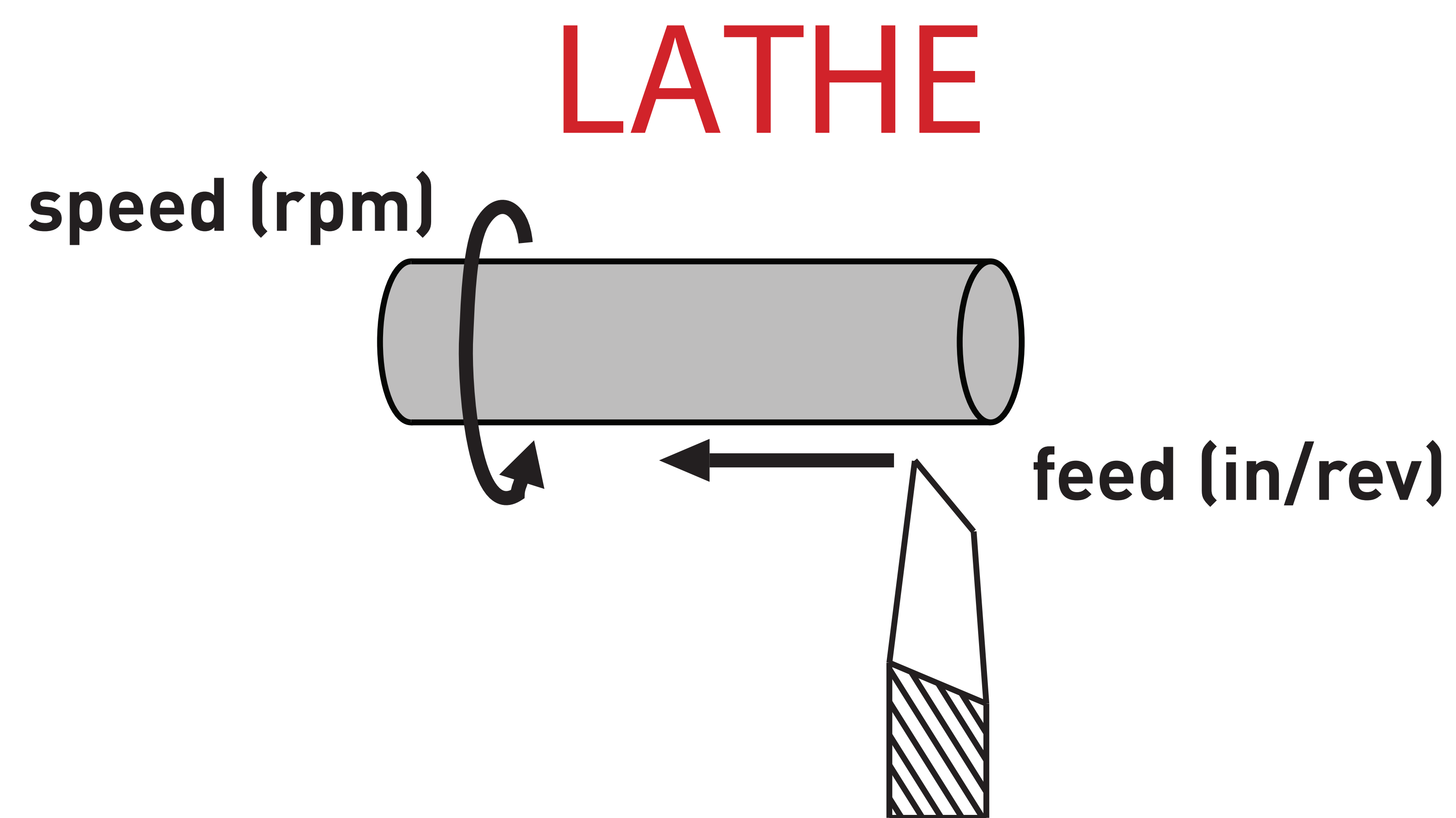
