

AMERICAN
WOODWORKER™

1997 Tool Buyer's Guide

*The ULTIMATE
Sourcebook
for Woodworkers*



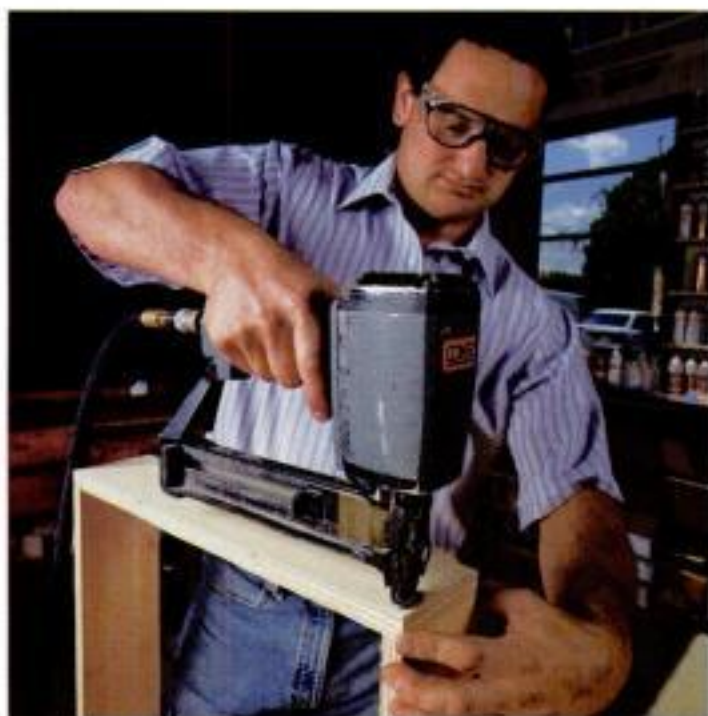
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1997 TOOL BUYER'S GUIDE



Page 102 Pneumatic nailers



Page 124 Dust collectors

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CONTENTS

[How to Use the Guide](#) 2

[Sources](#) 136

FEATURES

Mail-Order Workbenches By Joe Wajszczuk

[How to buy one that works for you](#) 8

[Bench add-ons](#) 12

Editors' Favorite Shop Accessories

[Gadgets and gizmos that make woodworking easier](#) 18

THE TOOLS

[Routers](#) 28

[Jigsaws](#) 34

[Tablesaws](#) 40

[Cordless Drills](#) 50

[Bandsaws](#) 58

[Biscuit Joiners](#) 64

[Power Miter Saws](#) 68

[Jointers](#) 74

[Drill Presses](#) 80

[6"x48" Belt-Disc Sanders](#) 86

[Lathes](#) 90

[Random-Orbit Sanders](#) 96

[Pneumatic Nailers](#) 102

[Radial-Arm Saws](#) 110

[Thickness Planers](#) 114

[Scrollsaws](#) 120

[Dust Collectors](#) 124

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AMERICAN WOODWORKER ▲ 1997 BUYER'S GUIDE 1

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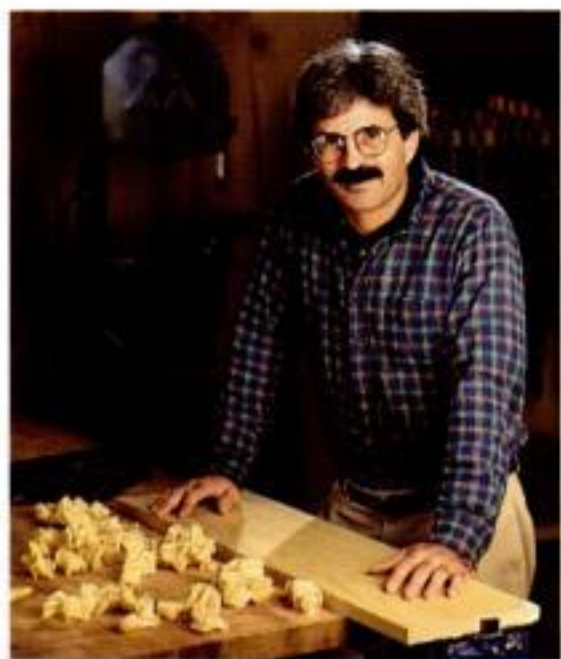
to AMERICAN WOODWORKER's 1997 Tool Buyer's Guide!

Each year at this time, AMERICAN WOODWORKER is pleased to bring you this giant, special issue devoted entirely to woodworking machinery, tools and equipment. To help you make your best selection from the dizzying array of power tools on the market, our third annual edition has been completely revised, with important buying information and up-to-the-minute product listings for 17 popular tool categories. And, for your convenience, we've included a complete list of sources for more information. (See page 136.)

Along with this bonanza of tool-buying advice, you'll find two eye-opening feature articles. In "Mail-Order Workbenches" (see page 8), we explore the world of store-bought workbenches—38 in all—and tell you how to pick the right one. In "Editors' Favorite Shop Accessories" (see page 18), we go behind the scenes for a look at the woodworking gadgets and time-saving devices that AW staffers personally recommend.

We've spared no effort to bring you the most comprehensive tool-buying guide possible. We hope you'll reach for it again and again in the coming year.

Ellis Valentine
Executive editor



How to Use the Guide

The tool articles are designed to deliver concise, meaningful information that helps you purchase wisely. Here are some tips for navigating through them.

- **Read the introduction.** To help you decide if the tool has a place in your shop, each article begins with an overview of the tool's basic workings, its major uses and its benefits.
- **Check out the types.** To give you a clearer idea of the range of tools in a category, we've included photos and descriptions of the major types.
- **Consider the features.** In our experience, these are the factors that make the greatest difference in the value, performance and satisfaction a tool delivers.
- **Explore your options.** These accessories will enhance the abilities of your new tool or machine.
- **For more information...** Consult a previous AW "shop test" (where applicable) for in-depth comparisons of selected models, along with our picks for Editors' Choice and Best Buy.

Chart Your Course

Once you've read the background information, turn to the chart to find models that best suit your needs and budget. You'll find list prices and important specifications for virtually every model on the market. Models introduced within the last year are listed in red. Here's how to get the most from the charts:

- **Put function first.** Price isn't everything. Choose tools that meet your minimum requirements. Larger, heavier-duty tools can often handle small jobs, but the reverse isn't always true.
- **Compare prices.** The list prices shown are useful for comparison purposes, but selling prices vary—they're generally lower. Check mail-order catalogs and local retailers for the best prices.
- **Budget wisely.** Don't buy more tool than you need. If you won't be using the tool very often, a less expensive model might do.
- **Reputation counts.** Tools are long-term investments. Consider the manufacturer's reputation for quality, parts availability and service.
- **Go to the source.** Call the manufacturers ([see Sources, page 136](#)) for more information and the names of local dealers.
- **Word of mouth.** Local woodworking friends or guild members can help you decide. If you have access to the America Online computer service, check out the AMERICAN WOODWORKER Online "message boards" to get the scoop from people who own the tools.
- **Try it out.** A hands-on trial run at a local tool dealer, hardware store or home center is worth the trip.
- **Buy by mail.** Don't overlook mail-order suppliers. Most ship promptly, and in some states you can avoid sales tax and shipping charges.
- **Drop a hint.** Put a Post-It® note alongside each of your choices, leave the magazine in a prominent place, and count the days until Christmas. *Good luck!*



Shop companion. A good workbench provides the flat, stable work surface and stock-holding capabilities that are essential for woodworking with hand or power tools.

Mail-Order Workbenches

There are dozens of factory-made models available; we'll help you select the one that's right for your shop

by Joe Wajszczuk

Most woodworkers would agree that the most important tool in any workshop doesn't require electricity or sharpening. The workbench doesn't make noise or draw attention to itself like a router or tablesaw does. But without a good bench, even the simplest operations become difficult or impossible. The workbench provides the flat, stable work surface that's critical for most layout and joinery work. It also offers clamping and hold-down capability for workpieces of all sizes, for practically all woodworking operations.

While it's traditional for woodworkers to build their own workbenches, building one requires a sizable investment in material, machinery and time. If you consider your efforts better spent using a bench than building one, read on. The chart

on page 10 lists specifications for 38 commercially available benches, ranging in price from \$180 to almost \$2,000. Find out which bench best meets your workshop needs.

Benchmarks

There's really no such thing as an "ultimate" workbench. A bench that works great in one shop won't necessarily be ideal in another. To find the right bench for your shop, you'll need to consider seven important factors:

The right size. Bench size is based on the length and width of the top. (See chart.) Bigger isn't always better when you're buying a bench. For example, if you're making small toys or doing delicate inlay work, you don't need a massive work-



Space savers. Small benches, such as the Sjöbergs Compact Joiner's, are a good choice where space is limited.



Room for four. The Diefenbach Team bench is best suited to schools and larger shops.

bench. And even if you plan to work on larger projects, not every shop can house an 8-ft.-long bench. (See photos, above.) There should be standing room on at least two sides of your bench; clearance on four sides is best. To select a bench size that's right for you, check your shop measurements against the top dimensions provided in the chart.

Comfortable working height. For hand-tool work, the benchtop should be about level with your wrist when your arm is at your side. This bench height is ideal for sawing, planing and other handwork because it enables you to exert good downward pressure on the work. If you work predominantly with power tools, consider a slightly higher bench for better visibility and control.

Most mail-order benches are between 33 in. and 35½ in. high. While they can usually be altered to add or subtract a few inches of height, only one bench lets you adjust the working height quickly and easily: the Sjöbergs adjustable-height. It has a unique pneumatic leg mechanism that can position the benchtop anywhere from 28 to 36 in. high. (See photo, below left.)

A thick top. You can expect to pay more for a thicker top, but the extra expense is usually worth it. Consider the abuse a top has to take—years of chopping, pounding and clamping pressure. And, since at some point your top is likely to need resurfacing, it's good to have a thicker slab to start with. Benchtop thicknesses vary from as little as 1 in. to as much as

4 in. Most benches are made of 1½-in.- to 2½-in.-thick wood, with a thicker edge banding (3 to 5 in.) for bench dogs, hold-downs, and extra rigidity. (See photo, below right.)

Most of the benches listed in the chart have tool troughs incorporated into the top. Troughs are handy for keeping your most frequently used tools within easy reach; the downside is that this depression takes up some of your working surface area.

The heavier, the better. For general woodworking, buy the heaviest bench you can afford. A heavyweight bench can withstand all sorts of work—planing, chiseling, and sawing—without a shudder. Some of the larger models weigh in at 200 lbs. or more. Not surprisingly, these benches also tend to have thicker tops and, consequently, they're more expensive. Benches that weigh in at 90 lbs. or less are generally too light for serious handwork, unless they're bolted to the floor or weighed down with tools.

A good vise or two. Vises are what really transform a heavy-duty table into a valuable woodworking tool. On manufactured benches, you'll generally find two of the three different [types of vises: face vise, tail vise and shoulder vise.](#) (See [bottom photos, page 12.](#))

Face vises generally have wooden jaws with metal screws and guide rails. When mounted on the end of the bench, a face vise is referred to as an "end vise." One drawback to this type of vise is that the guide rails keep you from clamping stock



Great legs. Sjöbergs' adjustable-height workbench has a unique pneumatic leg mechanism for quick and easy height adjustment.



Thick on top. A thick top and an even thicker edge, as on this Ulmia Professional, are indications of a high-quality bench.

WORKBENCHES

SOURCE Models	Price	Dimensions W x L x H (in.)	Top Material	Weight (lbs.)	Top Thickness at Edge - Center	Vises*	Features
ALASKA WOOD INDUSTRIES (613) 257-3597 <i>Circle #601</i>							
Lifetime Cabinetmaker's	\$910	36 x 80 x 34	Maple	225	4 1/2 - 2 3/4	Shoulder, tail	Tool trough
DIEFENBACH BENCHES (800) 322-3624 <i>Circle #602</i>							
Hobbyist	350	28 1/4 x 47 1/4 x 33 1/2	Beech	102	3 3/8 - 1 3/8	Face, end	Drawer, shelf
Student	459	21 1/4 x 47 1/4 x 26 3/8	Beech	104	3 3/8 - 1 3/8	Face, end	Tool trough, shelf
European	855	24 1/2 x 78 3/4 x 33 1/2	Beech	183	4 5/8 - 2	Face, tail	Tool trough, drawer
Traditional German	987	24 1/2 x 78 3/4 x 33 1/2	Beech	220	5 1/4 - 2	Face, tail	Tool trough, drawer
Ultimate American	1,083	24 1/2 x 90 1/2 x 33 1/2	Beech	231	5 1/2 - 2	Face, tail	Tool trough, drawer
Twin	1,253	35 3/8 x 61 3/4 x 33 1/2	Beech	278	4 5/8 - 2	2 face, 2 tail	Tool trough, drawer
Team	1,460	51 1/8 x 51 1/8 x 33 1/2	Beech	222	3 7/8 - 1 1/8	4 face	Center tool trough
FARRIS MACHINERY (800) 872-5489 <i>Circle #603</i>							
Sjöbergs 1310	289	21 x 52 x 34	Nordic birch	70	3 - 1	Face, end	Tool trough, drawer
Sjöbergs 1550	329	21 x 61 x 34	Nordic birch	77	3 - 1	Face, end	Tool trough, drawer
Sjöbergs 1810	399	21 x 72 x 34	Nordic birch	90	3 - 1	Face, end	Tool trough, drawer
Sjöbergs Classic SJ1522	529	17 1/4 x 60 x 34	Beech	115	3 - 1 1/2	Shoulder, tail	Tool trough, drawers
Sjöbergs Pro SJ220	1,095	22 1/2 x 85 x 34	Beech	181	4 1/4 - 3 1/4	Face, tail	Tool trough
GARRETT WADE (800) 221-2942 <i>Circle #604</i>							
Small Shop	229	16 x 50 x 34 1/2	Rhodesian teak	90	3 1/2 - 1 1/2	End	
Large Cabinet	525	20 1/2 x 60 x 34 3/4	Rhodesian teak	180	3 3/4 - 1 3/4	Face, end	Tool trough, drawers, cab.
African Versatile	775	23 1/4 x 78 3/4 x 34 1/2	Rhodesian teak	270	3 1/2 - 1 3/4	Face, end	
Ulmia Professional	1,395	24 x 78 3/4 x 35 1/2	Red beech	300	4 - 2 3/4	Face, tail	Tool tray
HARTVILLE TOOLS (800) 345-2396 <i>Circle #605</i>							
Hoffman & Hammer Masters	795	21 1/2 x 71 x 33 1/2	Beech	145	4 - 2	Face, end	Drawer
Hoffman & Hammer Ultimate	995	23 1/2 x 74 3/4 x 33 1/2	Beech	200	4 - 2	Face, tail	Tool trough, drawer
HIGHLAND HARDWARE (800) 241-6748 <i>Circle #606</i>							
Sjöbergs 2000	500	21 x 79 3/4 x 34	Nordic birch	112	3 - 3	Face, end	Tool tray
LAGUNA TOOLS (800) 234-1976 <i>Circle #607</i>							
Hoffman & Hammer	799	24 x 60 x 33	Red beech	150	4 - 2	Face, tail	Tool trough
Hoffman & Hammer	999	24 x 84 x 33	Red beech	200	4 - 2	Face, tail	Tool trough
LEE VALLEY TOOLS (800) 871-8158 <i>Circle #608</i>							
Veritas	895	26 x 76 x 35	Maple	190	2 - 2	Face, twin-screw end	Center tool trough
Sjöbergs Adjustable-Height	1,075	17 1/4 x 48 x 28 to 36	Nordic birch	95	3 - 1 1/2	End	Pneumatic height adj.
SEARS (800) 377-7414 <i>Circle #609</i>							
Craftsman	399	25 x 60 1/4 x 33 1/4	Havea	98	2 1/2 - 1	Face, end	Tool trough, shelf, drawer, cabinets
TOOL CRIB (800) 358-3096 <i>Circle #610</i>							
Sjöbergs Compact Joiner's	290	26 x 52 x 34	Nordic birch	70	1 1/16 - 1 1/16	Face, end	Drawer
Sjöbergs Joiner's	400	26 x 72 x 34	Nordic birch	89	1 1/16 - 1 1/16	Face, end	Drawer
TREND-LINES (800) 767-9999 <i>Circle #611</i>							
Sjöbergs Deluxe SJ40	180	20 x 43 x 34	Birch	50	3 1/16 - 1 1/16	Face, end	Shelf
Sjöbergs Pro SJ68	400	26 x 70 x 34	Birch	125	3 1/16 - 1 1/16	Face, end	5 drawers, cabinet
DAVID WARREN DIRECT (312) 718-0991 <i>Circle #612</i>							
E.C. Emmerich Cabinetmaker's	1,230	25 1/2 x 78 3/4 x 34 1/4	Beech	230	4 - 4	Face, tail	Tool trough
WOODCRAFT SUPPLY (800) 225-1153 <i>Circle #613</i>							
Sjöbergs Compact	180	13 3/4 x 36 1/2 x 34 1/4	Nordic birch	49	3 1/8 - 1 1/8	Face, end	Tool trough
Sjöbergs Scandinavian Cabinetmaker's	479	13 3/8 x 51 3/4 x 33 1/2	Beech	93	2 7/8 - 1 1/2	Shoulder, tail	Tool trough, 5 drawers, cabinet
Ulmia Cabinetmaker's	1,095	22 x 63 x 34 1/2	Red beech	170	3 - 1 1/2	Face, tail	Tool trough, drawer
Ulmia Master Carver's	1,450	23 1/2 x 72 1/2 x 34 1/2	Red beech	215	3 - 1 1/2	Face, end	Tool trough, drawer
Ulmia Master Cabinetmaker's	1,495	24 1/4 x 84 1/4 x 35 1/2	Red beech	310	4 - 2 1/2	Face, tail	Tool trough, drawer
Ulmia Ultimate	1,995	24 1/4 x 90 1/8 x 35 1/2	Red beech	352	4 - 2 1/2	Face, tail	Tool trough, tilting drawer
WOODMARK (800) 845-4400 <i>Circle #614</i>							
Dust Eliminator Deluxe	1,395	30 x 69 x 34 1/2	Maple	300	2 1/4 - 2 1/4	Twin-screw end	Built-in air filtration
Dust Eliminator Ultra	1,695	33 x 84 x 34 3/4	Maple	375	4 - 2 1/4	Twin-screw end	Built-in air filtration

KEY: *All vises have wooden jaws and metal screws.



