

## Tip #40 Glossary of Terms

**Abrasives**—Any substance such as aluminum oxide, silicon carbide, garnet, emery, flint or similar materials that is used to abrade or sand wood, steel or other materials. Substances such as India, Arkansas, cry-stolon, silicon carbide and waterstones used to sharpen steel edged tools are included.

**Alternating Grain Direction**—The process of gluing-up or laminating wood for project components with alternating pieces having the grain running perpendicular to one another (as opposed to parallel). Usually, this practice is enlisted to provide superior strength in a project that is expected to be under stress. It is also used occasionally for decorative purposes.

**Bevel**—An angular edge on a piece of stock, usually running from the top or face surface to the adjacent edge or the opposing (bottom) surface. In most cases, bevels are formed for joinery, but are also occasionally used for decorative purposes.

**Chamfer**—A slight angular edge that is formed on a piece of stock for decorative purposes or to eliminate sharp corners. Chamfers are similar to bevels but are less pronounced and do not go all the way from one surface to another.

**Compound Cutting**—The act of cutting out a project or project component (usually with a bandsaw) to create a three-dimensional or "sculpted" shape. This is accomplished by cutting one profile, taping scraps back in place, and rotating the workpiece to cut a second profile, usually 90° to the first.

**Compound Miter**—A combination miter and bevel cut. Generally a compound miter is used in building shadow box picture frames and similar projects where angled or "deep set" project sides are desired.

**Compound Rip Cut**—An operation that is performed by tilting the work table to the desired angle and guiding the workpiece through the cut with the aid of a taper jig. Typical uses for this cut would include the construction of pyramid-shaped projects; hollow, tapered posts or cylinders; or concrete forms for deck mountings, etc.

**Concave**—Generally a reduced surface relative to the surrounding surfaces. In lathe turning, a concave cut is called a cove.

**Convex**—Generally a raised surface relative to the surrounding surfaces. In lathe turning, a convex cut is called a bead.

**Counterbore**—The act of making one end of a drilled hole larger than the other to permit the head of a bolt or screw to drop below the surface of the workpiece. Counterbores, unlike countersinks, have straight sides (not angled). In woodworking, counterbored holes are often filled with wood plugs or screw but-tons to create the illusion of dowel joinery.

**Countersink**—A shallow angled or beveled hole that is formed to allow the head of a flathead screw or bolt to be recessed and tightened flush with the surface of the workpiece. The tool designed to produce this special hole is called a countersink.

**Coving**—The creation of a concave cut or "groove" in the edge or surface of a workpiece. A cove can be produced with a router bit or by passing the workpiece across the top of a rotating table saw blade at an angle with the aid of a special coving fixture.

**Cross Bevel**—A bevel formed on the end of a workpiece by cutting perpendicular to the grain of the stock. Cross bevels are used most often in creating "invisible" joints where the sides of square, octagonal or other shaped boxes and similar projects meet.

**Crosscut**—A cut made across (or perpendicular to) the grain of the wood.

**Dado**—A U-shaped, square-cornered cut in the surface of a board that is made across the grain (not with it). This cut is easily made with a special adjustable dado accessory or by making repeat passes with a saw blade to create cuts of different widths. Dados are most frequently used for shelf support in cabinets and bookshelves, but are also used in the formation of many other types of joints.

**Depth-Of-Cut**—A universal term used to describe how deep a tool will be set to cut into the surface or edge of a workpiece. This term can be applied to any cutting tool such as saw blades, drill bits, router bits, shaper cutters, molding knives, etc.

**Direction Of Rotation**—The direction in which a blade, cutter, or disc turns during operation. In most cases, power tools rotate in a counter-clockwise direction when looking head-on at the shaft or arbor of the tool. With very few exceptions, when moving a workpiece into a cutter, blade or disc, it is best to move against the rotation of the cutter or blade for safety and best results.

**Dovetail**—A very strong joint in which a tapered, fan-shaped "pin" on one part of a project slips into a matching recess on the mating part. Dovetail joints are usually formed with a special router bit, and most frequently used in drawer and cabinet construction.

**Dwell**—The act of pausing during the process of making a cut with a power tool. Depending upon the tool, dwells can cause unsightly workpiece burning and should therefore be avoided, if possible.

**Faceplate Turning**—The process of turning a project on a lathe such as a bowl, cup, vase or other piece with a hollowed-out center. Faceplate turning enables this hollowing because unlike spindle turning, the workpiece is usually only supported on one end during operations.

**Feather Board**—A special safety device with many slender, springy "fingers" that press against a workpiece during operations to maintain the stock's position in relation to the blade or cutter and helping to keep hands out of the danger zone.

**Fence Straddler**—A unique, adjustable safety device that has been designed to straddle the rip fence on a table saw and serve as a pushing device during rip cuts. The fence straddler is especially useful when cutting strips that are too narrow to permit the use of a push stick or push block.

**Fence Extension**—A special, shop-made extension that is attached to the fence of a table saw, jointer or other piece of machinery and used to extend its length or height for specialized operations or to provide additional workpiece support. The use of such an extension often improves the accuracy of the cut as well as the safety of certain operations.

