

Technical Information

Recommended cutting conditions

Turning

ISO		Cutting Speed		Vc (m/min.)											
		VDI	Sub Group	YG010	YG001	YG010	YG015	YG015	YG015	YG020	YG020	YG030	YG030	YG001	YG001
P	1-5	Non-Alloyed Steel		-	-	220	480	230	460	200	430	180	500	160	380
	6-9	Low-Alloyed Steel		-	-	220	420	180	380	150	350	170	450	140	320
	10-11	High-Alloyed Steel		-	-	-	-	60	200	90	180	60	300	60	130
	12-13	Ferritic & Martensitic		-	-	-	-	-	-	-	-	-	-	-	-
M	14	Austenitic Stainless Steel		-	-	-	-	-	-	-	-	-	-	-	-
	15-16	Grey Cast Iron		300	450	250	420	120	300	-	-	-	-	-	-
K	17-18	Nodular Cast Iron		120	350	120	300	120	280	-	-	-	-	-	-
	21-30	Non-Ferrous Metals (Al)		-	-	-	-	-	-	-	-	-	-	-	-
S	31-37	Superalloys & Titanium		-	-	-	-	-	-	-	-	-	-	-	-
H	38-41	Hard Materials		-	-	-	-	-	-	-	-	-	-	-	-

Turning

ISO		Cutting Speed		Vc (m/min.)											
		VDI	Sub Group	YG025	YG211	YG213	YG214	YG401	YT100	YG100	YG10				
P	1-5	Non-Alloyed Steel		-	-	-	-	-	150	480	-	-	-	-	-
	6-9	Low-Alloyed Steel		-	-	-	-	-	160	480	-	-	-	-	-
	10-11	High-Alloyed Steel		-	-	-	-	-	70	180	-	-	-	-	-
	12-13	Ferritic & Martensitic		170	220	170	270	120	180	100	150	-	-	-	-
M	14	Austenitic Stainless Steel		150	200	150	230	40	160	100	150	-	-	-	-
	15-16	Grey Cast Iron		-	-	-	-	-	130	450	-	-	-	-	-
K	17-18	Nodular Cast Iron		-	-	-	-	-	100	400	-	-	-	-	-
	21-30	Non-Ferrous Metals (Al)		-	-	-	-	-	-	250	1200	250	800	-	-
S	31-37	Superalloys & Titanium		-	30	100	30	70	30	50	30	90	-	-	-
H	38-41	Hard Materials		-	-	-	-	-	-	-	-	-	-	-	-

Parting & Grooving

ISO		Cutting Speed		Vc (m/min.)											
		VDI	Sub Group	YG025 (YG02)				YG025 (YG02)				YG030			
P	1-5	Non-Alloyed Steel		-	-	120	180	-	-	-	-	-	-	-	-
	6-9	Low-Alloyed Steel		-	-	100	140	-	-	-	-	-	-	-	-
	10-11	High-Alloyed Steel		-	-	80	110	-	-	-	-	-	-	-	-
	12-13	Ferritic & Martensitic		-	-	70	160	-	-	-	-	-	-	-	-
M	14	Austenitic Stainless Steel		-	-	55	140	-	-	-	-	-	-	-	-
	15-16	Grey Cast Iron		-	-	110	185	-	-	-	-	-	-	-	-
K	17-18	Nodular Cast Iron		-	-	250	440	-	-	-	-	-	-	-	-
	21-30	Non-Ferrous Metals (Al)		-	-	25	45	-	-	-	-	-	-	-	-
S	31-37	Superalloys & Titanium		-	-	25	50	-	-	-	-	-	-	-	-
H	38-41	Hard Materials		-	-	-	-	-	-	-	-	-	-	-	-

Technical Information

Recommended cutting conditions

Nanocut

ISO		YG812 GRADE		Cutting Speed				Feed per Revolution (Fn)			
		VDI	Sub Group	Vc (m/min.)				Fn (mm/rev.)			
P	1-5	Non-Alloyed Steel		170	200	160	200	0.015	0.015	0.025	Max
	6-9	Low-Alloyed Steel		95	160	160	160	0.015	0.015	0.025	0.025
	10-11	High-Alloyed Steel		85	95	140	95	0.015	0.015	0.025	0.025
	12-13	Ferritic & Martensitic		105	140	140	140	0.015	0.015	0.025	0.025
M	14	Austenitic Stainless Steel		95	130	130	130	0.015	0.015	0.025	0.025
	15-16	Grey Cast Iron		140	190	190	190	0.015	0.015	0.025	0.025
K	17-18	Nodular Cast Iron		140	190	190	190	0.015	0.015	0.025	0.025
	21-30	Non-Ferrous Metals (Al)		-	-	-	-	-	-	-	-
S	31-37	Superalloys & Titanium		10	75	75	75	0.015	0.015	0.025	0.025
H	38-41	Hard Materials		-	-	-	-	-	-	-	-

Milling

ISO		Cutting Speed		Vc (m/min.)											
		VDI	Sub Group	YG012	YG012	YG012	YG012	YG012	YG012	YG012	YG012	YG012	YG012	YG012	YG012
P	1-5	Non-Alloyed Steel		180	280	170	300	200	300	140	400	180	280	170	300
	6-9	Low-Alloyed Steel		150	250	180	250	170	270	120	320	150	240	70	180
	10-11	High-Alloyed Steel		80	150	100	140	85	145	70	170	70	140	70	130
	12-13	Ferritic & Martensitic		-	-	-	-	-	-	-	-	-	-	-	-
M	14	Austenitic Stainless Steel		-	-	-	-	-	-	-	-	-	-	-	-
	15-16	Grey Cast Iron		-	-	-	-	-	-	-	-	-	-	-	-
K	17-18	Nodular Cast Iron		-	-	-	-	-	-	-	-	-	-	-	-
	21-30	Non-Ferrous Metals (Al)		-	-	-	-	-	-	-	-	-	-	-	-
S	31-37	Superalloys & Titanium		-	-	-	-	-	-	-	-	-	-	-	-
H	38-41	Hard Materials		70	120	-	-	-	-	-	-	-	-	-	-

Drilling

ISO		Cutting Speed		Vc (m/min.)											
		VDI	Sub Group	YG602				YG713				YG613			
P	1-5	Non-Alloyed Steel		180	380	200	300	180	300	200	300	100	210	180	210
	6-9	Low-Alloyed Steel		120	300	170	270	70	145	85	145	40	90	180	180
	10-11	High-Alloyed Steel		70	150	85	145	70	145	85	145	40	90	180	180
	12-13	Ferritic & Martensitic		120	200	-	-	-	-	-	-	-	-	-	-
M	14	Austenitic Stainless Steel		130	250	-	-	-	-	-	-	-	-	-	-
	15-16	Grey Cast Iron		120	250	-	-	-	-	-	-	-	-	-	-
K	17-18	Nodular Cast Iron		130	220	-	-	-	-	-	-	-	-	-	-
	21-30	Non-Ferrous Metals (Al)		130	220	-	-	-	-	-	-	-	-	-	-
H	38-41	Hard Materials		-	-	-	-	-	-	-	-	-	-	-	-