

# CCMT 09T308 WM

## Machining Conditions

Material Group	Group No.	Material Examples*	Brinell hardness HB	d.o.c [mm]		feed [mm/rev]		A max [mm <sup>2</sup> ]	V <sub>c</sub> [m/min]		Optimal cutting conditions	
				min	max	min	max		min	max	d.o.c	feed
Low Carbon Steel	1	Ck15 9SMnPb28	150	0.50	5.00	0.21	0.45	1.50	180	400	1 to 2.5	0.32
			180		4.00		0.40	1.50		350		
			210		4.00		0.35	1.20		200		
Alloy Steel	2	42 CrMo 4 100 Cr 6 32 NiCrMo 14.5	180	0.50	4.00	0.21	0.40	1.20	120	300	1 to 2.5	0.30
			230		4.00		0.40	1.00		250		
			280		3.00	0.18	0.35	1.00		210		
			320		3.00		0.32	0.80		180		
High Alloy Steel	3	X38 CrMoV 5 X210 CrW 12 X90 CrMoV 8	220	0.50	4.00	0.18	0.35	1.00	70	190	1 to 2.5	0.28
			280		4.00		0.32	1.00		150		
			320		3.00		0.28	0.70		130		
			350		3.00		0.28	0.60		100		
Austenitic Stainless Steel	4	303 / 304 304 L	210 to 250	0.50	4.00	0.20	0.35	0.80	170	270	1 to 2.5	0.30
	5	316 / 316 L	230 to 270		3.00	0.18	0.32	0.60	170	210	1 to 2.5	0.25
	6	316 Ti 630 (F16PH)	-----		3.00	0.18	0.28	0.50	80	130	1 to 2.5	0.22
Ferritic Stainless Steel	7	430 / 439 / 444	Annealed	0.50	3.00	0.22	0.35	0.70	170	250	1 to 2.5	0.28
Martensitic Stainless Steel	8	410 / 420	Annealed Treated	0.50	3.00	0.22	0.35	0.70	170 120	250 210	1 to 2.5	0.28
Grey Cast Iron	9	EN - GJL 200	140 to 230	0.50	5.00	0.15	0.40	1.60	170	280	1 to 3.0	0.32
		EN - GJL 250						1.50		250		
		EN - GJL 300						1.50		230		
Nodular Cast Iron	10	EN - GJS 400	210	0.50	4.00	0.15	0.35	1.20	120	230	1 to 2.5	0.28
		EN - GJS 600	260					1.00		190		
		EN - GJS 800	310					1.00		150		
Nickel Based Alloys	11	Inconel 625	-----	0.50	3.00	0.20	0.32	0.60	25	35	1 to 2.5	0.25
		Inconel 718						0.60	28	40		
		Hastelloy C						0.70	40	65		
Titanium Based Alloys	12	TiAl 6 V4	-----	0.50	3.00	0.18	0.32	35	60	1 to 2.5	0.25	
		T40					0.28	0.60	28	40	1 to 2.5	0.22

\*For all material types and standards, see pages 155 to 158.

