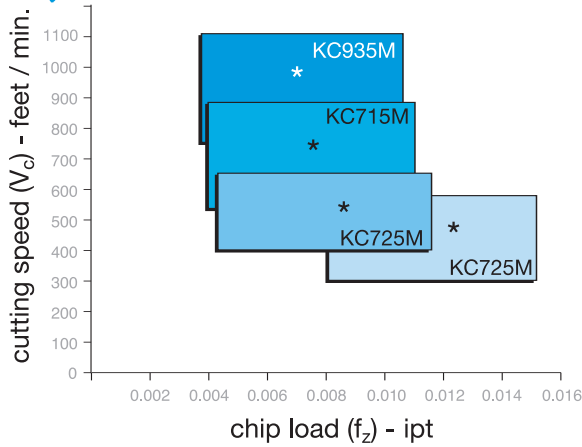




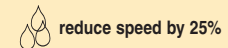
## Steel Milling Grades



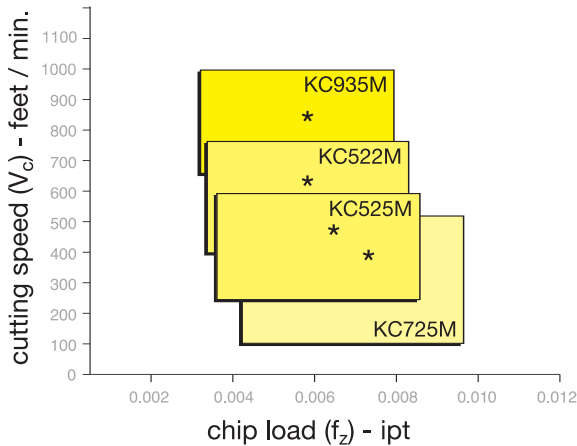
\* Recommended starting point based upon end milling.  
Radial width of cut  $\leq .75 \phi$  tool.  
Actual chip thickness = IPT.



starting operating conditions	* SFM / IPT	SFM / IPT	SFM / IPT
KC725M ▼ S	400 / .011	300 / .008	550 / .014
KC725M ▼▼ E	500 / .008	400 / .0065	650 / .0095
KC715M ▼▼ E	700 / .007	600 / .0055	850 / .0085
KC935M ▼▼▼ E	800 / .006	700 / .0045	950 / .008
	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, ...)



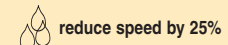
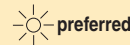
## Stainless Steel Milling Grades



\* Recommended starting point based upon end milling.  
Radial width of cut  $\leq .75 \phi$  tool.  
Actual chip thickness = IPT.



starting operating conditions	* SFM / IPT	SFM / IPT	SFM / IPT
KC725M ▼▼ E	450 / .0075	400 / .0065	275 / .0055
KC525M ▼▼▼ E	550 / .0065	450 / .0065	325 / .0055
KC522M ▼▼ E	650 / .006	550 / .0055	400 / .0055
KC935M ▼▼▼ E	800 / .006	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, ...)



### Edge Preparations

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

### Coolant Requirements



### Operating Conditions

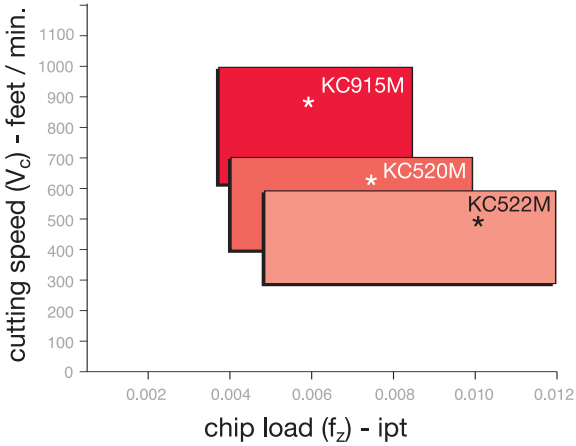
- ▼ extra heavy – heavy interruption, continuous forging/casting skin, long tool extension
- ▼▼ heavy – moderate interruption, intermittent skin, moderate tool extension
- ▼▼▼ medium – light interruption, minimal/limited skin, moderate tool extension
- ▼▼▼▼ light – no interruption, premachined - no skin,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



