pokolm

PREMIUMTOOLS. WE KNOW HOW.

HIGH-FEED TOOLS

FOURWORX® | SLOTWORX® | UNIWORX® | QUADWORX®

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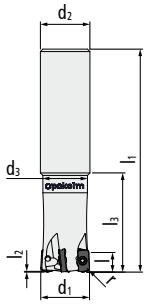
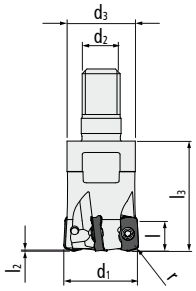
FOURWORX®

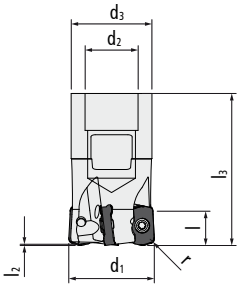
Size S - diam. 16 - 42 mm



Plain shank end mill body



Threaded shank end mill body

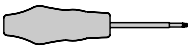


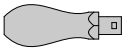
DuoPlug®

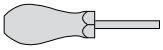
	Catalogue no.	d_1	l	r	l_3	l_2	l_1	d_2	d_3	z	Accessories	Features
DuoPlug®	FR05-016-D10-03	16	9	1.4*	35	0.5	-	M 10	15	3	A,B,C,D,E,F	☑ ▮▮ ⛟ ⛟
	FR05-020-D12-04	20	9	1.4*	35	0.5	-	M12	18.6	4	A,B,C,D,E,F	☑ ▮▮ ⛟ ⛟
	FR05-025-D16-05	25	9	1.4*	40	0.5	-	M16	23.5	5	A,B,C,D,E,F	☑ ▮▮ ⛟ ⛟
Threaded shank end mill body	FR05-016-E08-02	16	9	1.4*	29	0.5	-	M 8	13.8	2	A,B,C,D,E,F	☑ ▮▮ ⛟
	FR05-016-E08-03	16	9	1.4*	29	0.5	-	M 8	13.8	3	A,B,C,D,E,F	☑ ▮▮ ⛟
	FR05-020-E10-04	20	9	1.4*	29	0.5	-	M 10	18	4	A,B,C,D,E,F	☑ ▮▮ ⛟
	FR05-025-E12-05	25	9	1.4*	33	0.5	-	M 12	21	5	A,B,C,D,E,F	☑ ▮▮ ⛟
	FR05-032-E16-05	32	9	1.4*	42	0.5	-	M 16	29	5	A,B,C,D,E,F	☑ ▮▮ ⛟
	FR05-035-E16-06	35	9	1.4*	42	0.5	-	M16	29	6	A,B,C,D,E,F	☑ ▮▮ ⛟
	FR05-042-E16-06	42	9	1.4*	42	0.5	-	M 16	29	6	A,B,C,D,E,F	☑ ▮▮ ⛟
Plain shank end mill body	FR05-016-Z16-03-32	16	9	1.4*	32	0.5	80	16	13.8	3	A,B,C,D,E,F	☑ ▮▮ ⛟
	FR05-020-Z20-04-40	20	9	1.4*	40	0.5	90	20	18	4	A,B,C,D,E,F	☑ ▮▮ ⛟

Accessories

A  22 500 P

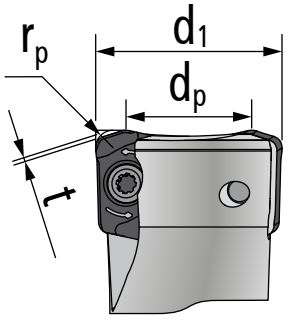
B  07 500 P

C  TV 4-1

D  TV 500

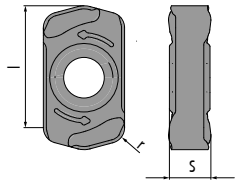
E T7 500 P

F  T15 502



* For the CAD/CAM set-up please program 1.4 mm corner radius (r_p).
The remainder of the material is theoretically 0.342 mm (t).
Please use „dp" for tool length measurement.

☑ stock item ▮▮ internal coolant supply ⛟ toric tool ⛟ DuoPlug®

Indexable inserts	Catalogue no.	DIN description	Carbide Grade	Coating	l/d	s	r	Screw Size
	FR05-8042-HF-RP	LNKX 0925 ZSR	P40	PCSR	9	2,5	1	M 2,2
	FR05-8048-HF-RP	LNKX 0925 ZSR	P40	PPGO	9	2,5	1	M 2,2
	FR05-8062-HF-RK	LNKX 0925 ZSR	K10	PPTi	9	2,5	1	M 2,2
	FR05-8042-HF-MP	LNKX 0925 ZER	P40	PCSR	9	2,5	1	M 2,2
	FR05-8096-HF-MM	LNKX 0925 ZER	M40	PPST	9	2,5	1	M 2,2

Feed per tooth (fz) | d.o.c. (ap)

Carbide Grade Coating	Feed per tooth d.o.c.	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
Size S | LNKX | M							
P40 PCSR	f_z (mm)	0,25 - 1	-	0,2 - 0,95	-	-	-
	a_p (mm)	0,05 - 0,7	-	0,05 - 0,6	-	-	-
M40 PPST	f_z (mm)	0,25 - 1	0,25 - 1	-	-	0,15 - 0,75	-
	a_p (mm)	0,05 - 0,6	0,05 - 0,6	-	-	0,05 - 0,6	-
Size S | LNKX | R							
P40 PCSR	fz (mm)	0,3 - 1,2	-	0,25 - 1,1	-	-	-
	a_p (mm)	0,1 - 0,75	-	0,1 - 0,7	-	-	-
P40 PPGO	fz (mm)	0,3 - 1,2	-	0,25 - 1,1	-	-	-
	a_p (mm)	0,1 -0,75	-	0,1 - 0,7	-	-	-
K10 PPTi	fz (mm)	0,3 - 1,2	-	0,3 - 1,2	-	-	0,1 - 1
	a_p (mm)	0,1 - 0,75	-	0,1 - 0,75	-	-	0,1 - 0,6

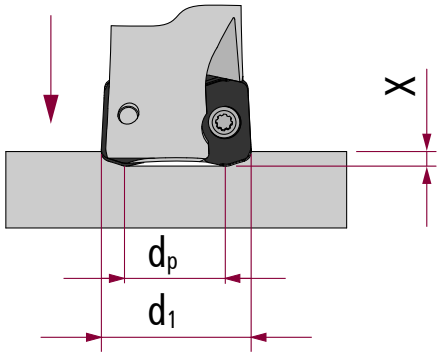
Cutting speed (Vc in m/min)

Carbide Grade Coating	Application	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
P40 PCSR	roughing	▼110 **170** 230	-	▽120 **170** 220	-	-	-
	semifinishing	▼150 **210** 270	-	▽150 **200** 250	-	-	-
	finishing	-	-	-	-	-	-
P40 PPGO	roughing	▼110 **170** 230	-	▽110 **130** 150	-	-	-
	semifinishing	▼150 **210** 270	-	▽110 **130** 150	-	-	-
	finishing	-	-	-	-	-	-
K10 PPTi	roughing	▽150 **210** 270	-	▼120 **180** 240	-	-	▽80 **120** 160
	semifinishing	▽170 **230** 290	-	▼140 **205** 270	-	-	▽100 **140** 180
	finishing	-	-	-	-	-	-
M40 PPST	roughing	▽80 **140** 200	▼80 **130** 180	-	-	▼30 **55** 80	-
	semifinishing	▽100 **150** 200	▼100 **155** 210	-	-	▼40 **65** 90	-
	finishing	-	-	-	-	-	-

▼ major application ▽ minor application

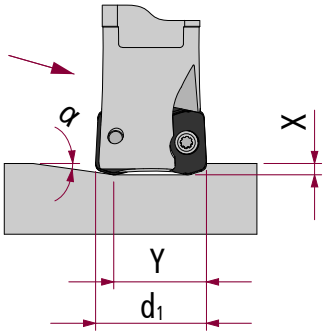
Extended operation data

Plunging



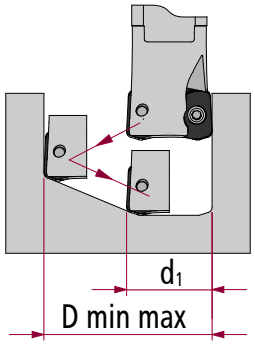
Cutter diam. d1	d_p	X_{max} mm
16	10.78	0.5
20	14.78	0.5
25	19.78	0.5
32	26.78	0.5
35	29.78	0.5
42	36.78	0.5

Ramping



Cutter diam. d1	α°	y mm
16	<2.5	7
20	<1.9	11
25	<1.5	16
32	<1.2	23
35	<1.0	26
42	<0.9	33

Helix



Cutter diam. d1	D_{min} mm	D_{max} mm
16	23	31
20	31	39
25	41	49
32	55	63
35	61	69
42	75	83

High-feed and square shoulder face milling cutter for high-performance with any material

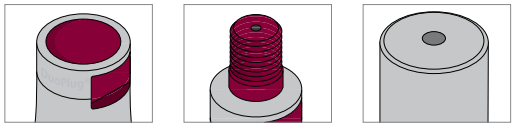
SLOTWORX® HP - that's the high-performance talent among POKOLM's insert cutters. A score of outstanding characteristics have rightfully earned the cutting system the 'high-performance' attribute. Take, for example, the role as high-feed cutter delivering high feed rates, speeds and degrees of hardness – SLOTWORX® HP can take on any challenge and material. This predestines the ground-breaking milling system for use with HSC machines and smaller machining centres.

