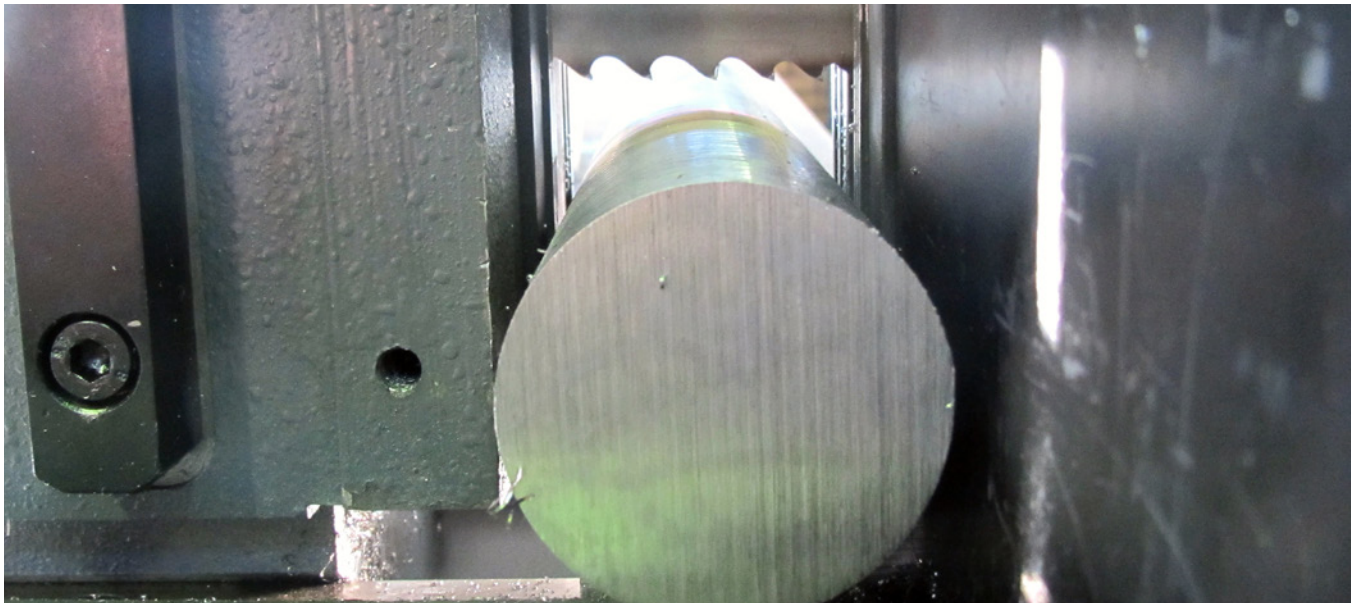
HARDOX®
WEAR PLATE

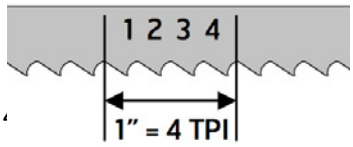
Hardox® 400 Round Bars – Band Sawing Recommendations



Typical Properties

Hardness in Brinell (HBW)	Hardness in Rockwell (HRC)	Tensile Strength, Rm (N/mm²)
~ 400	~ 40	~ 1250

For more specific information see data sheet for Hardox 400 Round Bar.



General information

Teeth per inch (TPI) shows gullet size and may vary between less than 1 and 2

Large solid workpieces requires a band saw blade with fewer teeth per inch.

The fewer teeth that are involved in the work, the larger capacity.

Cutting capacity per tooth is greater if the supply pressure is distributed on a few number of teeth.

- It is important that each tooth of the saw blade cut with the correct cutting depth. Start by selecting a band saw blades with the correct pitch for the workpiece. (Contact the saw blade supplier.)
- Then select the correct band speed from the recommendations in the data sheet. Then you can put the correct feed by studying the chips which the band saw produces during sawing.

Thin or powdered chips.
Increase feed

Slightly curled chips.
Optimum feed

Thick, rough or burned chips.
Reduce feed/ speed

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	Bandspeed (m/min)					
Material	**Bi-metal**			**Carbide Tipped Blade**		
Diameter >>	< 100 mm	100–400 mm	> 400 mm	< 100 mm	100–400 mm	> 400 mm
	30–35 m/min	20–25 m/min	15-20 m/min	50–60 m/min	40–50 m/min	30-40 m/min

Blade break-in

A new band saw band has very sharp tooth Tips. In order to withstand the cutting pressures used in band sawing, tooth tips should be honed to form a micro-fine radius.

How to break in a blade?

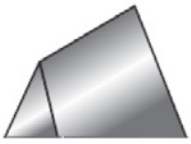
Select the proper band speed, see table above. Reduce the feed force to achieve a feed rate 30% to 50% of normal feed rate during those first 10 minutes. During the next 10 minutes the feed rate. Increases slowly to normal feed rate.

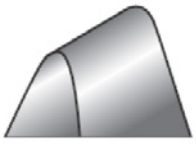
Coolant

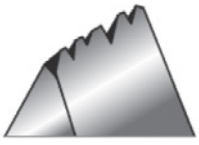
Concentrate of coolant oil. 8 – 10 % mixture.

Basic Maintenance

Band Wheels	Remove any chips. Make sure they turn freely.
Blade Tension	Use a tension meter to ensure accuracy.
Blade Tracking	Make sure the blade tracks true and rides correctly in the guides.
Chip Bruch	Engage properly to keep chips from re-entering the cut.
Guides	Make sure guides are not chipped or cracked. Guides must hold the blade with the right pressure and be positioned as close as possible to the workpiece.
Guide Arm	For maximum support, move as close as possible to the workpiece.
Workpiece	Check that the workpiece is firmly clamped so it does not vibrate loose during sawing.
Rubber cover	Keep the rubber cover on the blade until it is installed in the machine to avoid damage to the tooth tips.


A new saw band


With break-in


Without break-in

Links to suppliers of band saw blades
Bahco • Eberle • Lenox • Wikus

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