

## Reamer Speeds and Feeds in Ferrous Materials

### Ferrous Materials

### FEED (IPR) for MILL DIAMETER

Material		Speed (SFM)	≤ 1/16	> 1/16 - 1/8	> 1/8 - 1/4	> 1/4 - 1/2	> 1/2 - 1	> 1
<b>Steel</b>	under 200 BHN	55 - 80	.0005 - .003	.002 - .006	.004 - .010	.006 - .015	.010 - .030	.020 - .050
	200 - 300 BHN	30 - 55	.005 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020	.020 - .040
	300 - 400 BHN	20 - 30	.0002 - .001	.001 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020
	400 - 500 BHN	10 - 20	.0002 - .001	.001 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020
	500 BHN +	-	.0002 - .001	.001 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020
<b>Cast Iron</b>	Soft (Ferritic)	50 - 100	.001 - .003	.003 - .006	.006 - .010	.010 - .015	.015 - .030	.030 - .050
	Medium (Pearlitic)	25 - 50	.0002 - .002	.001 - .004	.002 - .006	.004 - .010	.006 - .020	.010 - .040
	Hard (Martensitic or Acicular)	15 - 25	.0002 - .001	.001 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020
<b>Stainless Steel</b>	Free machining and 400 Ann	40 - 60	.0005 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020	.020 - .040
	300 Series	20 - 30	.0005 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020	.020 - .040
	PH and HT 400 Series	15 - 25	.0002 - .002	.001 - .004	.002 - .006	.004 - .010	.006 - .020	.010 - .040
<b>High-Temp Alloys</b>	Nickel-base	10 - 20	.0002 - .001	.001 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020
	Cobalt-base	10 - 15	.0002 - .001	.001 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020
<b>Titanium</b>	Pure	35 - 50	.0005 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020	.020 - .040
	Alloys	10 - 20	.0002 - .002	.001 - .004	.002 - .006	.004 - .010	.006 - .020	.010 - .040

## Reamer Speeds and Feeds in Non-Ferrous Materials

### Non-Ferrous Materials

### FEED (IPR) for MILL DIAMETER

Material		Speed (SFM)	≤ 1/16	> 1/16 - 1/8	> 1/8 - 1/4	> 1/4 - 1/2	> 1/2 - 1	> 1
<b>Aluminum</b>		150 - 300	.0005 - .003	.002 - .006	.004 - .010	.006 - .015	.010 - .030	.020 - .050
<b>Brass and Bronze</b>	Free Machining Tough	125 - 200	.0005 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020	.020 - .040
		75 - 125	.0005 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020	.020 - .040
<b>Copper and Hard Bronze</b>		50 - 75	.0002 - .001	.001 - .002	.002 - .004	.004 - .006	.006 - .010	.010 - .020
<b>Magnesium</b>		200 - 400	.0005 - .003	.002 - .006	.004 - .010	.006 - .015	.010 - .030	.020 - .050