The Ten Most Common Router Bits

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A router is most probably the best versatile portable power tool you can buy. There are hundreds of different sizes and styles of router bits available to help you. But the vast number of choices can make it difficult to know which router bits you need, especially if you're new to routing. Here is a list of 10 carbide-tipped router bits, once your woodworking skills and confidence grow, you can look for more bits.

1 Straight-Cutting Bit

As its name implies, this bit cuts straight, square-bottomed grooves. It's available in various diameters. Use this bit to cut rabbets, dadoes, and grooves for plywood cabinet backs and drawer bottoms. Many router bits have a ball bearing pilot which guides the bit and keeps it in place. But this is a nonpiloted bit, so be sure to use a fence to guide the router along a straight edge and ensure straight, accurate cuts.





2 Rounding-Over Bit

Use this edge-shaping bit on the edges of shelves, tabletops, chair arms, and other places where you'd like to round over a sharp edge. The bit is fitted with a ball-bearing pilot that controls the width of the cut. Adjust the router base to control the cutting depth. Rounding-over bits come in a wide range of sizes, designated by the radius of the cut.

3 Roman Ogee Bit

Perhaps the most popular of all edge-shaping bits, Roman ogee router bits have a distinctive profile for cutting classical decorative detailing into the edges of tabletops, picture frames, vertical stiles, and horizontal rails. A ball-bearing pilot attached to the end of the bit controls the width of the cut..





4 Cove Bit

A cove bit is essentially the opposite of a rounding-over bit. Instead of simply rounding the edge, it cuts a concave radius out of the edge. The result is a simple, decorative edge that enhances furniture legs, cabinet doors, and bookshelves. They are designated by the sizes of the radiuses they cut,

5 Rabbeting Bit

A rabbet is simply an L-shaped notch cut along the edge of a board or panel, which can then accept another board or panel at a right angle, forming a rabbet joint. One of the easiest ways to cut rabbets is with a rabbeting router bit equipped with a ball-bearing pilot. Rabbeting bits are identified by the width and depth of cut they produce. Rabbet joints are most often used in cabinetmaking to build drawers, to join cabinet sides to cabinet tops, and to install cabinet backs.





6 Flush-Trim Bit

If you work with plastic laminate or wood veneer you need to use a flush trim router bit. This straight-cutting bit (see 1. Above) has a ball-bearing pilot that permits you to trim overhanging surfaces perfectly flush with the substrate. Use this bit when building plastic-laminate counters, tabletops, cabinets, and cabinet doors and drawer faces. It's also useful for flush-trimming wood veneer. There are many sizes available.

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7 Chamfer Bit

This edge-shaping router bit cuts an angle, called a chamfer, into the edge of a board or panel. It's commonly used to remove square, sharp corners from shelves, picture frames, countertops, and vertical posts. A chamfer bit is also used to create V-shaped grooves between boards (when two chamfers meet edge to edge they form a V-groove). Chamfer bits come in various sizes and a few different angles.



8 Core Box Bit (left)



This is a nonpiloted router bit that cuts round-bottomed grooves. It's most often used to rout flutes in columns and vertical stiles, but is also useful for routing decorative grooves in door panels and for carving wooden plates and platters. The bit is available in cutting various diameters.

9 V-Groove Bit (right)



The aptly named bit cuts decorative V-shaped grooves in cabinet doors, drawer faces, table legs, and wall panelling. This nonpiloted bit comes in a wide variety of diameters and V-groove angles.

10 Slot-Cutting Bit



This specialty bit provides a quick, accurate way to cut narrow slots or grooves into the edges of cabinet door frames, floorboards, picture frames, drawer parts and to instal tops and bottoms to boxes. It's ideal for cutting spline grooves for spline joints. The bit has two "wings," each equipped with a sharp tungsten-carbide tooth. The width of the slot is determined by the thickness of the cutting teeth. The slot depth depends on the distance from the ball-bearing pilot to the cutting teeth.

A common question asked is "Can I use a router bit in a drill?"

Drills lack the power and speed for effective and safe routing. ... A drill bores holes and is designed for downward pressure, while a router shapes edges and cuts grooves and is able to handle significant sideways pressure. This mechanical difference, among others, makes a drill unsuitable for use with a router bit.

