torque	FS1030 (Torx 20) 5,0 Nm

Accessories

D_c [mm]	50–80
Screwdriver for indexable insert	FS228 (Torx 20)

Indexable inserts

			P				M				K				S			
			HC				HC				HC				HC			
	Designation	r mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WSM35S	WSM35	WSP45S	WSP45
	SPMT120408-D51	0,8	☺	☹		☠		☹		☠			☹	☠		☹		☠
	SPMT120408-F55	0,8		☹		☠		☹		☠	☺			☠		☹		☠
	SPMW120408-A57	0,8	☹	☠							☺		☹	☠				
	SPMW120408T-A27	0,8	☹	☠									☹	☠				

HC = Coated carbide

C 2

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

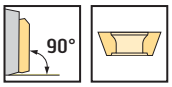
●● Primary application

● Other application

C 301 | D 1 | C 572 | C 597 | C 658 | C 632

Porcupine milling cutter front piece F2238CE.C

C 2



– Half effective design with front piece
– Two or four cutting edges per indexable insert

	P	M	K	N	S	H	O
F2238CE.C	●●	●●	●●		●●		

Tool	Designation	D_c mm	L_c mm	Z	kg	No. of indexable inserts	Type
	F2238CE.C.050.Z02.024	50	24	2	0,2	4 2	SPM . 120408 LP .. 150412 ..
	F2238CE.C.063.Z02.044	63	44	2	0,6	8 2	
	F2238CE.C.063.Z02.024	63	24	2	0,3	4 2	
	F2238CE.C.063.Z02.034	63	34	2	0,4	6 2	
	F2238CE.C.080.Z03.044	80	44	3	1,0	13 3	
	F2238CE.C.080.Z03.024	80	24	3	0,5	7 3	
	F2238CE.C.080.Z03.034	80	34	3	0,7	9 3	

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

Assembly parts

D_c [mm]	50–80
Clamping screw for indexable insert Tightening torque	FS1030 (Torx 20) 5,0 Nm

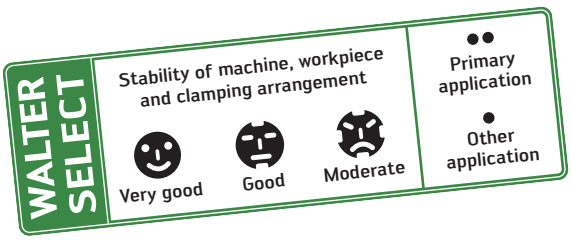
Accessories

D_c [mm]	50–80
Screwdriver for indexable insert	FS228 (Torx 20)

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	P HC WSP45	M HC WSM35S	M HC WSM35	M HC WSP45S	M HC WSP45	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	S HC WSM35S	S HC WSM35	S HC WSP45S	S HC WSP45
LPGT150412R-F55	1,2	1,6		●		●●		●		●●	●			●●		●		●●
LPGW150412R-A57	1,2	1,6	●	●●							●		●	●●				
LPMT150412R-D51	1,2	1,6	●	●		●●		●		●●			●	●●		●		●●
LPMW150412TR-A27	1,2		●	●●									●	●●				
SPMT120408-D51	0,8		●	●		●●		●		●●			●	●●		●		●●
SPMT120408-F55	0,8			●		●●		●		●●	●			●●		●		●●
SPMW120408-A57	0,8		●	●●							●		●	●●				
SPMW120408T-A27	0,8		●	●●									●	●●				

HC = Coated carbide



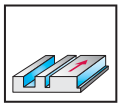
C 289 D 1 C 572 C 597 C 621 C 632

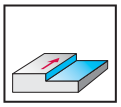
Porcupine milling cutters
M3255

XNHX1306 .. R / LNHX120604R
Walter BLAXX

C 2

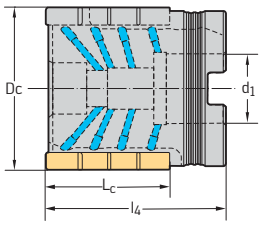
– Full effective design
– Two or four cutting edges per indexable insert, tangential arrangement





	P	M	K	N	S	H	O
M3255					●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	L_c mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 transverse keyway	M3255-050-B22-04-46	50	22	65	46	4	0,5	4 12	XNHX1306 .. R LNHX120604R
	M3255-050-B22-05-46	50	22	65	46	5	0,5	5 15	
	M3255-063-B27-05-46	63	27	70	46	5	1,0	5 15	
	M3255-063-B27-06-46	63	27	70	46	6	1,0	6 18	
	M3255-080-B32-05-58	80	32	85	58	5	2,0	5 25	
	M3255-080-B32-06-58	80	32	85	58	6	2,0	6 24	



For tools with locating bores, use longer fastening bolts in accordance with ISO 4762, see "Assembly parts and accessories/Other"
The FS2250 coolant nozzle must be secured to prevent it from coming loose.
Bodies and assembly parts are included in the scope of delivery.

