



Turning Positive - Metric

Date compiled

Nov. 10 2016

CCMT 060204-UF											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.08	0.20	0.14	180	330	300	0.2	2.1	1.0
	Low Alloy	200	0.08	0.17	0.13	120	280	250	0.2	1.8	1.0
	High Alloy	220	0.07	0.15	0.11	70	190	170	0.2	1.8	1.0
M	Austenitic	190	0.08	0.15	0.12	170	270	250	0.2	1.8	1.0
K	Grey Cast Iron	140	0.06	0.17	0.12	170	250	240	0.2	2.1	1.0
S	Heat resistant and super alloys	240	0.08	0.13	0.07	25	50	35	0.2	1.4	1.0
H	Hardened material	45HRc	0.04	0.10	0.07	50	100	75	0.2	1.3	0.8

CCMT 060208-UG											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.08	0.20	0.14	180	330	250	0.4	2.1	1.2
	Low Alloy	200	0.08	0.17	0.13	120	280	200	0.4	1.8	1.2
	High Alloy	220	0.07	0.15	0.11	70	190	130	0.4	1.8	1.2
M	Austenitic	190	0.08	0.15	0.12	170	270	200	0.4	1.8	1.2
K	Grey Cast Iron	140	0.06	0.17	0.12	170	250	210	0.4	2.1	1.2
S	Heat resistant and super alloys	240	0.08	0.13	0.07	25	50	30	0.4	1.4	1.2
H	Hardened material	45HRc	0.04	0.10	0.07	50	100	75	0.4	1.3	0.8

CCMT 09T304-UF											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.11	0.23	0.17	180	330	300	0.2	3.0	2.0
	Low Alloy	200	0.10	0.20	0.15	120	280	250	0.2	2.5	2.0
	High Alloy	220	0.09	0.18	0.14	70	190	170	0.2	2.5	2.0
M	Austenitic	190	0.10	0.18	0.14	170	270	250	0.2	2.5	2.0
K	Grey Cast Iron	140	0.08	0.20	0.14	170	250	240	0.2	3.0	2.0
S	Heat resistant and super alloys	240	0.09	0.15	0.12	25	50	35	0.2	2.0	2.0
H	Hardened material	45HRc	0.05	0.12	0.09	50	100	75	0.2	1.8	1.5

CCMT 09T308-UG											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.21	0.50	0.36	180	330	255	0.5	5.0	3.0
	Low Alloy	200	0.21	0.45	0.33	120	280	200	0.5	5.0	3.0
	High Alloy	220	0.18	0.40	0.29	70	190	130	0.5	4.0	2.5
M	Austenitic	190	0.20	0.40	0.30	170	270	220	0.5	5.0	3.0
K	Grey Cast Iron	140	0.15	0.60	0.38	170	250	210	0.5	5.0	3.0
S	Heat resistant and super alloys	240	0.20	0.35	0.28	25	45	35	0.5	3.0	2.0
H	Hardened material	45HRc	0.11	0.30	0.21	50	100	75	0.5	2.5	2.0

CCMT 120408-UG											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.21	0.50	0.36	180	330	255	0.5	5.0	3.0
	Low Alloy	200	0.21	0.45	0.33	120	280	200	0.5	5.0	3.0
	High Alloy	220	0.18	0.40	0.29	70	190	130	0.5	4.0	2.5
M	Austenitic	190	0.20	0.40	0.30	170	270	200	0.5	5.0	3.0
K	Grey Cast Iron	140	0.15	0.60	0.38	170	250	210	0.5	5.0	3.0
S	Heat resistant and super alloys	240	0.20	0.35	0.28	25	45	35	0.5	3.0	2.0
H	Hardened material	45HRc	0.11	0.30	0.21	50	100	75	0.5	2.5	2.0



DCMT 070204-UF											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.08	0.20	0.14	180	330	300	0.2	2.1	1.0
	Low Alloy	200	0.08	0.17	0.13	120	280	250	0.2	1.8	1.0
	High Alloy	220	0.07	0.15	0.11	70	190	170	0.2	1.8	1.0
M	Austenitic	190	0.08	0.15	0.12	170	270	250	0.2	1.8	1.0
K	Grey Cast Iron	140	0.06	0.17	0.12	170	250	240	0.2	2.1	1.0
S	Heat resistant and super alloys	240	0.08	0.13	0.11	25	50	35	0.2	1.4	1.0
H	Hardened material	45HRc	0.04	0.10	0.07	50	100	75	0.2	1.3	0.8

DCMT 11T304-UF											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.11	0.23	0.17	180	330	300	0.2	3.0	2.0
	Low Alloy	200	0.10	0.20	0.15	120	280	250	0.2	2.5	2.0
	High Alloy	220	0.09	0.18	0.12	70	190	170	0.2	2.5	2.0
M	Austenitic	190	0.10	0.18	0.15	170	270	250	0.2	2.5	2.0
K	Grey Cast Iron	140	0.08	0.20	0.15	170	250	240	0.2	3.0	2.0
S	Heat resistant and super alloys	240	0.09	0.15	0.12	25	50	35	0.2	2.0	2.0
H	Hardened material	45HRc	0.05	0.12	0.09	50	100	75	0.2	1.8	1.5

