Band Saw Blades

Band Saw Blade Break-In Procedures

All band saw blades, regardless of the manufacturer, need to be "broken in". When new, the teeth are just too sharp. Cutting at full rate will cause fracturing of the feather edges, which will lead to premature blade failure. Breaking in a band saw blade wears off this ultra sharp edge and allows the blade to retain its cutting ability longer. Each manufacturer has their own preferred method for blade break-in. However, they all share the same principles:

1. **Maintain recommended band speed**
2. **Reduce feed pressure to 1/2 normal rate**
3. **Run at these settings for the first 50 square inches of material cut (150 square inches on mild and low carbon steel)**

Note: If you are unsure what the normal feed pressure is, start light. Increase feed pressure until good curly chips start to form. After cutting the recommended area, slowly increase the feed pressure until you reach your desired cutting rate. Special consideration must be given while breaking in a saw blade on nickel-based alloys (stainless steel, inconel, hastelloy, D2 tool steel, etc.). These alloys tend to harden very quickly; therefore, sufficient feed pressure must be applied during the break-in period to remove some material. As a general rule, alloys sawed at lower speeds need more pressure during break-in.

Band Saw Blade Troubleshooting

Refer to this checklist if you have any problems with your band saw blade's operation.

Problem	Cause and/or Solution
Stripping Teeth	• Too many teeth or too few teeth in the cut • Parts are not held securely • Feed rate too high or speed too slow • Chip brush not working, causing chips to overload gullets • Check coolant concentration
Band Breakage	• Worn guides • Guide arms set too far apart • Diameter of wheels too small, use thinner bands • Band tension too high • Poor butt weld
Crooked Cut	• Dull blade • Improper blade break in • Guide arms too far apart or out of alignment • Damaged roller or carbide guides • Feed rate too heavy or blade speed to slow • Vise clamp out of square
Premature Dulling of Teeth	• Improper blade break in • Check coolant concentration and flow • Check chip brush • Check feed rates and blade speed • Improper tooth pitch
Rough Cut	• Band speed too slow and feed rate too high • Improper blade break in • Dull or damaged teeth • Check chip brush • Poor butt weld

Band Saw Blade Minimum Radius Curves

Refer to the chart below to determine the minimum curve radius attainable for your band saw blade thickness.

		Blade Width		Minimum Radius
If your blade width	=	**1/8" (3.2mm)**	your minimum radius is	**1/4" (6.4mm)**
If your blade width	=	**1/4" (6.4mm)**	your minimum radius is	**3/4" (19.1mm)**
If your blade width	=	**3/8" (9.5mm)**	your minimum radius is	**1" (25.4mm)**
If your blade width	=	**1/2" (12.7mm)**	your minimum radius is	**2-1/2" (57.2mm)**