

# VBMT 160408 NN

## 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	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				
			230 to 270		3.00		0.18	0.32		0.52			170	210	1 to 2.5	0.25
			316 Ti 630 (F16PH)		-----		3.00	0.18		0.28			0.43	80	130	1 to 2.5
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 Treated	0.50	3.00	0.22	0.35	0.61	170 120	250 210	1 to 3	0.25				
Grey Cast Iron	9	EN - GJL 200 EN - GJL 250 EN - GJL 300	140 to 230	0.50	4.00	0.15	0.40	1.38	170	280	1 to 3	0.30				
			1.30					250								
			1.30					230								
Nodular Cast Iron	10	EN - GJS 400 EN - GJS 600 EN - GJS 800	210	0.50	3.00	0.15	0.35	1.00	120	230	1 to 3	0.25				
			260					0.87		190						
			310					0.87		150						
Nickel Based Alloys	11	Inconel 625 Inconel 718 Hastelloy C	-----	0.50	2.00	0.20	0.32	0.52	25	35	1 to 2	0.22				
			-----					0.52		40						
			-----					0.61		65						
Titanium Based Alloys	12	TiAl 6 V4 T40	-----	0.50	2.00	0.18	0.32	35	60	1 to 2	0.25					
			-----				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

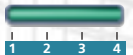
Finishing

Semi Finishing

Roughing

Interrupted Cut

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Lamina Technologies