The novel, special-geometry r 0.8 inserts enable the system to be used as square shoulder and face miling cutter, no matter whether the job is about soft materials or hardened steel grades.
Even highly temperature-resistant alloys like Inconel and Titanium can be be machined without any limitations.
It's small dimensions make the milling system a perfect alternative to solid carbide end mills in lots of applications.

Indexable inserts – Pocket seat – Contact area:

- High number of teeth on smallest tool diameter
- Negative axial rake angle for max. cutter body stability
- for use with different inserts as high-feed or square shoulder face milling cutter
- High-precision ground indexable inserts
- Real corner radius for true contour machining
- Step milling insert with low-displacement, positive helix angle
- One insert carbide grade for soft and hard machining
- Able to replace solid carbide tools in some areas

Connections



DuoPlug® | Screw-in shank | Plain shank

The SLOTWORX® HP-range is available with plain shanks, screw-in shanks and with our unique and patented DuoPlug®-system for highest concentricity and maximum rigidity.

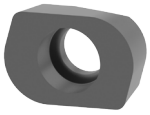
All cutters are manufactured with internal coolant supply for best process reliability.

SLOTWORX® HP - in detail

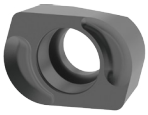
Indexable inserts – Pocket seat – Contact area:

- no chip breaker, maximum stability
- inserts embedded into cutter body

High feed inserts 02 66 ... R20 ...

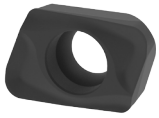


real radius 2 mm, easy to program, easy to calculate stock material

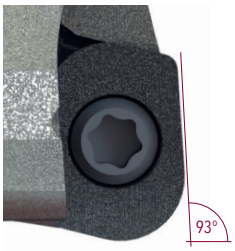


High feed inserts with chip groove, r 2 mm

Square shoulder inserts 02 66 835 R08 ...

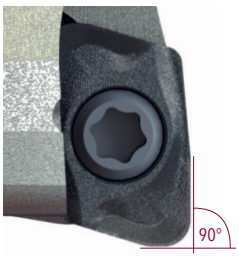


Real radius, r 0,8 mm



real radius 2 mm, easy to program

93° approach angle Kappa – for machining forms and molds with 0° clearance without vibrations



0,8 mm real radius

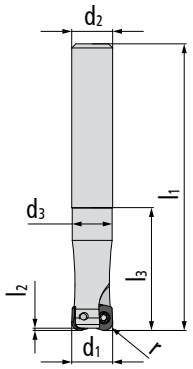
approach angle (Kappa) exact 90° at 2,5 mm in length

Practical-Video
SLOTWORX® HP in 1.2312

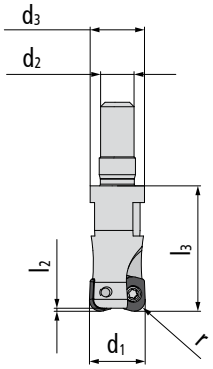
More Product-Videos available on:
youtube.com/pokolmknowhow

SLOTWORX® HP

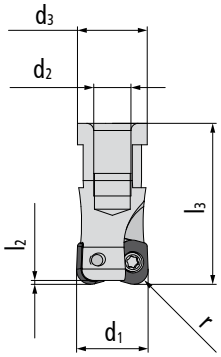
Size S - diam. 10 - 32 mm



Plain shank end mill body



Threaded shank end mill body



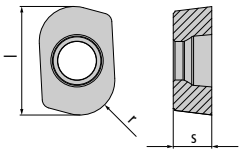
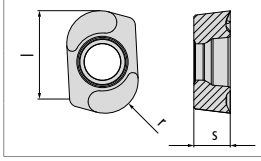
DuoPlug®

	Catalogue no.	d_1	l	r	l_3	l_2	l_1	d_2	d_3	z	Accessories	Features
DuoPlug®	3 12 266 SG	12	6.2	0.8|2	28	0.7	-	M 7	10.8	3	A,B,C,D,E,F	
	4 16 266 SG	16	6.2	0.8|2	31	0.7	-	M 10	15	4	A,B,C,D,E,F	
	5 20 266 SG	20	6.2	0.8|2	33	0.7	-	M 12	18.6	5	A,B,C,D,E,F	
	5 25 266 SG	25	6.2	0.8|2	35	0.7	-	M 16	23.5	5	A,B,C,D,E,F	
Threaded shank end mill body	2 10 266 M6	10	6.2	0.8|2	22.5	0.7	-	M 6	9.75	2	A,B,C,D,E,F	
	3 12 266 M6	12	6.2	0.8|2	22.5	0.7	-	M 6	11.5	3	A,B,C,D,E,F	
	4 16 266	16	6.2	0.8|2	27.5	0.7	-	M 8	13.8	4	A,B,C,D,E,F	
	5 20 266	20	6.2	0.8|2	27.5	0.7	-	M 10	18	5	A,B,C,D,E,F	
	5 25 266	25	6.2	0.8|2	32	0.7	-	M 12	21	5	A,B,C,D,E,F	
	7 32 266	32	6.2	0.8|2	32	0.7	-	M 16	29	7	A,B,C,D,E,F	
Plain shank end mill body	2 30 10 166 G	10	6.2	0.8|2	30	0.7	70	diam.10	9.75	2	A,B,C,D,E,F	
	3 36 12 166 G	12	6.2	0.8|2	36	0.7	81	diam.12	11.5	3	A,B,C,D,E,F	
	4 48 16 166 G	16	6.2	0.8|2	48	0.7	96	diam.16	15.5	4	A,B,C,D,E,F	

Accessories

A 21 500 P	B 06 500 P	C TV 4-1	D TV 500	E T6 500 P
F T6 502 P				

stock item internal coolant supply v incorporated isert DuoPlug® axial rake angle

Indexable inserts	Catalogue no.	DIN description	Carbide Grade	Coating	l/d	s	r	Screw Size
	02 66 835 R20	XCHW 062220 EN	HSC 05	PVTi	6.2	2.2	2	M 2.0
	02 66 835 R20 D	XCHW 062220 EN	HSC 05	PVDiaN	6.2	2.2	2	M 2.0
	02 66 836 R20	XCHW 062220 EN	HSC 05	PVTiH	6.2	2.2	2	M 2.0
	02 66 820 R20	XCHT 062220 FN	K10	polished	6.2	2.2	2	M 2.0
	02 66 860 R20	XCHT 062220 FN	K10	PVTi	6.2	2.2	2	M 2.0
	02 66 890 R20	XCHT 062220 EN	M40	PVST	6.2	2.2	2	M 2.0

Feed per tooth (fz) | d.o.c. (ap)

Carbide Grade Coating	Feed per tooth d.o.c.	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
HSC 05 PVTi	f_z (mm)	0,05 - 0,7	-	0,05 - 0,7	-	-	0,05 - 0,6
	a_p (mm)	0,05 - 0,4	-	0,05 - 0,4	-	-	0,05 - 0,4
HSC 05 PVDiaN	f_z (mm)	-	-	-	0,05- 0,7	-	-
	a_p (mm)	-	-	-	0,05 - 1	-	-
HSC 05 PVTiH	f_z (mm)	0,05 - 0,7	-	0,05 - 0,7	-	-	0,05 - 0,6
	a_p (mm)	0,05 - 0,4	-	0,05 - 0,4	-	-	0,05 - 0,4
K10 polished	f_z (mm)	-	-	-	0,02 - 1	-	-
	a_p (mm)	-	-	-	0,05 - 1	-	-
K10 PVTi	f_z (mm)	-	0,02 - 0,4	-	0,02 - 1	0,02 - 0,1	-
	a_p (mm)	-	0,02 -0,3	-	0,05 - 1	0,02 - 0,15	-
M40 PVST	f_z (mm)	-	0,03 - 0,6	-	-	0,03 - 0,6	-
	a_p (mm)	-	0,05 - 0,4	-	-	0,05 - 0,3	-

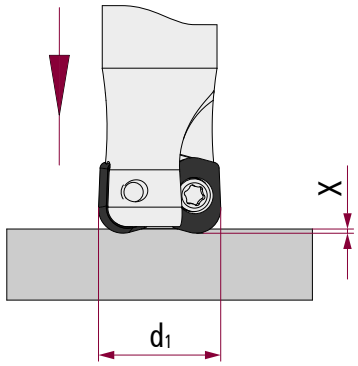
Cutting speed (Vc in m/min)

