

TECHNICAL INFORMATION

SETTING THE SPINDLE SPEED

To calculate the correct speed the following formula can be used.

$$\text{RPM} = \frac{1000 \times \text{Surface speed in Metres per Minute (M/min)}}{3.14 \times \text{Work Piece Diameter (mm)}}$$

Example 1.

20mm Mild Steel bar to be parted off.

$$\text{RPM} = \frac{1000 \times 80}{3.14 \times 20\text{mm}} = \frac{80000}{62.8} = 1273\text{rpm}$$

Example 2.

20mm Aluminium bar to be parted off.

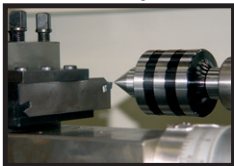
$$\text{RPM} = \frac{1000 \times 100}{3.14 \times 20\text{mm}} = \frac{100000}{62.8} = 1592\text{rpm}$$

- Set the spindle speed to the closest RPM speed calculated
- If in doubt then set a speed slower than the calculated speed

SETTING THE TOOL ON CENTRE

For the tool to cut correctly it needs to be set on centre. This can be best achieved by placing a centre in the tailstock and adjusting the tool height to line up with centre point.

Correct Centre Height



Approximate surface speeds for carbide tools

Material	Parting Off
Mild Steel	80 M/min
Cast Iron	70 M/min
Aluminium	100 M/min
Stainless Steel	60 M/min