DCMT 11T308-UG											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.21	0.50	0.36	180	330	255	0.5	4.0	3.0
	Low Alloy	200	0.21	0.45	0.33	120	280	200	0.5	4.0	3.0
	High Alloy	220	0.18	0.40	0.29	70	190	130	0.5	3.2	2.5
M	Austenitic	190	0.20	0.40	0.30	170	270	200	0.5	4.0	3.0
K	Grey Cast Iron	140	0.15	0.60	0.38	170	250	210	0.5	4.0	3.0
S	Heat resistant and super alloys	240	0.20	0.35	0.28	25	45	35	0.5	2.4	2.0
H	Hardened material	45HRc	0.11	0.30	0.21	50	100	75	0.5	2.0	2.0

RCMT 0803 M0											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.15	0.40	0.33	180	330	255	0.5	2.4	1.2
	Low Alloy	200	0.15	0.35	0.28	120	280	200	0.5	2.4	1.2
	High Alloy	220	0.13	0.35	0.28	70	190	130	0.5	2.4	1.2
M	Austenitic	190	0.14	0.35	0.30	170	270	220	0.5	2.4	1.2
K	Grey Cast Iron	140	0.11	0.45	0.33	170	250	210	0.5	2.4	1.2
S	Heat resistant and super alloys	240	0.13	0.30	0.25	25	50	38	0.5	1.8	1.2
H	Hardened material	45HRc	0.05	0.22	0.14	50	100	75	0.5	1.4	1.1



RCMT 10T3 M0											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.15	0.40	0.33	180	330	255	0.5	2.8	1.4
	Low Alloy	200	0.15	0.35	0.28	120	280	200	0.5	2.8	1.4
	High Alloy	220	0.13	0.35	0.28	70	190	130	0.5	2.8	1.4
M	Austenitic	190	0.14	0.35	0.30	170	270	220	0.5	2.8	1.4
K	Grey Cast Iron	140	0.11	0.45	0.33	170	250	210	0.5	2.8	1.4
S	Heat resistant and super alloys	240	0.13	0.30	0.25	25	50	38	0.5	2.1	1.4
H	Hardened material	45HRc	0.05	0.22	0.14	50	100	75	0.5	1.7	1.3

RCMT 1204 M0											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.15	0.40	0.40	180	330	255	0.5	3.2	2.0
	Low Alloy	200	0.15	0.35	0.35	120	280	200	0.5	3.2	2.0
	High Alloy	220	0.13	0.35	0.35	70	190	130	0.5	3.2	2.0
M	Austenitic	190	0.14	0.35	0.35	170	270	220	0.5	3.2	2.0
K	Grey Cast Iron	140	0.11	0.45	0.40	170	250	210	0.5	3.2	2.0
S	Heat resistant and super alloys	240	0.13	0.30	0.30	25	50	38	0.5	2.4	1.5
H	Hardened material	45HRc	0.05	0.22	0.20	50	100	75	0.5	1.9	1.8

SCMT 09T304-UF											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.11	0.26	0.19	180	330	300	0.2	4.0	2.5
	Low Alloy	200	0.10	0.23	0.17	120	280	250	0.2	3.3	2.5
	High Alloy	220	0.09	0.21	0.15	70	190	170	0.2	3.3	2.5
M	Austenitic	190	0.10	0.21	0.16	170	270	250	0.2	3.3	2.5
K	Grey Cast Iron	140	0.08	0.23	0.16	170	250	240	0.2	4.0	2.5
S	Heat resistant and super alloys	240	0.09	0.17	0.13	25	50	35	0.2	2.7	2.0
H	Hardened material	45HRc	0.05	0.14	0.10	50	100	75	0.2	2.4	1.9

SCMT 09T308-UG											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.21	0.50	0.36	180	330	255	0.5	4.0	3.0
	Low Alloy	200	0.21	0.45	0.33	120	280	200	0.5	4.0	3.0
	High Alloy	220	0.18	0.40	0.29	70	190	130	0.5	3.2	2.5
M	Austenitic	190	0.20	0.40	0.30	170	270	220	0.5	4.0	3.0
K	Grey Cast Iron	140	0.15	0.60	0.38	170	250	210	0.5	4.0	3.0
S	Heat resistant and super alloys	240	0.20	0.35	0.28	25	45	35	0.5	2.4	2.0
H	Hardened material	45HRc	0.11	0.30	0.21	50	100	75	0.5	2.0	2.0

TCMT 110204-UF											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.08	0.20	0.14	180	330	300	0.2	2.1	1.0
	Low Alloy	200	0.08	0.17	0.13	120	280	250	0.2	1.8	1.0
	High Alloy	220	0.07	0.15	0.11	70	190	170	0.2	1.8	1.0
M	Austenitic	190	0.08	0.15	0.12	170	270	250	0.2	1.8	1.0
K	Grey Cast Iron	140	0.06	0.17	0.12	170	250	240	0.2	2.1	1.0
S	Heat resistant and super alloys	240	0.08	0.13	0.11	25	50	35	0.2	1.4	1.0
H	Hardened material	45HRc	0.04	0.10	0.07	50	100	75	0.2	1.3	0.8



