

SLOTWORX® ALU



➔ more **FASTNESS** for machining non-ferrous materials



SLOTWORX® ALU

Our cutter bodies, equipped with precision-ground and polished inserts are suitable for all kinds of non-ferrous materials; no matter, whether for Aluminium-alloys, plastics or glasfibre/ carbonfibre reinforced plastics. Appropriate for model-making, prototyping, for aircraft- and space-industries, as well as for all other applications in 2-, 2.5- and 3-D-milling. Everywhere, where pre-defined corner-radii are demanded and maximum cutting edge stability and sharpness are requested, our new inserts with various corner-radii are outstandingly suitable.

Usable cutting lengths of 9 and 14 mm (ap max) care for obtaining highest metal removing rates. The Slotworx® „M“-range with ap max of 9 mm is available in diameters 16 to 52, and in Slotworx® „L“ range with ap max of 14 mm, from 25 to 100 mm diam.

Those inserts with very positive rake angle $> 12^\circ$ take responsibility for low energy consumption of our complete

Slotworx®-range for all possible roughing operations.

It has an integrated wiper edge for outstanding surface finish and cavity's bottom finish. Double clearance angles of 7° and 15° care for maximum cutting edge stability and sufficient chip-room for maximum feed rates. The innovative surface finish of our cutting faces reacts against chip adherence, crater wear as well as flank wear.

Pokolm service:

All tools (bodies and inserts) required for using larger corner radii are already available from stock.

Purchase your usual code-no. with an additional "R+". This avoids unnecessary downtime of your machine and undesirable non-productive time gets reduced.





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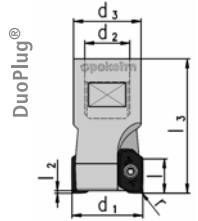
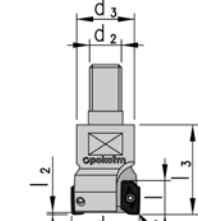
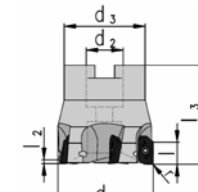


SLOTWORX® „M”

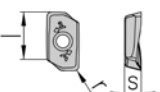
Corner radius 1 und 2 mm

Our new range of Milling Cutter Bodies, capable for multiple application possibilities, such as grooving, pocketing, face-, side- and shoulder-milling.

Suitable for inserts of the Slotworx® „M”-range up to a corner radius of 2 mm.

MILLING CUTTER BODIES											
	Catalogue No.									Features	
		d_1	l	r	l_3	l_2	d_2	d_3	z		
Duo Plug®											
	2 16 267 SG	16	10	1 2	38	2,5	M 10	15	2	   	
	2 20 267 SG	20	10	1 2	40	2,5	M 12	18,6	2	   	
	3 25 267 SG	25	10	1 2	43	2,5	M 16	21,5	3	   	
Threaded shank end mill bodies											
	2 16 267	16	10	1 2	29	2,5	M 8	13,8	2	   	
	2 20 267	20	10	1 2	29	2,5	M 10	18	2	   	
	3 25 267	25	10	1 2	33	2,5	M 12	21	3	   	
	4 32 267	32	10	1 2	43	2,5	M 16	29	4	   	
	5 42 267	42	10	1 2	43	2,5	M 16	29	5	   	
Shell type milling cutter bodies											
	5 42 367	42	10	1 2	43	2,5	16	35	5	   	
	6 52 367	52	10	1 2	53	2,5	22	40	6	   	

Slotworx®-Inserts Size „M“, DIN-Identification: XDHT 10T3 (10/20) FR

INDEXABLE INSERT	Catalogue No.	DIN-Identification	Grade	Coating	l	s	r	M
	04 67 820	XDHT 10T310	K10	polished	10	3,59	1	M 2,5
	04 67 820 R20	XDHT 10T320	K10	polished	10	3,59	2	M 2,5

Surface Speeds VC in m/min

MATERIAL		r	l	Kind of machining	K10 polished
Non-ferrous		1 2	10	roughing finishing	200 – 800 200 – 800

Operation Data (fz/ap)

MATERIAL		r	l	f _z /a _p	K10 polished
Non-ferrous		1 2	10	f _z (mm) a _p (mm)	0,08 – 0,35 0,1 – 9

Extended operation data

Axial plunging into solid block	Ramping	Circular milling into solid block
		
	 	 
Cutter ø d ₁ mm	a°	D _{min} mm
x max. mm	y mm	D _{max} mm
16	< 24,5	21,3
20	< 14,5	29,3
25	< 8	39,3
32	< 5	53,3
42	< 3	73,3
52	< 2,5	93,3
x maximum plunge depth f _z see operation data table, but reduce value to 30%	y minimum travel x maximum plunge depth a _p /f _z see operation data table	D _{min} minimum bore diameter depending on cutter diameter D _{max} maximum bore diameter depending on cutter diameter a _p /f _z see operation data table



SLOTWORX® „M” R+

Corner radius 3 und 4 mm

Modified cutter bodies, suitable for inserts with corner radius ≥ 3 mm.

