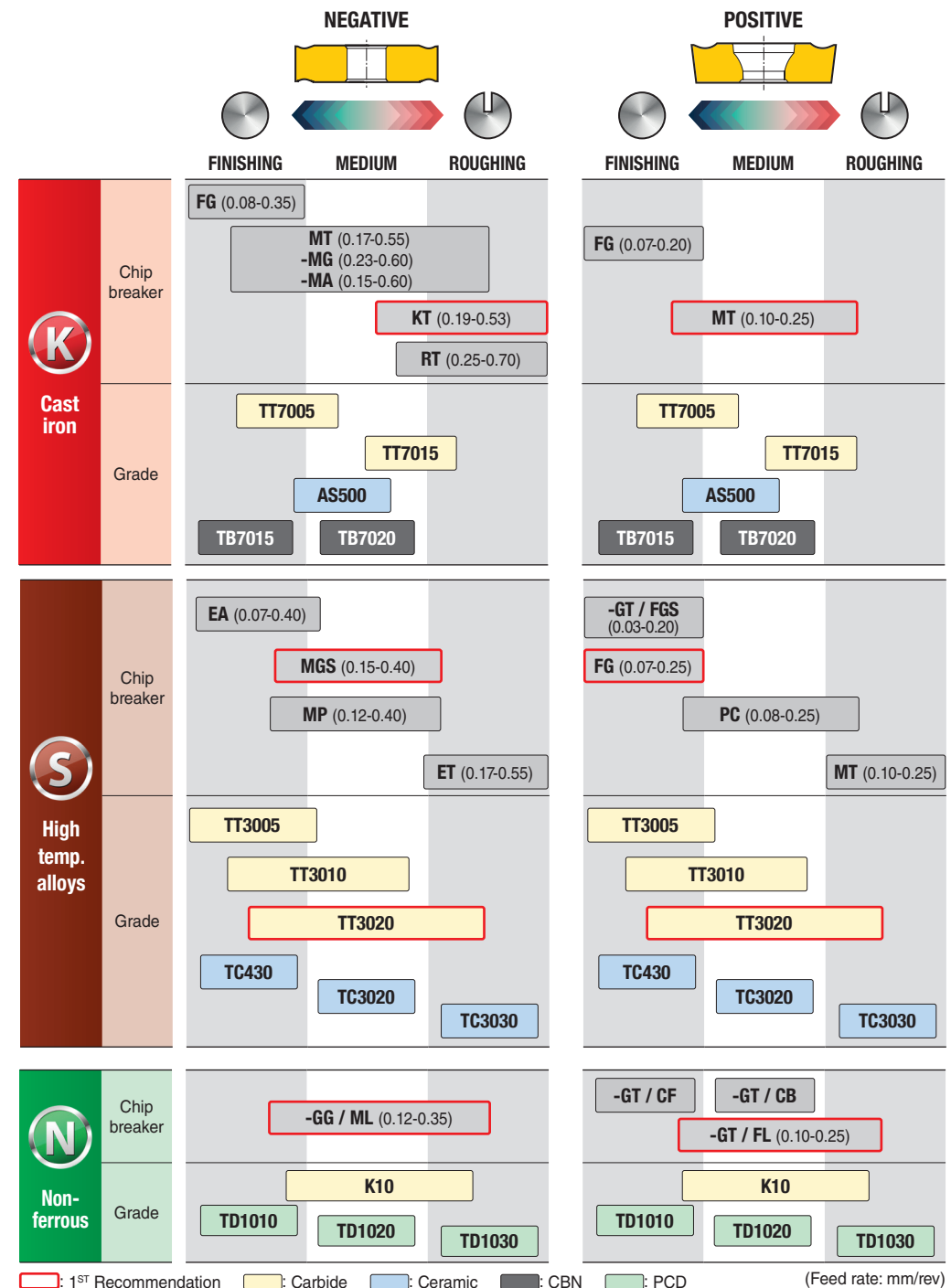
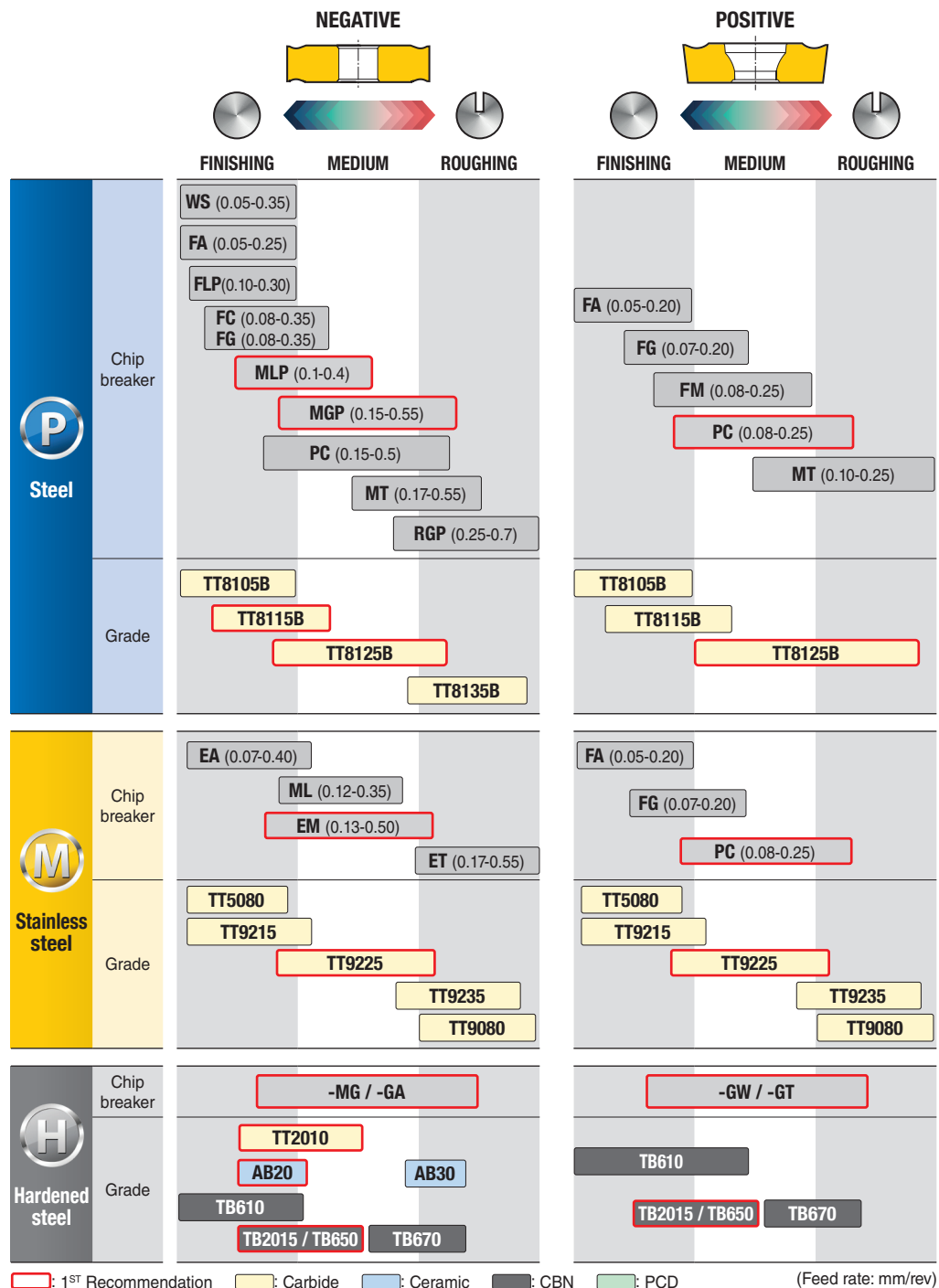


