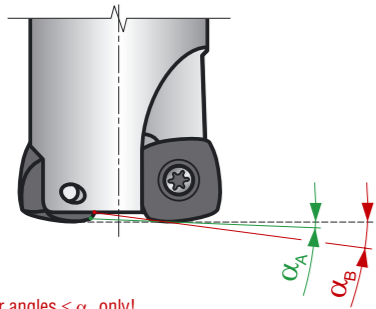
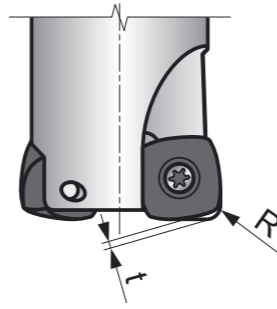





Technical Information

RAMPING:



INFORMATION FOR CNC PROGRAMMING:

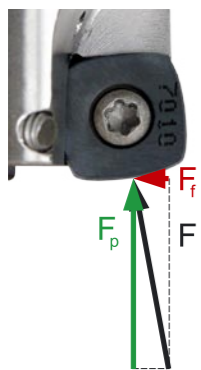


Milling cutter	Indexable cutting insert	D [mm]	α_A [°]	α_B [°]
 Shell mill	ZDCW 09T304	40	0,37	2,79
	ZDEW 120408	50	0,54	2,68
	ZDEW 120408	63	0,38	1,87
	ZDEW 120408	80	0,29	1,40
 End mill	ZDCW 09T304	25	0,90	7,18
	ZDCW 09T304	32	0,54	4,12
	ZDEW 120408	40	0,74	4,02
	ZDEW 120408	40	0,78	3,73
 Modular head	ZDCW 09T304	25	0,95	6,59
	ZDCW 09T304	32	0,58	4,31
	ZDEW 120408	32	1,25	6,96
	ZDEW 120408	40	0,78	3,73

Indexable cutting insert	R [mm]	t [mm]
ZDCW 09T304	2,27	0,52
ZDEW 120408	3,52	0,64

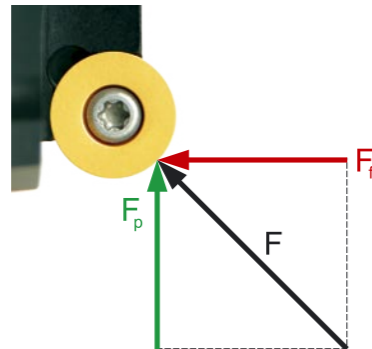
CUTTING FORCES:

HFC CUTTERS:



- + Dominant cutting forces oriented to spindle
- + Stable machining without vibration
- + Higher productivity

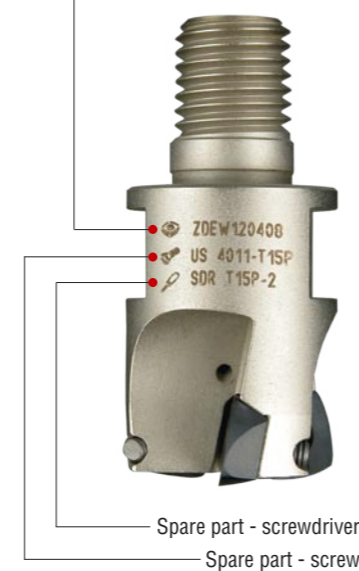
MILLING CUTTERS WITH ROUND INSERTS:



- Bigger radial forces (higher load of spindle)
- Vibration
- Lower productivity

DATA ON TOOL:

Specification of insert



really high



High feed cutting - feed up to 3 mm/tooth

High material removal rate

Stable machining without vibration

HFC MILLING CUTTERS



Pramet Tools, s.r.o., Unicovska 2, 787 53 Sumperk, Czech Republic

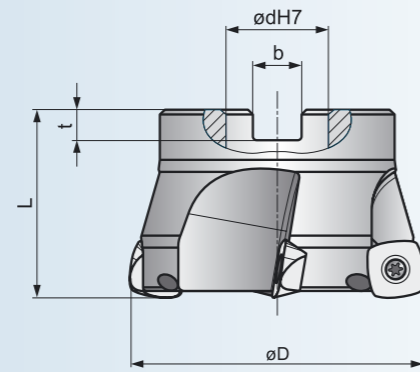
Phone: +420 / 583 381 111, 583 381 530-5, Fax: +420 / 583 215 401, E-mail: pramet.info.cz@pramet.com

www.pramet.com



SMOZD..

