

# CUTTERS FOR ROUND INSERTS - K0-90°

r5 - diam. 20 - 42 mm, neutral - 0° axial rake angle

The all-rounder:  
Tools are applicable for a wide range of milling operations.



Milling cutter bodies	Catalogue no.											Accessories	Features
		d <sub>1</sub>	d	r	l <sub>3</sub>	l <sub>2</sub>	l <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	z			

DuoPlug®													
	20 200 SG	20	10	5	35	-	-	M 12	18.6	2	A, B, C, D, E		
	3 25 200 SG	25	10	5	35	2.8	-	M 16	23.5	3	A, B, C, D, E		

Threaded shank end mill bodies													
	20 200	20	10	5	29	-	-	M 10	18	2	A, B, C, D, E		
	2 25 200	25	10	5	33	2.8	-	M 12	21	2	A, B, C, D, E		
	3 25 200	25	10	5	33	2.8	-	M 12	21	3	A, B, C, D, E		
	4 25 200	25	10	5	33	2.8	-	M 12	21	4	A, B, C, D, E		
	4 30 201	30	10	5	33	2.8	-	M 12	21	4	A, B, C, D, E		
	4 30 200	30	10	5	43	2.8	-	M 16	29	4	A, B, C, D, E		
	5 35 200	35	10	5	43	2.8	-	M 16	29	5	A, B, C, D, E		
	N 5 42 200	42	10	5	43	2.8	-	M 16	29	5	A, B, C, D, E		
	6 42 200	42	10	5	43	2.8	-	M 16	29	6	A, B, C, D, E		

End mill bodies with plain shanks and flats													
	40 20 100	20	10	5	40	-	23	diam. 20	-	2	A, B, C, D, E		
	60 20 100	20	10	5	60	-	23	diam. 20	-	2	A, B, C, D, E		
	80 20 100	20	10	5	80	-	23	diam. 25	-	2	A, B, C, D, E		
	100 20 100	20	10	5	100	-	23	diam. 25	-	2	A, B, C, D, E		
	120 20 100	20	10	5	120	-	23	diam. 25	-	2	A, B, C, D, E		

Milling cutter bodies

Catalogue no.

$d_1$   $d$   $r$   $l_3$   $l_2$   $l_1$   $d_2$   $d_3$   $z$

Accessories  
Features

Shell type milling cutter bodies

	6 42 310	42	10	5	43	2.8	-	diam. 16	35	6	A, B, C, D, E	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Accessories

<p>35 500 Torx screw A &gt; Page 195</p>	<p>15 500 Torx-screwdriver B &gt; Page 196</p>	<p>TV 2-8 Screwdriver torque Vario®-S with window scale, C &gt; Page 197</p>	<p>T15 500 Torx interchangeable bit for Torque Vario® D &gt; Page 197</p>	<p>T15 502 Torx MagicSpring compati- ble bit f. Torque Vario® E &gt; Page 198</p>
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Indexable inserts

Catalogue no.

DIN Specification

Carbide Grade

Coating

$d$

$s$

$r$

M

	02 10 835	RDHX 1003 M0T	HSC 05	PVTi	10	3.18	5	M 3.5
	02 10 837	RDMX 1003 M0T	HSC 05	PVFN	10	3.18	5	M 3.5
	02 10 840	RDHX 1003 M0T	P40	PVTi	10	3.18	5	M 3.5
	02 10 842	RDEX 1003 M0T	P40	PVSR	10	3.18	5	M 3.5
	02 10 8042	RDEX 1003 M0T	P40	PCSR	10	3.18	5	M 3.5
	02 10 844	RDHX 1003 M0T	P40	PVML	10	3.18	5	M 3.5
	02 10 846	RDMX 1003 MOSN	P40	PVGO	10	3.18	5	M 3.5
	02 10 850	RDHX 1003 M0T	P25	PVTi	10	3.18	5	M 3.5
	02 10 852	RDEX 1003 M0T	P25	PVSR	10	3.18	5	M 3.5
	02 10 860	RDHX 1003 M0T	K10	PVTi	10	3.18	5	M 3.5
	02 10 892	RDHX 1003 M0T	CBN for steel	uncoated	10	3.18	5	M 3.5
	02 10 893	RDHX 1003 M0T	CBN for cast iron	uncoated	10	3.18	5	M 3.5
		02 10 831P	RDHX 1003 M0T	K10	polished	10	3.18	5
02 10 848		RDMX 1003 M0T	P40	PVGO	10	3.18	5	M 3.5
02 10 880		RDHX 1003 M0T	K10	PVTi	10	3.18	5	M 3.5
02 10 880 D		RDHX 1003 M0T	K10	PVDiaN	10	3.18	5	M 3.5
02 10 896		RDMT 1003 MOEN	M40	PVST	10	3.18	5	M 3.5
02 10 897		RDPX 1003 M0T	P25	PVGO	10	3.18	5	M 3.5
02 10 8099		RDMT 1003 MOEN	M35	PCTC	10	3.18	5	M 3.5