TCMT 16T304-UF											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed Fn (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.11	0.23	0.20	180	330	300	0.2	3.0	2.0
	Low Alloy	200	0.10	0.20	0.15	120	280	250	0.2	2.5	2.0
	High Alloy	220	0.09	0.18	0.12	70	190	170	0.2	2.5	2.0
M	Austenitic	190	0.10	0.18	0.15	170	270	250	0.2	2.5	2.0
K	Grey Cast Iron	140	0.08	0.20	0.15	170	250	240	0.2	3.0	2.0
S	Heat resistant and super alloys	240	0.09	0.15	0.11	25	45	35	0.2	2.0	2.0
H	Hardened material	45HRc	0.05	0.12	0.09	50	100	75	0.2	1.8	1.5

TCMT 16T308-UG											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.11	0.23	0.20	180	330	250	0.2	3.0	3.0
	Low Alloy	200	0.10	0.20	0.15	120	280	200	0.2	2.5	3.0
	High Alloy	220	0.09	0.18	0.12	70	190	130	0.2	2.5	2.5
M	Austenitic	190	0.10	0.18	0.15	170	270	220	0.2	2.5	3.0
K	Grey Cast Iron	140	0.08	0.20	0.15	170	250	210	0.2	2.5	3.0
S	Heat resistant and super alloys	240	0.20	0.30	0.25	25	45	35	0.5	3.0	2.0
H	Hardened material	45HRc	0.11	0.26	0.19	50	100	75	0.5	2.5	2.0

VBMT 160404-UF											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.11	0.23	0.17	180	330	255	0.2	3.0	2.0
	Low Alloy	200	0.10	0.20	0.15	120	280	200	0.2	2.5	2.0
	High Alloy	220	0.09	0.18	0.14	70	190	130	0.2	2.5	2.0
M	Austenitic	190	0.10	0.18	0.14	170	270	220	0.2	2.5	2.0
K	Grey Cast Iron	140	0.08	0.20	0.14	170	250	210	0.2	3.0	2.0
S	Heat resistant and super alloys	240	0.09	0.15	0.12	25	50	38	0.2	2.0	2.0
H	Hardened material	45HRc	0.05	0.12	0.09	50	100	75	0.2	1.8	1.5

VBMT 160408-UG											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.19	0.40	0.30	180	330	255	0.5	3.5	2.5
	Low Alloy	200	0.19	0.36	0.28	120	280	200	0.5	3.5	2.5
	High Alloy	220	0.16	0.32	0.24	70	190	130	0.5	2.8	2.1
M	Austenitic	190	0.18	0.32	0.25	170	270	220	0.5	3.5	2.5
K	Grey Cast Iron	140	0.14	0.48	0.31	170	250	210	0.5	3.5	2.5
S	Heat resistant and super alloys	240	0.18	0.28	0.23	25	45	35	0.5	2.1	2.0
H	Hardened material	45HRc	0.10	0.24	0.17	50	100	75	0.5	1.8	1.6

VCMT 160404-UF											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.11	0.23	0.17	180	330	255	0.2	3.0	2.0
	Low Alloy	200	0.10	0.20	0.15	120	280	200	0.2	2.5	2.0
	High Alloy	220	0.09	0.18	0.14	70	190	130	0.2	2.5	2.0
M	Austenitic	190	0.10	0.18	0.14	170	270	220	0.2	2.5	2.0
K	Grey Cast Iron	140	0.08	0.20	0.14	170	250	210	0.2	3.0	2.0
S	Heat resistant and super alloys	240	0.09	0.15	0.12	25	50	38	0.2	2.0	2.0
H	Hardened material	45HRc	0.05	0.12	0.09	50	100	75	0.2	1.8	1.5

VCMT 160408-UG											
Material			Cutting conditions								
Group	Sub Group	Hardness (HB)	Feed (mm/rev)			Speed Vc (m/min)			Depth Of Cut (mm)		
			Min	Max	Recommend	Min	Max	Recommend	Min	Max	Recommend
P	Non Alloy	120	0.19	0.40	0.30	180	330	255	0.5	3.5	2.5
	Low Alloy	200	0.19	0.36	0.28	120	280	200	0.5	3.5	2.5
	High Alloy	220	0.16	0.32	0.24	70	190	130	0.5	2.8	2.1
M	Austenitic	190	0.18	0.32	0.25	170	270	220	0.5	3.5	2.5
K	Grey Cast Iron	140	0.14	0.48	0.31	170	250	210	0.5	3.5	2.5
S	Heat resistant and super alloys	240	0.18	0.28	0.23	25	45	35	0.5	2.1	2.0
H	Hardened material	45HRc	0.10	0.24	0.17	50	100	75	0.5	1.8	1.6