Carbide Grade Coating	Application	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
HSC 05 PVTi	roughing	▼120 **185** 250	-	▼100 **150** 200	-	-	▼60 **110** 160
	semifinishing	▼150 **275** 400	-	▼150 **225** 300	-	-	▼110 **160** 210
	finishing	▼150 **275** 400	-	▼200 **275** 350	-	-	▼160 **210** 260
HSC 05 PVDiaN	roughing	-	-	-	▼200 **500** 800	-	-
	semifinishing	-	-	-	▼200 **500** 800	-	-
	finishing	-	-	-	▼200 **500** 800	-	-
HSC 05 PVTiH	roughing	▼120 **185** 250	-	▼100 **150** 200	-	-	▼60 **110** 160
	semifinishing	▼150 **275** 400	-	▼150 **225** 300	-	-	▼110 **160** 210
	finishing	▼150 **275** 400	-	▼200 **275** 350	-	-	▼160 **210** 260
K10 polished	roughing	-	-	-	▼100 **450** 800	-	-
	semifinishing	-	-	-	▼100 **450** 800	-	-
	finishing	-	-	-	▼100 **450** 800	-	-
K10 PVTi	roughing	-	-	-	▼100 **450** 800	-	-
	semifinishing	-	▽90 **120** 150	-	▼100 **450** 800	-	-
	finishing	-	▽120 **150** 180	-	▼100 **450** 800	▽35 **68** 100	-
M40 PVST	roughing	-	▼80 **130** 180	-	-	▼30 **55** 80	-
	semifinishing	-	▼100 **155** 210	-	-	▼40 **65** 90	-
	finishing	-	▼120 **185** 250	-	-	▼60 **90** 120	-

▼ major application ▽ minor application

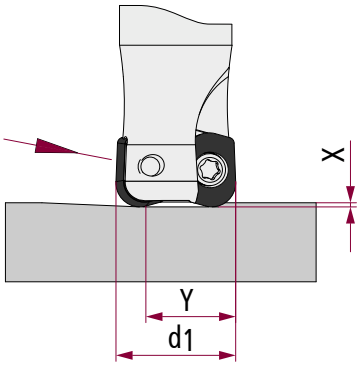
Extended operation data

Plunging



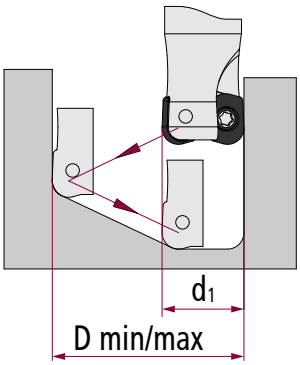
Cutter diam. d1	X_{max} mm
10 - 32	0.7

Ramping



Cutter diam. d1	α°	y mm
10	<2,5	4
12	<2	6
16	<1,6	10
20	<1,2	14
25	<1	19
32	<1	26

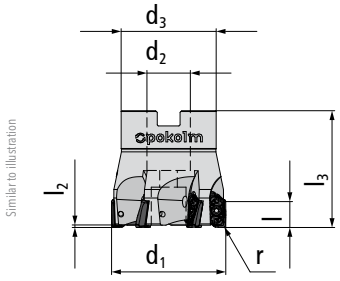
Helix



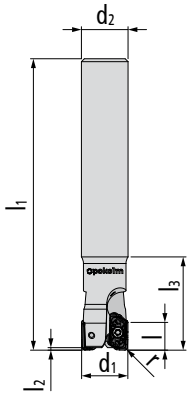
Cutter diam. d1	D_{min} mm	D_{max} mm
10	13	20
12	17	24
16	25	32
20	33	40
25	43	50
32	57	64

SLOTWORX® HF

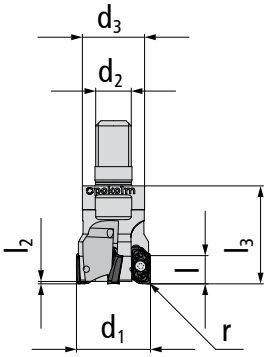
Size M - diam. 16 - 52 mm



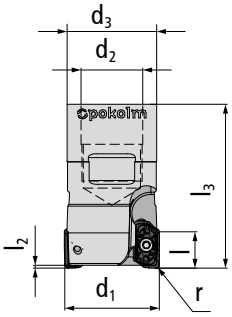
Shell type milling cutter



Plain shank end mill body



Threaded shank end mill body



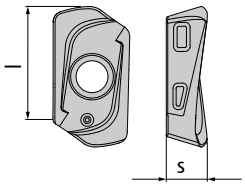
DuoPlug®

	Catalogue no.	d_1	l	r	l_3	l_2	l_1	d_2	d_3	z	Accessories	Features
DuoPlug®	2 16 267 SG	16	10	0.4-2	38	2.5	-	10	15	2	B,C,D,E,F	☑ ▮▮ 🚜 ◎
	2 20 267 SG	20	10	0.4-2	40	2.5	-	12	18.6	2	B,C,D,E,F	☑ ▮▮ 🚜 ◎
	3 25 267 SG	25	10	0.4-2	43	2.5	-	16	23.5	3	B,C,D,E,F	☑ ▮▮ 🚜 ◎
Threaded shank end mill body	2 16 267	16	10	0.4-2	29	2.5	-	8	13,8	2	B,C,D,E,F	☑ ▮▮ ◎
	2 20 267	20	10	0.4-2	29	2.5	-	10	18	2	B,C,D,E,F	☑ ▮▮ ◎
	3 20 267	20	10	0.4-2	29	2.5	-	10	18	3	B,C,D,E,F	☑ ▮▮ ◎
	3 25 267	25	10	0.4-2	33	2.5	-	12	21	3	B,C,D,E,F	☑ ▮▮ ◎
	4 25 267	25	10	0.4-2	33	2.5	-	12	21	4	B,C,D,E,F	☑ ▮▮ ◎
	4 32 267	32	10	0.4-2	43	2.5	-	16	29	4	B,C,D,E,F	☑ ▮▮ ◎
	5 32 267	32	10	0.4-2	43	2.5	-	16	29	5	B,C,D,E,F	☑ ▮▮ ◎
	5 42 267	40	10	0.4-2	43	2.5	-	16	29	5	B,C,D,E,F	☑ ▮▮ ◎
Plain shank end mill body	2 32 16 167 G	16	10	0.4-2	32	2.5	165	16	-	2	B,C,D,E,F	☑ ▮▮ ◎
	3 40 20 167 G	20	10	0.4-2	40	2.5	165	20	-	3	B,C,D,E,F	☑ ▮▮ ◎
	3 50 25 167 G	25	10	0.4-2	50	2.5	225	25	-	3	B,C,D,E,F	☑ ▮▮ ◎
	4 50 25 167 G	25	10	0.4-2	50	2.5	225	25	-	4	B,C,D,E,F	☑ ▮▮ ◎
Shell type milling cutter	5 42 367	42	10	0.4-2	43	2.5	-	16	35	5	A,C,D,E,F	☑ ▮▮ ◎
	6 52 367	52	10	0.4-2	53	2.5	-	22	40	6	A,C,D,E,F	☑ ▮▮ ◎

Accessories

A 25 500 P	B 25 505 KP	C 08 500 P	D TV 08-2	E T8 500 P
F T8 502 P				

☑ stock item ▮▮ internal coolant supply ◎ incorporated isert 🚜 DuoPlug®

Indexable inserts	Catalogue no.	DIN description	Carbide Grade	Coating	l/d	s	r	Screw Size
	04 67 835 HF	XDEW 10T3 SR	HSC 05	PVTi	10	3.58	1.4*	M 2.5
	04 67 836 HF	XDEW 10T3 SR	HSC 05	PVTiH	10	3.58	1.4*	M 2.5
	04 67 848 HF	XDMT 10T3 TR	P40	PVGO	10	3.58	1.4*	M 2.5
	04 67 862 HF	XDMT 10T3 TR	K10	PVGP	10	3.58	1.4*	M 2.5
	04 67 896 HF	XDMT 10T3 ER	M40	PVST	10	3.58	1.4*	M 2.5
	04 67 8099 HF	XDMT 10T3 TR	M35	PCTC	10	3.58	1.4*	M 2.5

*theoretical radius 1.4 mm

Feed per tooth (fz) | d.o.c. (ap)

Carbide Grade Coating	Feed per tooth d.o.c.	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
HSC 05 PVTi	f_z (mm)	0,5 - 1,6	-	0,4 - 1,8	-	-	0,3 - 1
	a_p (mm)	0,15 - 0,7	-	0,15 - 0,7	-	-	0,1 - 0,5
HSC 05 PVTiH	f_z (mm)	0,5 - 1,6	-	0,4 - 1,8	-	-	0,3 - 1
	a_p (mm)	0,15 - 0,7	-	0,15 - 0,7	-	-	0,1 - 0,5
P40 PVGO	f_z (mm)	0,3 - 1,5	-	-	-	-	-
	a_p (mm)	0,5 - 1,6	-	-	-	-	-
K10 PVGP	f_z (mm)	0,3 - 1,2	-	-	-	-	0,3 - 1
	a_p (mm)	0,2 - 1,5	-	-	-	-	0,1 - 0,5
M40 PVST	f_z (mm)	0,3 - 1,5	0,15 - 1	-	-	0,1 - 0,9	-
	a_p (mm)	0,15 - 1	0,15 - 0,75	-	-	0,15 - 0,65	-
M35 PCTC	f_z (mm)	-	0,15 - 1	-	-	0,1 - 0,9	-
	a_p (mm)	-	0,15 - 0,75	-	-	0,15 - 0,65	-