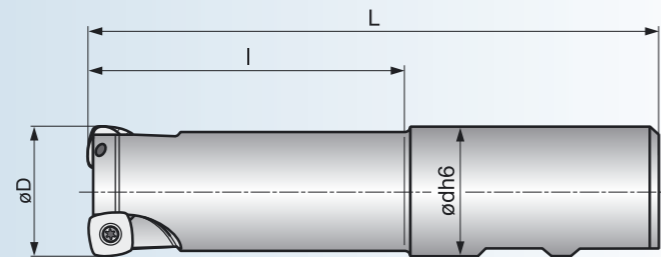
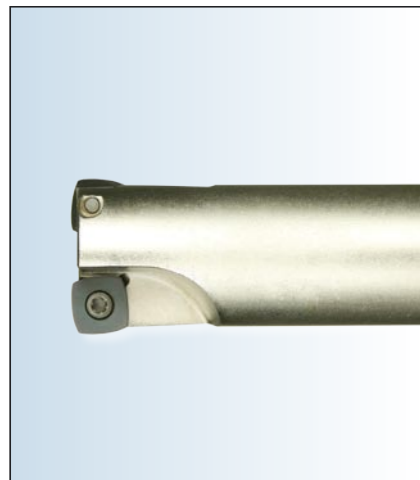
Shell Milling Cutters



ISO	Assortment	Dimensions						Cooling	kg	Spare parts		Indexable cutting insert		
		D	dH7	L	b	t	Z			Screw	Screwdriver			
40A03R-SMOZD09	●	40	16	40	8,4	5,6	3	+	0,20	US 3006-T09P	SDR T09P	ZDCW 09T304		
40A04R-SMOZD09	○												4	
50A04R-SMOZD12	●	50	22	40	10,4	6,4	4	+	0,22	US 4011-T15P	SDR T15P	ZDEW 120408		
63A04R-SMOZD12	●	63											+	0,45
63A05R-SMOZD12	●													
80A05R-SMOZD12	●	80	27	50	12,4	7,0	5	+	1,00					

SZD..

End Milling Cutters



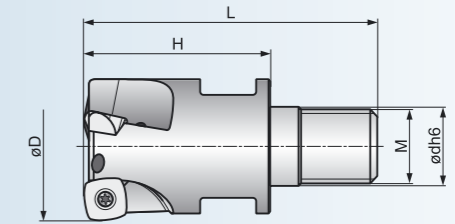
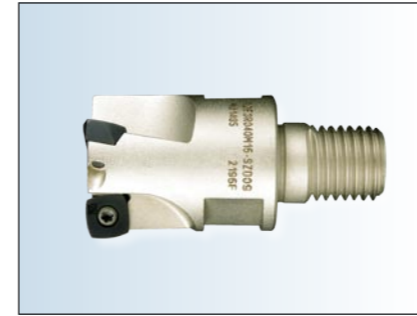
ISO	Assortment	Dimensions						Cooling	kg	Spare parts		Indexable cutting insert
		D	L	l	dh6	Z	Screw			Screwdriver		
25E2R080B25-SZD09	●	25	140	80	25	2	+	0,45	US 3006-T09P	SDR T09P	ZDCW 09T304	
25E2R140B25-SZD09	●		200	140								
25E2R240B25-SZD09	●		300	240								
32E2R080B32-SZD09	●	32	140	80	32	2	+	0,75	US 3006-T09P	SDR T09P	ZDCW 09T304	
32E2R140B32-SZD09	●		200	140								
32E2R240B32-SZD09	●		300	240								
40E4R080B32-SZD12	●	40	140	80	40	4	+	0,80	US 4011-T15P	SDR T15P	ZDEW 120408	
40E4R140B32-SZD12	●		200	140								
40E4R240B32-SZD12	●		300	240								

● Stock assortment ○ Non-stock assortment

All dimensions in [mm]

SZD..

