



# QUADWORX® XL - K90°

Size XL - diam. 32 - 100 mm

- four cutting edges per insert for extremely efficient operations
- very big metal removal rates and extremely easy cutting
- as a standard, every tool has internal coolant supply
- allows extremely high feed rates per tooth up to  $fz = 2.8$  mm

## Milling cutter bodies

Catalogue no.											Accessories	Features
	$d_1$	$l$	$r$	$l_3$	$l_2$	$l_1$	$d_2$	$d_3$	$z$			

### Threaded shank end mill body

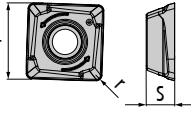
	2 32 251	32	13	1	42	1.5	-	M 16	29	2	A, B, C, D, E, F	☑ ☑ ☑ ☑	
	3 35 251	35	13	1	42	1.5	-	M 16	29	3	A, B, C, D, E, F	☑ ☑ ☑ ☑	

### Shell-type milling cutter body

	4 40 351	40	13	1	42.5	2.5	-	diam. 16	35	4	A, C, D, E, F, G	☑ ☑ ☑ ☑
	4 42 351	42	13	1	42.5	2.5	-	diam. 16	35	4	A, C, D, E, F, G	☑ ☑ ☑ ☑
	4 50 351	50	13	1	50	2.5	-	diam. 22	40	4	A, D, E, F, G	☑ ☑ ☑ ☑
	5 50 351	50	13	1	50	2.5	-	diam. 22	40	5	A, D, E, F, G	☑ ☑ ☑ ☑
	4 50 351	52	13	1	50	2.5	-	diam. 22	48	4	A, D, E, F, G	☑ ☑ ☑ ☑
	5 52 351	52	13	1	50	2.5	-	diam. 22	48	5	A, D, E, F, G	☑ ☑ ☑ ☑
	6 63 351	63	13	1	53	2.5	-	diam. 27	48	6	A, D, E, F, G	☑ ☑ ☑ ☑
	6 66 351	66	13	1	53	2.5	-	diam. 27	48	6	A, D, E, F, G	☑ ☑ ☑ ☑
	6 80 351	80	13	1	53	2.5	-	diam. 27	60	6	A, D, E, F, G	☑ ☑ ☑ ☑
	8 80 351	80	13	1	53	2.5	-	diam. 27	60	8	A, D, E, F, G	☑ ☑ ☑ ☑
	7 100 351	100	13	1	53	2.5	-	diam. 32	70	7	A, B, D, E, F, G	☑ ☑ ☑ ☑
	9 100 351	100	13	1	53	2.5	-	diam. 32	70	9	A, B, D, E, F, G	☑ ☑ ☑ ☑

### Accessories

<p>40 505 K Torx screw A &gt; Page 195</p>	<p>M16X35 screw short head B &gt; Page 196</p>	<p>GWSTPS8ISK hexagon socket set screw C &gt; Page 196</p>	<p>POKOLM 15 500 P Torx-screwdriver (Torx-Plus) D &gt; Page 196</p>	<p>TV 2-8 Screwdriver torque Vario®-S with window scale E &gt; Page 197</p>	<p>T15 500 P Torx interchangeable bit for Torque Vario® F &gt; Page 197</p>
<p>T15 502 P Torx MagicSpring compatible bit f. Torque Vario® G &gt; Page 198</p>					

Indexable inserts	Catalogue no.	DIN Specification	Carbide Grade	Coating	l	s	r	M
	05 51 848	SDMT 135010 SN	P40	PVGO	13	5	1	M 4.0
	05 51 858	SDMT 135010 SN	P25	PVGO	13	5	1	M 4.0
	05 51 896	SDMT 135020 EN	M40	PVST	13	5	1	M 4.0

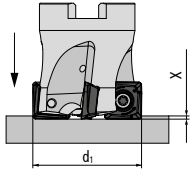
### Feed per tooth (fz) | d.o.c. (ap)

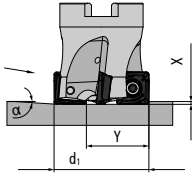
Material		steel	stainless steel	cast iron	non-ferrous materials	high-temperature alloys	hardened steel
Quality Coating	Feed per tooth   d.o.c.						
P40 PVGO	f <sub>z</sub> (mm)	0,1-0,5	-	0,1-0,5	-	-	-
	a <sub>p</sub> (mm)	0,2-8	-	0,2-8	-	-	-
P25 PVGO	f <sub>z</sub> (mm)	0,1-0,5	-	0,1-0,5	-	-	-
	a <sub>p</sub> (mm)	0,2-8	-	0,2-8	-	-	-
M40 PVST	f <sub>z</sub> (mm)	-	0,05-0,3	-	-	0,05-0,25	-
	a <sub>p</sub> (mm)	-	0,1-6	-	-	0,05-6	-

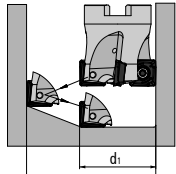
### Cutting speed (Vc in m/min)

Material		steel	stainless steel	cast iron	non-ferrous materials	high-temperature alloys	hardened steel
Quality Coating	Application						
P40 PVGO	roughing	▽100 150 200	-	▽110 130 150	-	-	-
	pre finishing	▽100 150 200	-	▽110 130 150	-	-	-
	finishing	▽160 205 250	-	▽120 150 180	-	-	-
P25 PVGO	roughing	▽110 165 220	-	▽120 145 170	-	-	-
	pre finishing	▽120 185 250	-	▽130 150 170	-	-	-
	finishing	▽150 225 300	-	▽135 193 250	-	-	-
M40 PVST	roughing	-	▽80 130 180	-	-	▽30 55 80	-
	pre finishing	-	▽100 155 210	-	-	▽40 65 90	-
	finishing	-	▽120 185 250	-	-	▽60 90 120	-

### Extended operation data

Plunging	
	
Cutter diam. d1	X <sub>max</sub>
32-35	1.5
40-100	2.5

Ramping		
		
Cutter diam. d1	α°	y
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 <sub>min</sub>	D <sub>max</sub>
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