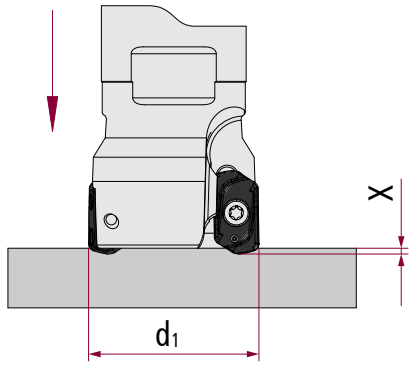
Cutting speed (Vc in m/min)

Carbide Grade Coating	Application	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
HSC 05 PVTi	roughing	▼120 **185** 250	-	▼100 **150** 200	-	-	▼35 **143** 250
	semifinishing	▼150 **275** 400	-	▼150 **225** 300	-	-	▼35 **143** 250
	finishing	-	-	-	-	-	-
HSC 05 PVTiH	roughing	▼120 **185** 250	-	▼100 **150** 200	-	-	▼35 **143** 250
	semifinishing	▼150 **275** 400	-	▼150 **225** 300	-	-	▼35 **143** 250
	finishing	-	-	-	-	-	-
P40 PVGO	roughing	▼100 **150** 200	-	-	-	-	-
	semifinishing	▼100 **150** 200	-	-	-	-	-
	finishing	-	-	-	-	-	-
K10 PVGP	roughing	-	-	▼150 **185** 220	-	-	▼80 **115** 150
	semifinishing	-	-	▽160 **190** 220	-	-	▽100 **150** 200
	finishing	-	-	-	-	-	-
M40 PVST	roughing	▽80 **160** 200	▼80 **130** 180	-	-	▼30 **55** 80	-
	semifinishing	▽100 **150** 200	▼100 **155** 210	-	-	▼40 **65** 90	-
	finishing	-	-	-	-	-	-
M35 PCTC	roughing	-	▼110 **155** 200	-	-	▼30 **65** 100	-
	semifinishing	-	▼120 **165** 230	-	-	▼40 **75** 110	-
	finishing	-	-	-	-	-	-

▼ major application ▽ minor application

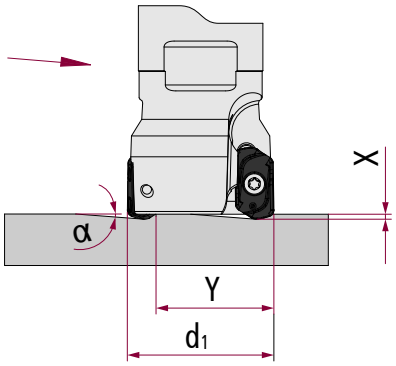
Extended operation data

Plunging



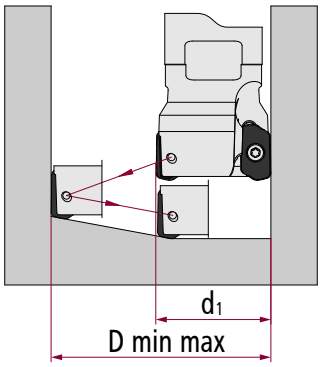
Cutter diam. d1	X_{max} mm
16 - 52	0.85

Ramping



Cutter diam. d1	α°	y mm
16	4	12
20	3	16
25	2.5	21
32	1.7	28
42	1.2	38
52	1	41.3

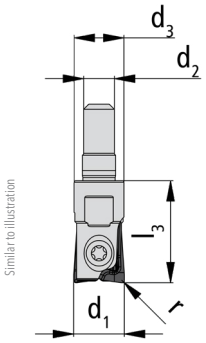
Helix



Cutter diam. d1	D_{min} mm	D_{max} mm
16	26	32
20	34	40
25	44	50
32	58	64
42	78	84
52	98	104

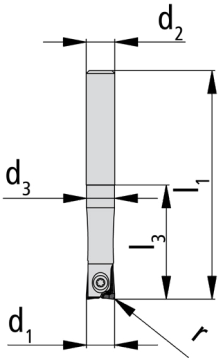
UNIWORX®PLUS HF

diam. 10 - 20 mm

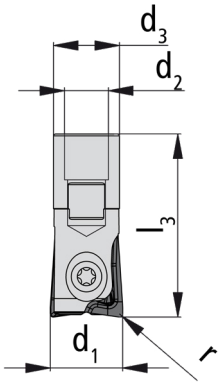


Similar to illustration

Threaded shank end mill body



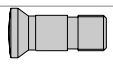
Plain shank end mill body

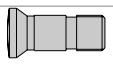


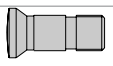
DuoPlug®

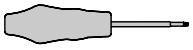
	Catalogue no.	d_1	l	r	l_3	l_2	l_1	d_2	d_3	z	Accessories	Features
DuoPlug®	10 215 SG	10	-	0.5	30	-	-	7	9.6	2	A,D,G,J,M	
	12 215 SG	12	-	0.5	30	-	-	7	10.8	2	B,E,H,K,N	
	16 215 SG	16	-	1	38	-	-	10	15	2	C,F,I,L,O	
	20 215 SG	20	-	1	43	-	-	12	18.6	2	C,F,I,L,O	
Plain shank end mill body	40 10 115 G	10	-	0.5	40	-	-	10	9.8	2	A,D,G,J,M	
	48 12 115 G	12	-	0.5	48	-	-	12	11.8	2	B,E,H,K,N	
	64 16 115 G	16	-	1	64	-	-	16	13.8	2	C,F,I,L,O	
	80 20 115 G	20	-	1	80	-	-	20	18	2	C,F,I,L,O	
Threaded shank end mill body	10 215 M6	10	-	0.5	20	-	-	6	9.75	2	A,D,G,J,M	
	12 215 M6	12	-	0.5	30	-	-	7	10.8	2	B,E,H,K,N	
	16 215	16	-	1	25	-	-	8	13.8	2	C,F,I,L,O	
	20 215	20	-	1	30	-	-	10	18	2	C,F,I,L,O	

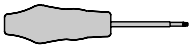
Accessories

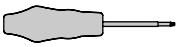

A 30 530

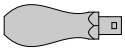

B 35 530

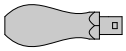

C 50 530

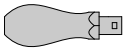

D 08 500


E 10 500


F 20 500


G TV 08-2


H TV 1-5


I TV 2-8

J T8 500

K T10 500

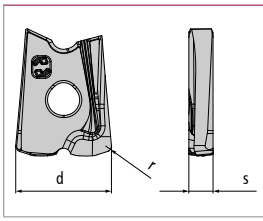
L T20 500

M T8 502

N T10 502

O T20 502

stock item internal coolant supply toric tool DuoPlug®

Indexable inserts	Catalogue no.	DIN description	Carbide Grade	Coating	l/d	s	r	Screw Size
	15 10 8060 HF	XOGX 1025 ER	K10	PPTi	10	2.5	-	M 3
	15 12 8060 HF	XOGX 1225 ER	K10	PPTi	12	2.5	-	M 3.5
	15 16 8060 HF	XOGX 1630 ER	K10	PPTi	16	3.0	-	M 5
	15 20 8060 HF	XOGX 2030 ER	K10	PPTi	20	3.0	-	M 5

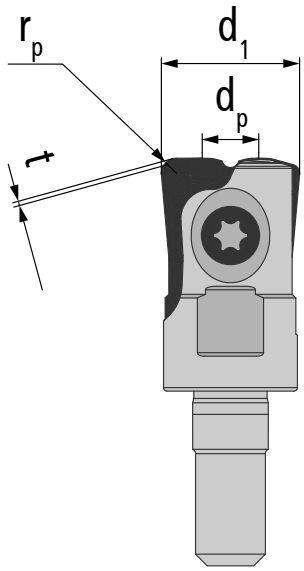
Feed per tooth (fz) | d.o.c. (ap)

Carbide Grade Coating	Feed per tooth d.o.c.	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
d = 10 mm							
K10 PPTi	f_z (mm)	0,1 - 0,75	0,1 - 0,55	0,1 - 0,75	0,1 - 0,75	0,1 - 0,5	0,1 - 0,55
	a_p (mm)	0,05 - 0,4	0,05 - 0,3	0,05 - 0,4	0,05 - 0,5	0,05 - 0,3	0,05 - 0,25
d = 12 mm							
K10 PPTi	f_z (mm)	0,1 - 0,9	0,1 - 0,65	0,1 - 0,9	0,1 - 0,9	0,1 - 0,55	0,1 - 0,7
	a_p (mm)	0,1 - 0,5	0,1 - 0,4	0,1 - 0,5	0,1 - 0,6	0,1 - 0,4	0,05 - 0,35
d = 16 mm							
K10 PPTi	f_z (mm)	0,15 - 1,2	0,15 - 0,8	0,15 - 1,2	0,15 - 1,2	0,1 - 0,75	0,1 - 0,8
	a_p (mm)	0,1 - 0,6	0,1 - 0,5	0,1 - 0,6	0,1 - 0,8	0,1 - 0,5	0,1 - 0,45
d = 20 mm							
K10 PPTi	f_z (mm)	0,15 - 1,5	0,15 - 1	0,15 - 1,5	0,15 - 1,5	0,1 - 0,95	0,1 - 1
	a_p (mm)	0,1 - 0,8	0,35 - 0,7	0,1 - 0,8	0,1 - 1	0,1 - 0,7	0,1 - 0,6

Cutting speed (Vc in m/min)

Carbide Grade Coating	Application	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
K10 PPTi	roughing	▼90 **140** 190	▽60 **110** 160	▼120 **180** 240	▽150 **375** 600	▽20 **45** 70	▽80 **120** 160
	semifinishing	▼110 **160** 210	▽80 **135** 190	▼140 **205** 270	▽200 **450** 700	▽30 **50** 70	▼100 **140** 180
	finishing	-	-	-	-	-	-

Technical information



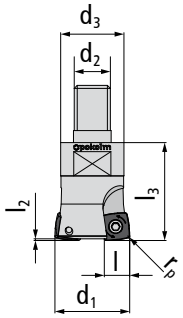
For the CAD/CAM set-up please program corner radius (r_p) and remainder of material (t) according to the list on the right. Please use „d_p" for tool length measurement.

