

DCMT 070204 NN

Machining Conditions

Material Group	Group No.	Material Examples*	Brinell hardness HB	d.o.c [mm]		feed [mm/rev]		A max [mm ²]	V _c [m/min]		Optimal cutting conditions		
				min	max	min	max		min	max	d.o.c	feed	
Low Carbon Steel	1	Ck15 9SMnPb28	150	0.10	2.00	0.08	0.20	0.36	180	400	0.2 to 1	0.18	
			180		2.00		0.18	0.36		350			
			210		2.00		0.16	0.29		200			
Alloy Steel	2	42 CrMo 4 100 Cr 6 32 NiCrMo 14.5	180	0.10	2.00	0.08	0.18	0.29	120	300	0.2 to 1	0.15	
			230		2.00		0.18	0.24		250			
			280		1.50		0.16	0.24		210			
			320		1.50		0.14	0.19		180			
High Alloy Steel	3	X38 CrMoV 5 X210 CrW 12 X90 CrMoV 8	220	0.10	2.00	0.08	0.16	0.24	70	190	0.2 to 1	0.12	
			280		1.50		0.14	0.24		150			
			320		1.50		0.13	0.17		130			
			350		1.50		0.13	0.14		100			
Austenitic Stainless Steel	4	303 / 304 304 L	210 to 250	0.10	2.00	0.08	0.16	0.22	170	270	0.2 to 1	0.15	
			230 to 270		1.80		0.08	0.14	0.17	170	210	0.2 to 1	0.12
					1.50		0.08	0.13	0.14	80	130	0.2 to 1	0.12
Ferritic Stainless Steel	7	430 / 439 / 444	Annealed	0.10	2.00	0.08	0.16	0.20	170	250	0.2 to 1	0.15	
Martensitic Stainless Steel	8	410 / 420	Annealed Treated	0.10	2.00	0.08	0.16	0.20	170 120	250 210	0.2 to 1	0.15	
Grey Cast Iron	9	EN - GJL 200 EN - GJL 250 EN - GJL 300	140 to 230	0.10	2.00	0.06	0.18	0.38	170	280	0.2 to 1	0.18	
								0.36		250			
								0.36		230			
Nodular Cast Iron	10	EN - GJS 400 EN - GJS 600 EN - GJS 800	210 260 310	0.10	2.00	0.06	0.16	0.29	120	230	0.5 to 1.5	0.15	
								0.24		190			
								0.24		150			
Nickel Based Alloys	11	Inconel 625 Inconel 718 Hastelloy C	-----	0.10	1.50	0.08	0.14	0.14	25	35	0.2 to 1	0.12	
								0.14		40			
								0.17		65			
Titanium Based Alloys	12	TiAl 6 V4 T40	-----	0.10	1.50	0.08	0.14	35	60	0.2 to 1	0.14		
							0.13		0.14		28	40	0.12

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

Insert designation

Super Finishing

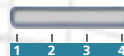
Finishing

Semi Finishing

Roughing

Interrupted Cut

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Lamina Technologies