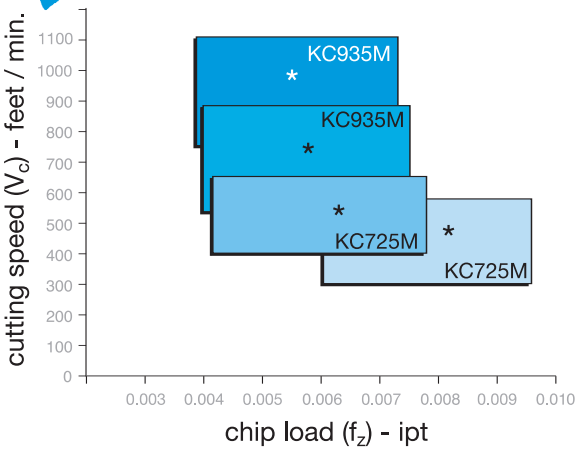
NGE-A – Application Parameters

Steel Milling Grades

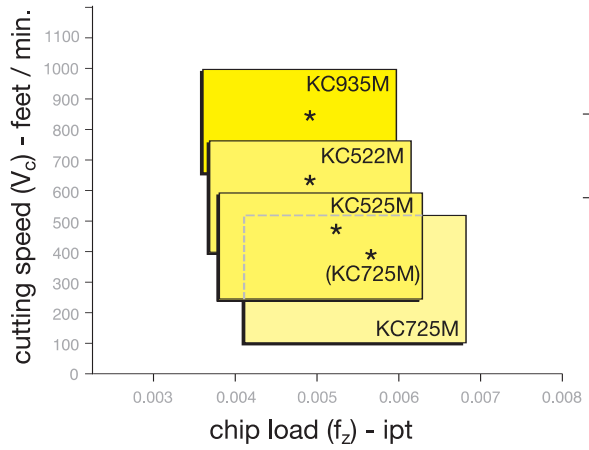


starting operating conditions	* SFM / IPT	SFM / IPT	SFM / IPT
KC725M ▼ ▼▼ S	400 / .008	300 / .005	550 / .010
KC725M ▼▼ ▼▼▼ E	500 / .006	400 / .005	650 / .008
KC935M ▼▼ ▼▼▼ S	700 / .0055	600 / .0045	850 / .0075
KC935M ▼▼▼ ▼▼▼▼ E	800 / .005	700 / .0045	950 / .006
	240-350 HB or moderate alloy content (8620, 4140, ...)	>350 HB or high alloy content (15-5, 17-4 stainless, P20, ...)	<240 HB or low alloy content (1018, A36, ...)

preferred — reduce speed by 25%

** Recommended starting point based upon end milling.*
Radial width of cut ≤.75 Ø tool.
Actual chip thickness = IPT.

Stainless Steel Milling Grades



starting operating conditions	* SFM / IPT	SFM / IPT	SFM / IPT
KC725M ▼ ▼▼ E	450 / .006	400 / .0055	275 / .0045
KC525M ▼▼ ▼▼▼ E	550 / .006	450 / .0055	325 / .0045
KC522M ▼▼ ▼▼▼ E	650 / .0055	550 / .005	400 / .0045
KC935M ▼▼▼ ▼▼▼▼ E	800 / .005	700 / .0045	not recommended
	austenitic (304, 316, ...)	ferritic/martensitic, PH 135-330 HB (400, 500, 15-5, 17-4, ...)	ferritic/martensitic, PH 330-450 HB (400, 500, 17-4, 13-8, ...)

preferred — reduce speed by 25%

** Recommended starting point based upon end milling.*
Radial width of cut ≤.75 Ø tool.
Actual chip thickness = IPT.

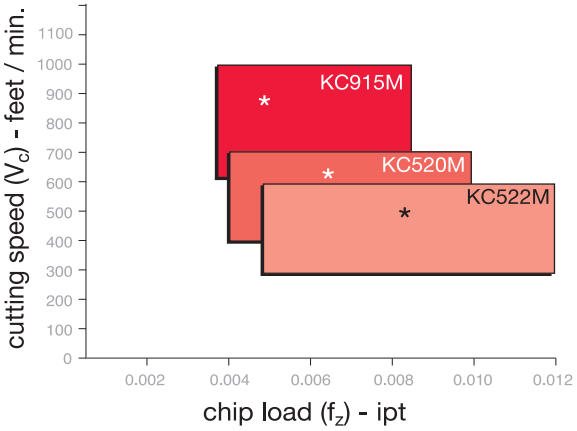
Edge Preparations
S – hone + T-land (heavy)
E – hone (medium)
F – sharp (extra light)