Ø	r_p	t
10	1,00	0,300
12	1,30	0,379
16	1,70	0,570
20	1,95	0,720

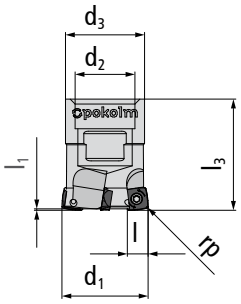
▼ major application ▽ minor application

QUADWORX®

Size S - diam. 14 - 25 mm



Threaded shank end mill body



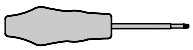
DuoPlug®

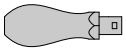
	Catalogue no.	d_1	l	r	l_3	l_2	l_1	d_2	d_3	z	Accessories	Features
DuoPlug®	2 16 247 SG	16	7	1.3*	31	1	-	10	15	2	A,C,D,E,F	
	3 18 247 SG	18	7	1.3*	31	1	-	10	15	3	B,C,D,E,F	
	3 20 247 SG	20	7	1.3*	33	1	-	12	18.6	3	B,C,D,E,F	
	4 25 247 SG	25	7	1.3*	35	1	-	16	23.5	4	B,C,D,E,F	
Threaded shank end mill body	2 14 247	14	7	1.3*	28.5	1	-	8	13.8	2	A,C,D,E,F	
	2 16 247	16	7	1.3*	28.5	1	-	8	13.8	2	A,C,D,E,F	
	3 18 247	18	7	1.3*	28.5	1	-	8	13.8	3	B,C,D,E,F	
	3 20 247	20	7	1.3*	28.5	1	-	10	18	3	B,C,D,E,F	
	4 25 247	25	7	1.3*	32.5	1	-	12	21	4	B,C,D,E,F	

Accessories

A  25 500 K

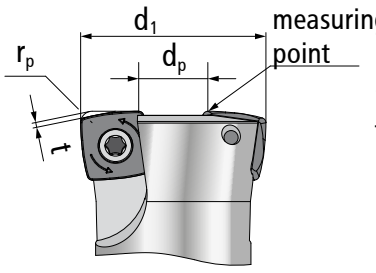
B  25 500

C  07 500

D  TV 04-1

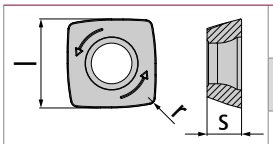
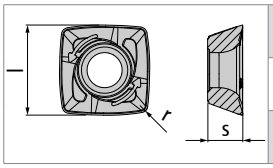
E T7 500

F T7 502



* For the CAD/CAM set-up please program 1.3 mm corner radius (r_p).
The remainder of the material is theoretically 0.51 mm (t).
Please use „d_p" for tool length measurement.

stock item internal coolant supply incorporated isert DuoPlug®

Indexable inserts	Catalogue no.	DIN description	Carbide Grade	Coating	l/d	s	r	Screw Size
	02 47 837	SDMX 070205 SN	HSC 05	PVTi	7	2.38	0.5	M 2.5
	02 47 842	SDMX 070205 SN	P40	PVTi	7	2.38	0.5	M 2.5
	02 47 896	SDMT 070205 SN	M40	PVST	7	2.38	0.5	M 2.5

Feed per tooth (fz) | d.o.c. (ap)

Carbide Grade Coating	Feed per tooth d.o.c.	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
HSC 05 PVTi	f_z (mm)	-	-	0,2 - 1,5	-	-	0,1 - 1
	a_p (mm)	-	-	0,2 - 0,5	-	-	0,1 - 0,5
P40 PVTi	f_z (mm)	0,2 - 1,5	-	-	-	-	-
	a_p (mm)	0,2 - 0,5	-	-	-	-	-
M40 PVST	f_z (mm)	-	0,2 - 1	-	-	0,2 - 0,8	-
	a_p (mm)	-	0,1 - 0,5	-	-	0,1 - 0,5	-

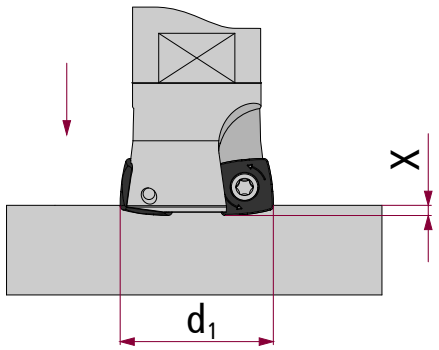
Cutting speed (Vc in m/min)

Carbide Grade Coating	Application	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
HSC 05 PVTi	roughing	-	-	▼100 **150** 200	-	-	▼100 **175** 250
	semifinishing	-	-	▽150 **225** 300	-	-	▽35 **143** 250
	finishing	-	-	-	-	-	-
P40 PVTi	roughing	▼100 **160** 220	-	-	-	-	-
	semifinishing	▽100 **175** 250	-	-	-	-	-
	finishing	-	-	-	-	-	-
M40 PVST	roughing	-	▼80 **130** 180	-	-	▼30 **55** 80	-
	semifinishing	-	▽100 **155** 210	-	-	▽40 **65** 90	-
	finishing	-	▼120 **185** 250	-	-	▼60 **90** 120	-

▼ major application ▽ minor application

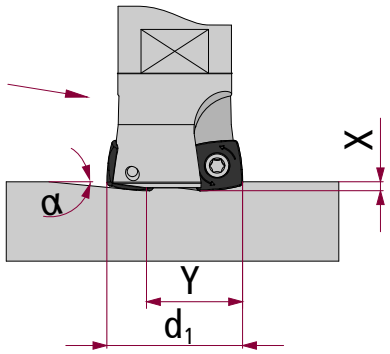
Extended operation data

Plunging



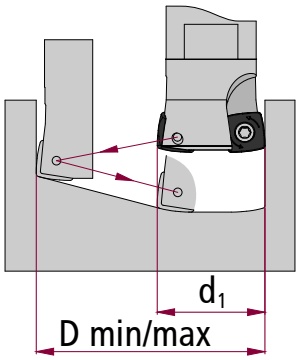
Cutter diam. d1	d_p	X_{max} mm
14	3.7	1
16	5.7	1
18	7.7	1
20	9.7	1
25	14.8	1

Ramping



Cutter diam. d1	α°	y mm
14	<13.5	4
16	<8.8	6
18	<6.6	8
20	<5.2	10
25	<3.3	15

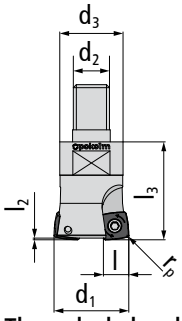
Helix



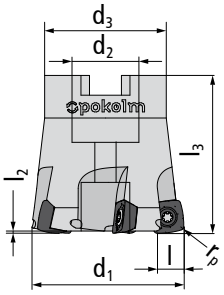
Cutter diam. d1	D_{min} mm	D_{max} mm
14	18	28
16	22	32
18	26	36
20	30	40
25	40	50

QUADWORX®

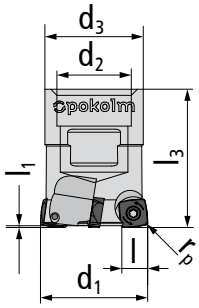
Size M - diam. 22 - 52 mm



Threaded shank end mill body

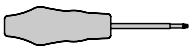
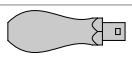