A good vise. This Veritas bench has a twin-screw end vise that lets you clamp wide workpieces without racking.

vertically behind the screw. The Veritas and WoodMark benches each come equipped with a twin-screw end vise. (See photo, above.) This full-width end vise relies on two screws connected by a chain drive to open and close without racking, and it allows you to use two rows of bench dogs to hold large panels securely.

Some woodworkers prefer a *tail vise* over an end vise. Though it's expensive, the tail vise offers a couple of important benefits you won't get with an end vise. It is less prone to racking than an end vise, and the open-jaw design allows you to clamp pieces vertically without interference from guide rails. It also has holes for bench dogs, so you can hold boards flat for planing.

Only two benches—the Lifetime Cabinetmaker's and the Sjöberg Deluxe Joiner's—come with *shoulder vises*. This type of vise takes the place of a face vise, and offers the same open-jaw benefits of a tail vise. A shoulder vise can't exert as much clamping pressure as a tail vise or face vise, but its pivoting jaw makes it easy to clamp tapered and odd-shaped objects.

The right base. The base of your bench should provide a solid, stable stance for the benchtop. Although bases on manufactured workbenches are designed to come apart for shipping, they need to remain rigid and rack-resistant when assembled.

Consider a base that includes shelves, drawers, or cabinets. A base with built-in storage keeps everything close at hand, plus it gives your bench more weight—and often better racking resistance—which improves stability. Look for closed cabinets and drawers as opposed to open shelves. Doors and drawers help to keep sawdust and chips off your tools. (See photos, right.)

Price. A bench can be a sizable investment. But, if you paid yourself a fair wage, it could cost you even more to make your own. And remember that workbenches rarely wear out—there's no reason why you shouldn't plan on handing down your bench to the next generation or two of woodworkers. ▲



JOE WAJSZCZUK
is an assistant editor of *AW*.

STORAGE SOLUTIONS



Tilting drawers. The single, large drawer on the Ulmia Ultimate offers enough storage for a shop's-worth of hand tools.



Sliding shelves. Diefenbach's single drawer allows access from the end—a handy feature when work is clamped along the front of the bench.



Tool cabinets. Many benches, such as Diefenbach's Ultimate American, offer optional cabinets designed to fit into the base.

BENCH ADD-ONS

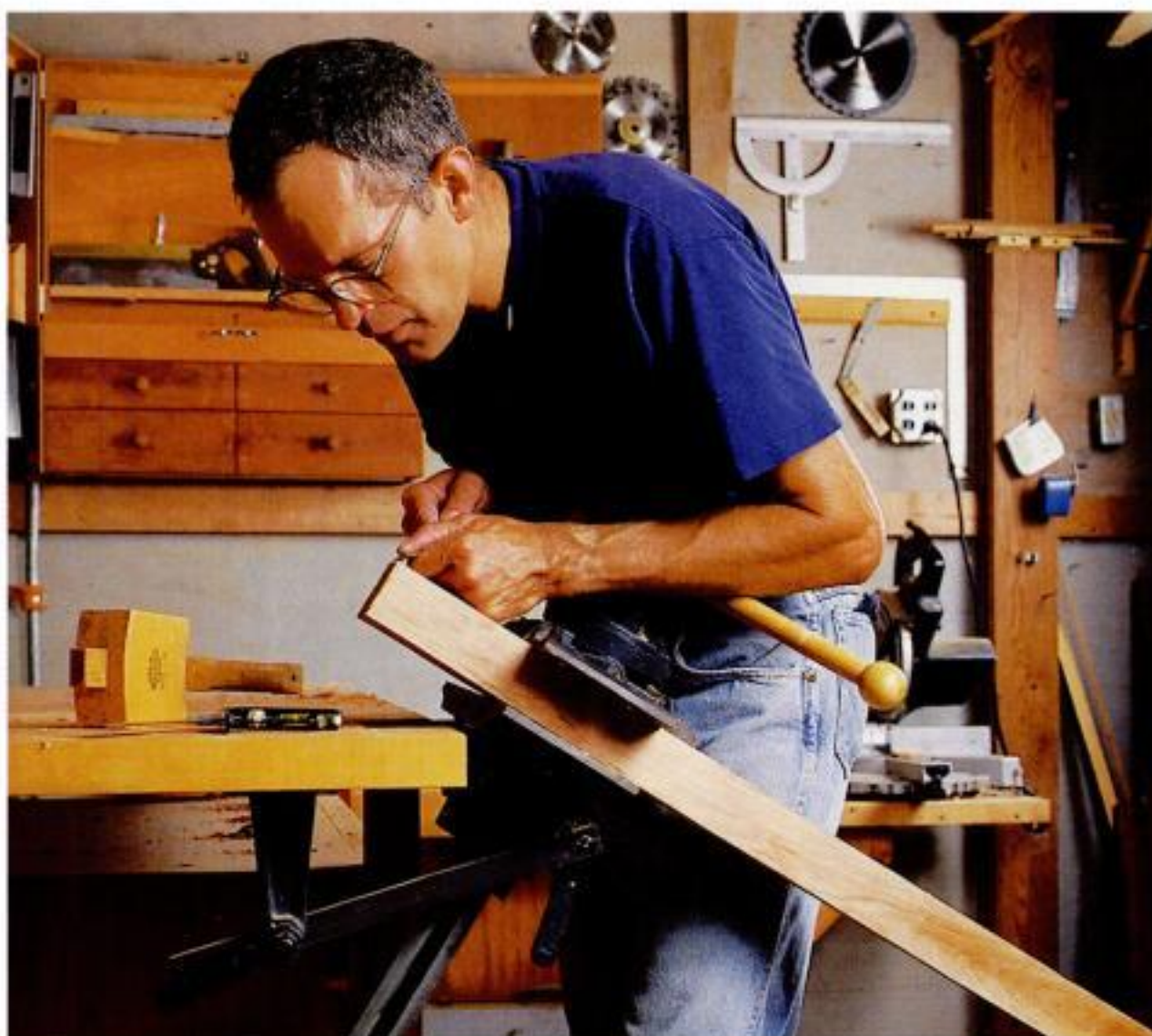
Add versatility to your bench with vises, hold-downs and bench dogs

Whether you've just bought a new workbench or made one from scratch, adding a few accessories can greatly enhance your time at the bench. Visers, hold-downs and bench dogs can all work together to provide that crucial "third hand" just when you need the extra help. The right accessories are what transform a simple wooden slab into a practical workbench. Have a look at the accessories described here, and see how you can make a good bench even better. Suppliers are listed on page 136.

Vises

A vise has one purpose: to hold stock while you work on it. Bench vises used to be made entirely of wood, right down to the oversized threaded hardwood screw that pulled the jaws together and apart. Today, there are dozens of ready-made vises to choose from; most can be installed on any workbench. Alternatively, you can buy manufactured threads and guides and build your own vise. Vise hardware is considerably less expensive than a complete vise.

The most common add-on vise is a metal bench vise, such as those made by Record. (See photo, below left.) It is strong, easy to operate, and fairly inexpensive. In addition, you can use it as either a face or end vise. A sliding dog in the movable jaw comes in handy for clamping work on the bench surface.



Better than a third hand. The patternmaker's vise (AMT shown here) is as useful to woodworkers today as it was a century ago. The jaw adjusts to clamp tapered work, and the vise jaws can tilt and rotate to hold work at different angles.

One vise feature you'll appreciate is a quick-action lever, which allows you to glide the front jaw to any opening size without all the tedious cranking.

A patternmaker's vise is a deluxe ver-

sion of a metal bench vise. (See photo, above.) It's designed so that the front jaw can pivot to accept tapered workpieces. The entire vise can tilt from horizontal to vertical and can rotate 360°. These vises

VICES



Face vise. The Record vise has a quick-release lever and a sliding dog (Garrett Wade).



Shoulder vise kit. Build your own open-jawed vise with this metal screw and pivoting foot (Woodcraft Supply).



Tail vise kit. A metal guide plate replaces traditional wooden guides for easier installation (Lee Valley).

BENCH DOGS



A dog's life. Bench dogs let you use your vise to hold a workpiece by the edges. **1 and 2:** bench dog and "pup"; **3 and 4:** screw-clamp dogs; **5:** plastic dog; **6:** shop-made wooden dog; **7:** metal dog; **8:** mortised bench dog. (All from Lee Valley except 5, from Sjöbergs, and 6.)

excel at holding your work as solid as a rock—even large or irregular pieces. Two patternmaker's vises still made today are available from Lee Valley (\$525) and AMT (\$249).

If economy is a major concern, consider making your own vise. By supplying your own wooden vise jaws and doing the assembly yourself, you can equip your bench with a two vises for the cost of one commercial model. Vise kits (see bottom right and center photos, opposite page) are available from many mail-order suppliers for face, shoulder, tail and end vise applications. Each kit supplies all the necessary hardware—steel threads, guide rails, connection plates, etc.—as well as instructions for assembly and installation.

Hold-Downs

Even with a couple of great vises on your workbench, you still need some means of holding stock firmly to the benchtop for various hand- or power-tool operations. That's where hold-downs come in. Hold-downs are designed to handle workpieces in a wide range of thicknesses and sizes. You can mount them in the top or the side of the bench. And, for many situations, they're quicker and easier to adjust than a clamp or bench vise. (See photos, right.)

Some hold-downs require nothing more than a hole drilled in your bench-

top. Others require support brackets or other hardware in order to work. Price, installation details and holding capacity will be the major factors in choosing the hold-down that's right for you. (See "Bench Hold-Downs," AW #38.)

Bench Dogs

Although bench dogs are made in different sizes and different materials, they all perform the same function—working opposite corresponding dogs on your bench vise for clamping stock of various sizes and shapes on the bench.

Square dogs are the traditional choice, but round dogs are just as functional. (See photo, above.) Unlike square dogs, round dogs pivot to make full contact with the workpiece—a plus when you're clamping round or contoured work. In addition, round dogs can be quickly and easily installed in a finished bench by drilling $\frac{3}{4}$ -in.-dia. holes. Toothed stops are another handy accessory on any bench. These are mortised into the top and can be adjusted with a thumbscrew to grip the work.

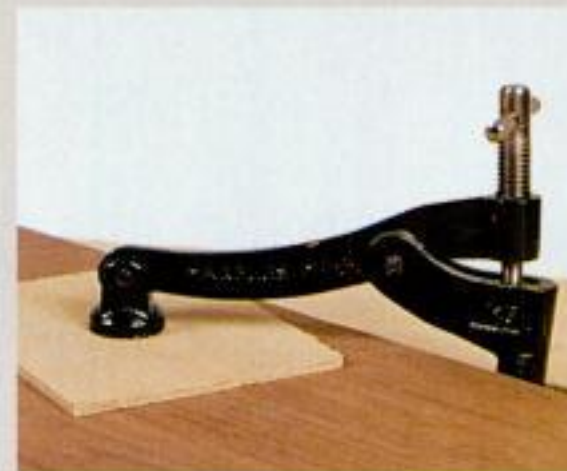
Bench dogs are available in metal or wood. Metal dogs, the kind supplied with most commercial benches, have a slight advantage in weight, strength and stiffness. Still, many woodworkers favor wooden dogs—they're much more forgiving to the stray plane blade.

—J.W.

HOLD-DOWNS



Traditional hold-down. Forged steel bar adjusts with the tap of a mallet (Garrett Wade).



Record holdfast. Traditional design plus a lever arm and pivoting jaw offers more finesse (Record Tools).



Sjöbergs swiveling hold-down. Ball-and-socket jaw swivels to grip odd-shaped work (Farris Mach.)



Quick-Grip hold-down. One-handed operation makes for quick adjustments (American Tool Co.).

EDITORS' FAVORITE SHOP ACCESSORIES

A grab bag of great gizmos, gadgets and gear

Of all the jigs and accessories that fill the mail-order catalogs, which ones do AW editors endorse with their hard-earned cash? That question seemed pretty intriguing to us, too, so we asked everyone on the editorial staff to write about their favorite shop accessories.

The result—shown on the pages ahead—is a varied collec-

tion of contraptions, gizmos and old standbys that make woodworking easier, safer, more precise and more enjoyable. Have a look at this unusual collection and decide which of them would make the biggest difference in your workshop. Except where noted, all of these accessories are available from common mail-order suppliers.



ALL-PURPOSE STOP ▶

The Multi-Stop works like a little vise with a cam-action lever that closes and opens the jaws. You clamp it to a machine fence or tabletop (up to 1 3/4 in. thick) to serve as a work stop for making multiple cuts. You can insert its stop rod in four different positions to extend its capacity. I use Multi-Stop mostly on my radial-arm saw fence and my tablesaw cutoff box for cutting multiple parts to the same length. Price: About \$30.

David Sloan

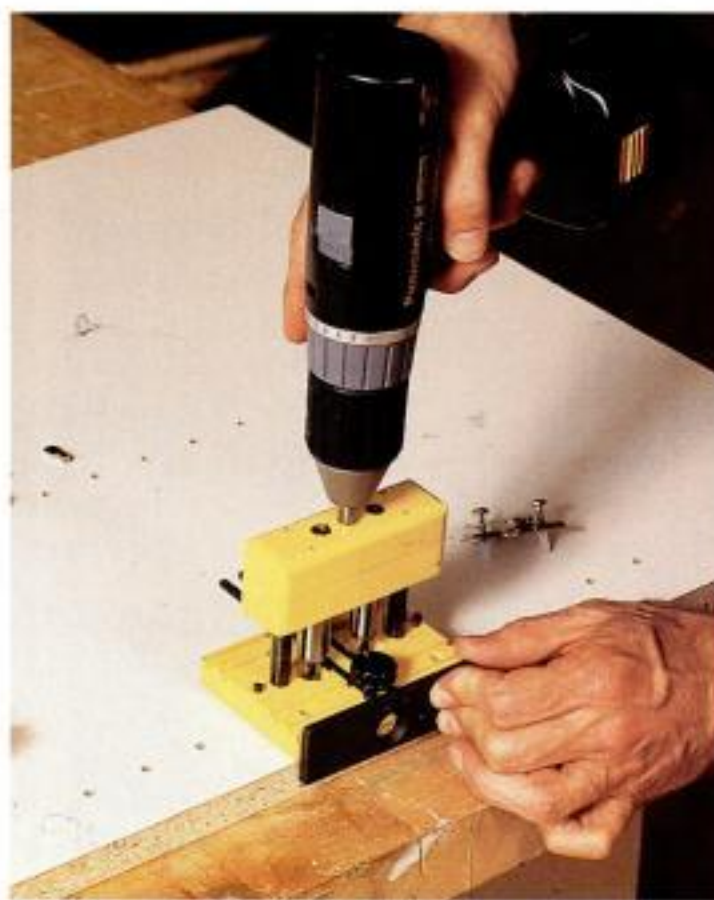
PHOTO © BILL RAKIP



SUPER-FINE STONE ▲

Ixperienced one of the biggest revelations of my woodworking career the first time I honed a chisel on a King G-1, 8,000-grit "gold stone." Never before had I been able to bring up a mirror finish on an edge tool so quickly and easily. Of all the synthetic Japanese waterstones I have tried, none has compared with the G-1 for speed. They aren't cheap, but here's one case where it pays to invest in quality. Price: About \$80.

Ellis Valentine



EASY DRILLING IN EURO-STYLE CABINETS ▼

The Gizmo is a new drilling attachment that lets me easily and accurately drill pairs of perfectly spaced holes in cabinet sides to accept shelf rests and other European 32mm system hardware. You simply chuck the Gizmo in an electric drill and machine a row of 5mm-dia., 1/2-in.-deep holes, two at a time. It automatically spaces the holes on 32mm centers for mounting drawer slides, door hinges and shelf pins. The Gizmo is perfect for drilling shelf holes after the cabinet is assembled. 1/4-in.-dia. bits are also available. Price: \$150. M&M Sales, Inc., (800) 258-4242.

Frank Klausz



MIGHTY MITER GAUGE ▼

The Accu-Miter really lives up to its name—it makes precise square and angled cuts easy with your table saw. It's particularly useful if you don't have a sliding compound-miter saw. An adjustable detent locks positively at 90°, 45°, 30°, 22.5°, and 15°. The two-part, telescoping fence comes in 36-in. or 46-in. maximum lengths. It sports flip-down stops for repeatable cuts. The bar that slides in the miter-gauge slot isn't included; you'll have to retrofit one. Price: About \$150 for 36-in. fence; about \$170 for 46-in. fence.

Paul Anthony

PHOTO COURTESY OF JDS COMPANY

DRESSED FOR SUCCESS ▲

A clean, smooth grinding wheel grinds tools quickly, with less overheating. Of all the wheel dressers I've tried, the Diamond Jim is my favorite. Unlike single-point diamond dressers, which tend to cut grooves in your wheels, the Diamond Jim's 3/8-in.-dia., diamond-impregnated tip cuts aggressively and provides a large contact surface to eliminate grooves. Price: \$29.50 without a handle; \$32.50 with a handle. Packard Woodworks, (800) 683-8876.

Andy Rae

DRILL 'N' DRIVE ▼

I love my cordless drill for drilling pilot holes and driving screws, but I hate switching from drill to screwdriver bits in the middle of a job. With a Drill 'N' Drive set, it's quick and easy to switch from drilling countersunk or counter-bored pilot holes to driving screws. Pilot-hole bits are available in sizes from #6 to #12. The drive sleeve accepts common hex-shank bits. Price: \$12.95 for one pilot bit and drive sleeve. Available at Sears Hardware Stores.

Tim Snyder



STRETCHING THE TRUTH ▲

If you've seen my photo in AW, you've probably spotted one of my most valuable shop accessories—my tape-measure suspenders. They do something no other measuring tool will do: hold up my pants. The catalogs call them "Liar's Suspenders," since their elastic fabric lets you "stretch" the truth. Price: About \$10.