MILLING CUTTER BODIES										
Catalogue No.		d_1	l	r	l_3	l_2	d_2	d_3	z	Features
Duo Plug®										
	2 16 267 SG R+	16	10	3 4	38	2,5	M 10	15	2	✓
	2 20 267 SG R+	20	10	3 4	40	2,5	M 12	18,6	2	✓
	3 25 267 SG R+	25	10	3 4	43	2,5	M 16	21,5	3	✓
Threaded shank end mill bodies										
	2 16 267 R+	16	10	3 4	29	2,5	M 8	13,8	2	✓
	2 20 267 R+	20	10	3 4	29	2,5	M 10	18	2	✓
	3 25 267 R+	25	10	3 4	33	2,5	M 12	21	3	✓
	4 32 267 R+	32	10	3 4	43	2,5	M 16	29	4	✓
	5 42 267 R+	42	10	3 4	43	2,5	M 16	29	5	✓
Shell type milling cutter bodies										
	5 42 367 R+	42	10	3 4	43	2,5	16	35	5	✓
	6 52 367 R+	52	10	3 4	53	2,5	22	40	6	✓

Slotworx®-Inserts Size „M“, DIN-Identification: XDHT 10T3 (30/40) FR

INDEXABLE INSERT	Catalogue No.	DIN-Identification	Grade	Coating	l	s	r	M
	04 67 820 R30	XDHT 10T330	K10	polished	10	3,59	3	M 2,5
	04 67 820 R40	XDHT 10T340	K10	polished	10	3,59	4	M 2,5

Surface Speeds VC in m/min

MATERIAL		r	l	Kind of machining	K10 polished
Non-ferrous		3 4	10	roughing finishing	200 – 800 200 – 800

Operation Data (fz/ap)

MATERIAL		r	l	f _z /a _p	K10 polished
Non-ferrous		3 4	10	f _z (mm) a _p (mm)	0,08 – 0,35 0,1 – 9

Extended operation data

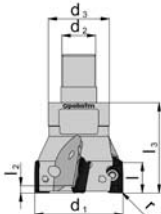
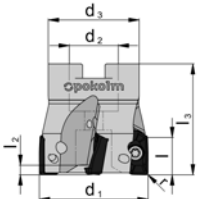
Axial plunging into solid block		Ramping		Circular milling into solid block	
	Cutter ø d ₁ mm		a°		D _{min} mm
	x max. mm		y mm		D _{max} mm
	16		< 24,5		21,3
	20		< 14,5		29,3
	25		< 8		39,3
	32		< 5		53,3
	42		< 3		73,3
	52		< 2,5		93,3
x	maximum plunge depth	y	minimum travel	D _{min}	minimum bore diameter depending on cutter diameter
f _z	see operation data table, but reduce value to 30%	x	maximum plunge depth	D _{max}	maximum bore diameter depending on cutter diameter
		a _p /f _z	see operation data table	a _p /f _z	see operation data table



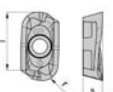
SLOTWORX® „L”

Corner radius 3 mm

All-purpose milling cutters for ultimate depth of cut. Low energy consumption and maximum rigidity are the highlights of this type of tools. Inserts usable for cutter bodies of the Slotworx® „L”-range up to 3 mm corner radius

MILLING CUTTER BODIES											Features	
Catalogue No.		d_1	l	r	l_3	l_2	d_2	d_3	z			
Threaded shank end mill bodies												
	2 25 268	25	15	3	35	3	M 12	21	2	☒		
	3 32 268	32	15	3	43	3	M 16	29	3	☒		
	4 40 268	40	15	3	43	3	M 16	29	4	☒		
	4 42 268	42	15	3	43	3	M 16	29	4	☒		
Shell type milling cutter bodies												
	4 40 368	40	15	3	43	3	16	35	4	☒		
	4 42 368	42	15	3	43	3	16	35	4	☒		
	5 50 368	50	15	3	53	3	22	40	5	☒		
	5 52 368	52	15	3	53	3	22	40	5	☒		
	6 63 368	63	15	3	53	3	27	48	6	☒		
	6 66 368	66	15	3	53	3	27	48	6	☒		
	7 80 368	80	15	3	53	3	27	60	7	☒		
	9 100 368	100	15	3	53	3	32	70	9	☒		

Slotworx®-Inserts Size „L“, DIN-Identification: XDHT 155230 FR

INDEXABLE INSERT	Catalogue No.	DIN-Identification	Grade	Coating	l	s	r	M
	05 68 820 R30	XDHT 155230	K10	polished	15	5,2	3	M 3,5

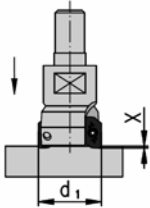
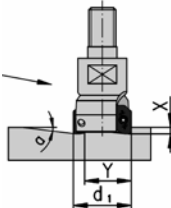
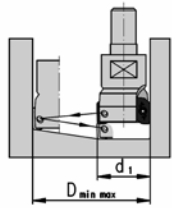
Surface Speeds VC in m/min

