VNMG 160404 NN

Machining Conditions

Material Group	Group No.	Material Examples*	Brinell hardness HB	d.o.c [mm]		feed [mm/rev]		A max [mm²]	V_c [m/min]		Optimal cutting conditions	
				min	max	min	max		min	max	d.o.c	feed
Low Carbon Steel	1	Ck 15 9SMnPb28	150	0.20	4.00	0.11	0.23	0.40	180	400	1 to 3	0.18
			180		4.00		0.20	0.40		350		
			210		3.00		0.20	0.40		200		
Alloy Steel	2	42 CrMo 4 100 Cr 6 32 NiCrMo 14.5	180	0.20	4.00	0.11	0.20	0.40	120	300	1 to 3	0.15
			230		3.00		0.20	0.30		250		
			280		3.00	0.09	0.18	0.30		210		
			320		3.00		0.18	0.20		180		
High Alloy Steel	3	X38 CrMoV 5 X210 CrW 12 X90 CrMoV 8	220	0.20	3.00	0.09	0.18	0.30	70	190	1 to 2.5	0.12
			280		3.00		0.18	0.30		150		
			320		3.00		0.15	0.20		130		
			350		3.00		0.15	0.20		100		
Austenitic Stainless Steel	4	303 / 304 304 L	210 to 250	0.20	4.00	0.10	0.20	0.20	170	270	1 to 3	0.15
	5	316 / 316 L	230 to 270		3.00	0.09	0.18	0.20	170	210	1 to 2.5	0.12
	6	316 Ti 630 (F16PH)	--------		3.00	0.09	0.14	0.20	80	130	1 to 2.5	0.12
Ferritic Stainless Steel	7	430 / 439 / 444	Annealed	0.50	3.00	0.11	0.18	0.20	170	250	1 to 3	0.15
Martensitic Stainless Steel	8	410 / 420	Annealed	0.50	3.00	0.11	0.18	0.20	170	250	1 to 3	0.15
			Treated						120	210		
Grey Cast Iron	9	EN - GJL 200	140 to 230	0.20	5.00	0.08	0.25	0.50	170	280	1 to 3	0.18
		EN - GJL 250						0.40		250		
		EN - GJL 300						0.40		230		
Nodular Cast Iron	10	EN - GJS 400	210	0.20	4.00	0.08	0.25	0.40	120	230	1 to 2.5	0.15
		EN - GJS 600	260					0.30		190		
		EN - GJS 800	310					0.30		150		
Nickel Based Alloys	11	Inconel 625	--------	0.25	3.00	0.10	0.18	0.20	25	35	1 to 2.5	0.12
		Inconel 718						0.20		40		
		Hastelloy C						0.20		65		
Titanium Based Alloys	12	TiAl 6 V4	--------	0.25	3.00	0.09	0.18	0.20	35	60	1 to 2.5	0.14
		T40					0.15	0.20	28	40	1 to 2.5	0.12

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

Insert designation

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Lamina Technologies