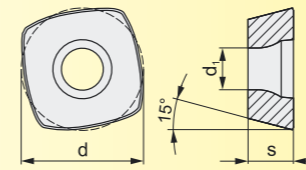
Modular Heads



ISO	Assortment	Dimensions						Cooling	kg	Spare parts		Indexable cutting insert
		D	H	L	dh6	M	Z			Screw	Screwdriver	
25E2R032M12-SZD09	●	25	32	54	12,5	M12	2	+	0,10	US 3006-T09P	SDR T09P	ZDCW 09T304
32E3R040M16-SZD09	●	32	40	63	17	M16	3	+	0,20			
32E3R040M16-SZD12	●									4	+	0,17
40E4R040M16-SZD12	●	40	+	0,20								

Indexable Cutting Insert

ZDCW / ZDEW



ISO	ANSI	Grade			Dimensions				
		7010	7025	7040	l	d	s	d ₁	r _c
ZDCW 09T304	ZDEW	●	●	●	9,525	9,525	3,97	3,4	0,4
ZDEW 120408	ZDCW	●	●	●	12,700	12,700	4,76	4,4	0,8

Technical Information

RECOMMENDED CUTTING CONDITIONS FOR ZDCW 09T304:

Material	PLAIN MILLING		SIDE MILLING		PLUNGING	
	feed f _z	axial depth of cut a _{p max.}	feed f _z	axial depth of cut a _{p max.}	feed f _z	radial depth of cut a _{p max.}
	[mm.tooth ⁻¹]	[mm]	[mm.tooth ⁻¹]	[mm]	[mm.tooth ⁻¹]	[mm]
P steel	0,3 ÷ 2,0	1,0	0,3 ÷ 1,5	1,0	0,10 ÷ 0,20	
K cast iron	0,3 ÷ 2,0		0,3 ÷ 1,5		0,10 ÷ 0,20	
H hard mat. (52-56 HRc)	0,3 ÷ 1,0		0,3 ÷ 0,8		0,08 ÷ 0,12	

RECOMMENDED CUTTING CONDITIONS FOR ZDEW 120408:

Material	PLAIN MILLING		SIDE MILLING		PLUNGING	
	feed f _z	axial depth of cut a _{p max.}	feed f _z	axial depth of cut a _{p max.}	feed f _z	radial depth of cut a _{p max.}
	[mm.tooth ⁻¹]	[mm]	[mm.tooth ⁻¹]	[mm]	[mm.tooth ⁻¹]	[mm]
P steel	0,5 ÷ 3,0	1,6	0,3 ÷ 2,0	1,6	0,10 ÷ 0,25	
K cast iron	0,5 ÷ 3,0		0,3 ÷ 2,0		0,10 ÷ 0,25	
H hard mat. (52-56 HRc)	0,3 ÷ 1,0		0,3 ÷ 1,0		0,08 ÷ 0,15	

RECOMMENDED CUTTING SPEED FOR ZDCW 09T304:

Grade	Cutting conditions	ZDCW 09T304		
		P	K	H
7010	cutting speed [m.min ⁻¹]	265 ÷ 230	260 ÷ 200	50 ÷ 40
	feed [mm.tooth ⁻¹]	0,3 ÷ 2,0	0,3 ÷ 2,0	0,3 ÷ 1,0
7025	cutting speed [m.min ⁻¹]	250 ÷ 180	250 ÷ 180	35 ÷ 30
	feed [mm.tooth ⁻¹]	0,3 ÷ 2,0	0,3 ÷ 2,0	0,3 ÷ 1,0
7040	cutting speed [m.min ⁻¹]	240 ÷ 170	235 ÷ 165	35 ÷ 30
	feed [mm.tooth ⁻¹]	0,3 ÷ 2,0	0,3 ÷ 2,0	0,3 ÷ 1,0

● Stock assortment ○ Non-stock assortment

RECOMMENDED CUTTING SPEED FOR ZDEW 120408:

Grade	Cutting conditions	ZDEW 120408		
		P	K	H
7010	cutting speed [m.min ⁻¹]	265 ÷ 230	260 ÷ 200	50 ÷ 40
	feed [mm.tooth ⁻¹]	0,5 ÷ 3,0	0,5 ÷ 3,0	0,3 ÷ 1,0
7025	cutting speed [m.min ⁻¹]	250 ÷ 180	250 ÷ 180	35 ÷ 30
	feed [mm.tooth ⁻¹]	0,5 ÷ 3,0	0,5 ÷ 3,0	0,3 ÷ 1,0
7040	cutting speed [m.min ⁻¹]	240 ÷ 170	235 ÷ 165	35 ÷ 30
	feed [mm.tooth ⁻¹]	0,5 ÷ 3,0	0,5 ÷ 3,0	0,3 ÷ 1,0

All dimensions in [mm]