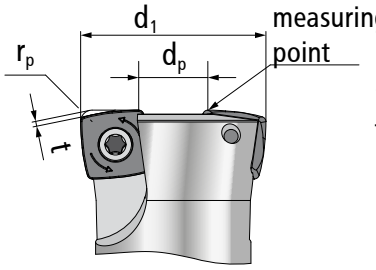
Shell type milling cutter



DuoPlug®

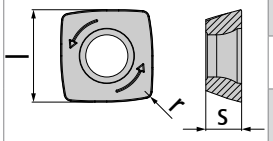
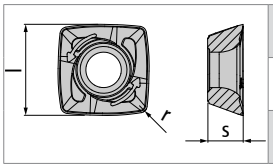
	Catalogue no.	d_1	l	r	l_3	l_2	l_1	d_2	d_3	z	Accessories	Features
DuoPlug®	2 22 248 SG	22	9	1.5*	35.5	1.5	-	12	18.5	2	A,B,C,D,E	☑ ▮▮ 🚜
	3 25 248 SG	25	9	1.5*	40	1.5	-	16	23.5	3	A,B,C,D,E	☑ ▮▮ 🚜
	4 35 248 SG	35	9	1.5*	45	1.5	-	24	32	4	A,B,C,D,E	☑ ▮▮ 🚜
Shell type	5 42 348	42	9	1.5*	42.5	1.5	-	16	35	5	A,B,C,D,E	☑ ▮▮
	6 52 348	52	9	1.5*	52.5	1.5	-	22	40	6	A,B,C,D,E	☑ ▮▮
Threaded shank end mill body	2 22 248	22	9	1.5*	29	1.5	-	10	18	2	A,B,C,D,E	☑ ▮▮
	3 25 248	25	9	1.5*	33	1.5	-	12	21	3	A,B,C,D,E	☑ ▮▮
	4 30 248	30	9	1.5*	42	1.5	-	16	29	4	A,B,C,D,E	☑ ▮▮
	4 32 248	32	9	1.5*	42	1.5	-	16	29	4	A,B,C,D,E	☑ ▮▮
	4 35 248	35	9	1.5*	42	1.5	-	16	29	4	A,B,C,D,E	☑ ▮▮
	5 35 248	35	9	1.5*	42	1.5	-	16	29	5	A,B,C,D,E	☑ ▮▮
	5 42 248	42	9	1.5*	42	1.5	-	16	29	5	A,B,C,D,E	☑ ▮▮

Accessories					
A  30 500	B  10 500	C  TV 1-5	D T10 500	E  T10 502	



* For the CAD/CAM set-up please program 1.5 mm corner radius (r_p).
The remainder of the material is theoretically 0.65 mm (t).
Please use „d_p" for tool length measurement.

☑ stock item ▮▮ internal coolant supply incorporated isert 🚜 DuoPlug®

Indexable inserts	Catalogue no.	DIN description	Carbide Grade	Coating	l/d	s	r	Screw Size
	03 48 842	SDMX 09T307 SN	P40	PVTi	9	3.5	0.7	M 3.0
	03 48 846	SDMX 09T307 SN	P40	PVGO	9	3.5	0.7	M 3.0
	03 48 850	SDHX 09T307 SN	P25	PVTi	9	3.5	0.7	M 3.0
	03 48 852	SDMX 09T307 SN	P25	PVTi	9	3.5	0.7	M 3.0
	03 48 860	SDHX 09T307 SN	K10	PVTi	9	3.5	0.7	M 3.0
	03 48 848	SDMT 09T307 SN	P40	PVGO	9	3.5	0.7	M 3.0
	03 48 896	SDMT 09T307 SN	M40	PVST	9	3.5	0.7	M 3.0
	04 48 896	SDMT 09T307 SN	M40	PVST	9	3.6	0.7	M 3.0

Feed per tooth (fz) | d.o.c. (ap)

Carbide Grade Coating	Feed per tooth d.o.c.	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
P40 PVTi	f_z (mm)	0,5 - 2	-	-	-	-	-
	a_p (mm)	0,3 - 1	-	-	-	-	-
P40 PVGO	f_z (mm)	0,5 - 2	-	-	-	-	-
	a_p (mm)	0,3 - 1	-	-	-	-	-
P25 PVTi	f_z (mm)	0,5 - 2	-	-	-	-	-
	a_p (mm)	0,3 - 1	-	-	-	-	-
K10 PVTi	f_z (mm)	-	-	0,5 - 2,2	-	-	0,1 - 1,2
	a_p (mm)	-	-	0,3 - 1,2	-	-	0,1 - 0,5
M40 PVST	f_z (mm)	-	0,2 - 1,2	-	-	0,25 - 0,9	-
	a_p (mm)	-	0,2 - 0,9	-	-	0,2 - 0,7	-

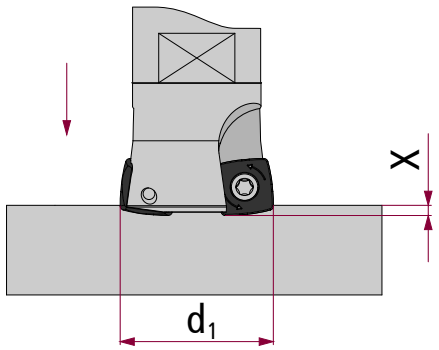
Cutting speed (Vc in m/min)

Carbide Grade Coating	Application	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
P40 PVTi	roughing	▼100 **160** 220	-	-	-	-	-
	semifinishing	▽100 **175** 250	-	-	-	-	-
	finishing	-	-	-	-	-	-
P40 PVGO	roughing	▼100 **150** 200	-	-	-	-	-
	semifinishing	▽100 **150** 200	-	-	-	-	-
	finishing	-	-	-	-	-	-
P25 PVTi	roughing	▼100 **200** 300	-	-	-	-	-
	semifinishing	▼100 **125** 150	-	-	-	-	-
	finishing	-	-	-	-	-	-
K10 PVTi	roughing	-	-	▼150 **175** 200	-	-	▼100 **175** 250
	semifinishing	-	-	▽150 **175** 200	-	-	▽35 **108** 180
	finishing	-	-	-	-	-	-
M40 PVST	roughing	-	▼80 **130** 180	-	-	▼30 **55** 80	-
	semifinishing	-	▼100 **155** 210	-	-	▼40 **65** 90	-
	finishing	-	▽120 **185** 250	-	-	▽60 **90** 120	-

▼ major application ▽ minor application

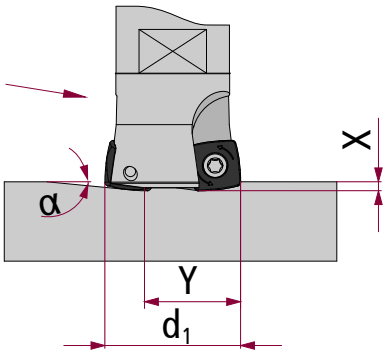
Extended operation data

Plunging



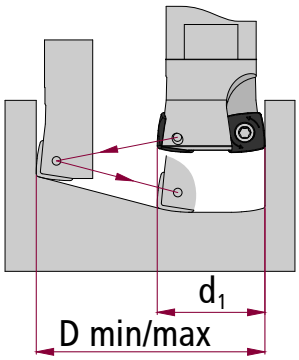
Cutter diam. d1	d_p	X_{max} mm
22	7.1	1.5
25	9.8	1.5
30	14.7	1.5
32	16.7	1.5
35	19.7	1.5
42	26.5	1.5
52	36.5	1.5

Ramping



Cutter diam. d1	α°	y mm
22	<13.7	6
25	<9.2	9
30	<5.8	14
32	<4.9	16
35	<4.3	19
42	<3.1	26
52	<2.1	36

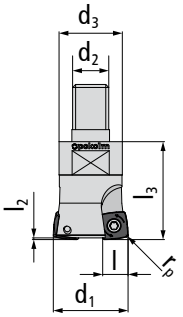
Helix



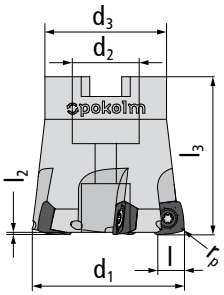
Cutter diam. d1	D_{min} mm	D_{max} mm
22	28.5	44
25	34.5	50
30	44.5	60
32	48.5	64
35	54.5	70
42	68.5	84
52	88.5	104

QUADWORX®

Size L - diam. 35 - 80 mm



Threaded shank end mill body

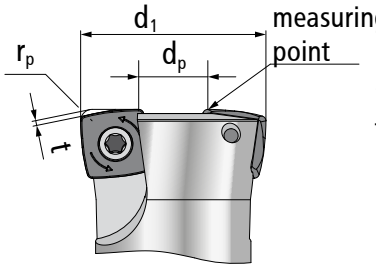


Shell type milling cutter

	Catalogue no.	d_1	l	r	l_3	l_2	l_1	d_2	d_3	z	Accessories	Features
Shell type milling cutter	4 42 349	42	10	2.3*	42	2.5	-	16	35	4	A,C,E,F,H	☑ ▮▮ ◎
	5 52 349	52	10	2.3*	52	2.5	-	22	40	5	B,D,E,G,I	☑ ▮▮ ◎
	7 66 349	66	10	2.3*	52	2.5	-	27	48	7	B,D,E,G,I	☑ ▮▮ ◎
	8 80 349	80	10	2.3*	52	2.5	-	27	60	8	B,D,E,G,I	☑ ▮▮ ◎
Threaded shank end mill body	3 35 249	35	10	2.3*	42	2.5	-	16	29	3	A,C,E,F,H	☑ ▮▮ ◎
	4 42 248	42	10	2.3*	42	2.5	-	16	29	4	A,C,E,F,H	☑ ▮▮ ◎

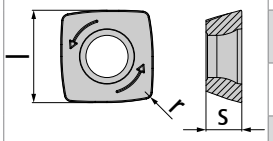
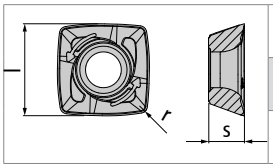
Accessories

A 40 505 K	B 40 505 P	C 15 500	D 15 500 P	E TV 2-8
F T15 500	G T15 500 P	H T15 502	I T15 502 P	



* For the CAD/CAM set-up please program 2.3 mm corner radius (r_p).
The remainder of the material is theoretically 0.83 mm (t).
Please use „d_p" for tool length measurement.