Coolant Requirements
dry
wet

Operating Conditions
▼ extra heavy – heavy interruption, continuous forging/casting skin, long tool extension
▼▼ heavy – moderate interruption, intermittent skin, moderate tool extension
▼▼▼ medium – light interruption, minimal/limited skin, moderate tool extension
▼▼▼▼ light – no interruption, premachined - no skin, shortest extension

NGE-A – Application Parameters

Cast Iron Milling Grades

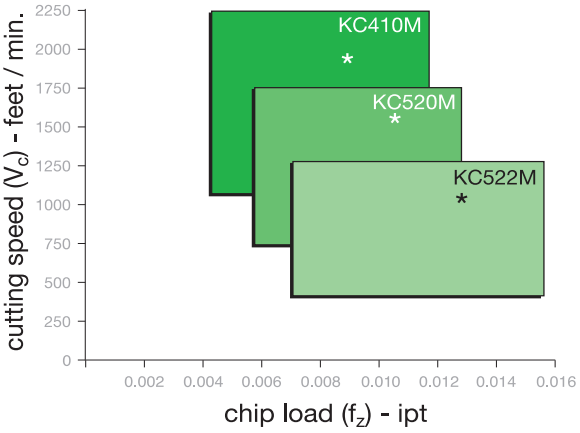


starting operating conditions	* SFM / IPT	SFM / IPT
KC522M ▼ ▼▼ E	400 / .008	350 / .007
KC520M ▼▼ ▼▼▼ E	600 / .006	500 / .005
KC915M ▼▼▼ ▼▼▼▼ E	900 / .005	800 / .0045
	< 230 HB or gray iron	< 350 HB or ductile iron

☼ preferred 💧 reduce speed by 25%

** Recommended starting point based upon end milling.*
Radial width of cut ≤.75 Ø tool.
Actual chip thickness = IPT.

Non-Ferrous Milling Grades

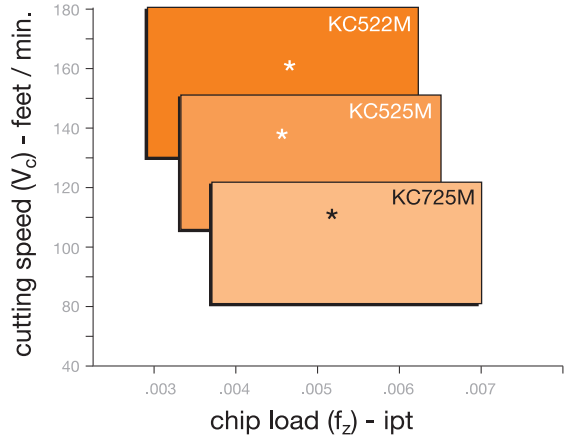


starting operating conditions	* SFM / IPT	SFM / IPT	SFM / IPT	SFM / IPT
KC522M ▼ ▼▼ E	1000 / .013	not recommended	not recommended	not recommended
KC520M ▼▼ ▼▼▼ E	1400 / .010	1200 / .010	900 / .0085	1400 / .010
KC410M ▼▼ ▼▼▼ F	1750 / .009	1500 / .009	1100 / .008	1750 / .010
	free machining < 9% Si (7075-T6, 6061-T6, 2024, ...)	high silicon > 9% Si (390, 380, ...)	copper, zinc, brass	non-metallics

☼ — 💧 preferred

** Recommended starting point based upon end milling.*
Radial width of cut ≤.75 Ø tool.
Actual chip thickness = IPT.

High-Temp Alloy Milling Grades



starting operating conditions	* SFM / IPT	SFM / IPT	SFM / IPT
KC725M ▼ ▼▼ E	110 / .005	100 / .005	180 / .005
KC525M ▼▼ ▼▼▼ E	130 / .0045	120 / .005	210 / .005
KC522M ▼▼ ▼▼▼ E	160 / .0045	145 / .005	240 / .005
	titanium (Ti6Al4V, ...)	nickel, cobalt alloys (inconel, hastelloy, monel, nimonic, ...)	iron alloys (X12NiCrSi 36 16, X2NiCrAlTi 32 20, ...)

☼ — 💧 preferred

** Recommended starting point based upon end milling.*
Radial width of cut ≤.75 Ø tool.
Actual chip thickness = IPT.