

boring into end grain; for drilling through knots, birdseyes and other unusual grain patterns without “wandering” off-center and for drilling large diameter holes in thin veneers and similar materials without splitting.

Forstner Bit sizes typically range from 3/8” through 1-1/2” or so. When using them, it’s best to run them at slow speeds and withdraw them from the hole frequently to clear the chips and prevent burning.



Forstner Bits

Special Purpose Drill Bits

In addition to the most common types of bits listed above, there is also a large variety of unique bits that make easy work of certain specialized operations. While most of these are readily available at your local home center or hardware store, others are a bit more difficult to find.

- **Long Bits** can be a real “life-saver” when you need to drill deep holes or holes through extremely thick pieces of stock. 12” long twist-style bits are easy to find...but long brad points are another story. Although the latter are available in lengths of 10”, 12” and even 18”, you’ll have to do some searching to find a source.



Long Bits



- **Screw Drills** are unique, “triple-function” bits that drill a tapered pilot hole for the screw threads, a countersink for the screw head and (if you prefer) a counterbore to accept a wooden plug that’s glued into place to hide the screw in certain types of projects. They’re available individually for screw sizes from #5 through #12...or in complete sets and most are fully adjustable for screw length as well as countersink and counterbore depth. They’re real time-savers and are well worth the investment if you use a lot of screws to hold your projects together. They work equally well in a drill press or portable electric drill.



Screw Drills

If you’re not using Screw Drills to bore pilot holes, counterbores and countersinks, it’s important that you know what size of hole to drill for which sized screw. Here’s a handy table that provides that valuable information.

- **Vix Bits** are the best choice for ensuring that your hardware mounting screw holes match-up exactly on-center with the holes in the hardware. Just hold your hardware in position on the workpiece and use your portable electric drill to bore the mounting holes. Each bit features a spring-loaded plunger with a tapered end that matches the countersink in your hinge or other piece of hardware. As you push your bit into the workpiece, the plunger end keeps your hole perfectly on-center. Pretty nifty !



Vix Bits

- **Hole Saws** are the best choice for cutting large diameter holes. They're readily available at most home centers and hardware stores in sizes up to about 3". They feature a center pilot drill to help you locate the center of your hole and keep it on-target throughout the boring process. As a result, they can be used in a drill press or in a portable electric drill. They're also available in standard (shallow) or deep boring models that will go through 2" or thicker lumber in a single pass – and with regular steel sawing teeth or with carbide teeth for boring through tough woods and non-ferrous metals.



Hole Saws

- **Plastic Bits** resemble standard twist-style bits...except they have a steeper, 60-degree point that provides a larger cutting lip for more surface area and improved performance when cutting through all types of plastics. This steeper point minimizes the chances of grabbing and chipping during the drilling process.



Plastic Bits

- **Glass Bits** are made of solid carbide and feature a spear-point shaped tip that will bore a super smooth hole through all types of glass. They should be used exclusively in a drill press at slow speeds. For best results, build a small, circular “dam” around the hole location with plumber’s putty (stainless putty). Pour in a small amount of turpentine and start drilling. Feed the bit very slowly into the hole. Take your time and don’t rush the process.



Glass Bits

Drilling Accessories

In addition to bits, you’ll find a host of other accessories available to speed-up your jobs and improve your results. Here are just a few of those.

Countersinks are cutters with a tapered tip that matches the bottom angle of a flathead wood screw. Just chuck it into your drill press or portable electric drill and cut a shallow beveled hole to a depth that will allow your screw’s head to rest flush with the top surface of your workpiece once it’s driven into position.



Countersinks

- **Drill Stops** are small steel rings that slip over your bits and lock into position with an Allen setscrew to limit your hole depths when boring with a portable electric drill. They're an inexpensive accessory that is usually available in sets containing various sizes. Since your drill press has a depth-stop setting, they are of little use with stationary drill press operations.



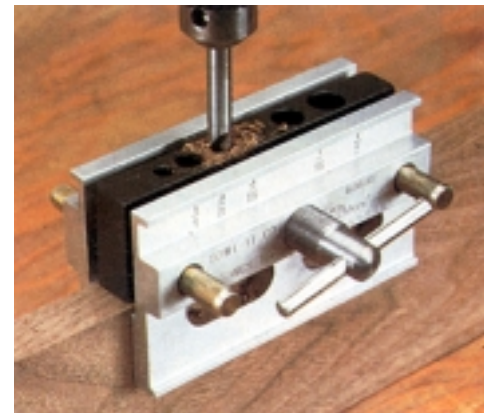
Drill Stops

Plug Cutters are used in a drill press (exclusively) to cut the small wooden plugs you use to hide the heads of screws that are recessed into counterbores on mating project components. Although you can usually purchase screw hole plugs or buttons, they are most commonly only available in birch. Occasionally, you can find cherry, oak, walnut and maple plugs. However, if your project is constructed of an exotic wood or one that's highly figured, matching plugs are impossible to find. That's when you need the ability to make your own plugs – from the same wood you're using. Plug cutters give you that ability.



Plug Cutters

- **Doweling Jigs** are special clamp-like devices that you tighten over the edges of boards you want to join together with dowels. They feature built-in bushings and/or guides (usually common 1/4", 5/16", 3/8", 7/16" and 1/2" dowel diameters) that are automatically centered over the board's width when the jig is tightened into position. These bushings/guides hold your drill bit perfectly perpendicular to the board's edge while you use your portable electric drill to bore the holes. Doweling Jigs are used exclusively with portable electric drills.



Doweling Jigs

- **Dowel Centers** often provide the best way to align the dowel holes in mating boards. First, drill the appropriate sized dowel holes in one of your mating workpieces. Drop the appropriate sized Centers into the holes. Align the two mating pieces and tap the board containing the centers lightly with a mallet. Doing so will cause the protruding points of the Centers to transfer their center locations precisely to the mating board. An inexpensive item for which there really is no alternative in certain situations. Usually available in sets containing two each, 1/4", 5/16", 3/8" and 1/2" sizes.



Doweling Centers

- **Combination Bench & Drill Press Vise.** Often, you need to hold objects on your Drill Press table while you bore holes in them. In these cases, a Drill Press Vise is your best choice. Look for small, lightweight models with quick-release tightening handles so you can insert and remove your project components quickly. They can be an invaluable aid for certain operations.



Combination Vise