

TechTips



How do I know which teeth per inch (TPI) I need?

Match the Correct Tooth Size to the Work

As with all other toothed linear edge cutting tools, it is very important to match the correct tooth size with the material being cut in order to get the maximum blade life and efficiency from your reciprocating saw blades.

The rule of thumb is that at least three teeth should be engaged in the work at all times. Six to twelve teeth engaged in the work is optimum.

If the tooth being used is too large, for instance cutting thin walled electrical conduit with a 10 tooth per inch blade, the teeth tend to straddle the thin section and it is relatively easy to strip teeth.

If the teeth are too small for the work, there is not enough room in the tooth gullets to pull out the chips. This can cause premature dulling and tooth stripping.

Standard Teeth		Variable Pitch	
TPI	Dimension Range	TPI	Dimension Range
10	1/2" & Thicker	10/14	1/4" & Thicker
14	1/4" – 1/2"		
18	1/8" – 1/4"	14/18	1/8" – 1/4"
24	1/8" & Thinner	20/24	1/8" & Thinner

- For very hard materials, more teeth per inch may improve performance.
- Use more teeth per inch for a smoother finish.
- For faster cutting, use fewer teeth per inch but maintain a minimum of 3 teeth in contact with the work at all times.