Anatomy of a Saw Blade

Although it looks like a flat piece of metal with teeth, a quality industrial band saw blade is actually a sophisticated cutting tool. Its ability to efficiently cut through tough metals, composite materials, plastics, and woods depends on a variety of interrelated factors such as the design, spacing and set of the teeth; the design and capacity of the gullets to make sure chips are efficiently removed; the composition of the backer strip; and the gage of the metal. These considerations must be taken into account when selecting the right blade for your application. The following Technical Pages will help you arrive at the perfect Morse solution to your particular cutting problem.

1. **Blade Back**.................The body of the blade not including tooth portion
2. **Gage**..........................The thickness of the blade
3. **Width**.........................The tip of tooth to back of blade
4. **Set**..............................The bending of teeth right or left
5. **Tooth**.........................The cutting portion of the saw blade
6. **Tooth Pitch**..............The distance from one tooth tip to the next
7. **T.P.I.**.........................The number of teeth per inch measured gullet to gullet
8. **Gullet**.......................The curved area between the tooth points
9. **Gullet Depth**............The distance from the tooth tip to the bottom of the gullet
10. **Tooth Face**...............The surface of the tooth on which the chip is formed
11. **Tooth Flank**.............The angled back surface of the tooth opposite the tooth face
12. **Tooth Rake Angle**....The angle of the tooth face measured with respect to a line perpendicular to the cutting direction of the saw
13. **Tooth Tip**.................The cutting edge of the saw tooth