

Circular Saw Blade Terminology

Vermont American is the world's largest manufacturer of circular saw blades. Our product selection is the widest range of high-quality circular saw blades available for use in portable, cordless and stationary saws. Saw blades are available in configurations for most applications, from general purpose blades to highly specialized designs. Everything depends on how much blade you want, and that's often a question of construction material and amount of use.

Below is a list of terms and illustrations to assist you in selecting the right blade for the right job:

Anti-kick: A shoulder design that is engineered to improve the ease of cut and reduce the effect of the saw blade kicking back due to overfeeding.

Arbor: The saw motor shaft that rotates the saw blade. Often referred to as the mandrel.

Bore: The arbor by which the saw blade is mounted on the saw. Available in various sizes.

Bevel: Angles on a carbide tooth blade. Teeth can have a single bevel, double bevel or no bevel at all. Types of bevels can alternate from tooth to tooth on a given blade. The bevel is what gives the blade its specific cutting pattern.

Chipper: A cutting tool that is placed between the outside blades of a dado set to adjust the width of the cut.

Chipping: A condition caused when the saw blade lifts and tears the wood fibers as it exits the material. This causes the edges to be ragged.

Coating: Specially formulated coatings that stays slick. Coating a blade reduces heat in two ways: It minimizes friction and binding and resists pitch and gum buildup.

Combination saw blade: A blade used for both ripping (cutting with the grain of the wood) and crosscutting (cutting across the grain).

Crosscut: To cut or saw against of the grain of the wood.

Cutter: Outside blades used in dadoes.

Dado: A flat-bottomed recessed cut made across the grain of a board. Also, a set of blades used to produce precision grooves.

Dyanite Carbide®: A Vermont American proprietary carbide formulation that adds fracture toughness and allows up to 5 times edge retention compared to conventional carbide.

Expansion slots: The spaces that allow a blade to expand as it heats up during cutting. It eliminates warpage by cooling the blade.

Ferrous: Of or containing iron.

Finishing saw blade: A saw blade with a higher tooth count to provide smoother cuts. Typically refers to 7-1/4" blades with more than 40 teeth and 10" blades with more than 60 teeth.

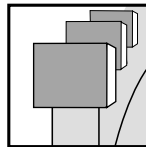
Framing saw blade: A carbide tipped blade used to make fast cuts in all types of wood. (The fastest cutting is achieved with lower tooth count saw blades.)

Kerf: This is the width of a cut, including the steel plate thickness plus any overhang on a carbide blade.

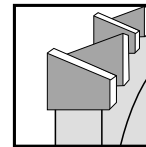
General purpose saw blade: A saw blade with a lower tooth count. Used primarily for fast crosscutting and ripping.

Gullet: The space between teeth that clears the workpiece of chips after the cut.

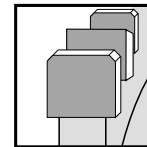
Grind: There are many types of tooth grinds, a few of the basic ones are:



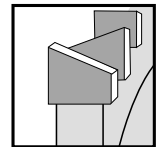
Flat Top Grind (FTG)—best for ripping



Alternate Top Bevel (ATB)—for crosscutting, cutoff and trimming



Triple Chip Grind (TCG)—perfect for hard, abrasive materials like non-ferrous metals, hard woods and plastics



Tri-Grind (TRI)—combination grind

Hollow ground: A concave bevel edge on a tool.

Hook angle: The “attack angle” of the teeth. Harder, more brittle materials need a shallower angle to ease pressure against the materials and reduce chip out. Softer materials require a sharper angle to reduce chip out.

Miter: The process of cutting material for an equal angle joint.

Nonferrous: Materials and metals not of or containing iron, such as aluminum, copper, brass and lead.

Plate: The steel body of a carbide blade on which the teeth are welded.

Plane: In woodworking, to make a surface smooth or even.

Rabbet: An open-ended cut made along the edge of a workpiece that receives or interlocks with another piece to form a joint.

Ripping: The process of sawing a board in the direction of the grain of the board.

Runout: The amount of left-to-right movement a saw blade makes during operation. Often referred to as wobble or warp.

Stiffening collar: A flat collar that mounts on a saw's arbor directly next to the blade. It is used to make more accurate cuts and dampen the sound the saw generates.

Shim: A thin, often tapered piece of material such as metal or wood used to fill in space between things. In dado operations, a round disk used to make a wider cut.

Tear-out: A condition in which the saw blade tears out the grain of a workpiece.

Tempered: To bring the steel plate of a saw blade to a desired hardness by reheating and cooling.

Thin kerf saw blade: A saw blade with a reduced kerf, or cut width.