



SLOTWORX® HP

High-feed and step/groove cutter for high-performance cutting jobs with any material

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

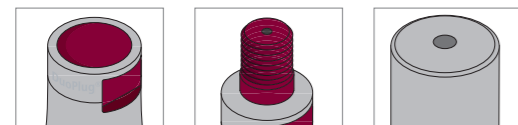
SLOTWORX® HP - that's the high-performance talent among POKOLM's insert cutters. A score of outstanding characteristics have rightfully earned the cutting system the 'high-performance' attribute. Take, for example, the role as high-feed cutter delivering high feed rates, speeds and degrees of hardness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

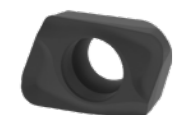
High feed inserts 02 66 ... R20 ...



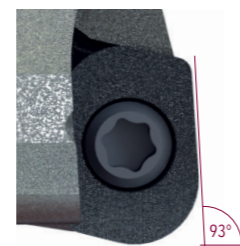
real radius 2 mm, easy to program, easy to calculate stock material

High feed inserts with chip groove, r 2 mm

Square shoulder inserts 02 66 835 R08 ...

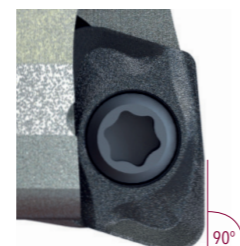


Real radius, r 0,8 mm



real radius 2 mm, easy to program

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

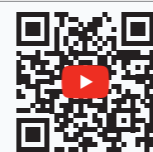


0,8 mm real radius

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

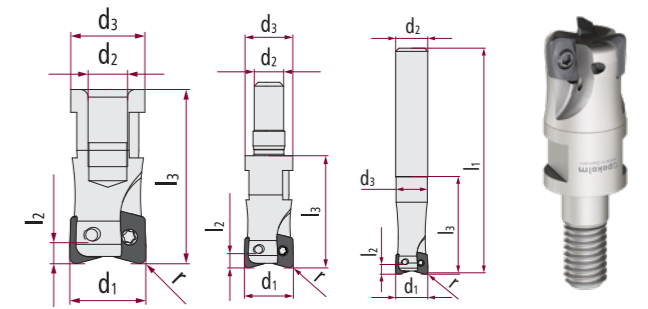
Practical-Video
SLOTWORX® HP in 1.2312

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



SLOTWORX® HP

diam. 10 - 32 mm - step/groove cutter



	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	28	0.7	-	M 7	10.8	3	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
	4 16 266 SG	16	6.2	0.8	31	0.7	-	M 10	15	4	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
	5 20 266 SG	20	6.2	0.8	33	0.7	-	M 12	18.6	5	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
	5 25 266 SG	25	6.2	0.8	35	0.7	-	M 16	23.5	5	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
Screw-in Type	2 10 266 M6	10	6.2	0.8	22.5	0.7	-	M 6	9.75	2	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
	3 12 266 M6	12	6.2	0.8	22.5	0.7	-	M 6	11.5	3	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
	4 16 266	16	6.2	0.8	27.5	0.7	-	M 8	13.8	4	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
	5 20 266	20	6.2	0.8	27.5	0.7	-	M 10	18	5	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
	5 25 266	25	6.2	0.8	32	0.7	-	M 12	21	5	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
	7 32 266	32	6.2	0.8	32	0.7	-	M 16	29	7	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
Plain type	2 30 10 166 G	10	6.2	0.8	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	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	48	0.7	96	diam. 16	15.5	4	A, B, C, D, E, F	☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑

Indexable inserts	Catalogue no.	DIN Specification	Carbide Grade	Coating	l	s	r	Torx-screw
	02 66 835 R08	XCHT 062208 SR	HSC 05	PVTi	6.2	2.2	0.8	M 2.0
	02 66 835 R08 D	XCHT 062208 SR	HSC 05	PVDiaN	6.2	2.2	0.8	M 2.0

Accessories	A	B	C	D	E
	21 500 P	06 500 P	TV 04-1	TV 500	T6 500 P
	T6 502 P				

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

Carbide Grade Coating	Feed per tooth d.o.c.	steel	stainless steel	cast iron	non-ferrous materials	high-temperature alloys	hardened steel
HSC 05 PVTi	f _z (mm) a _p (mm)	0,05-0,3 0,3-2	0,05-0,25 0,3-2	0,05-0,3 0,3-2	-	0,05-0,25 0,3-2	0,05-0,25 0,3-2
HSC 05 PVDiaN	f _z (mm) a _p (mm)	-	-	-	0,05-0,3 0,3-2	-	-