C 2

Assembly parts

D_c [mm]	50–80
Clamping screw for indexable insert Tightening torque	FS2081 (Torx 15IP) 4,0 Nm
Coolant nozzle	FS2250 (SW 1,5)

Accessories

D_c [mm]	50–80
Torque screwdriver, analogue Tightening torque	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2014 (Torx 15IP)
Screwdriver	FS1485 (Torx 15IP)

Indexable inserts

Designation	r mm	b mm	P HC WKP25S	P HC WKP35S	P HC WSP45S	M HC WSM35S	M HC WSM45X	M HC WSP45S	K HC WAK15	K HC WKK25S	K HC WKP25S	K HC WKP35S	N HC WXN15	N HW WK10	S HC WSM35S	S HC WSM45X	S HC WSP45S
LNHX120604R-L65T	0,4															●●	●●
XNHX130608R-L65T	0,8	2														●●	●●
XNHX130612R-L65T	1,2	2														●●	●●
XNHX130616R-L65T	1,6	2														●●	●●
XNHX130620R-L65T	2	2														●●	●●
XNHX130624R-L65T	2,4	2														●●	●●
XNHX130630R-L65T	3	1,4														●●	●●
XNHX130632R-L65T	3,2	1,3														●●	●●
XNHX130640R-L65T	4	0,5														●●	●●

XNHX1306 indexable inserts . . can only be used as front inserts.

HC = Coated carbide
HW = Uncoated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

Very good | Good | Moderate

●● Primary application

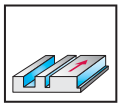
● Other application

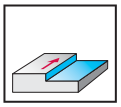
C 329 | D 1 | C 570 | C 595 | C 658 | C 621

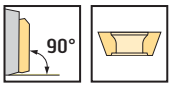
Porcupine milling cutters
M4256 / M4257 / M4258

C 2

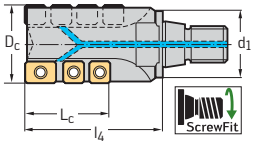
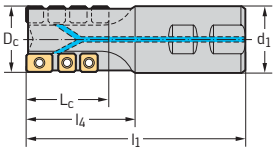
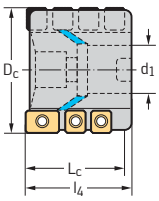
– Half effective design
– Two or four cutting edges per indexable insert







	P	M	K	N	S	H	O
M4256	●●	●●	●●		●●		
M4257	●●	●●	●●		●●		
M4258	●●	●●	●●		●●		

Tool	Designation	D_c mm	d_1 mm	l_4 mm	l_1 mm	L_c mm	Z	kg	No. of indexable inserts	Type
ScrewFit 	M4256-020-T18-01-27	20	T18	40		27	1	0,1	1 5	LDM . 08T204R SDM . 06T204
	M4256-025-T22-02-27	25	T22	40		27	2	0,1	2 10	
	M4256-032-T28-02-37	32	T28	50		37	2	0,2	2 14	
	M4257-040-T36-02-54	40	T36	69		54	2	0,5	2 14	LDM . 14T308R SDM . 09T308
Shank DIN 1835 B 	M4256-020-W20-01-27	20	20	35	86	27	1	0,2	1 5	LDM . 08T204R SDM . 06T204
	M4256-025-W25-02-27	25	25	40	97	27	2	0,3	2 10	
	M4256-032-W32-02-37	32	32	50	111	37	2	0,6	2 14	
	M4257-040-W40-02-54	40	40	69	140	54	2	1,1	2 14	LDM . 14T308R SDM . 09T308
Cylindrical bore DIN 138 transverse keyway 	M4257-050-B22-02-47	50	22	56		47	2	0,4	2 12	LDM . 14T308R SDM . 09T308
	M4257-063-B27-03-54	63	27	69		54	3	0,9	3 21	
	M4258-080-B32-03-67	80	32	80		67	3	1,4	3 18	LDM . 170408R SDM . 120408
	M4258-100-B40-04-77	100	40	80		77	4	2,4	4 28	

