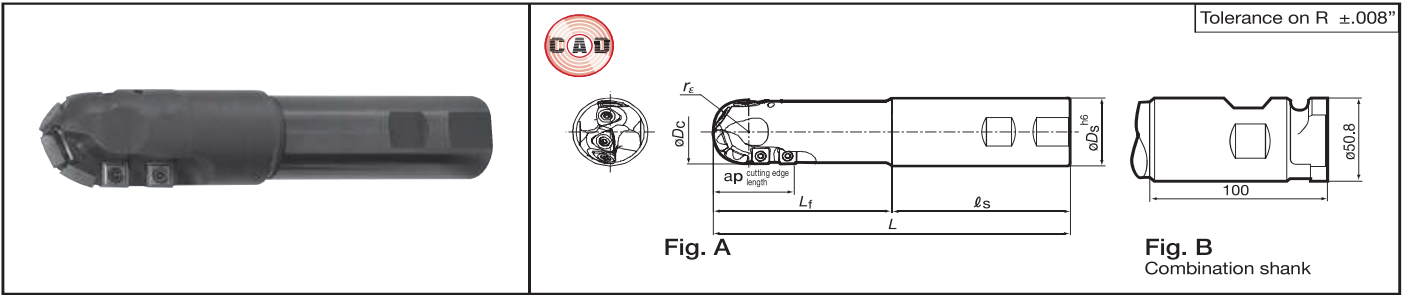


For medium to rough engraving of steel and cast iron dies



Type	Cat. No.	Stock	No. of inserts	Dimensions (in)							Applicable inserts	Shank type	Clamping screw	Wrench	
				$\phi D_c$	$L$	$L_f$	$L_s$	$ap$	$r_\epsilon$	$\phi D_s$					
Standard	EBD040SSE	○	4+6	1.56 (.750)	7.87	3.94	3.94	1.77	.750	1.65	ZDMT4005-MJ SCMT09T308-23	Fig. A	CSTB-4M	T-15T	
	EBD050SSE	○		2.00 (1.00)				2.32	1.00	.079	ZDMT5006-MJ SCMT120408-23				Fig. B
	EBD050SCE	○		2.00 (1.00)				2.32	1.00	.079	ZDMT5006-MJ SCMT120408-23	Fig. B	CSTB-5	T-20T	
Long shank	EBD040MSE	○		1.56 (.750)	9.84	5.91		3.94	1.77	.750	1.65				ZDMT4005-MJ SCMT09T308-23
	EBD050MSE	○		2.00 (1.00)					2.32	1.00	.079	ZDMT5006-MJ SCMT120408-23	Fig. B	CSTB-5	T-20T
	EBD050MCE	○		2.00 (1.00)					2.32	1.00	.079	ZDMT5006-MJ SCMT120408-23			

### Standard cutting

For R-edge

For peripheral edge

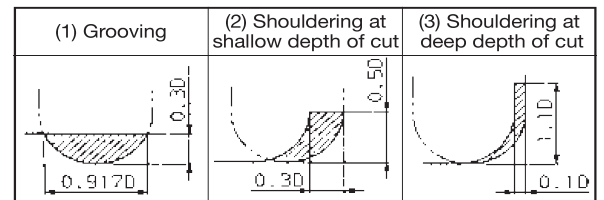
\* The figure shows ZDMT4005-MJ.

	Cat. No.	Accuracy	Honing	Dimensions (in)			
				Grade	A	s	$r_\epsilon$
R-edge	ZDMT4005-MJ	M	With	○	.512	0.217	—
	ZDMT5006-MJ			○	.638	0.256	—
Peripheral edge	SCMT09T308-23			○	.375	0.156	.031
	SCMT120408-23			○	.500	0.187	.031

### Standard cutting conditions

Work material	Grade	Machining type	Cutting speed Vc (SFM)	Table feed $v_f$ (in/min)	
				Tool dia.: $\phi 1.57$	Tool dia.: $\phi 2.00$
Carbon steels (1055 etc.) < 300 HB	AH120	(1)	500 ~ 690	16 - 22	13 - 18
		(2)	550 ~ 750	16 - 22	13 - 17
		(3)	425 ~ 625	8 - 12	6 - 10
Alloy steels (4140, 4340) < 300 HB	AH120	(1)	425 ~ 625	14 - 20	11 - 16
		(2)	500 ~ 690	14 - 20	11 - 16
		(3)	360 ~ 560	7 - 11	5 - 9
Die steels (H13, P20 etc.) < 300 HB	AH120	(1)	360 ~ 560	12 - 18	10 - 15
		(2)	425 ~ 625	12 - 18	10 - 14
		(3)	295 ~ 500	6 - 10	5 - 8
Cast irons (JIS CLASS 25-40)	AH120	(1)	550 ~ 750	20 - 27	16 - 21
		(2)	625 ~ 820	20 - 27	16 - 21
		(3)	500 ~ 690	12 - 20	9 - 13
Hardened steels Prehardened steels < A980	AH120	(1)	230 ~ 360	6 - 10	5 - 8
		(2)	260 ~ 400	6 - 10	5 - 8
		(3)	160 ~ 300	3 - 6	2 - 5

### Machining types



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 in Japan