Cutting speed (Vc in m/min)

Carbide Grade Coating	Application	steel	stainless steel	cast iron	non-ferrous materials	high-temperature alloys	hardened steel
HSC 05 PVTi	roughing semifinishing finishing	- ▽150 275 400	- ▽100 150 200	- ▽200 275 350	-	- ▽40 70 100	- ▽35 143 250
HSC 05 PVDiaN	roughing semifinishing finishing	-	-	-	- ▽200 500 800	-	-

Extended operation data

Plunging

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

Ramping

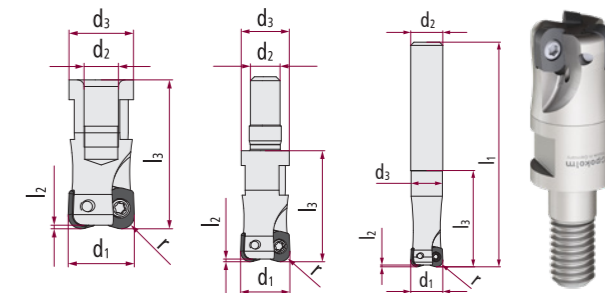
Cutter diam. d1	α°	y mm
10	<2,5	4
12	<2	6
16	<1,6	10
20	<1,2	14
25	<1	19
32	<1	26

Helix

Cutter diam. d1	D _{min} mm	D _{max} mm
10	13	20
12	17	24
16	25	32
20	33	39
25	43	49
32	57	63

SLOTWORX® HP

Ø 10 - 32 mm - high-feed cutter



	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	2	28	0.7	-	M 7	10.8	3	A, B, C, D, E, F	
	4 16 266 SG	16	6.2	2	31	0.7	-	M 10	15	4	A, B, C, D, E, F	
	5 20 266 SG	20	6.2	2	33	0.7	-	M 12	18.6	5	A, B, C, D, E, F	
	5 25 266 SG	25	6.2	2	35	0.7	-	M 16	23.5	5	A, B, C, D, E, F	
Screw-in type	2 10 266 M6	10	6.2	2	22.5	0.7	-	M 6	9.75	2	A, B, C, D, E, F	
	3 12 266 M6	12	6.2	2	22.5	0.7	-	M 6	11.5	3	A, B, C, D, E, F	
	4 16 266	16	6.2	2	27.5	0.7	-	M 8	13.8	4	A, B, C, D, E, F	
	5 20 266	20	6.2	2	27.5	0.7	-	M 10	18	5	A, B, C, D, E, F	
	5 25 266	25	6.2	2	32	0.7	-	M 12	21	5	A, B, C, D, E, F	
	7 32 266	32	6.2	2	32	0.7	-	M 16	29	7	A, B, C, D, E, F	
Plain type	2 30 10 166 G	10	6.2	2	30	0.7	70	diam. 10	9.75	2	A, B, C, D, E, F	
	3 36 12 166 G	12	6.2	2	36	0.7	81	diam. 12	11.5	3	A, B, C, D, E, F	
	4 48 16 166 G	16	6.2	2	48	0.7	96	diam. 16	15.5	4	A, B, C, D, E, F	

indexable inserts	Catalogue no.	DIN Specification	Carbide Grade	Coating	l	s	r	Torx-screw
	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

Accessories	A	B	C	D	E
	21 500 P	06 500 P	TV 04-1	TV 500	T6 500 P
	T6 502 P				

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

Carbide Grade Coating	Feed per tooth d.o.c.	steel	stainless steel	cast iron	non-ferrous materials	high-temperature alloys	hardened steel
HSC 05 PVTi	f_z (mm) a_p (mm)	0,05-0,7 0,05-0,4	-	0,05-0,7 0,05-0,4	-	-	0,05-0,6 0,05-0,4
HSC 05 PVDiaN	f_z (mm) a_p (mm)	-	-	-	0,05-0,7 0,05-1	-	-
HSC 05 PVTiH	f_z (mm) a_p (mm)	0,05-0,7 0,05-0,4	-	0,05-0,7 0,05-0,4	-	-	0,05-0,6 0,05-0,4
K10 polished	f_z (mm) a_p (mm)	-	-	-	0,02-1 0,05-1	-	-
K10 PVTi	f_z (mm) a_p (mm)	-	0,02-0,4 0,02-0,3	-	0,02-1 0,05-1	0,02-0,1 0,02-0,15	-
M40 PVST	f_z (mm) a_p (mm)	-	0,03-0,6 0,05-1	-	-	0,03-0,6 0,05-1	-

Cutting speed (Vc in m/min)