For tools with locating bores, use longer fastening bolts in accordance with ISO 4762, see "Assembly parts and accessories/Other"
Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type	LDM . 08T204R SDM . 06T204	LDM . 14T308R SDM . 09T308	LDM . 170408R SDM . 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	LDM . 08T204R SDM . 06T204	LDM . 14T308R SDM . 09T308	LDM . 170408R SDM . 120408
Torque screwdriver, analogue Tightening torque	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm	FS2003 1,5–5,0 Nm
Torque screwdriver, digital Tightening torque		FS2248 1,0–6,0 Nm	FS2248 1,0–6,0 Nm
Interchangeable blade	FS2011 (Torx 7IP)	FS2268 (Torx 10IP)	FS2014 (Torx 15IP)
Screwdriver	FS2088 (Torx 7IP)	FS2267 (Torx 10IP)	FS1485 (Torx 15IP)

Indexable inserts

Designation	r mm	b mm	P			M			K				S		
				HC			HC			HC				HC	
			WKP25S	WKP35S	WSP45S	WSM35S	WSM45X	WSP45S	WAK15	WKK25S	WKP25S	WKP35S	WSM35S	WSM45X	WSP45S
LDMT08T204R-D51	0,4	0,8	☺	😐	☹			☹			😐	☹			☹
LDMT08T204R-D57	0,4	0,8	☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
LDMT08T204R-F57	0,4	0,8	☺	😐	☹	😐		☹	☺		😐	☹	😐		☹
LDMW08T204R-A57	0,4	0,8	😐	☹							😐	☹			
LDMT14T308R-D51	0,8	1,2	☺	😐	☹			☹			😐	☹			☹
LDMT14T308R-D57	0,8	1,2	☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
LDMT14T308R-F57	0,8	1,2	☺	😐	☹	😐		☹	☺		😐	☹	😐		☹
LDMW14T308R-A57	0,8	1,2	😐	☹							😐	☹			
LDMT170408R-D51	0,8	1,6	☺	😐	☹			☹			😐	☹			☹
LDMT170408R-D57	0,8	1,6	☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
LDMT170408R-F57	0,8	1,6	☺	😐	☹	😐		☹	☺		😐	☹	😐		☹
LDMW170408R-A57	0,8	1,6	😐	☹							😐	☹			
SDMT06T204-D51	0,4		☺	☹	☹			☹			😐	☹			☹
SDMT06T204-D57	0,4		☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
SDMT06T204-F57	0,4		☺	😐	☹	😐	☹	☹	☺		😐	☹	😐	☹	☹
SDMW06T204-A57	0,4		😐	☹							😐	☹			
SDMT09T308-D51	0,8		☺	☹	☹			☹			😐	☹			☹
SDMT09T308-D57	0,8		☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
SDMT09T308-F57	0,8		☺	😐	☹	😐	☹	☹	☺		😐	☹	😐	☹	☹
SDMW09T308-A57	0,8		😐	☹							😐	☹			
SDMT120408-D51	0,8		☺	☹	☹			☹			😐	☹			☹
SDMT120408-D57	0,8		☺	😐	☹	😐		☹		😐	😐	☹	😐		☹
SDMT120408-F57	0,8		☺	😐	☹	😐	☹	☹	☺		😐	☹	😐	☹	☹
SDMW120408-A57	0,8		😐	☹							😐	☹			

HC = Coated carbide

WALTER SELECT

Stability of machine, workpiece and clamping arrangement

☺ Very good — 😐 Good — ☹ Moderate

●● Primary application

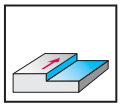
● Other application

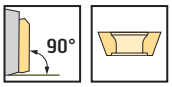
C 288 | D 1 | C 572 | C 597 | C 658 | C 621

Side and Face Cutters for shoulder milling F2252

C 2

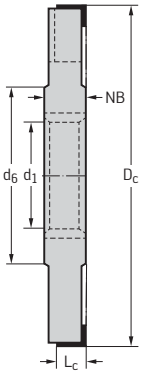
– Helically toothed, half side and face LH or RH
– Two cutting edges per indexable insert