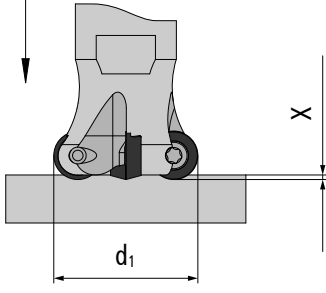
## Feed per tooth (fz) | d.o.c. (ap)

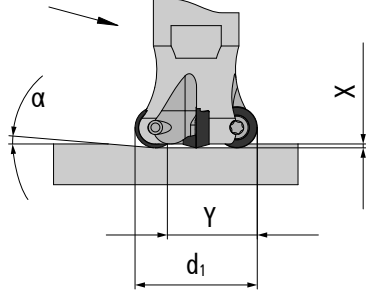
Material		steel	stainless steel	cast iron	non-ferrous materials	high-temperature alloys	hardened steel
Quality Coating	Feed per tooth   d.o.c.						
HSC 05 PVTi	f <sub>z</sub> (mm)	0,1-0,2	0,15	0,15-0,3	0,1-0,2	-	0,1-0,15
	a <sub>p</sub> (mm)	0,1-0,55	0,1	0,1-1	0,1-0,8	-	0,1-0,3
HSC 05 PVFN	f <sub>z</sub> (mm)	0,1-0,4	0,1-0,2	0,1-0,3	0,1-0,2	-	0,1-0,2
	a <sub>p</sub> (mm)	0,1-1	0,1-0,3	0,1-1	0,1-0,3	-	0,1-0,5
P40 PVTi	f <sub>z</sub> (mm)	0,2-0,6	-	-	-	-	-
	a <sub>p</sub> (mm)	0,1-1,5	-	-	-	-	-
P40 PVSR	f <sub>z</sub> (mm)	0,2-0,7	-	0,1-0,3	-	-	0,1-0,15
	a <sub>p</sub> (mm)	0,2-1,5	-	0,1-1	-	-	0,1-0,3
P40 PCSR	f <sub>z</sub> (mm)	0,2-1	-	0,1-0,8	-	-	-
	a <sub>p</sub> (mm)	0,2-1,5	-	0,1-1,2	-	-	-
P40 PVML	f <sub>z</sub> (mm)	0,2-0,7	-	0,1-0,3	-	-	0,1-0,15
	a <sub>p</sub> (mm)	0,2-1,5	-	0,1-1	-	-	0,1-0,3
P40 PVGO	f <sub>z</sub> (mm)	0,1-0,9	-	0,1-0,3	-	-	-
	a <sub>p</sub> (mm)	0,1-1,5	-	0,1-1	-	-	-
P25 PVTi	f <sub>z</sub> (mm)	0,15-0,3	-	0,15-0,22	-	-	-
	a <sub>p</sub> (mm)	0,1-1	-	0,1-0,55	-	-	-
P25 PVSR	f <sub>z</sub> (mm)	0,2-0,7	-	0,1-0,3	-	-	0,1-0,15
	a <sub>p</sub> (mm)	0,2-1,5	-	0,1-1	-	-	0,1-0,3
K10 PVTi	f <sub>z</sub> (mm)	0,15	0,15	0,15-0,3	-	0,1-0,15	0,1-0,15
	a <sub>p</sub> (mm)	0,1	0,1	0,1-1	-	0,1-0,55	0,1-0,3
CBN for steel uncoated	f <sub>z</sub> (mm)	-	-	-	-	-	0,1-0,2
	a <sub>p</sub> (mm)	-	-	-	-	-	0,1
CBN for cast iron uncoated	f <sub>z</sub> (mm)	-	-	-	-	-	-
	a <sub>p</sub> (mm)	-	-	-	-	-	-
K10 polished	f <sub>z</sub> (mm)	-	-	-	0,1-0,3	-	-
	a <sub>p</sub> (mm)	-	-	-	0,1-1,5	-	-
K10 PVDiaN	f <sub>z</sub> (mm)	-	-	-	0,1-0,3	-	-
	a <sub>p</sub> (mm)	-	-	-	0,1-1,5	-	-
M40 PVST	f <sub>z</sub> (mm)	0,1-0,75	0,05-0,6	-	-	0,05-0,4	-
	a <sub>p</sub> (mm)	0,1-1	0,2-2	-	-	0,1-2	-
P25 PVGO	f <sub>z</sub> (mm)	-	0,15-0,6	-	-	0,1-0,4	-
	a <sub>p</sub> (mm)	-	0,2-1	-	-	0,1-1	-
M35 PCTC	f <sub>z</sub> (mm)	-	0,05-0,6	-	-	0,05-0,4	-
	a <sub>p</sub> (mm)	-	0,2-2	-	-	0,1-2	-