Michael Dresdner



FLUSH CUTTER ▼

Dowels and plugs that are trimmed flush to the surface of furniture look great. This flush-cutting saw from Veritas makes the task foolproof. With no set on one side of the blade, and an aggressive, 22-tpi Japanese-style tooth pattern, I can quickly saw off protruding plugs or pegs without leaving so much as a nick or scratch on my work. Price: About \$18.

Andy Rae

PHOTO COURTESY OF LEE VALLEY TOOLS



EDITORS' FAVORITE SHOP ACCESSORIES



SAFE & SNAZZY GLASSES ▲

I like these safety glasses by Bouton because they're comfortable and cool-looking. The snazzy earpieces adjust to fit almost any shape or size of head. The high-tech lenses are incredibly lightweight and comfortable, and they exceed ANSI high-velocity projectile impact standards. The ultra-hard lens coating is fogless, scratch free and static free—and it blocks harmful ultraviolet rays. Price: \$4.50. Safeco, Inc., (609) 722-5575.

Susannah Hogendorn

BITS OF PRECISION ▼

Anything that makes installing hardware easier gets my vote. That's why I keep a selection of Vix bits in various sizes to help me drill pilot holes for screws. A Vix bit has a sleeve that automatically centers the drill bit on the hole in a hinge plate or other cabinet hardware. No more poking with an awl to mark the center. With a Vix bit in your drill, your hinges hang right the first time. Sizes are available to fit screw sizes from #3 to #14. Price: From about \$8 to about \$33 each.

Andy Rae

PHOTO COURTESY OF GARRETT WADE



COOL WHEELS ▲

Most bench grinders come with a pair of dark gray, silicon-carbide grinding wheels that spin at about 3,500 rpm. This combination is suitable for general-purpose grinding, but it can spell disaster for edge tools such as chisels and plane irons. Even with a light touch, these hard wheels can overheat a thin cutting edge and soften the steel. To avoid burning tool edges, I switched to Norton aluminum-oxide grinding wheels. These wheels are white or pink, depending on the grit, and they run much cooler. I recommend an 80-grit wheel. Price: About \$20 for a 3/4-in. by 6-in. wheel.

Simon Watts



FASTER FACE FRAMES ▲

Having made a lot of kitchen cabinets, I've long appreciated the Facemaker's efficiency at joining face frames. The tool clamps rails and stiles together while you drill pocket holes in the back of the face frame and then drive in the screws. Although it can't be used for general case joinery like some other pocket-hole jigs, it's unbeatable for assembling face frames. Price: \$339. Woodworker's Supply, (800) 645-9292.

Paul Anthony



A CUT ABOVE ▲

Hock replacement blades for hand planes are extra thick (3/32 in.) and extra hard (RC 62). Fit one in your favorite hand plane—you'll reduce chatter significantly and end up sharpening less often. Hock blades are available in widths from 1 3/8 in. to 2 3/8 in., to fit most block planes and bench planes. Spokeshave blades are available, too. Price: \$20 to \$29. The Japan Woodworker, (510) 521-1810.

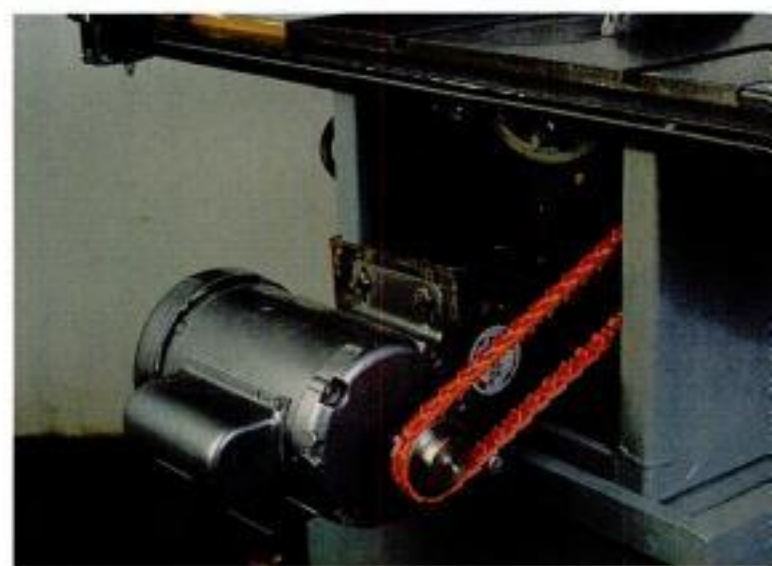
Joe Wajszczuk

PHOTO COURTESY OF HOCK HAND-MADE KNIVES

DO THE TWIST ▶

These multiple-link, power-twist V-belts offer a quick, easy way to reduce vibration in belt-driven machinery. The belts adjust in $\frac{3}{4}$ -in. increments, so they'll adapt to just about any machine in your shop. I've installed them on my drill press and band-saw already; the lathe will be next. The Contractor's Saw Upgrade Kit, which includes machined pulleys to replace the old cast pulleys, made my saw cut more smoothly, with less noise and vibration. Price for the kit is about \$50. Belts alone are available in $\frac{3}{8}$ -in., $\frac{1}{2}$ -in. and $\frac{5}{8}$ -in. widths for about \$6 per ft. In-Line Industries, (800) 533-6709.

PHOTO COURTESY OF IN-LINE INDUSTRIES

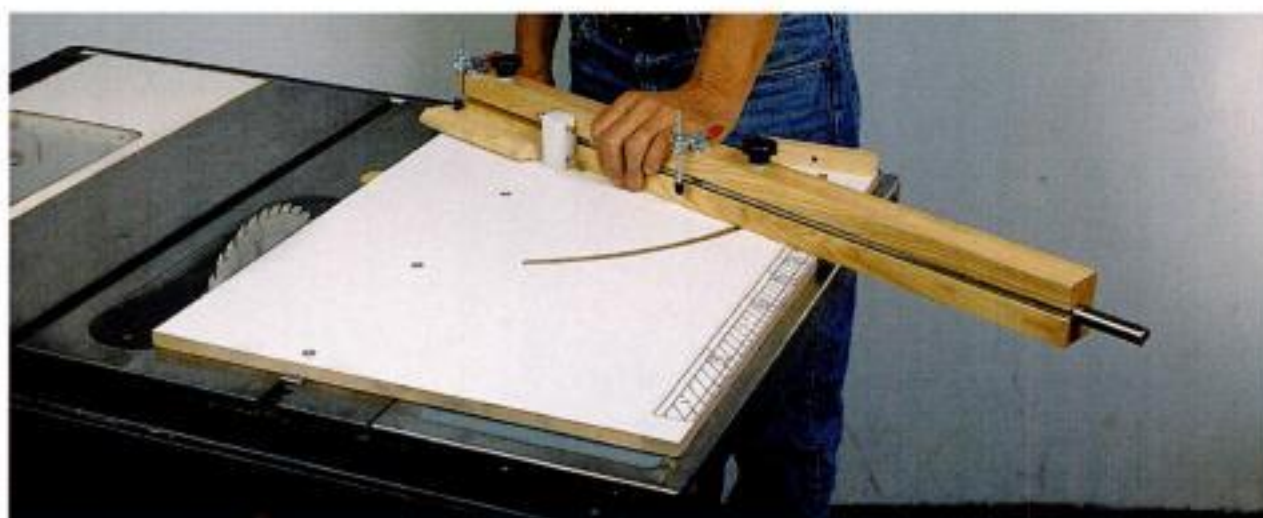


SAFETY WITH MAGNETS ▼

I've used many shop- and factory-made featherboards over the years, but the Grip-Tite Magnetic Featherboard is my favorite. Conventional featherboards clamp awkwardly to the table or miter-gauge slot and have a limited range. But I can easily position the Grip-Tite anywhere on my steel saw table, thanks to the strong magnet in its base that holds it rock-solid. A flexible plastic wing presses work against the rip fence and accommodates normal variations in board width. Another wing acts as a hold-down, though its effectiveness is limited to a narrow range of board thicknesses. Price: About \$30.

Peter Korn

PHOTO COURTESY OF GARRETT WADE



CROSSCUT CARRIAGE ▲

The Dubby is a sliding crosscut and miter jig that has saved me loads of setup time on my tablesaw. The jig's large, sliding base lets you cut pieces that are too big or too small for your saw's standard miter gauge. The Dubby has a wood fence for solid workpiece support, and an adjustable work stop for cutting multiple pieces to the same length. It is also easy to adjust, thanks to a miter scale with large, easy-to-read markings. The Dubby comes in two models—one for working on each side of the saw blade. This handy accessory is the main reason I still haven't bought a chop saw. Price: \$139.95. In-Line Industries, (800) 533-6709.

Michael Dresdner

PHOTO COURTESY OF IN-LINE INDUSTRIES

PLENTY O' POCKETS ▶

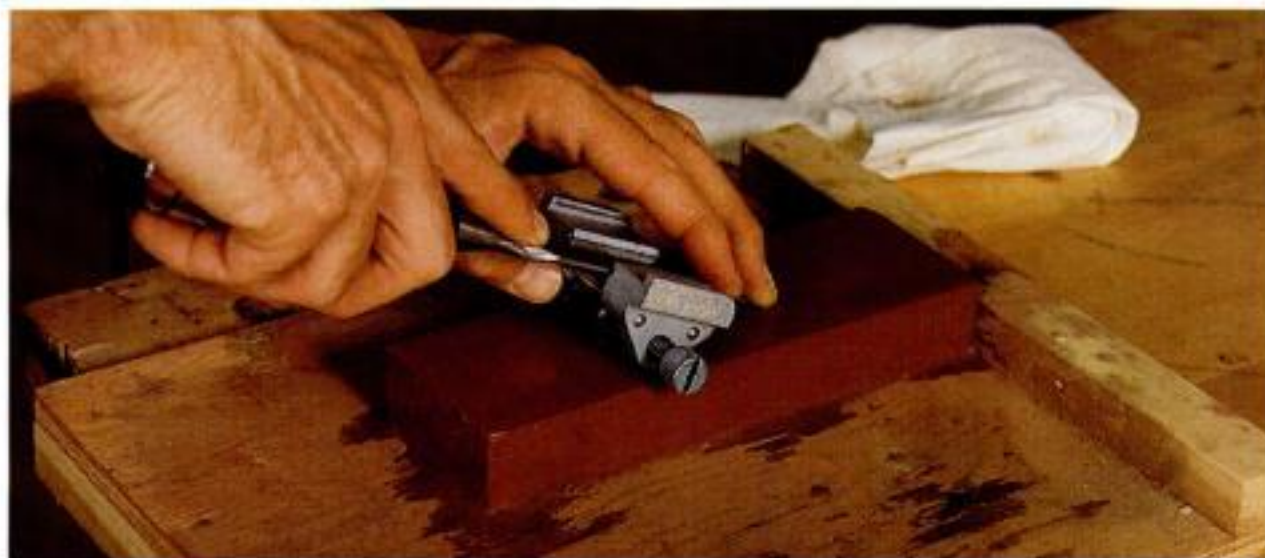
There's no way around it: I need pouches and pockets when I'm wood-working. This tool bib from Portable Products provides plenty of space for pencils, screws, nailsets, bits, chisels—you name it. Tool belts are also available, but I prefer the bib because it keeps my shirt clean. Price: \$19.99. Duluth Trading Co., (800) 505-8888.

Tim Snyder

PHOTO COURTESY OF DULUTH TRADING CO.



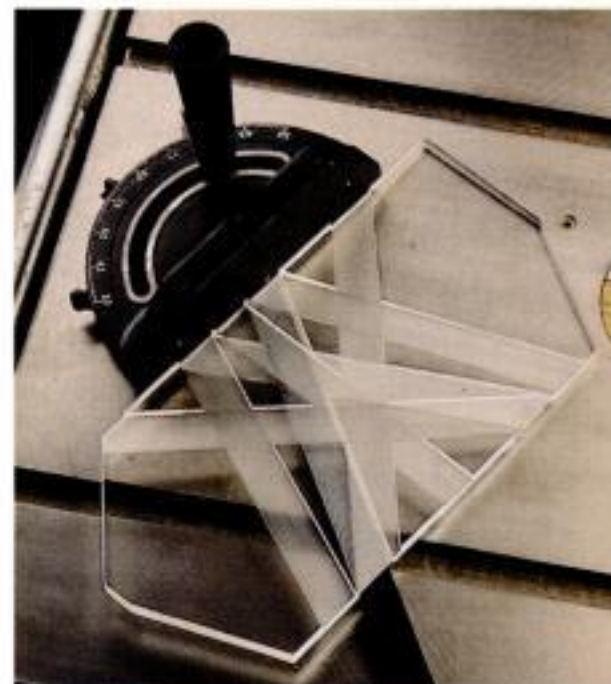
EDITORS' FAVORITE SHOP ACCESSORIES



SHARPENING MADE SIMPLE ▲

It just doesn't get any easier than this. Simply tighten the bolt on this honing guide and the two halves come together to grip both sides of the blade. This jig is my favorite because it automatically clamps the blade perpendicular to the guide, and it handles blades from 1/8 in. to 2 3/4 in. wide. Price: About \$15.

Joe Wajszczuk



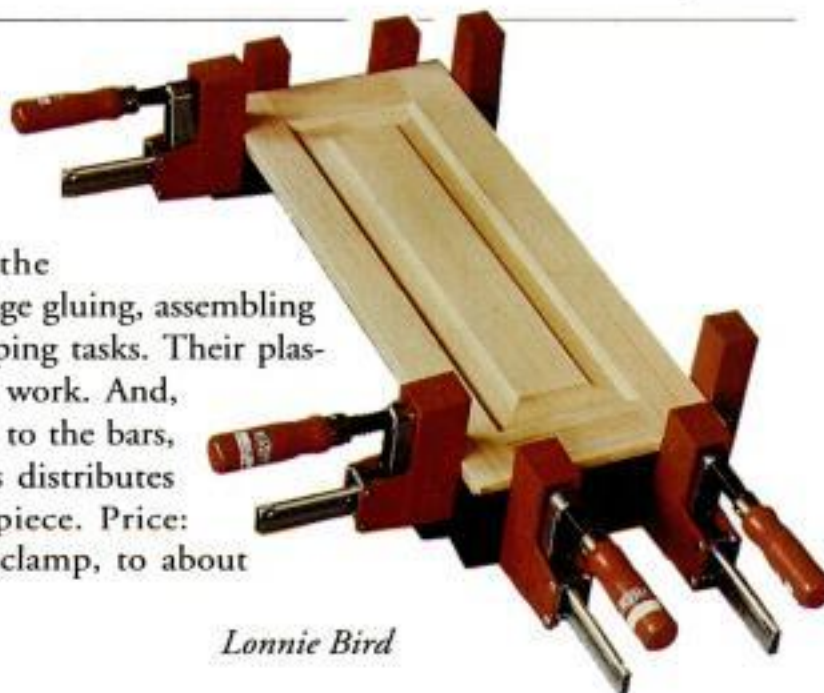
QUICK, PRECISE ANGLES ▲

Of all the ways to set your table saw's miter gauge for accurate angles, I haven't seen any as slick and simple as the Mitermatic. This 3/8-in.-thick acrylic plate has a series of grooves precisely milled on its faces at all the common angles: 22 1/2°, 30°, 45°, and 90°. You simply lay one of Mitermatic's grooves over the bar of your miter gauge and lock the head of the gauge flat against the side of the jig. Each of the jig's four corners is also milled at one of the angles listed above, which makes it great for setting blade angles. It couldn't be easier. Price: About \$20.

Dave Sellers

BIG-JAW BAR CLAMPS ▶

Bessey K-Body clamps are the best bar clamps I've used for edge gluing, assembling furniture and most other clamping tasks. Their plastic faced jaws won't mar your work. And, best of all, the jaws stay square to the bars, so the bars don't deflect. This distributes pressure evenly on the workpiece. Price: From about \$37 for a 12-in. clamp, to about \$50 for a 50-in. clamp.



Lonnie Bird

PHOTO COURTESY OF AMERICAN CLAMPING CORP.

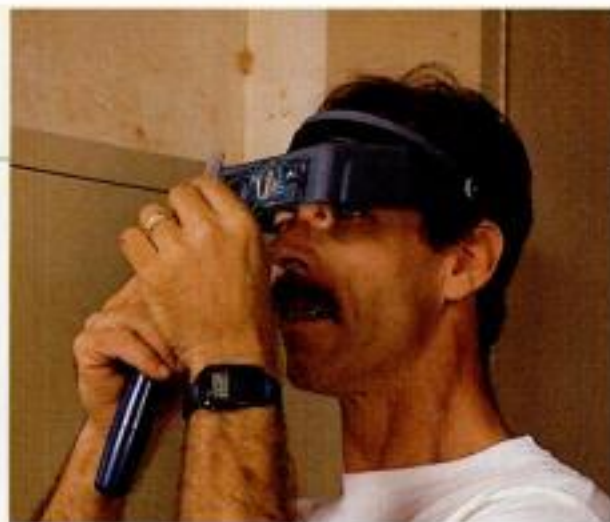
PHOTO COURTESY OF GARRETT WADE

A GREEN STICK FOR GREAT EDGES ▶

I've grown very attached to my Veritas honing compound. This little green ingot is a mix of chromium oxide and other abrasives. I've found it to be unbeatable for that final touch-up on a chisel or plane iron. To use it, you simply rub some of the compound on a flat surface—a piece of hardwood plywood works well—and then do the final honing on your edge tool. It's also great for "charging" strops and felt wheels. Price: About \$8.

Tim Snyder





SUPER VISION ▲

If you really want to see how good a job you're doing, sometimes you have to look closely. The Optivisor is great for examining tool edges. I use this hands-free magnifying visor when I want a clearer look at a cutting edge or a close view of freshly cut wood. Seven lenses are available, ranging from 1½x to 3½x magnification. I use the #5 lens, which provides 2½x magnification. An optional loupe attachment (\$7.25) increases lens power by another 2½x. Price: From \$27.50 to \$29.50 for visor and one set of lenses. Rio Grande Tools & Equipment, (800) 545-6566.

