VBMT 160408 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	0.50	4.00	0.21	0.45	1.30	180	400	1 to 3	0.30
			180		3.00		0.40	1.30		350		
			210		3.00		0.35	1.00		200		
Alloy Steel	2	42 CrMo 4 100 Cr 6 32 NiCrMo 14.5	180	0.50	4.00	0.21	0.40	1.00	120	300	1 to 3	0.28
			230		3.00		0.40	0.86		250		
			280		3.00		0.35	0.86		210		
			320		3.00		0.32	0.70		180		
High Alloy Steel	3	X38 CrMoV 5 X210 CrW 12 X90 CrMoV 8	220	0.50	3.00	0.18	0.35	0.86	70	190	1 to 2.5	0.25
			280		3.00		0.32	0.86		150		
			320		2.00		0.28	0.60		130		
			350		2.00		0.28	0.52		100		
Austenitic Stainless Steel	4	303 / 304 304 L	210 to 250	0.50	4.00	0.20	0.35	0.69	170	270	1 to 3	0.28
	5	316 / 316 L	230 to 270		3.00	0.18	0.32	0.52	170	210	1 to 2.5	0.25
	6	316 Ti 630 (F16PH)	--------		3.00	0.18	0.28	0.43	80	130	1 to 2.5	0.22
Ferritic Stainless Steel	7	430 / 439 / 444	Annealed	0.50	3.00	0.22	0.35	0.61	170	250	1 to 3	0.25
Martensitic Stainless Steel	8	410 / 420	Annealed	0.50	3.00	0.22	0.35	0.61	170	250	1 to 3	0.25
			Treated						120	210		
Grey Cast Iron	9	EN - GJL 200	140 to 230	0.50	4.00	0.15	0.40	1.38	170	280	1 to 3	0.30
		EN - GJL 250						1.30		250		
		EN - GJL 300						1.30		230		
Nodular Cast Iron	10	EN - GJS 400	210	0.50	3.00	0.15	0.35	1.00	120	230	1 to 3	0.25
		EN - GJS 600	260					0.87		190		
		EN - GJS 800	310					0.87		150		
Nickel Based Alloys	11	Inconel 625	--------	0.50	2.00	0.20	0.32	0.52	25	35	1 to 2	0.22
		Inconel 718						0.52		40		
		Hastelloy C						0.61		65		
Titanium Based Alloys	12	TiAl 6 V4	--------	0.50	2.00	0.18	0.32	0.61	35	60	1 to 2	0.25
		T40					0.28	0.52	28	40	1 to 2	0.22

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

Insert designation	Super Finishing	Finishing	Semi Finishing	Roughing	Interrupted Cut
VBMT 160408 NN	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Lamina Technologies