

Speeds & Feeds

Material Group		Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [inch]		Feed [inch/tooth]		V _c [sfm]		Suggested Starting Parameters			
						min	max	min	max	min	max	D.O.C.	Feed	V _c	
Steel	Non-alloyed	1	1	C35, Ck45, 1020,	125 HB	0.020	0.138	0.009	0.020	620	1080	0.099	0.014	820	
			2	1045, 1060,	190 HB									720	
			3	28Mn6	250 HB									650	
	Low alloyed	2	6, 4,6, 5,7, 8	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.020	0.138	0.007	0.016	490	780	0.099	0.013	650	
					230 HB					490	680			590	
					280 HB					420	620			490	
					350 HB					420	550			450	
	High alloyed	3	10, 10, 11, 11	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.020	0.098	0.006	0.014	290	490	0.074	0.011	420	
					280 HB					290	420			390	
					320 HB					190	360			320	
					350 HB					190	290			260	
	Stainless Steel	Austenitic	4	14, 14	304, 316, X5CrNi18-9	180 HB	0.020	0.138	0.007	0.014	620	820	0.099	0.011	720
240 HB						520					680	620			
Duplex		5	14, 14	X2CrNiN23-4, S31500	290 HB	0.020	0.098	0.006	0.011	220	420	0.074	0.010	320	
					310 HB					390	290			290	
Ferritic & Martensitic		6	12, 13	410, X6Cr17, 17-4 PH, 430	200 HB	0.020	0.138	0.007	0.014	490	680	0.099	0.011	620	
					42 HRc					290	490			420	
Cast Iron	Grey	7	15, 15, 16	GG20, GG40, EN-GJL-250, No30B	150 HB	0.020	0.138	0.009	0.020	490	780	0.099	0.014	650	
					200 HB									720	590
					250 HB									620	520
	Malleable & Nodular	8	17,19, 17,19, 18,20	GGG40, GGG70, 50005	150 HB	0.020	0.138	0.007	0.018	320	650	0.099	0.013	590	
					200 HB									490	490
					250 HB									490	420
High Temp. Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.020	0.098	0.006	0.011	80	140	0.074	0.010	100	
			33	Inconel 700	250 HB									140	90
			34	Stellite 21	350 HB									140	90
	Ti based	10	36	TiAl6V4	-	0.020	0.098	0.006	0.013	130	210	0.074	0.011	180	
			37	T40	-					90	180			130	
	Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.016	0.030	0.005	0.011	130	260	0.050	0.009	190
38				440C,	50 HRc	190									160
38				G-X260NiCr42	55 HRc	190									160
Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.016	0.039	0.005	0.011	130	260	0.037	0.009	160		
White Cast Iron		41	G-X300CrMo15	55 HRc	0.016	0.015	0.005	0.009	90	190	0.025	0.008	130		
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.020	0.138	0.009	0.020	650	1310	0.099	0.016	910	



(800) 597-3921 or (317) 803-8000 for Application Support.
For additional suggested Speeds & Feeds: <http://delivr.com/1kppm>