Paul Anthony



GRIP & GUIDE ▲

Nothing fancy here, just a ½-in.-thick aluminum straightedge with adjustable, built-in clamping jaws. You bring a sliding jaw up against the side of the stock and flip a cam lever to clamp. The tool is perfect as a guide for making straight cuts with a router or a circular saw. I also use one as a fence on my drill press and bandsaw. The Clamp 'N' Tool Guide comes in three lengths, to grip stock up to 24 in., 36 in. or 48 in. long. I use the short one more often, but when I have to cut a 4x8 sheet with my circular saw, the long one is just the tool I want. Price: About \$28 to \$40 depending on length.

David Sloan



SPEEDY KNIFE SETTING ▲

If it takes you more than fifteen minutes of downtime to change your jointer knives, you need a Magna-Set. No fuss, no eye strain, and no tedious checking and readjustment—magnets hold the knives in perfect alignment as you tighten the gib screws. I've had my Magna-Set for over 10 years and I still get a thrill each time I use it. Price: About \$45 for use with steel knives; about \$70 for use with carbide knives. There's also a Magna-Set jig for planer knives.

Jim Cummins

PHOTO COURTESY OF WOODSTOCK INTERNATIONAL

POCKET-SIZE DIAMOND HONE ▼

As a turner, I'm always using my Eze-Lap Diamond Hone to touch up the edges of my turning tools between trips to the grinder. Small enough to fit in a shirt pocket, these long-lasting sharpening sticks are studded with diamond particles that will sharpen both steel and carbide-tipped tools. Eze-Lap Hones come in four color-coded grits, but I use the fine (600-grit) or extra fine (1,200-grit) most frequently. Price: About \$6 each.

Steve Blenk



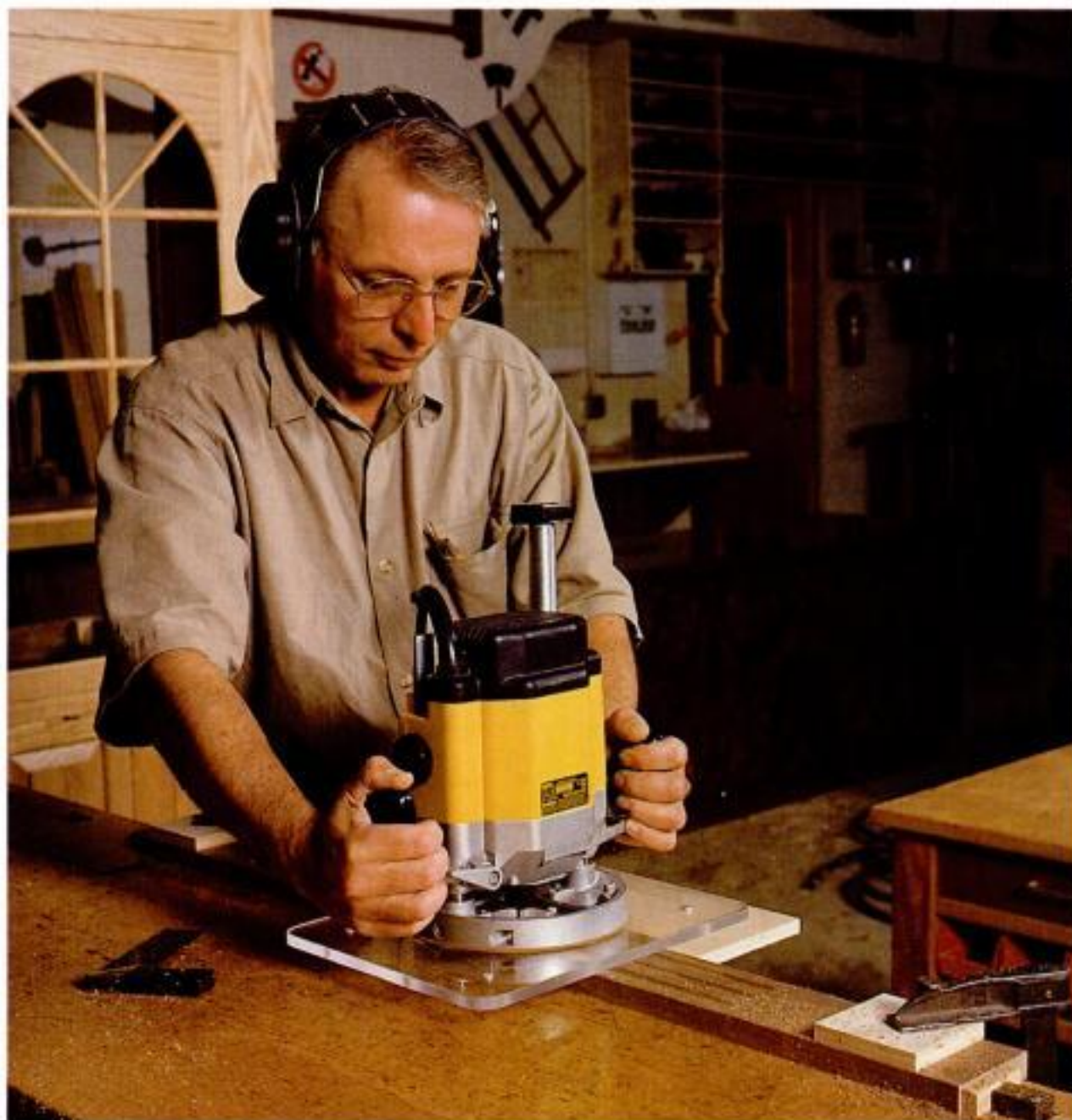
SOUPED-UP SCRAPER ▲ ▼

A plane often tears out the grain on really squirrely-grained stock. That's where a scraper comes in. Veritas' scraper plane insert combines the cutting action of a scraper with the flattening ability of your favorite plane. Switching back to your blade takes about two minutes. Inserts come in 2-in. and 2¾-in. widths, to fit most bench planes from No. 4 to No. 8. Price: About \$26.

Joe Wajszczuk

PHOTO COURTESY OF LEE VALLEY TOOLS





Lots of possibilities. From edge treatments and joinery to template routing and panel raising, routers are packed with woodworking potential.

Routers

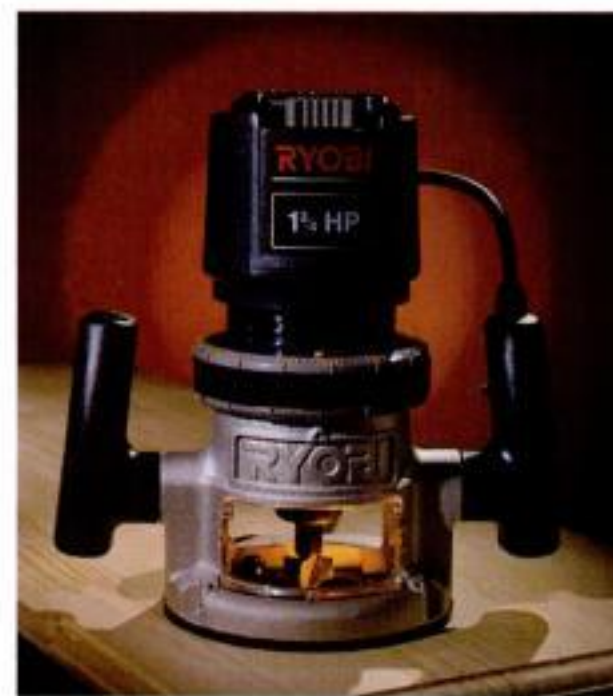
A router can handle work that would ordinarily be done on stationary machines—often doing the job more safely, more efficiently and for less money. When hand-held, the router can mill a variety of decorative edges, as well as doing template work. Mounted in a router table, this portable power tool performs like a shaper, giving you the ability to raise panels, create moldings and mill cope-and-stick profiles for building doors.

The impressive range of bits, jigs and accessories that are available only adds to the possibilities offered by this valuable tool. It's no wonder that many woodworkers own several routers of different sizes—from tiny laminate trimmers (not included here) to 3-HP monsters—to accomplish the wide range of routing operations.

2 Types of Routers

Fixed-Base Routers

With a fixed-base router, you have to adjust cutting depth before turning on the tool. Routers in this category are excellent for routing edges, for making template-guided cuts, and for general hand-held use. Smaller fixed-base routers—in the 1-HP to 1³/₄-HP range—are handy to use with dovetail and other jigs because they're fairly lightweight. A fixed-base



Fixed-base router

Features to Consider

Power

Whether you're interested in a plunge router or a fixed-base model, the same basic rule applies: More power means larger size. The smallest routers have motors rated at 1 HP to 1³/₄ HP and weigh between 4 and 12 lbs. The most powerful routers have 3-HP or 3¹/₂-HP motors, and weigh between 11 and 18 lbs.

For router-table work and for any cutting that involves large bits or dense material, you're better off with a powerful router—one rated at 2¹/₂ HP or more. These routers can hold hefty bits with 1/2-in.-dia. shanks, but with the proper collet, you'll also be able to chuck bits with 1/4-in.-dia. shanks.

Weight and bulk are the main disadvantages in a powerful router. These machines are unwieldy to use for certain hand-held operations, especially with



D-handle router

router will also work well mounted in a router table.

For production router work such as edge forming and dadoing, many woodworkers prefer a D-handle router. The trigger-type switch in the handle lets you turn the router on and off without removing your hand from the tool.

Plunge Routers

On this type of router, you can plunge the bit into the work and retract it after making the cut. The motor housing moves up and down on a pair of posts which are connected to the router base. Since the motor

can lock at any point on its plunge range, you can use a plunge router to cut mortises, stopped grooves or incised letters.

Plunge routers can also work just like fixed-base routers. This dual-function capability explains why plunge routers have become so popular. If you're only planning on buying one router, make it a plunger.



Options Worth Having

Edge guide. Use this accessory to guide your router for all kinds of edging and straight-line work—even mortising with a plunge router.

Router table. Get your router to work like a shaper. You can buy an after-market router table, or make your own. (See AW #44.)

Variable speed control. Some routers have variable speed control, which gives an extra measure of safety and control. For single-speed routers, a variable speed control unit is available from common mail-order catalogs.

Template bushings. A set of bushings enables you to do template routing. Many router jigs also use template bushings to guide the router.

Dust collection. Models with vacuum hose hookups (see photo, left) let you collect dust at the source.

dovetail jigs and templates. Many woodworkers end up buying at least two routers: a 1-HP or 1 1/2-HP model that's

easy to maneuver, and a larger, more powerful router that can take on heavier shaping and router-table assignments.



Little and big. For hand-held operations, a small router like the Porter-Cable 100 (right) has the edge in maneuverability. More powerful routers like the Freud FT2000E (left) work great in a router table, for heavy-duty shaping.

Switches and Plunge Locks

Handle-mounted trigger switches are more convenient and safer than body-mounted toggle or rocker switches. But things change when the router is mounted upside down in a table. In this position, a trigger switch may be more difficult to reach than a rocker switch mounted on the body. The Porter-Cable 7538 solves this problem—it has both trigger and rocker switches.

On Bosch and Porter-Cable plunge routers, the plunge lock levers are locked until you depress them. On other machines, the locking action is reversed. You'll have to choose which locking action is best for you.

"Zeroing" Depth Scale

Setting plunge depth is easier when a plunge router has a depth control rod that can be "zeroed" against a depth scale. Not all plunge routers have this feature. If extremely precise depth settings are important, look for a router with micro-positioning depth adjustment.

Plunge Routers

New models in red.

For fixed-base routers, see page 32.



Bosch 1613EVS



Ryobi RE600



Freud FT2000E



Hitachi M12V

See page 136
for listing of manufacturers.

Brand & Model	List Price	HP	Amps	Speeds (rpm)	Collet Sizes (in.)	Max. Plunge Depth (in.)	Weight (lbs.)	Comments & Features
Hitachi TR6	\$196	1	4	30,000	1/4	1	3.5	Light weight.
Bosch 1614EVS	295	1 1/4	7.8	12,000 - 23,000*	1/4	2**	7.9	
DeWalt DW614	250	1 1/4	6.6	24,000	1/4	1 5/16	6	Turn handle for plunge lock.
DeWalt DW615	310	1 1/4	8	8,000 - 24,000*	1/4	1 5/16	6.2	Turn handle for plunge lock.
Makita 3621	250	1 1/4	7.8	24,000	1/4	1 3/8	5.3	3 plunge stops.
Black & Decker 7615	145	1 1/2	9	25,000	1/4	2	9	Worklight.
Porter-Cable 693	338	1 1/2	10	23,000	1/4, 1/2	2 1/2	11.5	Plunge lever locks position when released.
Ryobi 160	65	1 1/2	8	25,000	1/4	1 1/2	7.5	Depth-adj. ring.
Skil 1823	123	1 1/2	8.5	25,000	1/4	2**	7	Flat top for easy bit changes.
Ryobi 165	85	1 3/4	8.5	25,000	1/4	1 1/2	8	Worklight.
Ryobi R175	100	1 3/4	9	25,000	1/4	2**	8.1	
Ryobi RE175	150	1 3/4	9	15,000 - 25,000*	1/4	2**	8.1	
Skil 1835	161	1 3/4	9	25,000	1/4	2**	7	Bit storage.
Bosch 1613EVS	369	2	11	12,000 - 22,000*	1/4, 1/2	2**	10.1	
Bosch B1450	369	2	11	12,000 - 22,000*	1/4, 1/2	2**	10.1	
Craftsman 27510	190	2	12	22,000	1/4, 1/2	2 1/2**	11.5	2-piece collet; spindle lock.
DeWalt DW621	402	2	9.7	8,000 - 24,000*	1/4, 1/2	2 1/8	9	Built-in dust collection.
Hitachi M8V	336	2	7.3	10,000 - 25,000	1/4	1 7/8**	6.4	3-position adjustable handle.
Skil HD1870	280	2 1/4	12	23,000	1/4, 1/2	2 1/2	9.5	Lock-on trigger switch.
Skil HD1875	320	2 1/4	11.5	10,000 - 23,000*	1/4, 1/2	2 1/2	9.5	Lock-on trigger switch.
Bosch 1615	446	3	14	25,000	1/4, 1/2	3	12	Template guide adaptor plate; 230V model avail.
Bosch B1550	446	3	14	25,000	1/4, 1/2	3	12	Template guide adaptor plate.
DeWalt DW625	520	3	15	8,000 - 22,000*	1/4, 1/2	2 7/16**	11.3	Rack & pinion depth-stop adjustment.
Hitachi TR12	377	3	12.2	22,000	1/4, 3/8, 1/2	2 7/16	11	
Jepson 7412	321	3	14	23,000	1/2	1 1/2**	13	3 plunge stops.
Ryobi RE600	275	3	15	10,000 - 22,000*	1/4, 1/2	2 3/8**	13.6	Edge guide.
Bosch 1615EVS	536	3 1/4	15	12,000 - 19,000*	1/4, 3/8, 1/2	3**	12.3	Template guide adaptor plate; 230V model avail.
Freud FT2000E	410	3 1/4	15	8,000 - 22,000*	1/4, 1/2	2 3/4**	12.9	Vacuum attachment for dust & chip pickup.
Makita 3612	397	3 1/4	15	22,000	1/4, 1/2	2 23/64	13.2	Electronic brake.
Makita 3612 C	492	3 1/4	15	9,000	1/4, 1/2	2 23/64**	13.2	
Porter-Cable 7538	469	3 1/4	15	21,000	1/2	3	17.3	Optional fine depth adj.
Porter-Cable 7539	534	3 1/4	15	10,000 - 21,000*	1/2	3	17.3	5 speeds.
Craftsman 27511	250	3 1/2	15	10,000 - 22,000	1/4, 1/2	2 1/2**	13	Edge guide; 2-piece collet.
Hitachi M12V	541	3 1/2	15	8,000 - 20,000*	1/4, 3/8, 1/2	2 7/16	11.7	

KEY: *Electronic variable speed control. **Has fine depth-adjustment knob.

This Router Is Timeless, The Offer Isn't.



If you are ready to get serious about your project, then you're ready to invest in the router that woodworking professionals and cabinet makers everywhere depend on every day. Porter-Cable.

Make that investment now and you can get a 90th Anniversary Limited Edition version of this industry standard and the accompanying carrying case together at a very special price.

This commemorative router possesses all the classic features of the Porter-Cable 690 plus a couple of new ones that set it apart. Like the dazzling, aluminum housing and a unique, black carrying case that comes with every purchase.

However, the 90690 is a limited edition router. And

when the tools are gone, so is the offer.

To own a piece of Porter-Cable's unparalleled 90 year history, and to start making a little woodworking history of your own, stop by your local Porter-Cable dealer, visit us on the internet at <http://www.porter-cable.com> or call 1-800-487-8665 (519-836-2840 in Canada) today. Because pretty soon, this offer will be history.

PORTER+CABLE
THE WOODWORKER'S CHOICE

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Fixed-Base Routers

New models in red.

For plunge routers, see page 30.