Carbide Grade Coating	Application	steel	stainless steel	cast iron	non-ferrous materials	high-temperature alloys	hardened steel
HSC 05 PVTi	roughing semifinishing finishing	▽120 185 250 ▽150 275 400 ▽150 275 400	-	▽100 150 200 ▽150 225 300 ▽200 275 350	-	-	▽60 110 160 ▽110 160 210 ▽160 210 260
HSC 05 PVDiaN	roughing semifinishing finishing	-	-	-	▽200 500 800 ▽200 500 800 ▽200 500 800	-	-
HSC 05 PVTiH	roughing semifinishing finishing	▽120 185 250 ▽150 275 400 ▽150 275 400	-	▽100 150 200 ▽150 225 300 ▽200 275 350	-	-	▽60 110 160 ▽110 160 210 ▽160 210 260
K10 polished	roughing semifinishing finishing	-	-	-	▽100 450 800 ▽100 450 800 ▽100 450 800	-	-
K10 PVTi	roughing semifinishing finishing	-	▽90 120 150 ▽120 150 180	-	▽100 450 800 ▽100 450 800 ▽100 450 800	- - ▽35 68 100	-
M40 PVST	roughing semifinishing finishing	-	▽80 130 180 ▽100 155 210 ▽120 185 250	-	-	▽30 55 80 ▽40 65 90 ▽60 90 120	-

Extended operation data

Plunging		Ramping			Helix		
	Cutter diam. d1	α°	y	d_1	D_{min}	D_{max}	
X_{max} mm	10-32	<2,5	4	10	13	20	
0.7	12	<2	6	12	17	24	
	16	<1,6	10	16	25	32	
	20	<1,2	14	20	33	40	
	25	<1	19	25	43	50	
	32	<1	26	32	57	64	

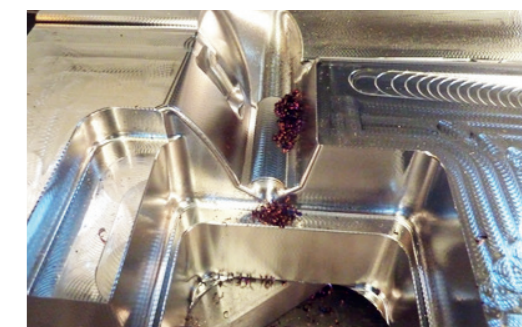
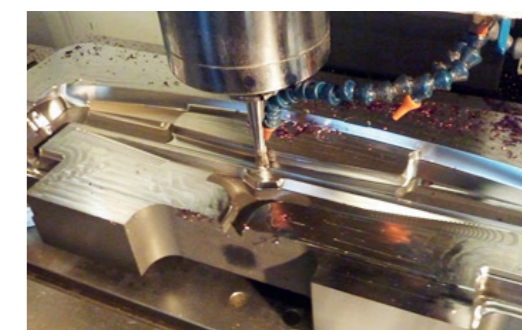
Accessories

Accessories	Catalogue no.	Description				
Torx® screws						
	21 500 P	Torx® screw M 2.0 L 4 T 6 Plus 0.5 Nm	M 2.0	L 4	T 6 Plus	0.5 Nm
Torx® wrench						
	06 500 P	Torx® screwdriver (Torx Plus) T 6 IP	T 6 IP			
Torque screwdriver						
	TV 04-1	Torque screwdriver Vario®-S	From 0.4 Nm	Up to 1.0 Nm	With scale, incl. setter	
Setting tool for torque screwdrivers						
	TV 500	Torque Vario® SETTER adjusting tool				
Torx® interchangeable blades, standard						
	T6 500 P	Torx® interchangeable blade for Torque Vario®	T 6 IP	L 175	Max. 0.6 Nm	
Torx® interchangeable blades with retaining spring						
	T6 502 P	Torx® MagicSpring compatible bit f. Torque Vario®	T 6 IP	L 175	Max. 0.6 Nm	

SLOTWORX® HP in field testing

Processing task 1.2344 52 HRC, Hot working steel

Milling cutter:	SLOTWORX® HP 4 16 266
D_c (nominal diameter):	16 mm
Arbor:	75 08 754
Overhang:	129,5 mm
Cooling:	Air
Indexable insert:	02 66 835 R20
V_c (speed):	140 m/min
n (revolutions):	2,700 min-1
f_z (feed per tooth):	0.46 mm
V_f (feed rate):	5,000 mm/min
a_p (depth of cut):	0.3 mm
a_e (width of cut):	up to 16 mm
Tool life:	> 110 min
Life length:	> 550 m



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