TURNING Selection Guide



TURNING Selection Guide


FINISHING


ROUGHING

P Steel (HB 200-220)		FS  CNMG 090404 FS TT8115B Vc : 300-250 fn : 0.07-0.30 ap : 0.25-1.5	FM  CNMG 090408 FM TT8115B Vc : 300-230 fn : 0.10-0.35 ap : 0.3-2.0	FT  CNMG 090408 FT TT8115B Vc : 280-220 fn : 0.10-0.40 ap : 0.5-3.0	
		FLP  CNMG 120404 FLP TT8115B Vc : 300-250 fn : 0.08-0.30 ap : 0.2-2.0	MLP  CNMG 120408 MLP TT8115B Vc : 300-230 fn : 0.10-0.40 ap : 0.5-3.5	MGP  CNMG 120408 MGP TT8115B Vc : 280-220 fn : 0.15-0.55 ap : 0.5-5.0	RGP  CNMG 120412 RGP TT8125B Vc : 250-200 fn : 0.25-0.70 ap : 2.5-6.0


FINISHING


ROUGHING

S High temp. alloys (HB 300-350)	Ni Nickel based Super alloys	EA  CNMG 120408 EA TT3010 / TT3020 Vc : 90-30 85-30 fn : 0.07-0.40 0.07-0.40 ap : 0.15-1.5 0.15-1.5	MGS  CNMG 120408 MGS TT3020 Vc : 40-20 fn : 0.15-0.40 ap : 1.0-4.0	ET  CNMG 120412 ET TT9080 Vc : 40-20 fn : 0.17-0.45 ap : 1.2-5.5	-GX -GN  RCGX & RNGN 1207 TC3020 / TC3030 Vc : 350-250 250-150 fn : 0.05-0.30 0.05-0.30 ap : 0.1-4.0 0.1-4.0
	Ti Titanium alloys	MK  CNMG 090408 MK TT3010 Vc : 90-30 fn : 0.05-0.20 ap : 1.0-3.0	MGS  CNMG 120408 MGS TT3010 Vc : 80-50 fn : 0.15-0.40 ap : 1.0-4.0	MGS  CNMG 120412 MGS K10 Vc : 70-45 fn : 0.17-0.50 ap : 1.5-4.0	