DeWalt DW610



Bosch 1604A

Brand & Model	List Price	HP	Amps	Speeds (rpm)	Collet Sizes (in.)	Depth Adjustment Range (in.)	Weight (lbs.)	Comments & Features
Jepson 7210	\$147	3/4	5	23,000	1/4, 3/8	1 1/8	5.3	
Porter-Cable 100	200	7/8	6.5	22,000	1/4	1 3/4	6.8	Calibrated depth-adj. ring.
Black & Decker 7604	60	1	5	30,000	1/4	1 1/2	NA	Calibrated depth-adj. ring.
Bosch 1601A	211	1	7	25,000	1/4	1	6.3	Captive template guide system.
Makita 3606	180	1	7	30,000	1/4	3	5.5	Calibrated depth-adj. ring.
Milwaukee 5620	367	1	8	23,000	1/4, 3/8, 1/2	2 1/4	8	
Porter-Cable 630	235	1	6.8	22,000	1/4	1 1/4	7.5	Calibrated depth-adj. ring.
Black & Decker 7613	70	1 1/2	9	0 - 25,000	1/4	1 1/2	9	Rack & pinion depth adj.
Bosch B1350	269	1 1/2	9	25,000	1/4, 1/2	1	7.8	Captive template guide system.
Craftsman 17504	60	1 1/2	8	25,000	1/4	1 1/2	7.5	Depth-adjustment ring; zero reset ring; worklight.
DeWalt DW610	266	1 1/2	9	25,000	1/4, 1/2	2 3/8	7.3	Rack & pinion depth adj.
Milwaukee 5660	357	1 1/2	10	24,500	1/4, 3/8, 1/2	2 1/4	8.5	Calibrated depth-adj. ring.
Porter-Cable 690	278	1 1/2	10	23,000	1/4, 1/2	1 1/4	8	Calibrated depth-adj. ring.
Porter-Cable 691	303	1 1/2	10	23,000	1/4, 1/2	1 3/4	9.3	Calibrated depth-adj. ring; D handle.
Ryobi R160	65	1 1/2	8	25,000	1/4	1 1/2	7.5	Dual depth-adj. ring.
Bosch 1604A	269	1 3/4	11	25,000	1/4, 1/2	1	7.8	Captive template guide system.
Bosch 1606A	300	1 3/4	11	25,000	1/4, 1/2	1	7.8	Captive template guide system; D handle.
Craftsman 17505	80	1 3/4	8.5	15,000 - 25,000	1/4	1 1/2	8.3	Depth-adjustment ring; zero reset ring; worklight.
Ryobi R165K	85	1 3/4	8.5	25,000	1/4	1 1/2	8	Dual depth-adj. ring; worklight.
Ryobi RE170	150	1 3/4	9	15,000 - 25,000*	1/4, 1/2	1 1/2	8.8	Dual depth scale; worklight.
Craftsman 17506	100	2	9	15,000 - 25,000*	1/4	1 1/2	9.1	Zero reset; worklight; dust collection.
Jepson 7112	212	2	10	25,500	1/4, 3/8, 1/2	1 1/8	10.3	D handle.
Milwaukee 5680	367	2	12	26,000	1/4, 3/8, 1/2	2 1/4	8.8	Calibrated depth-adj. ring; 1/2-in. collet included.
Milwaukee 5681	367	2	12	26,000	1/4, 3/8, 1/2	2 1/4	8.8	1/4-in. collet included.
Milwaukee 5682	388	2	12	26,000	1/4, 3/8, 1/2	2 1/4	8.8	1/4- & 1/2-in. collets incl.
Ryobi R180	130	2	9	25,000	1/4, 1/2	1 1/2	8.8	Dual depth scale; worklight.
Ryobi RE185	170	2 1/4	10	15,000 - 20,000*	1/4, 1/2	2 1/4	9	Soft start.
Porter-Cable 7536	389	2 1/2	13	21,000	1/2	2 1/4	14.5	Calibrated depth-adj. ring.
Porter-Cable 7537	409	2 1/2	13	21,000	1/2	2 1/4	17.3	D handle.
Porter-Cable 7518	534	3 1/4	15	10,000 - 21,000	1/2	2 1/4	14.5	5 speeds, with soft-start.
Porter-Cable 7519	469	3 1/4	15	21,000	1/2	2 1/4	15	Calibrated depth-adj. ring.

See page 136 for listing of manufacturers.

KEY: NA = information not available. *Electronic variable speed control.



***Making the cut.** Portability, and the ability to make smooth, fast cuts in wood and other materials make the jigsaw a workshop and jobsite workhorse.*

Jigsaws

A jigsaw—also called a saber saw or bayonet saw—can make the cuts that the other tools can't. Unlike a bandsaw or scrollsaw, you can take this saw to the work. Jigsaws excel on the jobsite, and whenever workpieces are too bulky or heavy to handle on a stationary saw. A jigsaw can cut into workpieces of any length or width, since it's not limited by a throat depth. Armed with an assortment of blades, it can slice through wood, laminates, plastic and metal.

Most jigsaws have tilting bases to make bevel cuts up to 45°. Depending on the blade that's used, they can make cuts in wood up to 2¾ in. thick.

A 3.5-amp motor will provide enough juice for most cutting chores.

3 Types of Jigsaws

Top-Handle Jigsaws

Many woodworkers prefer the top or "D-handle" design. They feel that positioning the handle above the motor is more comfortable and allows for more control when cutting thick or dense materials.



Features to Consider

Straight-Line vs. Orbital Blade Action

Straight-line cutting is best for smooth, tearout-free cuts. But for general cutting, you'll want a saw with orbital action that will chew through stock fast. Most jigsaws allow you to switch between cutting modes. Several offer different degrees of orbital action.

Speed Control

Whether it's controlled by a trigger or a separate dial, variable speed means more cutting control. Use high speeds for general cutting; use slow speeds for delicate materials, metals and plastics.

Baseplate

The baseplate provides support for the saw while keeping the blade at a fixed angle to the work. Look for a thick, sturdy plate that won't flex or loosen during



Barrel-Grip Jigsaws

A barrel-grip saw is essentially a top-handle saw without a handle. To saw, you grip the barrel by its motor housing.

A barrel-grip saw shines when cutting tight curves or small holes in thinner stock. Barrel-grip users claim that the behind-the-blade hand position makes it easy to cut quickly and efficiently. However, if you have small hands, you may find that it's difficult to get a good hold on some of the fatter barrel-grip models.

In-Line Jigsaws

This type of saw is a cross between a reciprocating saw and a jigsaw: The blade travels parallel to the armature. The in-line saw is a favorite among remodelers because it can get into places that most other jigsaws can't. On the downside, this type of saw is less accurate than other types because of its small baseplate.



Options Worth Having

Extra blades. It makes sense to stock up on jigsaw blades, especially those that are used and/or break most frequently.

Stick with bimetal blades if you can. Though they're more expensive than high-speed-steel blades, bimetal blades cut better and last longer.

Baseplate cover. Inevitably, your baseplate will earn a few jobsite scars that can wind up scratching your work when it's time to make a finish cut. This plastic shoe fits onto the base to provide a slick, smooth bearing surface.

Edge guide with circle cutter. This straightedge attaches to the base, to guide straight cuts. An edge guide can also be used as a trammel for circle cutting.

operation. If the baseplate is adjustable, see if it has detents for positive stops at 45° and 90°. (See photo, near right.)

Blade Guides

A blade guide supports the blade, limiting side-to-side and backward blade deflection. This feature promotes accuracy and reduces blade breakage.

The "scrolling" head on some jigsaws lets you rotate the blade 360° without moving the saw body—instead, you turn a knob at the front end of the saw. This feature enables you to perform some fairly intricate scrolling. However, you won't find roller guides on the saws with this mechanism.

Blade Changing

On most jigsaws, you release the blade by loosening a setscrew. If you plan on doing a lot of jigsaw work, consider buying a model that has a "tool-free" or quick-release mechanism. With this feature, changing blades is as simple as pulling a lever and clicking in a



Cut at full tilt. Adjustable-angle baseplates allow you to cut angles up to 45°.

replacement. (See photo, far right.)

While most saws will accept universal type blades, some models require special types of blades. Check the Blade Mount Type column in the chart on page 36.



Quick change. A quick-release lever replaces the conventional setscrew for instant blade replacement.

The Cordless Option

Although it has less power, a cordless saw is handy when you're working outside of the shop, or when you're making the kinds of cuts where a cord might get in the way.

Portable Jigsaws

New models in red.



Hitachi CJ65V2K



Makita 4303C



Metabo EP455



Porter-Cable 7649

Brand & Model	List Price	Blade Mount Type	Roller Guide	Orbital Action	Stroke Length (in.)	Cuts per Minute	Amps	Dust Collection	Weight (lbs.)	Comments & Features
Black & Decker 756B	\$81	U	Y	N	1 1/16	800 - 3,200	3.5	—	4	Chip deflector.
Black & Decker 758B	102	U	N	N	1 1/16	800 - 3,200	3.5	—	4	Scrolling head.
Black & Decker JS350	110	U*	Y	N	1 1/16	800 - 3,200	3.7	VP	4.9	Quick Clamp™ blade change system.
Black & Decker JS400	155	U	Y	Y	1 1/16	800 - 3,200	3.5	VP	4.9	4-position orbital action.
Bosch 1584DVS	306	B*	Y	Y	1	500 - 3,100	5	CB, VP	5.5	Base cover; anti-splinter insert.
Bosch 1584VS	288	B*	Y	Y	1	500 - 3,100	5	CB	5.5	Anti-splinter insert.
Bosch 1584VSKB	334	B*	Y	Y	1	500 - 3,100	5	CB, VP	5.5	48 assorted blades; metal case.
Bosch 1587DVS	317	B*	Y	Y	1	500 - 3,100	5	CB, VP	5.8	Base cover; anti-splinter insert.
Bosch 1587VS	292	B*	Y	Y	1	500 - 3,100	5	CB	5.8	Anti-splinter insert.
Bosch 1587VSKB	338	B*	Y	Y	1	500 - 3,100	5	CB, VP	5.8	48 assorted blades; metal case.
Bosch B4050	206	B*	Y	Y	5/8	300 - 3,000	3.6	—	2	
Bosch B4100	216	B*	Y	Y	5/8	300 - 3,000	4.8	VP	5.3	Anti-splinter insert.
Bosch B4200	280	B	Y	Y	1	500 - 3,100	4.8	CB	5.5	Optional anti-splinter insert.
Bosch B4201	292	B*	Y	Y	1	500 - 3,100	5.8	CB	5.8	Anti-splinter insert.
Bosch B4300	276	B	Y	Y	1	500 - 3,100	4.8	CB	5.5	Optional anti-splinter insert.
Bosch B4301	288	B*	Y	Y	1	500 - 3,100	5	CB	5.8	Anti-splinter insert.
Craftsman 1714	25	U	N	N	1/2	2,600, 3,000	2.5	—	3.8	
Craftsman 17204	40	U	N	N	5/8	0 - 3,000	2.5	—	4.5	Reversible dual-throat base.
Craftsman 17207	50	U	N	N	5/8	0 - 3,000	2.5	—	5	Scrolling head; dual-throat base.
Craftsman 17211	80	U	N	N	5/8	0 - 3,000	2.5	—	5.4	Scrolling head.
Craftsman 27251	140	U	Y	Y	1	0 - 3,100	4.5	—	6.2	
Craftsman 27710	170	B*	Y	Y	1	500 - 3,100	5	CB	5.5	Anti-splinter insert.
DeWalt DW313	206	U	Y	N	1	0 - 3,100	4.5	—	6.2	Reversible dual-throat base.
DeWalt DW318K	246	U	Y	Y	1	0 - 3,100	4.5	—	6.2	Orbital action.
DeWalt DW321	300	B or U*	Y	Y	1	500 - 3,100	5.8	—	5.3	Tool-free blade changing system.
Fein Aste 638	604	U	N	N	1 3/16	1,050 - 2,600	3.9	VP	4.8	Adjustable base for close work.
Hitachi CJ65V2K	374	B, U, WU	Y	Y	1	700 - 3,200	5.2	VP	5.5	Case.
Hitachi CJ65VA2K	374	B, U, WU	Y	Y	1	700 - 3,200	5.2	VP	5.3	Case.
Makita 4301BV	292	B, WU	Y	Y	1	0 - 3,100	3.5	CB	6	Steel case.
Makita 4303C	391	B, WU	Y	Y	1	1,000 - 3,000	6	CB	5.5	
Makita 4304	307	B, WU*	Y	Y	1	500 - 3,000	5.5	CB	5.1	Anti-splinter insert.
Makita 4305	305	B, WU	Y	Y	1	500 - 3,000	5.5	CB	5.1	Anti-splinter insert; see-through protector.
Makita 4320	182	WU	Y	N	1 1/16	0 - 3,200	2.9	CB	2.9	
Metabo E452	199	U	Y	N	3/4	500 - 3,000	4	CB	5	D handle.
Metabo EP455	235	U	Y	Y	3/4	500 - 3,000	4	CB	5.9	D handle.
Metabo EP564	307	U	Y	Y	1	500 - 3,000	5	CB	6.4	Barrel grip.
Metabo EP565	307	U	Y	Y	1	500 - 3,000	5	CB	6.2	D handle.
Milwaukee 6246	268	U	Y	N	1	3,100	3.8	CB	5.5	
Milwaukee 6256	264	U	Y	N	1	0 - 3,100	3.8	—	5.7	
Milwaukee 6256/6	278	U	Y	N	1	0 - 3,100	3.8	CB	5.8	
Milwaukee 6266	305	B*	Y	Y	1	450 - 3,100	5.7	VP	5.3	Base cover, anti-splinter insert.
Milwaukee 6266/6	315	B*	Y	Y	1	450 - 3,100	5.7	CB, VP	5.3	
Porter-Cable 548	359	H	N	Y	7/16	0 - 4,500	3.5	—	6.5	Fixed base.
Porter-Cable 7349	200	H, U	Y	N	1	0 - 3,200	4	CB	6	Side blade guides.
Porter-Cable 7549	254	H, U*	Y	Y	1	500 - 3,200	4.8	CB	6	Side blade guides; orbital action.

Chart continued on page 38.

See page 136 for listing of manufacturers.

KEY: Blade Mount Type: B = bayonet, H = hook, U = universal, WU = wide universal. Y = yes. N = no. Dust Collection: CB = chip blower, DB = dust bag, VP = vacuum port. — = not applicable. *Has quick-change feature.

Portable Jigsaws

New models in red.



Skil 4345

Brand & Model	List Price	Blade Mount Type	Roller Guide	Orbital Action	Stroke Length (in.)	Cuts per Minute	Amps	Dust Collection	Weight (lbs.)	Comments & Features
Porter-Cable 7649	\$254	H, U*	Y	Y	1	500 - 3,200	4.8	CB	6.5	Orbital action.
Ryobi JS45	50	WU	N	N	5/8	0 - 3,000	2.5	CB	3	Reversible baseplate.
Ryobi JSO45	90	WU	Y	Y	5/8	0 - 3,000	3	—	3.5	Reversible dual-throat base.
Ryobi JSO48	90	WU	Y	Y	3/4	0 - 3,000	4	CB	4	10-ft. cord.
Skil 4235	60	U	N	N	5/8	0 - 3,200	3	—	3.6	Blade storage.
Skil 4345	82	U	N	Y	5/8	0 - 3,200	3	CB	3.7	Blade storage.
Skil 4355	98	U	N	N	5/8	0 - 3,200	3	—	3.9	Scrolling head.
Skil 4395	101	U	N	Y	5/8	0 - 3,200	3.2	—	4	Scrolling head.
Skil HD4560	167	U	N	N	13/16	0 - 3,200	3.5	CB	5.5	Scrolling head.
Skil HD4580	179	U	N	Y	13/16	0 - 3,200	3.5	CB	5.6	
Wen 3701	60	U	N	N	1	3,000	4	—	5.5	
Black & Decker PS610T	59	U	Y	N	3/5	0 - 2,800	—	VP	2.6	9.6-volt cordless.
Metabo EP140	339	B, U	Y	Y	5/8	700 - 2,500	—	—	3.9	9.6-volt cordless.

See page 136 for listing of manufacturers.

KEY: Blade Mount Type: B = bayonet, H = hook, U = universal, WU = wide universal. Y = yes, N = no. Dust Collection: CB = chip blower, DB = dust bag, VP = vacuum port. — = not applicable. *Has quick-change feature.

ACCU-FENCE

It's only fitting that we make the best fence for the best saw.

72A SAW



Made in America!

With the recent changes that have developed in the fence market, Powermatic® set out to design the best fence system available. This seemed only fitting since it is going to be paired with the best table saws!

Powermatic® engineers and designers have developed the premier fence system. . . The ACCU-FENCE. The ACCU-FENCE head slide is designed without any "play" as you move the fence into position. The locking mechanism is made from extremely high wear resistant material which gives a positive lock. These important features allow you to **Just Set It and Lock It!** No more trying to find your mark two or three times. You spend your time cutting - not trying to set your fence.

The ACCU-FENCE has laminated covered side panels that provide a super slick surface for your material to

SET IT...

LOCK IT!



66 SAW



64 SAW

ride against. The important thing to note is how easy it is to change or adjust these side panels. It takes only a few minutes- not an entire day! The ACCU-FENCE side panels do not have exposed mounting screw holes that could catch your material as some fences do.

The ACCU-FENCE slides on Fluoroway, a reinforced Teflon material, that lasts a life time. The ACCU-FENCE is available as standard equipment on Powermatic® table saws. It is also sold as an accessory item that can be mounted on any table saw.

Try the ACCU-FENCE today and notice the difference!

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CIRCLE NO. 25 ON PRODUCT INFORMATION FORM



Shop workhorse. A tablesaw is the primary woodworking tool in many shops. No other machine can do so many jobs, from sizing material to cutting joints.

Tablesaws

No woodworking machine can do more than the tablesaw. It can rip, crosscut, rabbet, dado, miter, groove, mold and bevel, as well as cut tenons, lap joints, box joints and even dovetails. Because this tool is so versatile, it's important to pick one that will suit both your present *and* future needs.

Don't skimp on quality if you expect to do serious woodworking.

Two basic factors define a saw: size and type. A saw's size is designated by the diameter of the largest blade it will handle. Tablesaw types are explained at right above.

3 Types of Tablesaws

Cabinet Saws

Designed for the professional cabinet shop, a cabinet saw has an enclosed base, a powerful motor (2, 3, or 5 HP), and a multiple V-belt drive to minimize slippage between arbor and motor.

The 10-in. saw is the most popular, but 12-in. and 14-in. models are also available.



Features to Consider

A Good Table

Cast iron remains the first choice for table material; cast aluminum is second. Use a straightedge to check for table flatness. Table extensions are a plus because they increase your working surface.

Rip Fence and Rails

Look for a rip fence that slides smoothly, locks parallel to the blade, and adjusts easily if it goes out of square. Guide rails should be rigid and straight. A fence that locks at both ends is more rigid than one that locks at only one end.

Miter Gauge

This should slide freely in the table slots without side-to-side play. A finely calibrated scale with stops at 90° and 45° is an asset. The gauge should also have holes to screw on a wooden auxiliary fence.