**Finger Lap Joint**—A very strong corner joint in which a series of square or rectangular "pegs" are formed on one workpiece to mate with interlocking, matching recesses on the adjoining piece. Finger joints are most often used in drawer and box construction, and are sometimes called a "box joint".

**Fixture**—A special aid or device that is used to guide a workpiece through a cut or help position stock accurately for a specific operation. Fixtures are most frequently used for repetitive operations or in production situations where precision is critical, often providing the added benefit of improved operator safety.

**Grinding**—In woodworking, the process of shaping metal with a motor driven abrasive wheel or grinding disc, usually in preparation for honing.

**Grit**—A term most commonly used to describe the fineness or coarseness of "sandpaper" and other abrasive materials. This degree of coarseness is expressed by a grit number.

**Groove**—A U-shaped, square-cornered cut in the surface of a board that is cut with the grain of the wood (not across it). Used in joinery as well as for decorative purposes.

**Guide Pin**—In overarm or pin routing, the center pin that protrudes up from the surface of the machine table and is used to guide a duplicating fixture through its cuts.

**Honing**—The final step in the process of sharpening an edged tool, after the blade or edge has been ground to the proper size and correctly shaped for its intended use. Honing which is done by hand removes the fine "wire edge" or burr that is formed during filing, grinding or shaping of the cutting edge on a coarse stone.

**Indexing**—In woodworking, the rotation of a round or cylindrical object a specified number of degrees for the purpose of performing a given operation. This process is most frequently used when drilling holes around the circumference of a circular object in the drill press mode, but can also be applied to reeding or fluting operations on the lathe or routing system.

**Kert**—The slot that is created when a saw blade passes through a piece of stock.

**Key**—A small piece of wood that is used to strengthen or accent the corner joints of mitered projects. With keyed joints, the project is usually assembled and glued together first. Then, after the glue has dried, the keyways are cut and the keys are glued into position. Keys can be virtually any shape (square, dovetail, "butterfly", etc.) and are, in most cases, visible after assembly.

**Kickback**—A dangerous situation whereby a rotating blade, cutter or disc "grabs" a workpiece and throws it backwards in the direction of rotation. Kickback is best prevented by using accurate alignment and the appropriate safety devices such as the upper saw guard and feather boards, and by feeding your work-piece into the cutter slowly without forcing and supporting the workpiece properly.

**Laminate**—The bonding together of two or more pieces of material for decorative or strengthening purposes. An example of decorative lamination is a countertop made of plastic material glued to the surface of particleboard or flakeboard. An excellent example of lamination for strength is provided by

ordinary plywood. Lamination can also be used for gluing up bent wood projects without the use of steam, chemicals or water.

**Lap Joint**—A common term that can be applied to several different types of joints in which one piece of wood overlaps and fits onto or into another. As a rule, the surfaces of lap joints are usually flush when assembled.

**Loading Up**—A term most commonly used to indicate that abrasive materials such as sandpaper, grinding wheels and sharpening stones are becoming clogged-up with wood or metal particles. Can also be applied to the loading of the twist grooves in drill bits. "Loaded" abrasives or other tools should be cleaned or replaced to restore their cutting efficiency.

**Mill Marks**—Small parallel ripples or ridges produced on the surfaces or edges of wood by planer knives, joiner knives or saw blades. In the case of planer or joiner knives, these imperfections can be caused by nicks in the blades, improper knife settings, feeding the stock too rapidly or taking too deep of a cut in a single pass. In the case of saw blades, virtually all blades (with the possible exception of certain hollow-ground blades) produce mill marks.

**Miter**—A joint where the meeting angle of two pieces of stock is divided. For example, the 90° corner of a picture frame is usually created by cutting two mating 45° miters. This same 90° corner angle could also be divided and produced with a 60° cut and a 30° cut.

**Molding**—The process of creating decorative surfaces on workpieces using a molder accessory. **Mortise**—A hollowed-out hole or recess that is usually rectangular in shape and formed to accept a matching tenon for joinery purposes. Mortises can be created with a mortising bit and chisel, a router bit, a series of overlapping drilled holes or an ordinary hand chisel. Mortising is the process of cutting such a hole or recess.

**Pad Sanding**—The process of stacking a number of identical workpieces and sanding the entire stack at one time with the disc sander, belt sander, drum sander or strip sander, or by hand. When performing this operation, all workpieces must be held firmly together with clamps, nails, screws or double-stick tape to ensure the accuracy of the operation.

**Pad Sawing**—The process of stacking a number of identical workpieces and sawing the entire stack at one time with a scroll saw, bandsaw, or jigsaw. When performing this operation, all workpieces must be held firmly together with clamps, nails, screws or double-stick tape to ensure the accuracy of the cuts.

**Particleboard**—An inexpensive, strong composite material formed by gluing wood chips and sawdust together under high pressure. Usually produced with non-waterproof glues and therefore easily damaged by dampness or direct contact with water. Readily available in thicknesses and sizes comparable to plywood.

**Parting**—A term used in lathe turning to signify the act of separating or cutting-away a completed workpiece from its adjoining scrap once the turning process is completed. Parting is usually performed with a parting tool.