☑ stock item ▮▮ internal coolant supply ◎ incorporated isert DuoPlug®

Indexable inserts	Catalogue no.	DIN description	Carbide Grade	Coating	l/d	s	r	Screw Size
	04 49 842	SDMX 100510 SN	P40	PVTi	10	5	1	M 4.0
	04 49 846	SDMX 100510 SN	P40	PVGO	10	5	1	M 4.0
	04 49 852	SDMX 100510 SN	P25	PVTi	10	5	1	M 4.0
	04 49 860	SDHX 100510 SN	K10	PVTi	10	5	1	M 4.0
	04 49 896	SDMT 100510 SN	M40	PVST	10	5	1	M 4.0

Feed per tooth (fz) | d.o.c. (ap)

Carbide Grade Coating	Feed per tooth d.o.c.	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
P40 PVTi	f_z (mm)	0,5 - 2,5	-	-	-	-	-
	a_p (mm)	0,3 - 1,5	-	-	-	-	-
P40 PVGO	f_z (mm)	0,5 - 2,5	-	-	-	-	-
	a_p (mm)	0,3 - 1,5	-	-	-	-	-
P25 PVTi	f_z (mm)	0,5 - 2,5	-	-	-	-	-
	a_p (mm)	0,3 - 1,5	-	-	-	-	-
K10 PVTi	f_z (mm)	-	-	0,5 - 2,5	-	-	0,3 - 1,5
	a_p (mm)	-	-	0,3 - 1,7	-	-	0,3 - 0,6
M40 PVST	f_z (mm)	-	0,3 - 1,5	-	-	0,3 - 1	-
	a_p (mm)	-	0,25 - 1,3	-	-	0,25 - 0,9	-

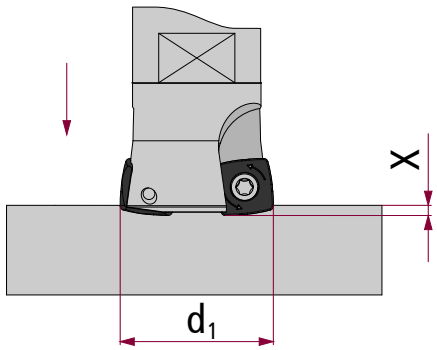
Cutting speed (Vc in m/min)

Carbide Grade Coating	Application	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
P40 PVTi	roughing	▼100 **160** 200	-	-	-	-	-
	semifinishing	▽100 **175** 250	-	-	-	-	-
	finishing	-	-	-	-	-	-
P40 PVGO	roughing	▼100 **150** 200	-	-	-	-	-
	semifinishing	▽100 **150** 200	-	-	-	-	-
	finishing	-	-	-	-	-	-
P25 PVTi	roughing	▼ 100 **200** 300	-	-	-	-	-
	semifinishing	▽100 **125** 150	-	-	-	-	-
	finishing	-	-	-	-	-	-
K10 PVTi	roughing	-	-	▼150 **175** 200	-	-	▼100 **175** 250
	semifinishing	-	-	▽150 **175** 200	-	-	▽120 **150** 180
	finishing	-	-	-	-	-	-
M40 PVST	roughing	-	▼80 **130** 180	-	-	▼30 **55** 80	-
	semifinishing	-	▼100 **155** 210	-	-	▼40 **65** 90	-
	finishing	-	▽120 **185** 250	-	-	▽60 **90** 120	-

▼ major application ▽ minor application

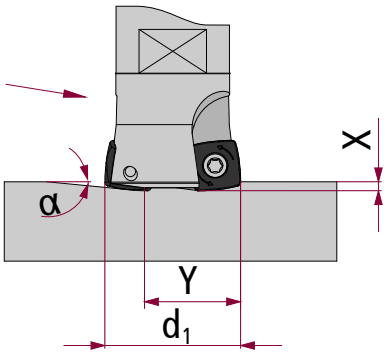
Extended operation data

Plunging



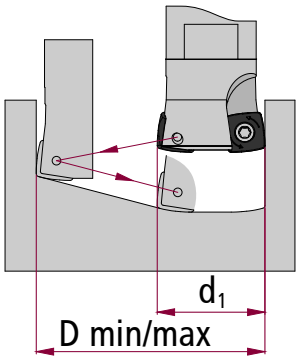
Cutter diam. d1	d_p	X_{max} mm
35	17.7	2.5
42	24.7	2.5
52	34.7	2.5
66	48.7	2.5
80	62.7	2.5

Ramping



Cutter diam. d1	α°	y mm
35	<8.3	17
42	<5.9	24
52	<4.2	34
66	<2.9	48
80	<2.3	62

Helix



Cutter diam. d1	D_{min} mm	D_{max} mm
35	52	70
42	66	84
52	86	104
66	114	132
80	142	160

Economic size in XL:

High-feed-milling with enormous chip removal rates

QUADWORX® XL, the modern and proven high-feed talent is even higher performance in the new XL-format.

In large diameters up to 100 mm, the milling system enables enormously fast feed rates with simultaneously extremely large cutting depths.

The indexable inserts with four cutting edges, typical for the system, are adapted to the XL-dimension of the tool holder. They're right in their element during the roughing and pre-finishing of steel, stainless steel and cast iron as well as high-temperature alloys.

A special macrogeometry combining a large radius and plane cutting edge ensure universal applications in 2, 2½ and 3d processing.

The micro geometry with polished rake surface minimizes temperature in the cutting material as well as ensures uniform chip removal.

In practical application, the user profits from the new XL format with more efficient processing, which adds up to higher machine capacity.

Your benefit from a summary of

- One single milling cutter body fits both square shoulder face and high feed milling cutter thanks to the optional use of cutting insert featuring different geometries
- four cutting edges per insert for economic applications
- highest chip removal rates through enormously fast feed rates with extremely large cutting depth
- wiper edge and large corner radius generate high surface accuracy, already in roughing operations
- Screw-in end mill bodies: diam. 32 and 35 mm
  Shell type milling cutter bodies: diam. 40 - 100 mm
- lower costs per unit, higher manufacturing capacity
- maximum process reliability specially in interrupted cutting applications thanks to the ablsolutely safe inserts positioning

Only 1 XL size milling cutter body for 2 kinds of machining

For square shoulder and face milling, approach angle 90°

Square shoulder and face milling

For efficient machining of steel, stainless steel, cast iron as well as high-temperature alloys, inserts grades P40, P25 and M40, coated with PVGO and PVST are the best choice.

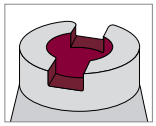
For high feed milling

Inserts with chip groove

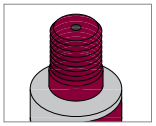
For efficient machining of steel, stainless steel, cast iron as well as high-temperature alloys, inserts grades P40, P25, K10 and M40, coated with PVGO and PVST are the best choice.

Inserts without chip groove

For efficient machining of steel and cast iron, inserts grades P25 and K10 with a PVTi-coating are available.



Shell type



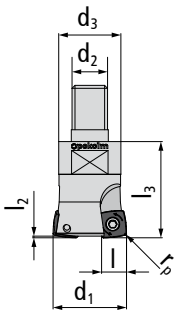
Screw-in type

Practical-Video
QUADWORX® XL in 1.2379 / X153CrMoV12

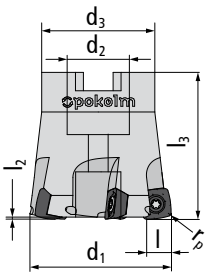
More Product-Videos available on:
youtube.com/pokolmknowhow

QUADWORX®

Size XL - diam. 32 - 100 mm



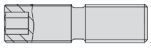
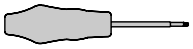
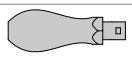
Threaded shank end mill body