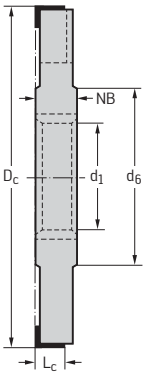




	P	M	K	N	S	H	O
F2252	●●	●●	●●	●●	●●		●

Tool	Designation	D_c mm	d_1 mm	d_6 mm	L_c mm	NB mm	Z	kg	No. of indexable inserts	Type
Cylindrical bore DIN 138 longitudinal keyway	F2252.B.100.Z08.08.R724	100	32	50	8	12	8	0,5	8	AD . T0803 .. R
	F2252.B.125.Z10.08.R724	125	40	65	8	12	10	0,7	10	
	F2252.B.160.Z12.08.R724	160	40	65	8	12	12	1,4	12	
Cylindrical Bore DIN 138 longitudinal keyway	F2252.B.100.Z08.08.L724	100	32	50	8	12	8	0,5	8	AD . T0803 .. L
	F2252.B.125.Z10.08.L724	125	40	65	8	12	10	0,7	10	
	F2252.B.160.Z12.08.L724	160	40	65	8	12	12	1,4	12	





Depending on the cutting diameter and insert size, the profile on the component will vary.
Adjustable
Bodies and assembly parts are included in the scope of delivery.

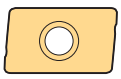
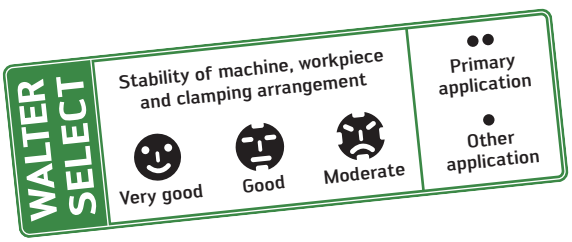
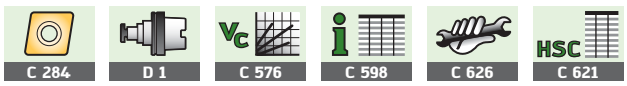
Assembly parts

Type	AD . T0803 .. L	AD . T0803 .. R
Cartridge for tool body, left	FL724	
Cartridge for tool body, right		FR724
Clamping wedge	FK360	FK360
Clamping sleeve	FS1167	FS1167
Eccentric bolt	FS1170	FS1170
Spring washer	FS1220	FS1220
Clamping screw for clamping wedge	FS239 (SW 3)	FS239 (SW 3)
Clamping screw for indexable insert Tightening torque	FS1454 (Torx 8IP) 1,2 Nm	FS1454 (Torx 8IP) 1,2 Nm

Accessories

Type	AD . T0803 .. L	AD . T0803 .. R
Screwdriver for indexable insert	FS1483 (Torx 8IP)	FS1483 (Torx 8IP)
ISO 2936 Allen key: Wedge + eccentric bolt	ISO2936-3 (SW 3)	ISO2936-3 (SW 3)
Cartridge: Left, P2905-. finishing insert	FL695 (P2905-0)	
Cartridge: Right, P2905-. finishing insert		FR695 (P2905-0)
Clamping screw for finishing insert Tightening torque	FS246 (Torx 8) 1,5 Nm	FS246 (Torx 8) 1,5 Nm
Screwdriver for finishing insert	FS230 (Torx 8)	FS230 (Torx 8)

Indexable inserts

				P				M				K				N		S			
				HC				HC				HC				HC	HW	HC			
	Designation	r mm	b mm	WKP25S	WKP35S	WSP45S	WSP45	WSM35S	WSM35	WSP45S	WSP45	WAK15	WKK25S	WKP25S	WKP35S	WXN15	WK10	WSM35S	WSM35	WSP45S	WSP45
	ADHT0803PEL-G88	0,4	1,2													☺					
	ADHT0803PER-G88	0,4	1,2													☺	☺				
	ADKT0803PEL-F56	0,4	1,2		😐	☹				☹					☹					☹	
	ADKT0803PER-F56	0,4	1,2	☺	😐	☹				☹		☺		😐	☹					☹	
	ADMT080304L-F56	0,4	1,2		😐	☹				☹					☹					☹	
	ADMT080304R-F56	0,4	1,2	☺	😐	☹		😐	😐	☹		☺	😐	😐	☹			😐	😐	☹	
	ADMT080308L-F56	0,8	1,2		😐	☹				☹					☹					☹	
	ADMT080308R-F56	0,8	1,2		😐	☹	☹	😐	😐	☹	☹				☹			😐	😐	☹	☹

HC = Coated carbide
HW = Uncoated carbide