

VCMT 160408-NN

Material group	Group No	Material Examples	Hardness Brinell	d.o.c [mm]		feed [mm/t]		A max [mm ²]	Vc [m/min]		Recommended point		
				min	max	min	max		min	max	d.o.c	feed	
Low carbon Steel	1	XC 12 S 250 Pb	150	0.5	4	0.21	0.45	1.3	180	400	1 to 3	0.3	
			180		3		0.4			1.3			350
			210		3		0.35			1			200
Alloy Steel	2	42 CrMo 4 100 Cr 6 32 NiCrMo 14.5	180	0.5	4	0.21	0.4	1	120	300	1 to 3	0.28	
			230		3		0.4			0.9			250
			280		3	0.18	0.35	0.9		210			
			320		3		0.32	0.7		180			
High alloy Steel	3	X38 CrMoV 5 X210 CrW 12 X90 CrMoV 8	220	0.5	3	0.18	0.35	0.85	70	190	1 to 2.5	0.25	
			280		3		0.32			0.85			150
			320		2		0.28	0.6		130			
			350		2		0.28	0.5		100			
Austenitic Stainless Steel	4	303 / 304 304 L	Annealed	0.5	4	0.2	0.35	0.7	170	270	1 to 3	0.28	
	5	316 / 316 L	Annealed		3	0.18	0.32	0.5	120	210	1 to 2.5	0.25	
	6	316 Ti 630 (F16PH)	Annealed		3	0.18	0.28	0.4	70	120	1 to 2.5	0.22	
Ferritic Stainless Steel	7	430 / 439 444	Annealed	0.5	3	0.22	0.35	0.6	170	250	1 to 3	0.25	
Martensitic Stainless Steel	8	410 / 420	Annealed	0.5	3	0.22	0.35	0.6	170	250	1 to 3	0.25	
			Treated						120	210			
Grey cast Iron	9	EN - GJL 200	140 à 230	0.5	4	0.15	0.4	1.4	170	280	1 to 3	0.3	
		EN - GJL 250						1.3		250			
		EN - GJL 300						1.3		230			
Nodular Cast Iron	10	EN - GJS 400	210	0.5	3	0.15	0.35	1	120	230	1 to 3	0.25	
		EN - GJS 600	260					0.85		190			
		EN - GJS 800	310					0.85		150			
Aluminum		Si < 4%	-----	Not recommended									
		4% < Si < 9%											
		Si > 9%											
Nickel based Alloys		Inconel 625	-----	0.5	2	0.2	0.32	0.5	25	35	1 to 2	0.22	
		Inconel 718	-----					0.5		28			40
		Hastelloy C	-----					0.6		40			65
Titanium based Alloys		TiAl 6 V4	-----	0.5	2	0.18	0.32	0.6	35	60	1 to 2	0.25	
		T40	-----				0.28			0.5		28	40

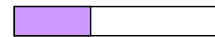
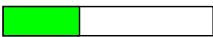
Super finishing

Finishing

Semi-finishing

Roughing

Interrupted cut



Conclusions: Super finishing
Finishing
Semi-finishing
Roughing
Interrupted cut

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