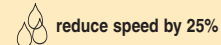
# Mill 1 – Application Parameters



## Cast Iron Milling Grades

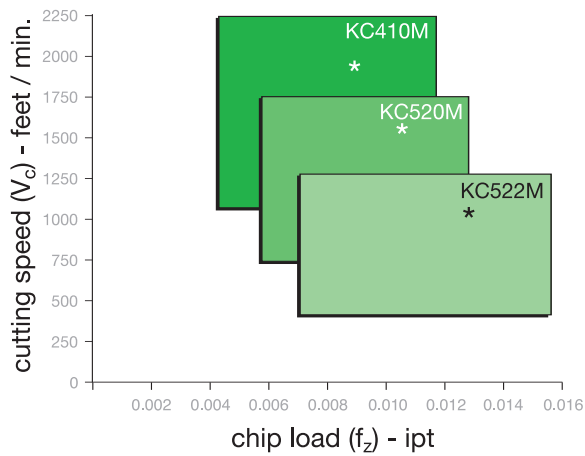


starting operating conditions	* SFM / IPT	SFM / IPT
KC522M ▼▼▼ E	400 / .010	350 / .009
KC520M ▼▼▼ E	600 / .008	500 / .007
KC915M ▼▼▼ S	900 / .006	800 / .006
	< 230 HB or gray iron	< 350 HB or ductile cast iron



\* Recommended starting point based upon end milling.  
Radial width of cut  $\leq .75$ .  
Actual chip thickness = IPT.

## Non-Ferrous Milling Grades

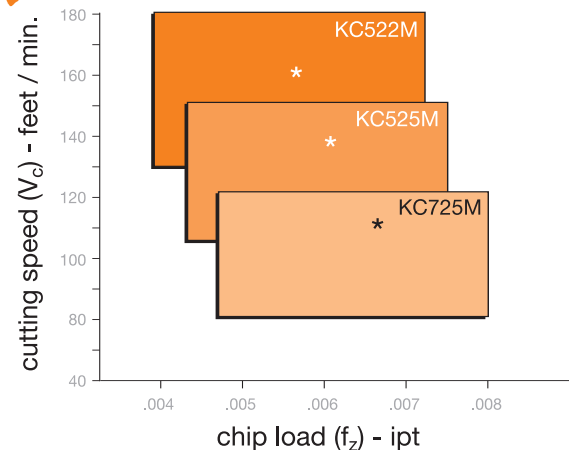


starting operating conditions	* SFM / IPT	SFM / IPT	SFM / IPT	SFM / IPT
KC522M ▼▼▼ E	1000 / .013	not recommended	not recommended	not recommended
KC520M ▼▼▼ E	1400 / .010	1200 / .010	900 / .0085	1400 / .010
KC410M ▼▼▼ F	1750 / .009	1500 / .009	1100 / .008	1750 / .010
	free machining < 9% Si (7075-T6,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



\* Recommended starting point based upon end milling.  
Radial width of cut  $\leq .75$   $\varnothing$  tool.  
Actual chip thickness = IPT.

## High-Temp Alloy Milling Grades



starting operating conditions	* SFM / IPT	SFM / IPT	SFM / IPT
KC725M ▼▼▼ E	110 / .0065	100 / .006	180 / .055
KC525M ▼▼▼ E	130 / .006	120 / .0055	210 / .0055
KC522M ▼▼▼ E	160 / .0055	145 / .005	240 / .0055
	titanium (Ti6Al4V, ...)	nickel, cobalt alloys (Inconel, Hastelloy, Monel, Nimonic, ...)	iron alloys (X12NiCrSi 36 16, X2NiCrAlTi 32 20, ...)



\* Recommended starting point based upon end milling.  
Radial width of cut  $\leq .75$   $\varnothing$  tool.  
Actual chip thickness = IPT.

Inserts  
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