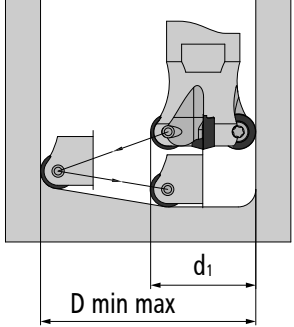
### Cutting speed (Vc in m/min)

Material		steel		stainless steel		cast iron		non-ferrous materials		high-temperature alloys		hardened steel	
Quality Coating	Application												
HSC 05 PVTi	roughing	-	-	▽100 150 200	-	-	-	-	-	-	-	-	-
	pre finishing	▽150 275 400	-	▽150 225 300	-	▽200 500 800	-	-	-	-	-	▽35 143 250	-
HSC 05 PVFN	roughing	-	-	▽100 150 200	-	-	-	-	-	-	-	-	-
	pre finishing	▽120 160 200	-	▽100 150 200	-	▽200 500 800	-	-	-	-	-	▽40 130 220	-
P40 PVTi	roughing	-	-	-	-	-	-	-	-	-	-	-	-
	pre finishing	▽100 160 220	-	-	-	-	-	-	-	-	-	-	-
P40 PVSR	roughing	-	-	▽160 190 220	-	-	-	-	-	-	-	-	-
	pre finishing	▽100 200 300	-	▽160 190 220	-	-	-	-	-	-	-	▽70 110 150	-
P40 PCSR	roughing	-	-	▽120 170 220	-	-	-	-	-	-	-	-	-
	pre finishing	▽130 190 250	-	▽150 200 250	-	-	-	-	-	-	-	-	-
P40 PVML	roughing	-	-	▽140 215 290	-	-	-	-	-	-	-	-	-
	pre finishing	▽150 225 300	-	▽140 170 200	-	-	-	-	-	-	-	▽70 110 150	-
P40 PVGO	roughing	-	-	▽110 130 150	-	-	-	-	-	-	-	-	-
	pre finishing	▽100 200 300	-	▽110 130 150	-	-	-	-	-	-	-	-	-
P25 PVTi	roughing	-	-	-	-	-	-	-	-	-	-	-	-
	pre finishing	▽100 200 300	-	▽130 150 170	-	-	-	-	-	-	-	-	-
P25 PVSR	roughing	-	-	▽140 180 220	-	-	-	-	-	-	-	-	-
	pre finishing	▽100 160 220	-	▽160 190 220	-	-	-	-	-	-	-	▽70 110 150	-
K10 PVTi	roughing	-	-	▽150 175 200	-	▽100 450 800	-	▽35 43 50	-	-	-	-	-
	pre finishing	-	-	▽150 175 200	-	▽100 450 800	-	▽35 43 50	-	-	-	▽35 108 180	-
CBN for steel uncoated	roughing	-	-	-	-	-	-	-	-	-	-	-	-
	pre finishing	▽140 220 300	▽120 150 180	-	-	-	-	-	-	-	-	▽400 700 1000	-
CBN for cast iron uncoated	roughing	-	-	-	-	-	-	-	-	-	-	-	-
	pre finishing	-	-	-	-	-	-	-	-	-	-	-	-
K10 polished	roughing	-	-	-	-	▽100 450 800	-	-	-	-	-	-	-
	pre finishing	-	-	-	-	▽100 450 800	-	-	-	-	-	-	-
K10 PVDiaN	roughing	-	-	-	-	▽100 450 800	-	-	-	-	-	-	-
	pre finishing	-	-	-	-	▽100 450 800	-	-	-	-	-	-	-
M40 PVST	roughing	▽80 140 200	▽80 130 180	-	-	-	-	▽30 55 80	-	-	-	-	-
	pre finishing	▽100 150 200	▽100 155 210	-	-	-	-	▽40 65 90	-	-	-	-	-
P25 PVGO	roughing	-	▽80 140 200	-	-	-	-	▽20 65 110	-	-	-	-	-
	pre finishing	-	▽100 155 210	-	-	-	-	▽20 65 110	-	-	-	-	-
M35 PCTC	roughing	-	▽110 155 200	-	-	-	-	▽30 65 100	-	-	-	-	-
	pre finishing	-	▽120 175 230	-	-	-	-	▽40 75 110	-	-	-	-	-

## Extended operation data

Plunging	
	
Cutter diam. d1	X <sub>max</sub>
20-35	2.5
42	3.5

Ramping		
		
Cutter diam. d1	α°	y
20	-	-
25	<19,7	7
30	<11,7	12
35	<8,4	17
42	<5,9	24

Helix		
		
Cutter diam. d1	D <sub>min</sub>	D <sub>max</sub>
20	22	40
25	32	50
30	42	60
35	52	70
42	66	84