FINISHING

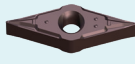
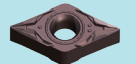
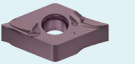
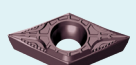
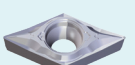
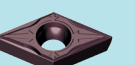
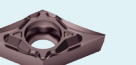

ROUGHING

M Stainless steel (HB 160-180)		EA  CNMG 090404 EA TT5080 / TT9215 Vc : 200-130 fn : 0.05-0.30 ap : 0.2-1.5	MK  CNMG 090408 MK TT9225 Vc : 170-130 fn : 0.20-0.50 ap : 1.0-3.0	EM  CNMG 090408 EM TT9225 Vc : 120-60 fn : 0.13-0.40 ap : 0.5-3.0	
		EA  CNMG 120404 EA TT5080 / TT9215 Vc : 200-130 fn : 0.05-0.30 ap : 0.15-1.5	MP  CNMG 120408 MP TT9225 Vc : 170-130 fn : 0.12-0.40 ap : 1.0-4.0	EM  CNMG 120408 EM TT9080 / TT9225 Vc : 120-60 fn : 0.13-0.50 ap : 0.5-5.0	ET  CNMG 120412 ET TT8080 / TT9235 Vc : 120-60 fn : 0.20-0.60 ap : 1.2-5.5


LOW DEPTH


Small Parts Turning


HIGH DEPTH

Miniature industry (G tolerance)	 Negative Insert		For medical parts FS-F  VNGX 130402M FS-F TT4430 Vc : 120-100 fn : 0.04-0.12 ap : 0.2-1.0	FU-F  DNGG 130502M FU-F TT4430 Vc : 120-100 fn : 0.04-0.12 ap : 0.2-2.5	ST-R-F  DNGX 130504M ST-R-F TT4430 Vc : 120-100 fn : 0.05-0.12 ap : 0.7-5.0
	 Positive Insert	SL-F  DCGT 11T302M SL-F TT4410/TT4430 Vc : 120-100 fn : 0.02-0.10 ap : 0.02-0.25	SA  DCGT 11T302 SA TT9020 Vc : 120-100 fn : 0.02-0.15 ap : 0.1-2.5	SM-F  DCGT 11T302M SM-F TT4430 Vc : 120-100 fn : 0.02-0.12 ap : 0.2-1.5	ST-F  DCGT 11T304M ST-F TT4430 Vc : 120-100 fn : 0.05-0.12 ap : 0.7-5.0

1st Recommendation

Vc cutting speed : m/min

fn feed rate : mm/rev

ap depth of cut : mm

1st Recommendation

Vc cutting speed : m/min

fn feed rate : mm/rev

ap depth of cut : mm

TURNING Selection Guide

		LOW SPEED		HIGH SPEED	
 Cast iron (HB 220-250)	Carbide Grade	MA- CNMA 120412 TT7025 Vc : 280-220 fn : 0.15-0.70 ap : 1.5-6.0	KT CNMG 120408 KT TT7015 Vc : 300-250 fn : 0.19-0.53 ap : 0.38-7.0	MT CNMG 120408 MT TT7005 Vc : 330-280 fn : 0.17-0.55 ap : 1.2-5.0	
	CBN & Ceramic Grade		 CNGA 120412 AS10 Vc : 800-250 fn : 0.05-0.25 ap : 0.1-3.0	 CNGX-CH 120712 T7 AS500 1000-300 0.05-0.30 0.1-3.5	 RNGN 120400 SD TB7020 Vc : 1200-200 fn : 0.05-0.30 ap : 0.1-3.0

Hardened steel	Carbide & Ceramic Grade (HRC ≥ 40)	CNMG 120408 TT2010 Vc : 200-50 fn : 0.15-0.55 ap : 0.5-3.0	CNGA 120408 AB30 Vc : 170-120 fn : 0.10-0.20 ap : 0.5-1.5	CNGA 120408 AB20 / AB2010 Vc : 200-150 fn : 0.10-0.18 ap : 0.4-1.2	
	CBN Grade (HRC ≥ 50)	CNGA 120408 TB670 Vc : 200-100 fn : 0.10-0.20 ap : 0.1-0.7	CNGA 120408 TB2015 Vc : 250-150 fn : 0.08-0.15 ap : 0.1-0.6	CNGA 120412 TB650 Vc : 250-150 fn : 0.08-0.15 ap : 0.1-0.6	CNGA 120412 TB610 Vc : 300-200 fn : 0.10-0.20 ap : 0.1-0.5

: 1ST Recommendation

• Vc cutting speed : m/min • fn feed rate : mm/rev • ap depth of cut : mm