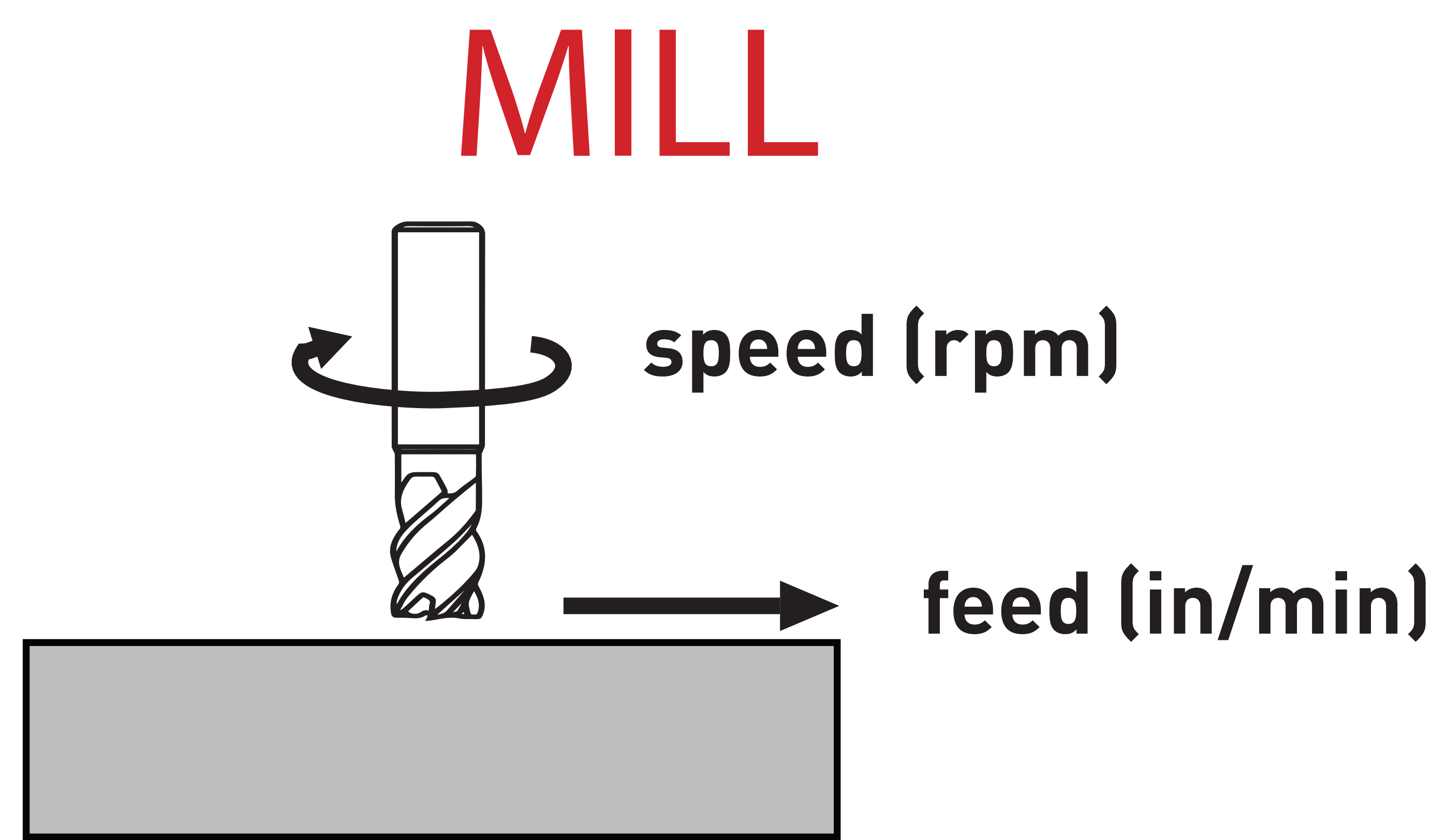