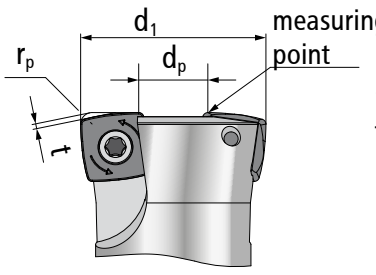


Shell type milling cutter

	Catalogue no.	d_1	l	r	l_3	l_2	l_1	d_2	d_3	z	Accessories	Features
Shell type milling cutter	4 40 351	40	13	1|3.3*	42.5	2.5	-	16	4	4	A,C,D,E,F,G	☑ ▮▮
	4 42 351	42	13	1|3.3*	42.5	2.5	-	16	4	4	A,C,D,E,F,G	☑ ▮▮
	4 50 351	50	13	1|3.3*	50	2.5	-	22	4	4	A,D,E,F,G	☑ ▮▮ ◔
	4 52 351	52	13	1|3.3*	50	2.5	-	22	4	4	A,D,E,F,G	☑ ▮▮ ◔
	5 50 351	50	13	1|3.3*	50	2.5	-	22	5	5	A,D,E,F,G	☑ ▮▮
	5 52 351	52	13	1|3.3*	50	2.5	-	22	5	5	A,D,E,F,G	☑ ▮▮
	6 63 351	63	13	1|3.3*	53	2.5	-	27	6	6	A,D,E,F,G	☑ ▮▮
	6 66 351	66	13	1|3.3*	53	2.5	-	27	6	6	A,D,E,F,G	☑ ▮▮
	6 80 351	80	13	1|3.3*	53	2.5	-	27	6	6	A,D,E,F,G	☑ ▮▮ ◔
	8 80 351	80	13	1|3.3*	53	2.5	-	27	8	8	A,D,E,F,G	☑ ▮▮
	7 100 351	100	13	1|3.3*	53	2.5	-	32	7	7	A,B,D,E,F,G	☑ ▮▮ ◔
	9 100 351	100	13	1|3.3*	53	2.5	-	32	9	9	A,B,D,E,F,G	☑ ▮▮
Threaded shank end mill body	2 32 251	32	13	1|3.3*	42	1.5	-	M 16	29	2	A,D,E,F,G	☑ ▮▮
	3 35 251	35	13	1|3.3*	42	1.5	-	M 16	29	3	A,D,E,F,G	☑ ▮▮

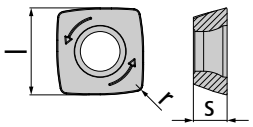
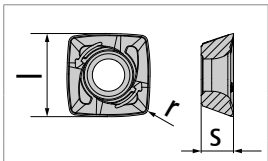
Accessories

A  40 505 K	B  M16X35	C  GWSTPS8ISK	D  15 500 P	E  TV 2-8
F T15 500 P	G T15 502 P			



* For the CAD/CAM set-up please program 3.3 mm corner radius (r_p).
The remainder of the material is theoretically 0.86 mm (t).
Please use „d_p" for tool length measurement.

☑ stock item ▮▮ internal coolant supply toric tool ◔ larger tooth pitch

Indexable inserts	Catalogue no.	DIN description	Carbide Grade	Coating	l/d	s	r	Screw Size
	05 51 8042 HF	SDMW 135020 SN	P40	PCSR	13	5	2	M 4
	05 51 852 HF	SDMW 135020 SN	P25	PVTi	13	5	2	M 4
	05 51 8052 HF	SDMW 135020 SN	P25	PCSR	13	5	2	M 4
	05 51 860 HF	SDHX 135020 SN	K10	PVTi	13	5	2	M 4
	05 51 862 HF	SDMW 135020 SN	K10	PVTi	13	5	2	M 4
	05 51 848 HF	SDMT 135020 SN	P40	PVGO	13	5	2	M 4
	05 51 858 HF	SDMT 135020 SN	P25	PVGO	13	5	2	M 4
	05 51 868 HF	SDMT 135020 SN	K10	PVGO	13	5	2	M 4
	05 51 896 HF	SDMT 135020 EN	M40	PVST	13	5	2	M 4

Feed per tooth (fz) | d.o.c. (ap)

Carbide Grade Coating	Feed per tooth d.o.c.	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
P40 PCSR	f_z (mm)	0,6 - 2,8	-	0,6 - 2,5	-	-	-
	a_p (mm)	0,5 -2	-	0,6 - 2,2	-	-	-
P25 PVTi	f_z (mm)	0,6 - 2,8	-	0,6 - 2,5	-	-	-
	a_p (mm)	0,5 -2	-	0,6 - 2,2	-	-	-
P25 PCSR	f_z (mm)	0,6 - 2,8	-	0,6 - 2,5	-	-	-
	a_p (mm)	0,5 -2	-	0,6 - 2,2	-	-	-
K10 PVTi	f_z (mm)	0,6 - 2,8	-	0,6 - 2,5	-	-	0,4 - 0,8
	a_p (mm)	0,5 -2	-	0,6 - 2,2	-	-	0,4 - 1
P40 PVGO	f_z (mm)	0,5 - 2,5	-	0,6 - 2,5	-	-	-
	a_p (mm)	0,4 - 2	-	0,6 - 2,2	-	-	-
P25 PVGO	f_z (mm)	0,5 - 2,5	-	0,6 - 2,5	-	-	-
	a_p (mm)	0,4 - 2	-	0,6 - 2,2	-	-	-
K10 PVGO	f_z (mm)	0,5 - 2,5	-	0,6 - 2,5	-	-	-
	a_p (mm)	0,4 - 2	-	0,6 - 2,2	-	-	-
M40 PVST	f_z (mm)	-	0,3 - 1,7	-	-	0,3 - 1,2	-
	a_p (mm)	-	0,5 - 1,5	-	-	0,4 - 1,5	-

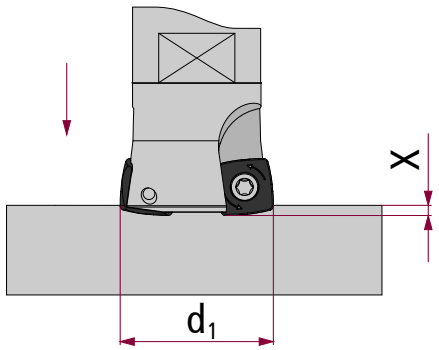
Cutting speed (Vc in m/min)

Carbide Grade Coating	Application	steel	stainless steel	cast iron	no-ferrous material	high-temperature alloys	hardened steel
P40 PCSR	roughing	▼130 **190** 250	-	▽120 **170** 220	-	-	-
	semifinishing	▼150 **225** 300	-	▽150 **200** 250	-	-	-
	finishing	-	-	-	-	-	-
P25 PVTi	roughing	▼100 **200** 300	-	▽130 **155** 180	-	-	-
	semifinishing	▼100 **125** 150	-	▽100 **135** 170	-	-	-
	finishing	-	-	-	-	-	-
P25 PCSR	roughing	▼140 **205** 270	-	▼130 **185** 240	-	-	-
	semifinishing	▼150 **215** 280	-	▼150 **210** 270	-	-	-
	finishing	-	-	-	-	-	-
K10 PVTi	roughing	▼130 **170** 210	-	▼150 **175** 200	-	-	▼40 **85** 130
	semifinishing	▼150 **185** 220	-	▼150 **175** 200	-	-	▼50 **95** 140
	finishing	-	-	-	-	-	-
P40 PVGO	roughing	▼100 **150** 200	-	▽110 **130** 150	-	-	-
	semifinishing	▼100 **150** 200	-	▽110 **130** 150	-	-	-
	finishing	-	-	-	-	-	-
P25 PVGO	roughing	▼110 **165** 220	-	▽120 **145** 170	-	-	-
	semifinishing	▼120 **185** 250	-	▽130 **150** 170	-	-	-
	finishing	-	-	-	-	-	-
K10 PVGO	roughing	▽130 **170** 210	-	▼110 **155** 200	-	-	-
	semifinishing	▽150 **185** 220	-	▼150 **175** 200	-	-	-
	finishing	-	-	-	-	-	-
M40 PVST	roughing	-	▼80 **130** 180	-	-	▼30 **55** 80	-
	semifinishing	-	▼100 **155** 210	-	-	▼40 **65** 90	-
	finishing	-	-	-	-	-	-

▼ major application ▽ minor application

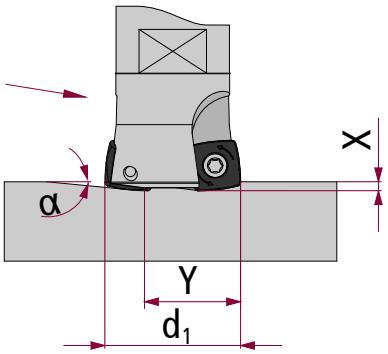
Extended operation data

Plunging



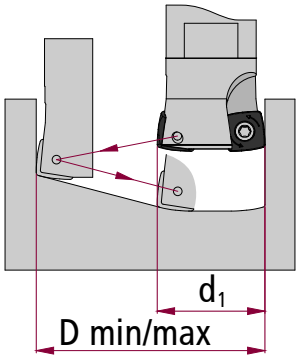
Cutter diam. d1	d_p	X_{max} mm
32	11.8	1.5
35	14.8	1.5
40	19.8	2.5
42	21.8	2.5
50	29.8	2.5
52	31.8	2.5
63	42.8	2.5
66	45.8	2.5
80	59.8	2.5
100	79.8	2.5

Ramping



Cutter diam. d1	α°	y mm
32	<9	8.8
35	<7.0	11.8
40	<6.5	16.8
42	<5.8	18.8
50	<4.1	26.8
52	<3.7	28.8
63	<2.6	39.8
66	<2.4	42.8
80	<1.8	56.8
100	<1.2	72.8

Helix



Cutter diam. d1	D_{min} mm	D_{max} mm
32	40.8	62
35	46.8	68
40	56.8	78
42	60.8	82
50	76.8	98
52	80.8	102
63	102.8	124
66	108.8	130
80	136.8	158
100	176.8	198

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