Contractors' Saws

Offering a compromise between price and performance, these saws meet most shops' demands for accuracy and versatility.

The typical contractor's saw has a cast-iron or cast-aluminum top, bolt-on table extensions and a belt-driven induction motor that hangs out the back. (Some lower-priced models have direct-drive motors.)

On the minus side, the open base and back make dust collection difficult on a contractor's saw. And this type of saw doesn't have the power you'll find in a cabinet saw.

Benchtop Saws

If you do small-scale work, or if you need a portable jobsite saw, a benchtop saw may be just the ticket. These models are inexpensive and portable.

But benchtop tablesaws have serious limitations. Small tops limit rip capacity, and a stable bench or base is a necessity. Motors are noisy and underpowered. And don't expect great precision from the rip fence or miter gauge.

A notable exception in this tablesaw category is the Ryobi BT3000—it has a sliding table and a belt-driven arbor.



Options Worth Having

Dado-blade set. Multiple-blade, carbide tipped dado sets are the best. (See AW #42 for a review of dado blades.)

Aftermarket rip fence. This is probably the best accessory you can buy for your saw. A good fence will boost your accuracy and efficiency.

Outfeed tables. If you don't have enough room in your shop for permanent outfeed tables, consider buying or making portable outfeed rollers.

Sliding tables. Available for cabinet and contractors' saws, these make crosscutting easier and more accurate.

Tenoning jig. You can use this jig to cut tenons, lap joints, bridle joints and spline joints.

Dust collection. Hooking up to a dust collector will save cleanup time.

Aftermarket blade guards. These are better than most standard guards.

Motor

Impressive power ratings on some home-shop tablesaws often misleadingly refer to "peak" HP. A more useful measurement is a motor's "rated" or "continuous" HP. Pick the most powerful motor you can afford—preferably one with built-in overload protection.



Rip fence and miter gauge. The fence should lock square to the blade and slide easily on sturdy rails. The miter gauge should be sturdy and slide easily without play.

Safety Features

A large, easy-to-reach "off" switch is important. The blade guard should swing out of the way during blade changing. Because the guard must be removed for some woodworking operations, look for one that's easy to remove and reinstall.

Controls and Mechanisms

Handwheels, knobs and locking devices should be sturdy and operate easily. The blade should adjust without any play, and there should be a lock to hold the blade setting. Degree scales should be easy to read, and there should be adjustable stops at 45° and 90°. Make sure the arbor is long enough to accept a dado head.



Sturdy, smooth-operating mechanisms. Look for well-made controls that move easily and lock adjustments firmly.

For More Info

Check out the detailed test results in our "Cabinet Saw Showdown," AW #49 (December 1995).

Tablesaws

New models in red.



Ryobi BT3000



Skil 3400



Craftsman 29931



Delta 36-630

BENCHTOP

CONTRACTOR TYPE

Brand & Model	List Price	Blade Dia. (in.)	Max. Cutting D (in.)	Max. Rip Cpy. (in.)	Table W x D (in.)	Table Material	HP	Volts	Amps	Dust Coll. Port	Weight (lbs.)	Comments & Features
Delta Sidekick 36-275	\$358	8 1/4	2 1/4	12	26 x 20	AL	NA	115	13	N	49	T-slot miter gauge groove.
Jepson 8408	450	8 1/4	2 1/2	12	26 x 18 1/8	AL	2 1/2	115	14	N	38.5	Removable safety switch.
Makita 2708W	637	8 1/4	2 1/2	11 7/8	26 x 14 3/4	AL	2	115	12	Y	38	Removable switch key.
Black & Decker 9442	314	10	3	11 1/2	28 x 16	AL	2 1/2	115	13	Y	37	3/16-in. dado capacity.
Black & Decker TS750	325	10	3	16	30 x 20	AL	2 1/2	NA	13	Y	50	Extra-large table surface.
Craftsman 22174	180	10	3	10 1/2	26 x 17	AL	2 1/2	115	13	Y	40	Accepts dado heads.
Delta 36-540 Type 2	229	10	3	9 7/8	26 x 16	AL	NA	115	13	N	40	Removable safety switch.
Lobo TS-750	279	10	12	16	30 x 20	AL	2 1/2	NA	13	Y	50	T-slot miter gauge groove.
Pro-Tech 4106	179	10	3	9 7/8	26 x 16	AL	2 1/2	115	13	Y	38	Removable safety switch.
Reliant DD65	150	10	3	12	26 x 17	AL	2	115	13	N	47	Removable safety switch.
Ryobi BT3000	600	10	3 9/16	30	41 x 27	AL	2 3/4	115	15	Y	75	Sliding miter table.
Skil 3400	356	10	3	12	26 5/8 x 17 5/8	AL	2 1/2	115	13	Y	36	
Tradesman 8030	139	10	3 1/8	9 7/8	26 x 17	AL	NA	115	13	Y	38	Cam-lock fence.
Tradesman 8035	189	10	3 1/8	9 7/8	26 x 17	AL	NA	115	13	Y	59	8030, plus stand.
AMT 4572	399	10	3 1/8	24	40 3/8 x 27	CI	1 1/2	115/230	18/9	N	225	Cast-iron table extensions.
Belsaw MC-10CS	659	10	3 1/8	25	39 1/2 x 27	CI	1 1/2	115/230	20/10	N	242	Cast-iron table extensions.
Bridgewood TCS-10C	655	10	3 1/4	40	40 x 27	CI	1 1/2	115/230	16	N	287	Vega fence.
Craftsman 29921	350	10	2 1/2	24	40 x 27	AL	1	115	11.5	OPT	135	Available 1/97; 10 x 27 steel ext.
Craftsman 29931	500	10	3 3/8	24	44 x 27	CI	1 1/2	115	13	OPT	220	Available 1/97; XR-2412 fence.
Craftsman 29941	600	10	3 3/8	24	44 x 27	CI	1 1/2	115/230	13/6.5	OPT	248	Available 1/97; XR-2412 fence.
Craftsman 29951	800	10	3 3/8	30	44 x 27	CI	1 1/2	115/230	13/6.5	Y	265	Available 1/97; Exact-I-Rip fence.
Delta 34-444	835	10	3 1/8	25	40 x 27	CI	1 1/2	115/230	12.8/6.4	N	251	Steel extension wings.
Delta 34-445	1,072	10	3 1/8	25	40 x 27	CI	1 1/2	115/230	12.8/6.4	N	262	30-in. Unifence.
Delta 34-490	1,071	10	3 1/8	25	40 x 27	CI	1 1/2	115/230	12.8/6.4	N	286	30-in. Biesemeyer pro fence.
Delta 34-670	492	10	3 1/8	25	38 3/8 x 22 1/4	CI	NA	115	15	N	153	T-slot miter gauge groove.
Delta 36-450	999	10	3 1/8	25	40 x 27	CI	1 1/2	115/230	12.8/6.4	N	265	50-in. precision fence.
Delta 36-480	1,062	10	3 1/8	25	40 x 27	CI	1 1/2	115/230	12.8/6.4	N	286	52-in. Biesemeyer fence.
Delta 36-630	721	10	3 1/8	24	40 x 27	CI	1 1/2	115/230	12.8/6.4	Y	210	T-slot miter gauge groove.
Delta 36-650	922	10	3 1/8	24	40 x 27	CI	1 1/2	115/230	12.8/6.4	Y	243	50-in. precision fence.
Delta 36-680	959	10	3 1/8	24	40 x 27	CI	1 1/2	115/230	12.8/6.4	Y	264	52-in. Biesemeyer fence.
Grizzly G1022	375	10	3	25	40 3/4 x 7	CI	1 1/2	115/230	16/8	OPT	270	Cast-iron wing; 70-in. ext. tubes.
Grizzly G1022Z	425	10	3	24	41 x 27 1/8	CI	1 1/2	115/230	16/8	OPT	270	Redesigned fence.
Grizzly G1059	249	10	3	25	30 1/4 x 23	CI	1 1/2	115/230	16/8	OPT	185	
Jet JWTS-10JF	739	10	3 1/8	30	40 x 27	CI	1 1/2	115/230	18/9	Y	260	T-slot miter gauge groove.
Jet JWTS-10PFX	959	10	3 1/8	52	40 x 27	CI	1 1/2	115/230	18/9	Y	319	Xacta fence.

Chart continued on page 44.

See page 136 for listing of manufacturers.

KEY: Table Material: AL = aluminum, CI = cast iron, MG = magnesium. NA = information not available. Y = yes, N = no, OPT = optional.

Tablesaws

New models in red.



Sunhill MS10-L



Delta 36-883



Jet JTAS-10PF-3



Powermatic 66

	Brand & Model	List Price	Blade Dia. (in.)	Max. Cutting D (in.)	Max. Rip Cpy. (in.)	Table W x D (in.)	Table Material	HP	Volts	Amps	Dust Coll. Port	Weight (lbs.)	Comments & Features
CONTRACTOR TYPE	Lobo TS-0010	\$489	10	3 1/8	30	40 x 27	CI	1 1/2	115	12	N	255	Cast-iron table extensions.
	Powermatic 64	1,062	10	3 1/8	28	40 x 27	CI	1 1/2	115/230	18/9	Y	320	Biesemeyer or Vega fence.
	Star S3201	430	10	3 1/8	25	40 x 27	CI	1 1/2	115/230	16/8	Y	285	Micro-adjuster.
	Star S3205	575	10	3 1/8	36	40 x 27	CI	2	115/230	24/12	Y	350	Micro-adjuster; opt. sliding table.
	Sunhill MS-10L	475	10	3 1/8	30	40 x 27	CI	1 1/2	115/230	20/10	Y	280	Cast-iron table extensions.
	Tradesman 8000A	449	10	3 1/4	24	40 1/2 x 27	CI	1 1/2	115/230	18/9	N	262	Cast-iron ext.; cam-lock fence.
	Transpower MS250	345	10	3 1/4	30	40 x 27	CI	2	115/230	24/12	N	255	
	Belsaw MC-12CS	902	12	4 1/8	25	39 1/2 x 27	CI	2	115/230	24/12	N	250	New precision fence.
	Lobo TS-0012	519	12	4 1/2	30	40 x 27	CI	2	115/230	20/10	N	260	Cast-iron table extensions.
	Bridgewood BW-10CS	900	10	3 1/8	*	40 x 27	CI	2	230	12	Y	373	Several premium fences available.
CABINET TYPE	Craftsman 22654	1,500	10	3	25	36 x 27	CI	2	230	9	Y	490	Dado insert.
	Delta 34-782	2,397	10	3 1/8	52	36 x 27	CI	3	230	12.4	Y	435	52-in. Unifence.
	Delta 34-783	2,397	10	3 1/8	52	36 x 27	CI	5	230/460	12.6/6.3	Y	454	52-in. Unifence.
	Delta 36-755	1,398	10	3 1/8	25	36 x 27	CI	2	230	12	Y	288	T-slot miter gauge groove.
	Delta 36-820	2,209	10	3 1/8	52	36 x 27	CI	3	230	17	Y	477	52-in. Unifence.
	Delta 36-821	2,209	10	3 1/8	50	36 x 27	CI	3	230	12.4	Y	476	50-in. Biesemeyer pro fence.
	Delta 36-883	2,397	10	3 1/8	50	36 x 27	CI	5	230/460	12.6/6.3	Y	495	50-in. Biesemeyer pro fence.
	General 350-1-M1	2,244	10	3 1/8	25	36 x 28	CI	3	230	12	OPT	415	Biesemeyer fence optional.
	General S350-T50	1,995	10	3 1/8	50	28 x 72	CI, AL	3	230	12	Y	460	
	Grizzly G1023	799	10	3 1/8	26	36 5/8 x 27	CI	3	230	18	OPT	425	2 inserts; T-slot miter groove.
	Grizzly G1023Z	995	10	3 1/8	25	36 5/8 x 27	CI	3	230	18	Y	425	Motor cover; Magnaset fence.
	Grizzly G1023ZX	1,150	10	3 1/8	25	36 5/8 x 27	CI	5	230	25	Y	425	Motor cover; Magnaset fence.
	Inca 290	2,295	10	3	34	27 x 31	AL	2 1/2	230	15	Y	145	Optional sliding table.
	Jet JTAS-10PF-3	1,869	10	3 1/8	30	40 x 27	CI	5	230/460	15/7.5	Y	469	Motor cover; Xacta fence.
	Jet JTAS-10PFX-1	1,869	10	3 1/8	50	40 x 27	CI	3	230	17	Y	489	Motor cover; Xacta fence.
	Jet JWCS-10JF	1,249	10	3 1/8	30	40 x 27	CI	2	230	12	Y	359	Rail-mounted switch.
	Jet JWCS-10PF	1,429	10	3 1/8	52	40 x 27	CI	2	230	12	Y	400	Motor cover; Xacta fence.
	Jet Xacta Saw 66-50-1	2,099	10	3 1/8	50	40 x 27	CI	3	230/460	15/7.5	Y	562	Motor cover; Xacta fence.
	Jet Xacta Saw 66-50-3	2,099	10	3 1/8	50	40 x 27	CI	5	230/460	15/7.5	Y	562	Motor cover; Xacta fence.
	Lobo TS-1010	1,399	10	3	30	36 x 27	CI	3	115/230	36/18	Y	395	Cast-iron extension wings.
	Mini Max SC3	3,695	10	4	54	22 x 33	CI	3	230	14	Y	616	Sliding table; overarm guard.
	North State MBS 250	1,150	10	3 1/8	50	36 x 27	CI	3	230	16	Y	407	Ball-bearing rollers in fence.
	Powermatic 66	2,529	10	3 1/8	50	38 x 28	CI	3	230	17	Y	605	
	Shopsmith Sawsmith 2000	1,000	10	2 1/2	24	40 x 27	AL	2 1/2	115	NA	Y	190	Blade can pull through wood.
	Star S3202	1,150	10	3 1/8	36	36 x 27	CI	3	230	15	Y	425	Sliding table; opt. 56-in. fence.
	Sunhill MBS-250	1,145	10	3	49	36 x 27	CI	3	230	NA	Y	485	5-HP motor available.

Chart continued on page 46.

See page 136 for listing of manufacturers.

KEY: Table Material: AL = aluminum, CI = cast iron, MG = magnesium. NA = information not available. Y = yes. N = no. OPT = optional. *Depends on fence option.

Tablesaws

New models in red.



Sunhill MS10-TK

	Brand & Model	List Price	Blade Dia. (in.)	Max. Cutting D (in.)	Max. Rip Cpy. (in.)	Table W x D (in.)	Table Material	HP	Volts	Amps	Dust Coll. Port	Weight (lbs.)	Comments & Features
CABINET TYPE	Sunhill MS-10TK	\$795	10	3 1/4	30	27 x 40	CI	2	230	12	Y	400	Magnet. controls.
	Transpower TS200HA	790	10	4 1/4	30	40 x 27	CI	3	230	18	Y	450	
	Transpower TS200HD	980	10	3	30	36 x 27	CI	3	230	18	Y	485	Fence has guide bearing.
	Craftsman 22652	2,200	12	4	38	40 x 30	CI	3	230	16	Y	656	5/8-, 1-in. arbors.
	Inca 2100SE	2,995	12	4 1/8	50	22 x 26	CI	3	230	18	Y	315	
	Lobo HTS-0012	929	12	4 1/8	30	27 x 40	CI	3	230	18	Y	450	Scoring attachment available.
	Lobo TS-1212	1,890	12	4	38	48 x 30	CI	5	230	19.6	Y	704	Cast iron extension wings.
	Mini Max S1	8,995	12	4	59	22 x 34	CI	9	230	25	Y	1,575	Sliding table; overarm guard.
	Mini Max S300W	7,995	12	4	54	34 x 23	CI	6 1/2	230	24	Y	1,280	Sliding table; overarm guard.
	Star S3207	1,875	12	4 1/8	36	29 x 36	CI	5	230	25	Y	500	Optional 3-phase mount.
	Sunhill MBS-350	2,750	12	4	49	48 x 38	CI	5	230	NA	Y	1,000	7 1/2-HP motor available.
	General 550	3,895	14	4 7/8	50	48 x 38	CI	5	230	NA	Y	1,040	Magnetic starter.
	General 550-1	5,250	14	4 7/8	30	48 x 38	CI	7 1/2	230	16	Y	1,040	Biesemeyer fence optional.
	Lobo TS-1414	2,790	14	5	49	48 x 38	CI	5	230	19.6	Y	1,012	Cast-iron extension wings.

See page 136 for listing of manufacturers.

KEY: Table Material: AL = aluminum, CI = cast iron, MG = magnesium. NA = information not available. Y = yes. N = no. OPT = optional.

