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carter products

Blade Selection Guidelines

Select the blade based on type of cut needed. These are general guidelines to use, and there may be exceptions based on material or type of cut desired.

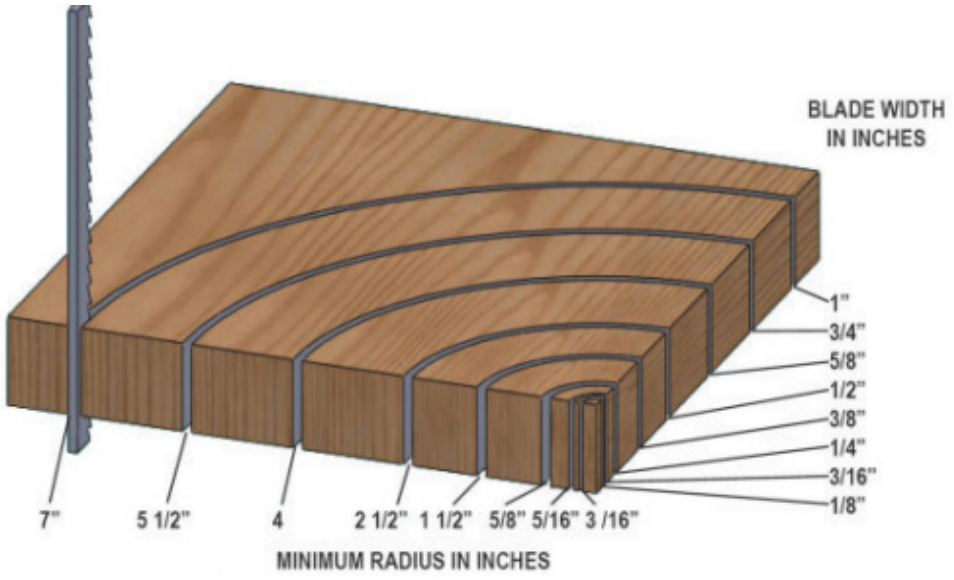
1. **Thickness of material dictates TPI (Tooth Per Inch) requirements**.
When selecting TPI remember: More TPI give a smoother but slower cut. Fewer TPI allows a faster cut but results in a rougher finish. The general rule of thumb is to use a blade with enough TPI to have at least 3 teeth in the material when cutting, but no more then 12. EX: 1" thick stock should use a 6 or 10 TPI. 3 TPI and less would give too rough a cut and could cause chipping in some woods. 14 TPI and higher would not remove sawdust adequately and thus would burn as it cuts, increasing the heat in the blade and reducing its useful life. Use the following as a guide:

3TPI and less for Resaw and Ripping
4TPI Ripping stock 1 ½" to 3" thick
6TPI General ripping and cutting curves in stock 1" or thicker
10TPI Cutting curves in stock ¾" to 1"
14TPI Cutting curves in stock ½" to ¾"

2. **Type of Cut determines blade width;** i.e. the tighter the radius to the curve the smaller the blade needs to be. The exception to the below chart would be when using the Carter Stabilizer® with ¼" and smaller blades as the Stabilizer allows much tighter radius turn than can be performed with standard guides. w

For standard guides, use the following guidelines:
1/8" and below Best for tight radius scroll type work (excellent choice for thin material when used with the Stabilizer)
3/16" to 3/8" Cutting curves and light resaw with smaller saws (12') 3/16" to ¼" excellent with Stabilizer. ½" to 1" Resaw and large contours (most 14" saws will only be able to tension a ½" with just the stock spring so a Cobra Coil™ is recommended to anyone with a 14" saw ordering ½" or larger blades (92'- 93.5" standard or 105" with riser block kit.)

For re-saw and straight cuts, the blade should be as wide as the machine will allow. The wider the band is, the more beam strength the blade will have, and if the guides are set correctly, the straighter the cut will be. Faster feeding can be achieved.
For cutting curves and radius, the blade should be as wide as the machine allows, but still narrow enough so that it can cut the desired radius or shape required, Minimum dimensions for different cutting radius are shown in the following chart.



3. **Type of material dictates blade choice.**
Wetter, softer and higher pitch woods and green woods (freshly cut) require fewer teeth so more material can be cleared from the stock. Drier, harder and lower pitch woods require more teeth as sawdust will be finer and flow easier. Most wood is kiln dried so use the TPI section above for proper blade selection.

INSTRUCTIONS