CALCULATING

SPEEDS AND FEEDS

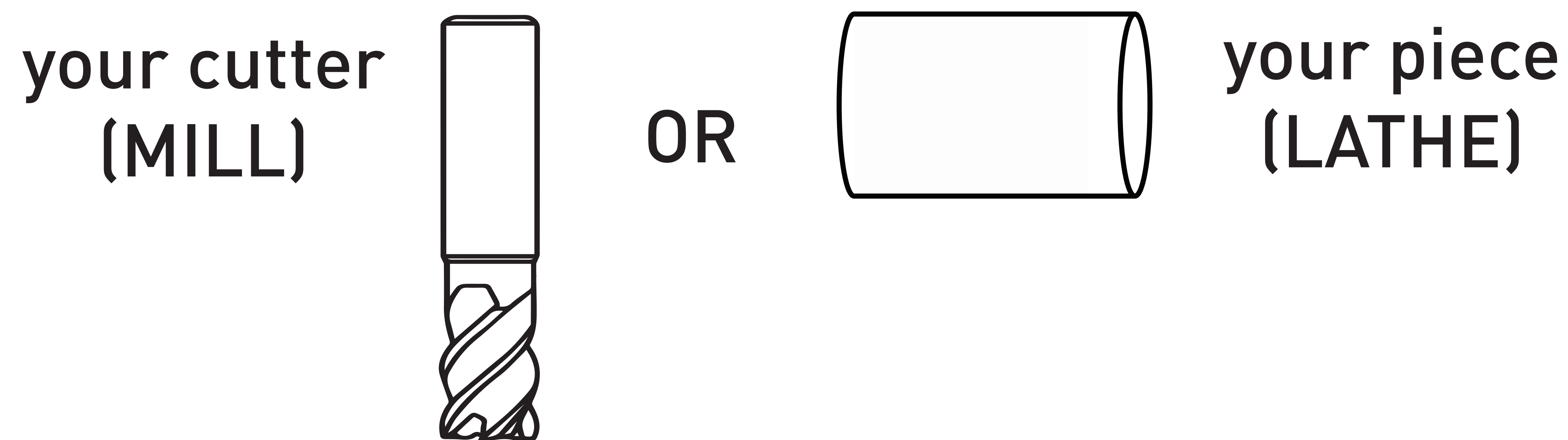
If you can't find what you need on the the commons poster, follow the steps below!



SPEED (RPM)

Step 1: Find the right speed factor, **V**, for your material.
V is in surface feet per minute.

Step 2: Determine the diameter (D) [in] of either



Step 3: Equation

$$\text{SPEED} = \frac{\text{surface ft/min} \times 12 \text{ in/ft}}{\text{inches/revolution}} = \frac{V \times 12 \text{ in}}{\pi \times D} \left[\frac{\text{rev}}{\text{min}} \right] \approx \frac{V \times 4}{D} [\text{rpm}]$$

Stock Material	Cutter Material	V ft/min
Aluminum	Carbide	500
	H.S.S	350
Steel	Carbide	175
	H.S.S	125
Stainless Steel	Carbide	140
	H.S.S	50
Brass and Bronze	Carbide	400
	H.S.S	200

MILL max speed = 2500 rpm

LATHE max speed = 1120 rpm

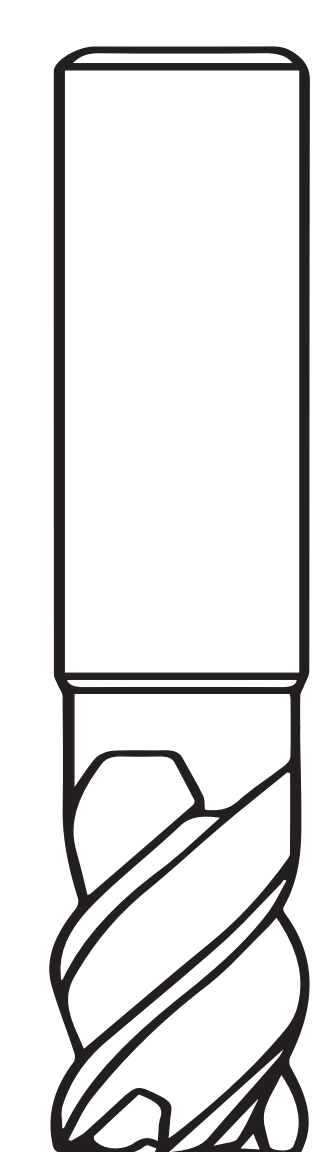
FEED (IN/MIN)

MILL

Step 1: Find the right chip thickness for your material

Step 2: Determine the number of cutting edges (N)

N = # of flutes



Step 3: Equation

$$\text{FEED} = N \times \text{Speed} \times f_t [\text{in/min}]$$

LATHE

Step 2:

On the lathe, find the feed setting that corresponds to your chip thickness

Stock Material	Cutter Material	Chip Thickness f_t
Aluminum	Carbide	0.0025
	H.S.S	0.0020
Steel	Carbide	0.0010
	H.S.S	0.0008
Stainless Steel	Carbide	0.0010
	H.S.S	0.0009
Brass and Bronze	Carbide	0.0025
	H.S.S	0.0020