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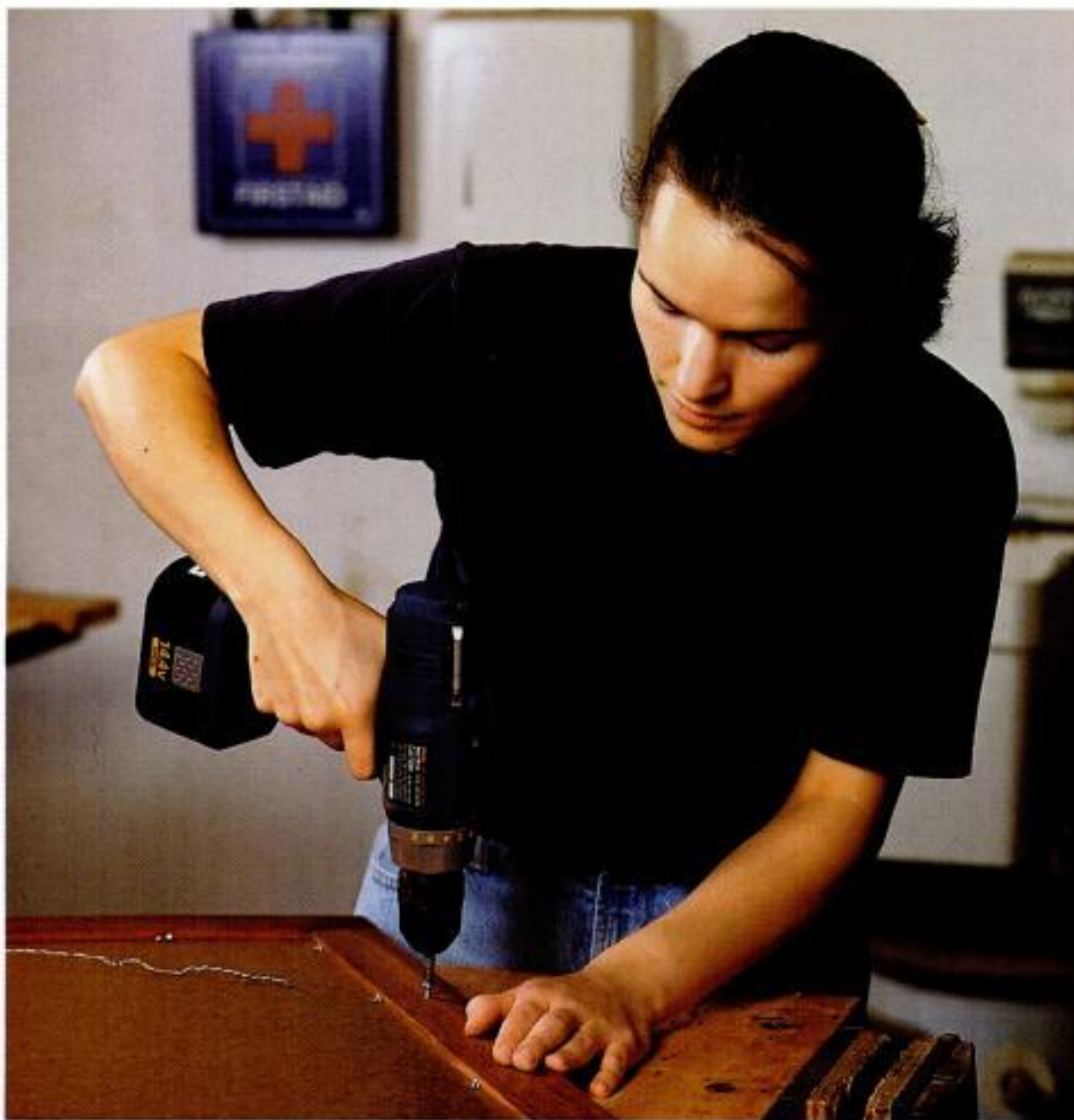
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More power to you. Cordless drills are convenient for drilling and driving in the shop or on the jobsite—and now they have more power than ever before.

Cordless Drills

Cordless drills have a popularity that goes way beyond woodworking.

Tradespeople and homeowners alike appreciate their capability and convenience—you can drill holes or drive screws just about anywhere.

And these tools seem to pack more power every year. They're up to 18 volts now—enough juice for most any job. Clutches, variable speed control and keyless chucks also make them more versatile and convenient to use.

Choosing a cordless drill can be bewildering: There are more than 100 models available ([see chart, page 52](#)), with a variety of features and capabilities. As with most tool purchases, cost is a factor, but the most important considerations are power and ergonomics.

3 Types of Cordless Drills

Conventional Models

Most cordless drills fall into this broad category, but few have precisely the same features. They range in power from 7.2-volt lightweights to 14- and 18-volt powerhouses that perform most of the tasks you'd expect from a plug-in drill. Beyond that, you're paying for convenience and ergonomics. (See Features, below.)



Features to Consider

Power

A drill powered by a 7.2- or 9.6-volt battery will do for many jobs, but for heavy-duty or extended work, you'll want at least 12-volt power. Now there are plenty to choose from, including many 14.4-volt models, and an 18-volt from DeWalt.

Speed and Torque

The higher a drill's rated speed, the less torque it will deliver, and vice versa. Most models have two speeds, or two variable ranges, with more torque in the lower range. Variable speed is great for driving screws—you can start the screw slowly and speed up to drive it home.

Handle Style

Conventional drills come in two basic handle styles—pistol-grip and T-handle. (See bottom left photo, opposite.) With the



Impact Drivers

Fairly new on the market, this type of cordless drill can apply several times the torque of a standard cordless drill in short, loud bursts. Impact drivers are engineered primarily for heavy, repetitive tasks such as driving long screws and bolts. Drill chucks, if they're available, must be purchased separately. Most models have electronic brakes and 1/4-in., quick-disconnect hex chucks.

Right-Angle Drills

Tight quarters don't present a problem for these drills. Compact but still powerful, these cordless models will be well received by any woodworker who has struggled to drill holes or drive screws inside small cabinets or other tightly constrained spaces. A right-angle drill isn't intended to serve as a primary cordless drill; it's more of a specialty tool.



Options Worth Having

Extra battery. This is the first accessory to buy. It allows you to keep working when your first battery runs out of power.

Drill holster. If you don't mind being taken for a John Wayne impersonator, you'll always have your drill at your side and ready for action.

Fast charger. This type of charger, which comes standard on some drills, cuts charging time down to 10 or 15 minutes.

Carrying case. It's wise to invest in a case if your drill doesn't come with one. Many will accommodate the drill's charger and an extra battery.

For More Info

To learn more about cordless drill technology, see "What's New in Cordless Drills," AW #47 (October 1995).

pistol-grip design, you grip high on the handle and push directly in line with the bit for stable, powerful drilling. But a pistol grip tends to be front-heavy; one-handed aim and bit placement can be difficult.

A T-handle model is usually more compact, so it's better for use in awkward spaces. But it's harder to apply force directly in line with the bit.

Ergonomics

Regardless of handle style, a drill should feel good in your hand, even after extended use. Before you buy, visit a hardware



Dueling drills. A T-handle model (left) is easier to balance and more compact. A pistol-grip (right) lets you push directly in line with the bit.

store or home center to test several drills for weight, balance, handle size and convenience of controls.

Electronic Brake

An electronic brake stops the chuck from spinning as soon as you release the trigger. This way, you don't have to pause before driving the next screw or changing bits.

Clutch

Adjustable clutches let you select the desired torque for driving screws to a precise depth. Black & Decker and DeWalt offer a Versa-Clutch® that engages the chuck only when you push on the bit. Electronic clutches, which are quiet, simply cut power to the drill when a particular torque is reached.

Chuck

Keyless chucks generally won't apply as much tightening force as keyed chucks, but they're much more convenient. Consider getting a keyed chuck if you often use large-diameter drill bits with small shanks.



Keyless chuck. If you tend to lose your keys, you'll love this feature, which lets you tighten and loosen the chuck by hand.

Cordless Drills

New models in red.



Black & Decker PS320



Metabo BEAT100/2 R+L



Skil HD2645:04



Hitachi DS13DV2B

Brand & Model	List Price	Battery Volts	Fast Charge	Max. Rpm: Low Range, High Range*	Chuck Type	Chuck Capacity (in.)	No. of Clutch Settings**	Handle Type	Weight (lbs.)	Comments & Features
Black & Decker BD2300	\$89	9.6	N	300, 700	KL	3/8	6	PG	4	Built-in level.
Black & Decker BD2305	99	9.6	N	700	KL	3/8	6	PG	5	Built-in level.
Black & Decker PS320	72	9.6	N	350, 700*	KL	3/8	2	PG	3	Textured handle for better control.
Black & Decker PS330	84	9.6	N	700	KL	3/8	6	PG	3	Textured handle for better control.
Black & Decker PS3200	72	9.6	N	350, 700*	KL	3/8	2	TH	3	Textured handle for better control.
Black & Decker PS3300	84	9.6	N	700	KL	3/8	6	TH	3	Textured handle for better control.
Bosch 3100K	239	9.6	OPT	350, 1,000	KL	3/8	42	PG	3.6	Electronic clutch.
Bosch 3109K	239	9.6	OPT	350, 1,000	KL	3/8	16	TH	3.5	Extra battery.
Bosch 3110K	318	9.6	OPT	350, 1,000	KL	3/8	16	TH	3.5	2 high-capacity batteries.
Bosch B2100K	239	9.6	OPT	400, 900	KL	3/8	42	PG	3.6	Electronic clutch; extra battery.
Bosch B2109K	239	9.6	OPT	350, 1,000	KL	3/8	16	TH	3.5	Extra battery.
Bosch B2110K	318	9.6	OPT	350, 1,000	KL	3/8	16	TH	3.5	2 high-cap. batteries.
Craftsman 27184	100	9.6	N	600	KL	3/8	4	PG	3.8	Storage case; built-in level.
Craftsman 27190	130	9.6	N	350, 1,000	KL	3/8	24	TH	3.8	2 high-cap. batteries; brake; case.
DeWalt DW952K-2	284	9.6	OPT	400, 1,100	KL	3/8	16	TH	3.7	Extra battery; case.
DeWalt DW961K-2	330	9.6	OPT	400, 1,200	KL	3/8	16	PG	3.9	Anti-slip grip.
Fein DSSKE 315	410	9.6	N	320, 2,200	KL	3/8	5	PG	3.4	Pressure-operated clutch.
Hitachi D10DF2K	295	9.6	N	400, 1,100	KL	3/8	5	TH	3.7	Electronic brake.
Hitachi DS10DV2B	401	9.6	OPT	1,200	KL	3/8	22	TH	3.5	2-amp/hour battery.
Hitachi FDS10DVA	268	9.6	OPT	850	KL	3/8	5	TH	3.3	Extra battery.
Jepson 2416K	220	9.6	N	400, 1,100	KY	3/8	5	PG	2.7	Electronic brake.
Jepson 2417VK2	297	9.6	Y	300, 1,100	KL	3/8	6	TH	3.6	Case; extra battery.
Makita 6095DWE	329	9.6	OPT	400, 1,100	KL	3/8	12	PG	3.8	Extra battery.
Makita 6201DWHE	351	9.6	OPT	350, 1,100	KL	3/8	6	TH	3.7	2 high-cap. batteries.
Makita 6202DWG	390	9.6	OPT	350, 1,100	KL	3/8	6	TH	3.7	High-capacity power-display battery.
Makita 6221DWE	322	9.6	OPT	700	KL	3/8	6	TH	3.1	Extra battery.
Metabo BEA9.6/2 R+L	229	9.6	OPT	300, 900	KL	3/8	2	PG	3.6	Auxiliary side handle.
Metabo BEAT9.6/2 R+L	249	9.6	OPT	300, 900	KL	3/8	2	PG	3.7	Auxiliary side handle.
Metabo BEAT100/2 R+L	309	9.6	OPT	300, 1,100	KL	3/8	9	PG	4.1	Auxiliary side handle.
Milwaukee 0396-1/6	223	9.6	N	350, 1,000	KL	3/8	6	PG	3.8	Planetary gears.
Milwaukee 0406-1/6	300	9.6	N	350, 1,000	KL	3/8	5	PG	3.5	Extra battery; case.
Panasonic EY6181CRKW	307	9.6	OPT	350, 1,000	KL	3/8	22	TH	3.3	Compact; extra battery.
Panasonic EY6282EQK	309	9.6	Y	350, 1,000	KL	3/8	6	TH	3.6	High-capacity battery; extra battery opt.
Panasonic EY6780EQK	373	9.6	Y	800	HX	1/4	22	TH	3.3	Corner Master design fits in tight spaces.
Porter-Cable 9830	284	9.6	N	350, 1,250	KL	3/8	21	TH	4.3	Electronic brake; high-cap. batteries.
Porter-Cable 9840	289	9.6	N	350, 1,000	KL	3/8	5	TH	3.8	Extra battery.
Ryobi CTH962K	130	9.6	Y	300, 1,000	KL	3/8	6	TH	3.6	Extra battery.
Skil 2375	105	9.6	N	700	KL	3/8	5	PG	3.5	
Skil HD2645:04	175	9.6	N	350, 1,000	KL	3/8	16	TH	3.7	Extra battery.
Wen 497	50	9.6	N	300, 650	KL	3/8	—	PG	2.8	
Wen XP9600	80	9.6	Y	600	KL	3/8	6	TH	3.5	Tactile grip.
Black & Decker PS350	96	12	N	800	KL	3/8	6	PG	3.3	

CONVENTIONAL DRILLS

Chart continued on page 54.

See page 136 for listing of manufacturers.

KEY: Chuck Type: HX = hex, KL = keyless, KY = keyed. Handle Type: PG = pistol-grip, TH = T-handle. — = not applicable. NA = information not available. Y = yes. N = no. OPT = optional. *Speed ranges variable unless starred. **May include drill.

Cordless Drills

New models in red.



Metabo BEAT12/2 R+L



Milwaukee 0436-1/6



Panasonic EY6101SQK



Porter-Cable 9872

Brand & Model	List Price	Battery Volts	Fast Charge	Max. Rpm: Low Range, High Range*	Chuck Type	Chuck Capacity (in.)	No. of Clutch Settings**	Handle Type	Weight (lbs.)	Comments & Features
Black & Decker PS3500	\$96	12	N	800	KL	3/8	6	TH	3.3	
Bosch 3054VSRK	323	12	OPT	500, 1,100	KL	3/8	38	PG	4	Electronic clutch.
Bosch 3300K	285	12	OPT	400, 1,100	KL	3/8	42	PG	3.8	Electronic clutch.
Bosch 3310K	312	12	OPT	400, 1,200	KL	3/8	16	TH	3.7	2 high-cap. batteries.
Bosch B2300K	259	12	OPT	450 - 1,000	KL	3/8	42	PG	3.8	Electronic clutch; extra battery.
Bosch B2310K	312	12	OPT	400, 1,200	KL	3/8	16	TH	3.7	2 high-cap. batteries.
Craftsman 27139	160	12	N	350, 1,000	KL	3/8	6	PG	4.2	Extra battery.
Craftsman 27196	170	12	N	350, 1,100	KL	3/8	24	TH	4.2	2 high-capacity batteries; brake; case.
DeWalt DW953K-2	310	12	OPT	400, 1,200	KL	3/8	16	TH	4	Fan-cooled motor.
DeWalt DW971K-2	362	12	OPT	450, 1,400	KL	3/8	16	PG	4.2	Adjustable clutch.
DeWalt DW972K-2	362	12	OPT	450, 1,400	KL	3/8	16	TH	4.2	Anti-slip grip.
DeWalt DW974KQ	386	12	Y	450, 1,400	KL	3/8	24	TH	4.6	Versa-Clutch®. (See text.)
Hitachi DS10DVAK	360	12	N	400, 1,600	KL	3/8	5	TH	4	Case; extra battery opt.
Hitachi DS13DV2B	444	12	OPT	1,200	KL	1/2	22	TH	4.2	2 2-amp/hr. batteries.
Makita 6011DWE-2	365	12	N	450, 1,350	KL	3/8	6	PG	4.2	Extra battery; charger; case.
Makita 6212DWG	412	12	N	370, 1,150	KL	3/8	6	TH	4	High-capacity power-display battery.
Makita 6312DWG	432	12	N	370, 1,150	KL	1/2	6	TH	4.3	High-capacity power-display battery.
Metabo 0126	409	12	OPT	850, 3,000	KL	3/8	6	PG	4.5	Rubber ring on chuck.
Metabo BEAT12/2 R+L	295	12	OPT	300, 900	KL	3/8	2	PG	3.9	Auxiliary side handle.
Metabo BEAT112/2 R+L	399	12	OPT	300, 1,100	KL	1/2	2	PG	4.3	Auxiliary side handle.
Milwaukee 0401	305	12	N	350, 1,000	KL	3/8	6	PG	3.8	2-finger switch with brake.
Milwaukee 0407-1/6	354	12	N	350, 1,000	KL	3/8	5	PG	3.8	Extra battery; charger; steel case.
Milwaukee 0415	374	12	N	350, 1,000	KL	3/8	5	PG	3.8	Anti-slip grip; extra battery.
Milwaukee 0431-1/6	385	12	N	600	KL	1/2	—	PG	5.6	Auxiliary side handle.
Milwaukee 0436-1/6	385	12	N	1,200	KL	3/8	—	PG	5.2	Auxiliary side handle.
Milwaukee 0501	465	12	Y	400, 1,100	KL	1/2	19	PG	4.3	Battery flips for clearance.
Milwaukee 0502	436	12	Y	400, 1,100	KL	3/8	19	TH	3.8	Battery flips for clearance.
Panasonic EY6100CQKW	421	12	Y	350, 1,300	KL	3/8	22	TH	3.5	Extra battery.
Panasonic EY6100CRKW	361	12	OPT	350, 1,300	KL	3/8	22	TH	3.5	Compact; extra battery.
Panasonic EY6100EQK	378	12	Y	350, 1,300	KL	3/8	22	TH	3.8	Compact.
Panasonic EY6101SQK	440	12	Y	350, 1,300	KL	1/2	22	TH	4.4	Battery capacity indicator.
Panasonic EY6205EQK	372	12	Y	350, 1,000	KL	3/8	6	TH	4.1	High-capacity battery.
Panasonic EY6207EQK	442	12	Y	350, 1,300	KL	1/2	6	TH	4.4	High-capacity battery.
Porter-Cable 9852S	260	12	N	350, 1,000	KY	3/8	6	PG	4.5	Extra battery.
Porter-Cable 9853S	305	12	N	350, 1,000	KL	3/8	6	PG	4.5	
Porter-Cable 9855	335	12	N	350, 1,000	KY	1/2	6	PG	4.8	
Porter-Cable 9862	362	12	N	350, 1,250	KL	3/8	21	TH	4.3	Electronic brake; high-cap. batteries.
Ryobi CTH1202K	150	12	Y	300, 1,000	KL	3/8	6	TH	3.8	Extra battery.
Skil 2475-02	135	12	N	700	KL	3/8	5	PG	3.5	Case.
Skil HD2745-04	224	12	N	400, 1,200	KL	3/8	16	TH	4	Extra battery.

CONVENTIONAL DRILLS

Chart continued on page 56.

See page 136 for listing of manufacturers.

KEY: Chuck Type: HX = hex, KL = keyless, KY = keyed. Handle Type: PG = pistol-grip, TH = T-handle. — = not applicable. NA = information not available. Y = yes. N = no. OPT = optional. *Speed ranges variable unless starred. **May include drill.

Cordless Drills

New models in red.



