

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	0.20	3.00	0.11	0.22	0.50	180	400	0.5 to 1.5	0.18			
			180		3.00		0.22	0.50		350					
			210		3.00		0.20	0.50		200					
Alloy Steel	2	42 CrMo 4 100 Cr 6 32 NiCrMo 14.5	180	0.20	3.00	0.11	0.20	0.50	120	300	0.5 to 1.5	0.15			
			230		3.00		0.20	0.40		250					
			280		3.00	0.09	0.18	0.400		210					
			320		3.00	0.18	0.30	180							
High Alloy Steel	3	X38 CrMoV 5 X210 CrW 12 X90 CrMoV 8	220	0.20	3.00	0.09	0.20	0.40	70	190	0.5 to 1.5	0.12			
			280		3.00		0.20	0.40		150					
			320		2.50		0.18	0.20		130					
			350		2.50		0.18	0.20		100					
Austenitic Stainless Steel	4	303 / 304 304 L	210 to 250	0.20	3.00	0.10	0.18	0.30	170	270	0.5 to 1.5	0.15 to 0.28			
			230 to 270		2.50						0.09	0.18	0.20	170	210
	6	316 Ti 630 (F16PH)	-----		2.50						0.09	0.18	0.20	80	130
Ferritic Stainless Steel	7	430 / 439 / 444	Annealed	0.50	3.00	0.11	0.18	0.30	170	250	0.5 to 1.5	0.15			
Martensitic Stainless Steel	8	410 / 420	Annealed Treated	0.50	3.00	0.11	0.18	0.30	170 120	250 210	0.5 to 1.5	0.15			
Grey Cast Iron	9	EN - GJL 200	140 to 230	0.20	3.00	0.08	0.25	0.60	170	280	0.5 to 1.5	0.18			
		EN - GJL 250						0.50		250					
		EN - GJL 300						0.50		230					
Nodular Cast Iron	10	EN - GJS 400	210 to 310	0.20	3.00	0.08	0.25	0.50	120	230	0.5 to 1.5	0.15			
		EN - GJS 600						0.40		190					
		EN - GJS 800						0.40		150					
Nickel Based Alloys	11	Inconel 625	-----	0.25	2.00	0.10	0.18	0.20	25	35	0.5 to 1.5	0.12			
		Inconel 718						0.20		40					
		Hastelloy C						0.20		65					
Titanium Based Alloys	12	TiAl 6 V4	-----	0.25	2.00	0.09	0.18	35	60	0.5 to 1.5	0.15				
		T40					0.15		0.20			28	40	0.5 to 1.5	0.12

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

Insert designation    **Super Finishing**    **Finishing**    **Semi Finishing**    **Roughing**    **Interrupted Cut**

WNMG 060404 NN



Lamina Technologies