EBD

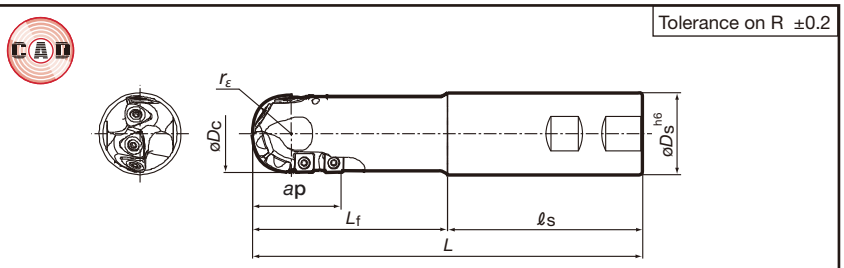
Diameter ø40 ~ 50 mm

R ~ 25 mm

P Steel | K Cast Iron | H Hard Materials

Radius Milling | Pocketing | Ramping | Profiling

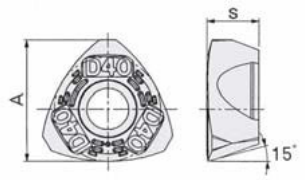
For medium to rough engraving of steel and cast iron dies



Cat. No.	Stock	No. of inserts	Dimensions (mm)							Applicable inserts	Clamping screw	Wrench
			øDc	L	Lf	ℓs	ap	r_ε	øDs			
EBD040SDE-E	●	4+3	40	170	100	70	45	20	40	ZDMT4005-MJ SCMT09T308-23	CSTB-4M	T-15T
EBD040MME-E	●	4+3	40	170	120	109	45	20	MK4			
EBD050SDE-E	●	4+3	50	229	100	70	59	25	40	ZDMT5006-MJ SCMT120408-23	CSTB-5	T-20T
EBD050MME-E	●	4+3	50	256	120	136	59	25	MK5			

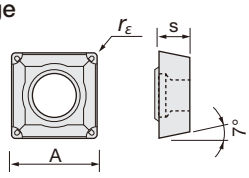
Standard cutting

For R-edge



* The figure shows ZDMT4005-MJ.

For peripheral edge

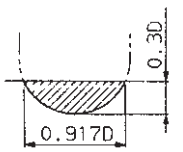
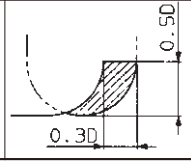
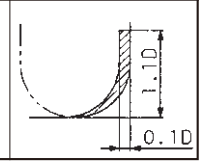


	Cat. No.	Accuracy	Honing	Grade Coated AH120	Dimensions (mm) A	s	r_ε
R-edge	ZDMT4005-MJ	M	With	●	13	5.5	–
R-edge	ZDMT5006-MJ			●	16.2	6.5	–
Peripheral edge	SCMT09T308-23			●	9.525	3.97	0.8
Peripheral edge	SCMT120408-23			●	12.7	4.76	0.8

Standard cutting conditions

Work material	Grade	Machining type	Cutting speed Vc (m/min)	Table feed v_f (mm/min) Tool dia.: ø40	Tool dia.: ø50
Carbon steels (C55 etc.) < 300 HB	AH120	(1)	180 (150 ~ 210)	760 (610 ~ 910)	610 (460 ~ 760)
		(2)	200 (170 ~ 230)	1100 (900 ~ 1300)	880 (680 ~ 1080)
		(3)	160 (130 ~ 190)	570 (420 ~ 720)	460 (310 ~ 610)
Alloy steels (42CrMo4 etc.) < 300 HB	AH120	(1)	160 (130 ~ 190)	680 (530 ~ 830)	550 (400 ~ 700)
		(2)	180 (150 ~ 210)	1000 (800 ~ 1200)	800 (800 ~ 1000)
		(3)	140 (110 ~ 170)	510 (360 ~ 660)	400 (250 ~ 550)
Die steels (X96CrMoV12 etc.) < 300 HB	AH120	(1)	140 (110 ~ 170)	570 (420 ~ 720)	460 (310 ~ 610)
		(2)	160 (130 ~ 190)	860 (660 – 1060)	690 (490 ~ 890)
		(3)	120 (90 ~ 150)	410 (260 – 560)	330 (180 ~ 480)
Cast irons (GG25 etc.)	AH120	(1)	200 (170 ~ 230)	950 (800 – 1000)	760 (610 ~ 910)
		(2)	220 (190 ~ 250)	1200 (900 – 1400)	1000 (700 ~ 1200)
		(3)	180 (150 ~ 210)	570 (420 – 720)	460 (310 ~ 610)
Hardened steels Prehardened steels < 45 HRC	AH120	(1)	90 (70 ~ 110)	250 (150 – 350)	200 (100 ~ 300)
		(2)	100 (80 ~ 120)	310 (160 – 460)	250 (100 ~ 400)
		(3)	60 (50 ~ 90)	190 (140 – 240)	150 (100 ~ 200)

Machining types

(1) Grooving	(2) Shouldering at shallow depth of cut	(3) Shouldering at deep depth of cut
		

Notes:
- Cutting speeds shown in the left table are of the most outer diameter of the tool.
- The values of the cutting speeds and feeds shown in the table are of under general cutting conditions. The values should be modified depending on the power and rigidity of the machine to be used, and work holding conditions.
- When using the long shank type, the depth of cut, pick feed, cutting speed, and table feed should be reduced to 70 %-90 % of the values shown in the tables.

● : Stocked items

Relating pages | Technical Reference (15–1)