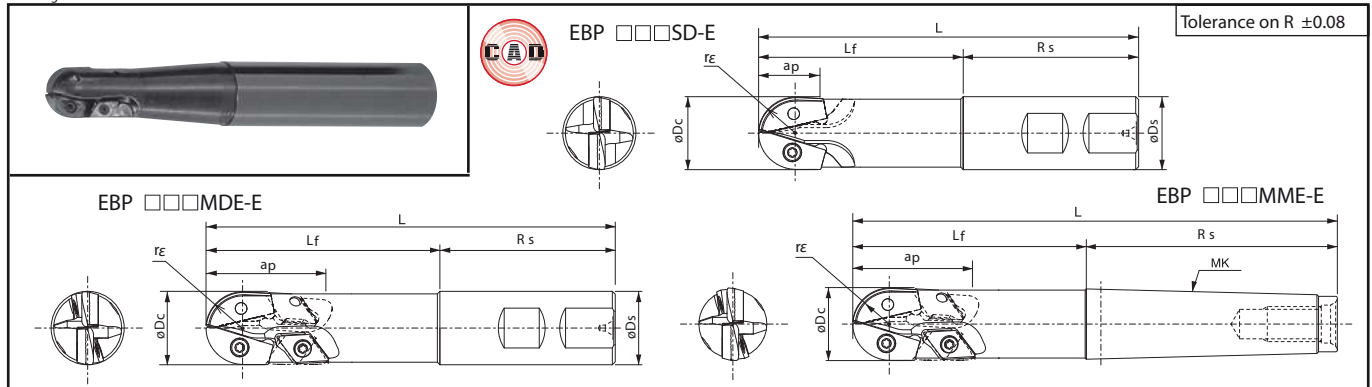


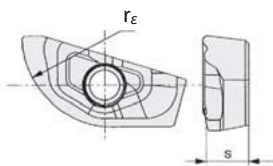
For medium to finish engraving of steel and cast iron dies



Cat. No.	Stock	No. of inserts	Dimensions (mm)								Applicable inserts		for ZPET		for DCMW	
			øD _c	L	L _f	R _s	øD _s	ap	r _ε	MK			Clamping screw	Wrench	Clamping screw	Wrench
EBP020SD-E	●	2	20	116	60	56	20	16	10	-	ZPET2004-MJ	-	CSTD-3T	T-10D	-	-
EBP020MDE-E	●	2+2		126	70			69		-		29.5			MK2	DCMW070204TN
EBP020MME-E	●	2+2		139		60	25	21		12.5		-				ZPET2505-MJ
EBP025SD-E	●	2	25	140	80	86	-	41	MK3		DCMW11T304TN	CSTB-4S	T-15D			
EBP025MDE-E	●	2+2		166	60	32	25	16			-	ZPET3206-MJ	-	CSTB-5	T-20D	
EBP025MME-E	●	2+2		140	100	109	-			46	MK4		DCMW11T304TN			CSTB-4S
EBP032SD-E	●	2	160	60		32	25		16	-			ZPET3206-MJ			-
EBP032MDE-E	●	2+2	209	109		-	46	MK4		DCMW11T304TN		CSTB-4S		T-15D		
EBP032MME-E	●	2+2														

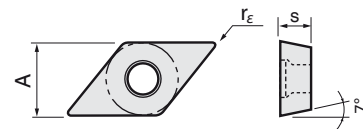
Inserts

For R-edge



Cat. No.	Accuracy	Honing	Stocked grade		Dimensions (mm)	
			Coated		s	r _E
			AH120	AH330		
ZPET2004-MJ	E	With	●	●	4.5	10
ZPET2505-MJ			●	●	4.625	12.5
ZPET3206-MJ			●	●	6.75	16

For peripheral edge

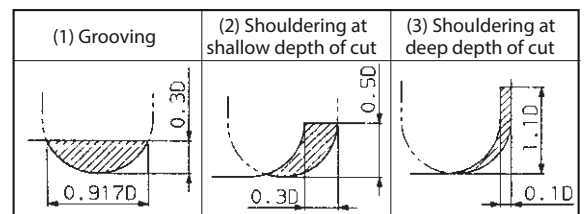


Cat. No.	Accuracy	Honing	Stocked grade		Dimensions (mm)		
			Coated		A	s	r _E
			AH120	AH330			
DCMW070204TN	M	With	●	●	6.35	2.38	0.4
DCMW11T304TN			●	●	9.525	3.97	

Standard cutting conditions

Work material	Grade	Machining type	Cutting speed V _c (m/min)	Table feed v _f (mm/min)		
				Tool dia. : ø20	Tool dia. : ø25	Tool dia. : ø32
Carbon steels (C55 etc.) < 300 HB	AH120	(1)	200 (170 ~ 230)	760 (610 ~ 910)	610 (460 ~ 760)	510 (360 ~ 660)
		(2)	230 (200 ~ 260)	1100 (900 ~ 1300)	880 (680 ~ 1080)	730 (530 ~ 930)
		(3)	180 (150 ~ 200)	570 (420 ~ 350)	460 (310 ~ 610)	380 (230 ~ 530)
Alloy steels (42CrMo4 etc.) < 300 HB	AH120	(1)	180 (150 ~ 210)	680 (530 ~ 830)	550 (400 ~ 700)	450 (300 ~ 600)
		(2)	210 (180 ~ 240)	1000 (800 ~ 1200)	800 (600 ~ 400)	670 (470 ~ 870)
		(3)	160 (130 ~ 180)	510 (360 ~ 660)	400 (250 ~ 550)	340 (190 ~ 490)
Die steels (X96CrMoV12 etc.) < 300 HB	AH330	(1)	150 (120 ~ 180)	570 (420 ~ 720)	460 (310 ~ 610)	380 (230 ~ 530)
		(2)	180 (150 ~ 210)	860 (660 ~ 1060)	690 (490 ~ 890)	570 (370 ~ 770)
		(3)	130 (100 ~ 150)	410 (260 ~ 560)	330 (180 ~ 480)	280 (130 ~ 430)
Cast irons (GG25 etc.)	AH120	(1)	200 (170 ~ 230)	950 (800 ~ 1100)	760 (610 ~ 910)	640 (490 ~ 790)
		(2)	230 (200 ~ 260)	1200 (900 ~ 1400)	1000 (700 ~ 1200)	830 (530 ~ 1030)
		(3)	180 (150 ~ 200)	570 (420 ~ 720)	460 (310 ~ 610)	380 (230 ~ 530)
Hardened steels Prehardened steels < 45 HRC	AH120	(1)	80 (60 ~ 100)	250 (150 ~ 350)	200 (100 ~ 300)	160 (100 ~ 260)
		(2)	100 (70 ~ 130)	310 (160 ~ 460)	250 (100 ~ 400)	210 (100 ~ 360)
		(3)	60 (40 ~ 80)	190 (140 ~ 240)	150 (100 ~ 200)	130 (80 ~ 180)

Machining types



Notes:

- Cutting speeds shown in the left table are of the most outer diameter of the tool.
- When the depth of cut is the upper limit shown in the above figures, set the cutting conditions to the lowest values shown left.
- When using long edge types (MSE), set the cutting speed and feed to 60 to 80 % of values shown in the table.
- When using long shank types (LSE), set the cutting speed and feed to 20 to 50 % of values shown in the table, bearing in mind the overhang length.

● : Stocked items