MATERIAL		r	l	Kind of machining	K10 polished
Non-ferrous		3	15	roughing finishing	200 – 800 200 – 800

Operation Data (fz/ap)

MATERIAL		r	l	f _z /a _p	K10 polished
Non-ferrous		3	15	f _z (mm) a _p (mm)	0,08 – 0,35 0,1 – 14

Extended operation data

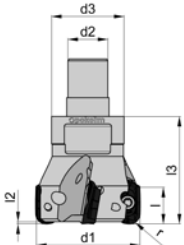
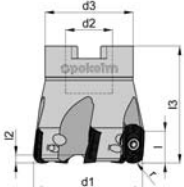
Axial plunging into solid block			Ramping			Circular milling into solid block		
								
								
	Cutter ϕ d_1 mm	x max. mm		a°	y mm		D_{min} mm	D_{max} mm
	25	3		< 8,3	17		42	50
	32	3		< 5,9	24		56	64
	40	3		< 4,4	32		72	80
	42	3		< 4,2	34		76	84
	50	3		< 3,3	42		92	100
	52	3		< 3,2	44		96	104
	63	3		< 2,5	55		118	126
	66	3		< 2,4	58		124	132
	80	3		< 1,9	72		152	160
	100	3		< 1,5	92		192	200
x	maximum plunge depth		y	minimum travel		D_{min}	minimum bore diameter depending on cutter diameter	
f_z	see operation data table, but reduce value to 30%		x	maximum plunge depth		D_{max}	maximum bore diameter depending on cutter diameter	
			a_p/f_z	see operation data table		a_p/f_z	see operation data table	



SLOTWORX® „L” R+

Corner radius 4 und 5 mm

Modified cutter bodies, suitable for inserts with corner radius ≥ 4 mm.

MILLING CUTTER BODIES											Features	
Catalogue No.		d_1	l	r	l_3	l_2	d_2	d_3	z			
Threaded shank end mill bodies												
	2 25 268 R+	25	15	4 5	35	3	M 12	21	2	☒	☒	☒
	3 32 268 R+	32	15	4 5	43	3	M 16	29	3	☒	☒	☒
	4 40 268 R+	40	15	4 5	43	3	M 16	29	4	☒	☒	☒
	4 42 268 R+	42	15	4 5	43	3	M 16	29	4	☒	☒	☒
Shell type milling cutter bodies												
	4 40 368 R+	40	15	4 5	43	3	16	35	4	☒	☒	☒
	4 42 368 R+	42	15	4 5	43	3	16	35	4	☒	☒	☒
	5 50 368 R+	50	15	4 5	53	3	22	40	5	☒	☒	☒
	5 52 368 R+	52	15	4 5	53	3	22	40	5	☒	☒	☒
	6 63 368 R+	63	15	4 5	53	3	27	48	6	☒	☒	☒
	6 66 368 R+	66	15	4 5	53	3	27	48	6	☒	☒	☒
	7 80 368 R+	80	15	4 5	53	3	27	60	7	☒	☒	☒
	9 100 368 R+	100	15	4 5	53	3	32	70	9	☒	☒	

Slotworx®-Inserts Size „L“, DIN-Identification: XDHT 1552 (40/50)

INDEXABLE INSERT	Catalogue No.	DIN-Identification	Grade	Coating	l	s	r	M
	05 68 820 R40	XDHT 155240	K10	polished	15	5,2	4	M 3,5
	05 68 820 R50	XDHT 155250	K10	polished	15	5,2	5	M 3,5

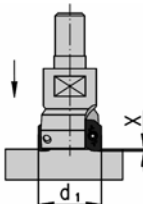
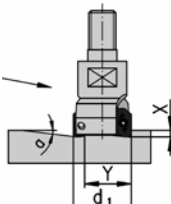
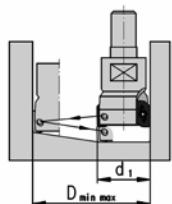
Surface Speeds VC in m/min

MATERIAL		r	l	Kind of machining	K10 polished
Non-ferrous		4 5	15	roughing finishing	200 – 800 200 – 800

Operation Data (fz/ap)

MATERIAL		r	l	f _z /a _p	K10 polished
Non-ferrous		4 5	15	f _z (mm) a _p (mm)	0,08 – 0,35 0,1 – 14

Extended operation data

Axial plunging into solid block		Ramping		Circular milling into solid block	
					
					
	Cutter ϕ d ₁ mm		a°		D _{min} mm
	x max. mm		y mm		D _{max} mm
	25		< 8,3		42
	32		< 5,9		56
	40		< 4,4		72
	42		< 4,2		76
	50		< 3,3		92
	52		< 3,2		96
	63		< 2,5		118
	66		< 2,4		124
	80		< 1,9		152
	100		< 1,5		192

x maximum plunge depth

f_z see operation data table, but reduce value to 30%

y minimum travel

x maximum plunge depth

a_p/f_z see operation data table

D_{min} minimum bore diameter depending on cutter diameter

D_{max} maximum bore diameter depending on cutter diameter

a_p/f_z see operation data table

SLOTWORX® ALU

PV-FSWE-D 0409

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