**Pattern**—An established shape or design used as a model. When duplicating with the routing system, the pattern is the paper design used in laying-out the plywood or masonite template that guides your fixture blank during the fixture-making process.

**Push Block**—A flat, rubber-bottomed "paddle" with a handle on top that is used as a safety device when guiding a flat piece of stock through an operation on a power tool. Generally used when the wide surface of the workpiece rests flat on the table surface during operations. Can be used in combination with a push stick or feather board.

**Push Stick**—A 10" to 12" long, narrow stick with a notched end that is used as a safety device when guiding a piece of stock through an operation on a power tool. Can be used in combination with a push block or feather board.

**Rabbet**—An L-shaped cutout formed in the edge or end of a piece of stock, usually for joinery purposes. One common example of rabbets is the recessed cuts in the backs of picture frames. Although rabbets generally have 90° corners, angled rabbets are also used occasionally.

**Resawing**—The process of slicing a thick piece of stock into several thinner pieces. Although this operation is usually performed on a bandsaw, depending upon the thickness of the stock being cut, it can also be done on a table saw or scroll saw.

**Rip Bevel**—A bevel cut on the edge of a piece of stock that runs with the grain of the wood. Rip bevels are used most often for decorative purposes or for creating "invisible" joints where the sides of square, octagonal or other shaped posts, boxes or similar projects meet.

**Rip Cut**—A cut made along (or with) the direction of the grain of the wood.

**Rounding**—The first step in the turning process after a workpiece is mounted in the lathe. Rounding is performed at low speeds to eliminate sharp corners in preparation for the initial shaping operations.

**Scraping**—The easiest and safest of all lathe turning cuts in which the chisel is usually held perpendicular to the workpiece and fed slowly into the rotating stock. Although the gradual easing of the chisel into the stock during scraping produces the least gouges and errors, a finished turning that has been scraped will require more sanding than one that has been sheared.

**Shaping**—The process of creating a decorative edge on a workpiece. The term shaping can be applied to operations performed on a shaper, molder, lathe, router or virtually any tool used to create such an edge or surface.

**Sharpening**—The process of restoring a keen edge to cutting tools of any type. Sharpening is one of the most important skills for any woodworker to master, since sharp tools are more accurate and safer to use.

**Shearing**—In lathe turning, shearing is accomplished by holding the chisel at an angle and moving it parallel to the work to slice away a layer of wood from the surface of the stock. Shearing is the fastest cutting and most difficult of all lathe operations to master. If performed properly, shearing will produce super-clean cuts that seldom require sanding.

**Sizing**—In lathe turning, the process of making a series of initial cuts (usually with a parting tool) to the approximate final depth along the length of your turning. These sizing cuts are usually made for each bead or cove and serve as a "benchmark" or guideline to follow as you proceed with your shaping cuts.

**Snipe**—When planing or jointing stock, a snipe will occur if you allow the workpiece to "droop" because of improper setup when it is fed into or out of the planer or jointer. Snipes usually appear at the ends of the stock and can be prevented by keeping the workpiece parallel and flat on the table surface at all times. Properly adjusted roller stands at the infeed and outfeed sides of machines can also help to support the stock and prevent snipes.

**Spacer**—A block clamped or otherwise attached to the table saw rip fence to enable the safe crosscutting of several pieces of stock to an identical length. The use of such a block is necessary to keep the workpiece from being thrown by becoming wedged between the fence and blade.

**Spindle Turning**—The process of turning a project that is supported on both ends between centers on a lathe.

**Spline**—A thin wood strip that is set into mating grooves in two joined pieces of stock. The grain direction of the spline is perpendicular to the joint to strengthen the joint. Splines are most commonly used in mitered corners of picture frames and for joining stock together edge-to-edge for tabletops and similar projects.

**Starter Pin**—A small diameter pin that is inserted so it protrudes up from the shaper or router arm table surface and is used to rest the workpiece against when easing it into the rotating cutter. A starter pin is sometimes referred to as a "fulcrum" pin.

**Stop Block**—A block of wood attached to a fence, miter gauge, machine table or workpiece with the intended purpose of limiting the depth or length-of-cut during operations. Also used frequently in mass production situations to position workpieces for drilling or other operations with high level of repeatability.

**Template**—When performing duplication with the routing system, the plywood or masonite pattern that is attached to the bottom of the fixture blank and used to guide the cutting of the actual fixture.

**Tenon**—A protruding rectangular, square or round "tongue" on the end of one piece of stock that is cut to fit snugly into a mortise on a mating piece of stock.

**Tongue And Groove**—An extremely strong wood working joint that is formed by a tongue on the edge of one board that fits into a mating groove on another board. This method is often used when joining stock together for tabletops or other large project components and for tongue-and-groove paneling.

**Under-Table**—Routing operations performed with the router mounted in an inverted position under the table of the routing system.

**V-Block**—A shop-made, V-shaped woodworking aid that is most commonly used to support dowel rods, pipe, tubing or other cylindrical-shaped objects during drilling on the drill press.