DeWalt DW995



Bosch B2220

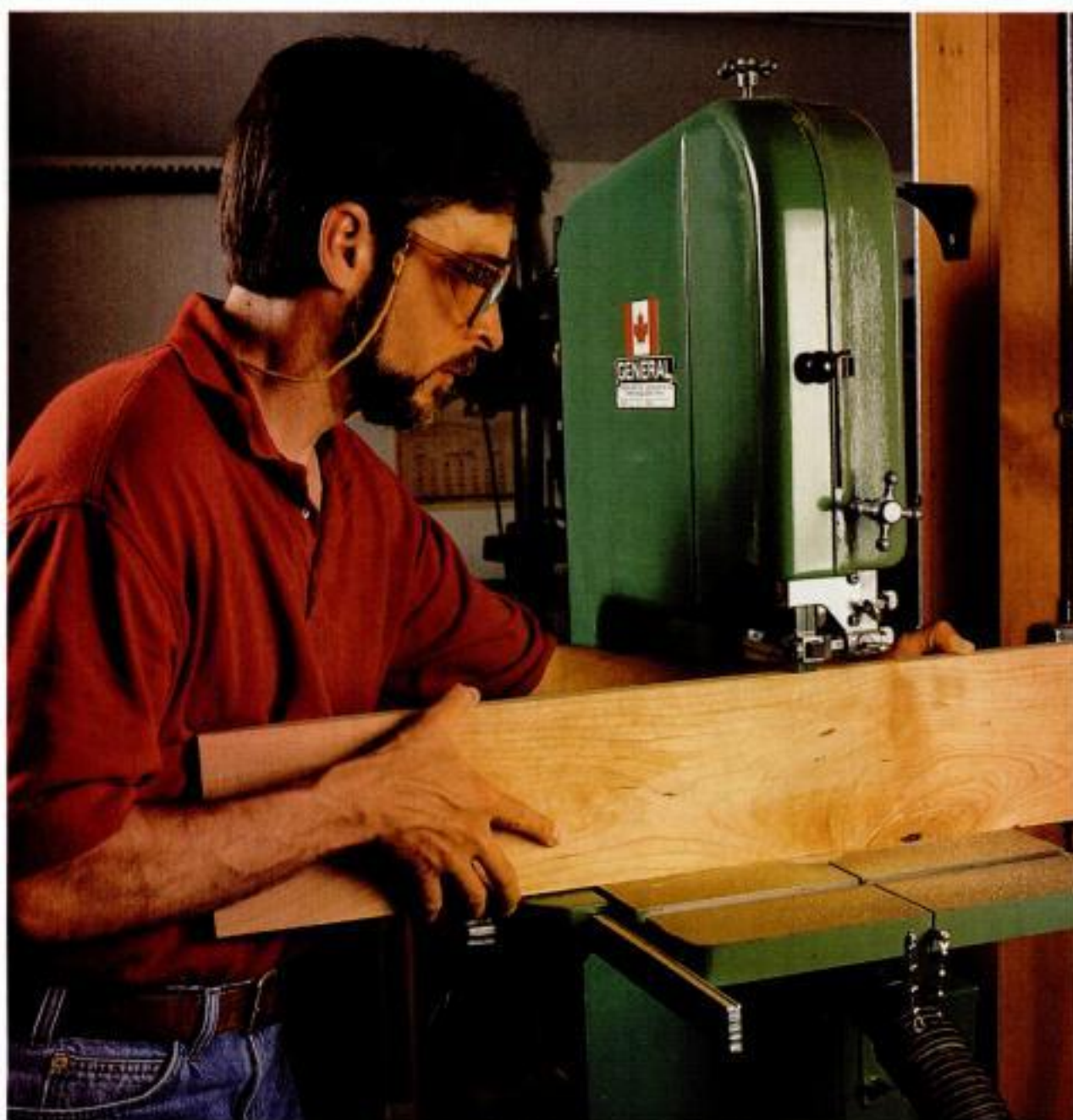


Hitachi DN10DYK

Brand & Model	List Price	Battery Volts	Fast Charge	Max. Rpm: Low Range, High Range*	Chuck Type	Chuck Capacity (in.)	No. of Clutch Settings**	Handle Type	Weight (lbs.)	Comments & Features
CONVENTIONAL DRILLS										
Wen 498	\$60	12	N	340, 720*	KL	3/8	—	PG	2.8	
Wen 498AC	110	12	N	340, 720*	KL	3/8	—	PG	2.7	Lightweight.
Wen XP1200	90	12	Y	300, 1,100	KL	3/8	6	TH	4	Tactile grip.
Wen XP1320	100	13.2	Y	300, 1,100	KL	3/8	6	TH	4.5	Tactile grip.
Black & Decker PS3600	120	14.4	N	800	KL	3/8	6	TH	3.6	
Bosch 3610K	349	14.4	OPT	450, 1,300	KL	3/8	16	TH	4.1	Extra battery.
Craftsman 27194	190	14.4	N	400, 1,400	KL	3/8	24	TH	4.5	2 high-capacity batteries; brake; case.
DeWalt DW991K-2	382	14.4	OPT	450, 1,400	KL	3/8	16	TH	4.9	Extra battery.
DeWalt DW994KQ	430	14.4	Y	450, 1,400	KL	1/2	24	TH	5.4	High-capacity battery.
Porter-Cable 9872	424	14.4	N	400, 1,450	KL	3/8	21	TH	NA	Electronic brake; high-cap. batteries.
Ryobi CD145K	150	14.4	Y	320, 1,150	KL	3/8	6	PG	4	Extra battery; case; charger; more.
Ryobi CTH1442K	170	14.4	Y	320, 1,150	KL	3/8	6	TH	4	Extra battery; case; charger; more.
Wagner PGT44DK-2	199	14.4	N	300, 1,100	KL	3/8	6	TH	4.3	2 1.7-amp/hr. batteries.
DeWalt DW995	438	18	N	450, 1,400	KL	1/2	16	TH	5.6	330 in./lbs. torque.
IMPACT DRIVERS										
Bosch 3220K	320	9.6	OPT	2,200	HX	1/4	—	TH	3.5	
Bosch B2220	320	9.6	OPT	2,200	HX	1/4	—	TH	3.5	
DeWalt DW967K	338	9.6	OPT	2,000	HX	1/4	—	TH	3.9	
Hitachi WH8DC2	379	9.6	OPT	2,200	HX	1/4	—	TH	3.1	694 in./lbs. torque.
Makita 6903VDW	339	9.6	N	2,200	HX	1/4	—	TH	2.9	Angled grip; electronic brake.
Makita 6940DW	438	9.6	OPT	2,000	HX	1/4	—	SG	3.3	Right-angle impact driver.
Milwaukee 9055-1/6	330	9.6	N	1,500	HX	1/4	—	TH	4	
Panasonic EY6588CQ	409	9.6	Y	2,200	HX	1/4	—	TH	3	Compact.
DeWalt DW977K	388	12	OPT	2,000	HX	1/4	—	TH	4.1	Electronic clutch.
Hitachi WH12DC	435	12	OPT	2,000	HX	1/4	—	TH	3.7	781 in./lbs. torque.
Makita 6911DWH	418	12	N	1,800	HX	1/4	—	TH	4	High-capacity battery.
Makita 6911HDW	404	12	N	1,800	HX	1/2	—	TH	4	Charger; case.
Makita 6913DWG	488	12	Y	2,200	HX	1/4	—	TH	3.5	High-capacity battery w/power display.
Milwaukee 9057-1/6	385	12	N	1,500	HX	1/4	—	TH	4	3/8-in. square drive.
Hitachi DN10DYK	370	9.6	OPT	800	KL	3/8	—	SG	2.9	Case.
Makita 6940DW	438	9.6	OPT	2,000	HX	1/4	—	SG	3.3	Right-angle impact driver.
Makita DA391D/DW	341	9.6	OPT	800	KL	3/8	—	SG	2.9	Plastic case.
Milwaukee 0432	489	12	N	400, 900	KL	1/2	—	PG	7.8	Extra battery.
Milwaukee 0479	433	12	N	1,000	KL	3/8	—	SG	3.8	55° angled head; charger.
RIGHT-ANGLE										

See page 136 for listing of manufacturers.

KEY: Chuck Type: HX = hex, KL = keyless, KY = keyed. Handle Type: PG = pistol-grip, SG = straight-grip, TH = T-handle. — = not applicable. NA = information not available. OPT = optional. *Speed ranges variable unless starred. **May include drill.



Strike up the band. The bandsaw's ability to rip, crosscut and resaw makes it a cornerstone of any well-equipped workshop.

Bandsaws

The bandsaw is one of the most versatile cutting machines you can own.

Its combination of control and stability make it the tool for cutting delicate curves in thick or thin stock, and for resawing wide stock into thinner boards or veneers. In addition, a bandsaw can rip and crosscut odd-shaped boards more safely than a tablesaw can.

Two-wheeled bandsaws are sized according to their wheel diameter. *Throat capacity*, the distance between the blade and the post that connects the upper and lower wheels, is always somewhat less than wheel diameter. A saw's throat capacity is the maximum width-of-cut the saw will handle.

3 Types of Bandsaws

Benchtop Bandsaws

When budget or space limits you to a smaller saw, consider a benchtop model. Available in two-wheel (see photo, below) or three-wheel versions, benchtop bandsaws are typically lighter, less powerful and less expensive than floor models.

Benchtop saws excel at light-duty cutting and scrollwork—cutting intricate curves in thin materi-

al. However, this isn't the type to buy if you'll want to resaw wide boards, or if you'll be cutting large or long boards, especially hardwood.



Features to Consider

Size and Power

For general-purpose work—cutting curves in stock of different thicknesses and occasional resawing—a medium-size floor model is a good choice, with a 12- to 16-in. wheel diameter and a $\frac{3}{4}$ - to 1-HP motor. If you'll be doing production work or heavy resawing, consider a larger 16-in., 18-in. or 20-in. model with a motor of at least 1½ HP.

Blade Guides

A bandsaw relies on guide assemblies to keep the blade on track. Blade guides have guide blocks that provide side support, and thrust bearings behind the blade that keep it from shifting or jumping off the wheels.

Upper blade guides are connected to a guide post that adjusts up or down to accommodate different stock thicknesses;



Three-Wheel Bandsaws

These models track the blade around a third wheel, to offer throat capacities comparable to larger two-wheelers in a relatively small saw.

But there are some disadvantages to the three-wheel design. The small-diameter wheels put more strain on blades, causing them to break more frequently. Keeping the blade properly tracked can also be more difficult than on two-wheel saws. With most three-wheel saws, maximum blade width is $\frac{3}{8}$ in.

Three-wheel saws are best for light-duty woodworking, and for woodworkers who need to cut tight curves in wide stock.

Floor-Model Bandsaws

Floor models are the real workhorses among bandsaws for a simple reason: You can do small work on a large band-saw, but you can't tackle large work on a small one. Heavy-duty machines can accept narrow blades to make delicate



cuts like the smaller benchtop saws. And with their heavier frames, larger throats and more powerful motors, these machines can also cut through thicker and denser stock. Mount a wide ($\frac{3}{8}$ -in. or wider) skip-tooth blade and you're set for resawing.

Options Worth Having

Cool Blocks®. These self-lubricating blocks replace the standard metal guide blocks. They can be set against the blade to eliminate twisting and provide a smoother cut.

Riser block. Increase your resaw capacity by 6 in. with this height attachment. The block bolts onto most 14-in. models and raises the upper wheel. Note that this accessory will require you to buy longer blades.

For More Info

Check out the detailed test results in our "Buyer's Guide to Bandsaws," AW #38 (June 1994).

lower guides are fixed. Look for upper blade guides that remain parallel to the blade when locked in any position on the guide post.

There are two basic types of guide blocks: ball bearing and metal. (See photos, below.) Ball-bearing guides do a better job of supporting the blade than metal guides do, and among the ball-bearing guides, the European-style guides are easier to adjust than their American-

style equivalents.

Metal guide blocks require more clearance on both sides of the blade, but they're inexpensive and easy to replace.

The Frame

Rigid frames cut down on vibration and provide more support for blades. In general, cast-iron frames or welded, heavy-gauge steel frames are more rigid than aluminum frames.

The Table

Choose a saw with a table that fits the way you work. If you plan to cut oversize stock, look for a large table.

A table that tilts in two directions instead of just one allows you to handle a larger variety of angled cuts, such as dovetails. Look for a smooth table-tilt adjustment where the table engages the trunnions. Also, check that the table locks securely at any angle without flexing.

3 TYPES OF BLADE GUIDES



Blocks and bearings. Solid metal guide blocks (left) are simple in design and inexpensive, but they don't provide the blade support that's possible with guides that run on ball bearings. European-style guides (center) are easier to adjust than American-style guides (right).

Bandsaws

New models in red.



Craftsman 24458



Delta 28-280



Laguna Tools LT 16

See page 136
for listing of manufacturers.

Brand & Model	List Price	Size (in.)	Resaw Capacity (in.)	Table Tilt Left, Right (°)	Blade Guide Type	Maximum Blade Width (in.)	HP	Volts	Dust Collection Port	Weight (lbs.)	Comments & Features
Delta 28-185	\$213	8	5	0, 45	M	3/8	1/5	115	Y	35	Micro Set® blade guide.
Inca 205	395	8	5 1/2	0, 45	CB	1/2	1/2	115	Y	45	
Black & Decker BS700	235	9	3 5/8	0, 49	BB	3/8	1/3	115	Y	26	Electronic variable speed control.
Craftsman 24458	180	9	3 1/2	0, 45	M	3/8	1/5	115	Y	35	Cast-alum. frame; cast-iron base.
Grizzly G1052	170	9	4 1/4	15, 45	BB	1/2	1/2	115	Y	100	Cast-iron constr.; aluminum table.
Pro-Tech 3203	169	9	3 5/8	0, 45	M	3/8	1/3	115	Y	31	Rack & pinion guide & trunnion.
Ryobi BS900	179	9	3 1/4	45, 45	M	3/8	1/3	115	Y	30	Wheel brush.
Black & Decker 9443	305	10	3 7/8	0, 45	M	3/8	1/5	115	N	33	3-wheel saw.
Craftsman 24453	220	10	3	0, 45	M	1/4	1/5	115	Y	32	3-wheel saw; variable speed.
Craftsman 24460	160	10	3	0, 45	M	1/4	1/5	115	Y	31	3-wheel saw; cast-iron base.
Dremel 1120	449	10	7	0, 45	P	1/2	1/2	115	Y	65	2 speeds.
Skil HD3640	533	10	7	50, 6	P	1/2	1/2	115	Y	64	Cast-alum. frame.
Tradesman 8160A	149	10	3 7/8	5, 45	BB	3/8	1/5	115	Y	36	6-in. sanding disc & table available.
Inca 340	795	10 1/2	6 1/2	0, 45	CB	1/2	3/4	115	Y	75	
Inca 350	995	12 1/2	8	0, 45	CB	3/4	1	115	Y	95	
General 490	1,012	15	8	10, 45	M	3/4	—	—	N	210	Motor not incl.; 1-pc. cast-iron frame.
Tradesman 8175	499	15	6 9/32	0, 45	BB	1/2	3/4	115	Y	100	3-wheel saw; sanding disc incl.
Lobo BS-700	209	9	3 1/2	2, 50	BB	3/8	1/3	115	N	26	Worklight.
Lobo BS-1000	169	10	5 1/2	0, 45	P	3/4	1/2	115	N	52	
Craftsman 24835	350	12	6	—	M	1/2	5/8	115	Y	130	Head tilts 45° instead of table.
Delta 28-190	497	12	6	3, 45	M	1/2	1/2	115	Y	120	Worklight.
Bridgewood PBS-320	659	13	6 1/2	0, 45	M	1	1	230	Y	143	Cast-iron wheels.
AMT 4113	299	14	6	0, 45	M	3/4	—	—	N	160	Motor not incl.
Belsaw MC-14BS-2	695	14	5 3/4	10, 45	M	3/4	3/4	115	N	190	3 speeds.
Bridgewood BW-14BS-3	375	14	6	10, 45	M	3/4	3/4	115	N	215	3 speeds.
Craftsman 24834	550	14	6	10, 45	N	3/4	3/4	115	Y	195	Cast-iron frame and table.
Delta 28-275	801	14	6 1/4	10, 45	M	3/4	3/4	115	Y	201	Micro-adjusting blade guides.
Delta 28-280	1,076	14	6 1/4	10, 45	M	3/4	1	115	Y	224	Micro-adjusting blade guides.
Grizzly G1019	300	14	6	10, 45	M	3/4	3/4	115/230	N	200	Circle cutter; fence.
Jet JWBS-14CS	707	14	6	10, 45	P	3/4	1	115	Y	185	Micro-adjusting top blade guides.
Jet JWBS-14MW	799	14	6	10, 45	P	3/4	1	115	Y	194	3 speeds.
Jet JWBS-14OS	607	14	6	10, 45	P	3/4	3/4	115	Y	172	Micro-adjusting top blade guides.
Lobo BS-0143	329	14	6	10, 45	P	1/2	3/4	115	N	176	3 speeds.
Powermatic 043	900	14	7 1/2	15, 45	BB	3/4	3/4	115/230	Y	166	Fence optional.
Powermatic 044	900	14	9	15, 45	BB	3/4	1	115/230	Y	214	Push-button switch.
Powermatic 141	1,852	14	6 1/2	15, 45	BB	3/4	3/4	115/230	Y	375	1-piece, cast-iron frame.
Reliant DD90	300	14	5 3/4	10, 45	M	3/4	1	115/230	N	168	4 speeds.
Sunhill VBS-14	359	14	6	15, 45	M	1/2	1	115	N	200	Open stand.
Tradesman 8157	359	14	6 1/4	10, 45	BB	1/2	1	115/230	Y	162	2 speeds; accessory rip fence.

Chart [continued on page 62](#).

KEY: Blade Guide Type: BB = ball bearing, CB = Cool Blocks®, CR = carbide, M = metal, N = nylon, P = plastic, RB = roller bearing. — = not applicable. NA = information not available. Y = yes. N = no. OPT = optional.

Bandsaws

New models in red.



Bridgewood PBS-440B



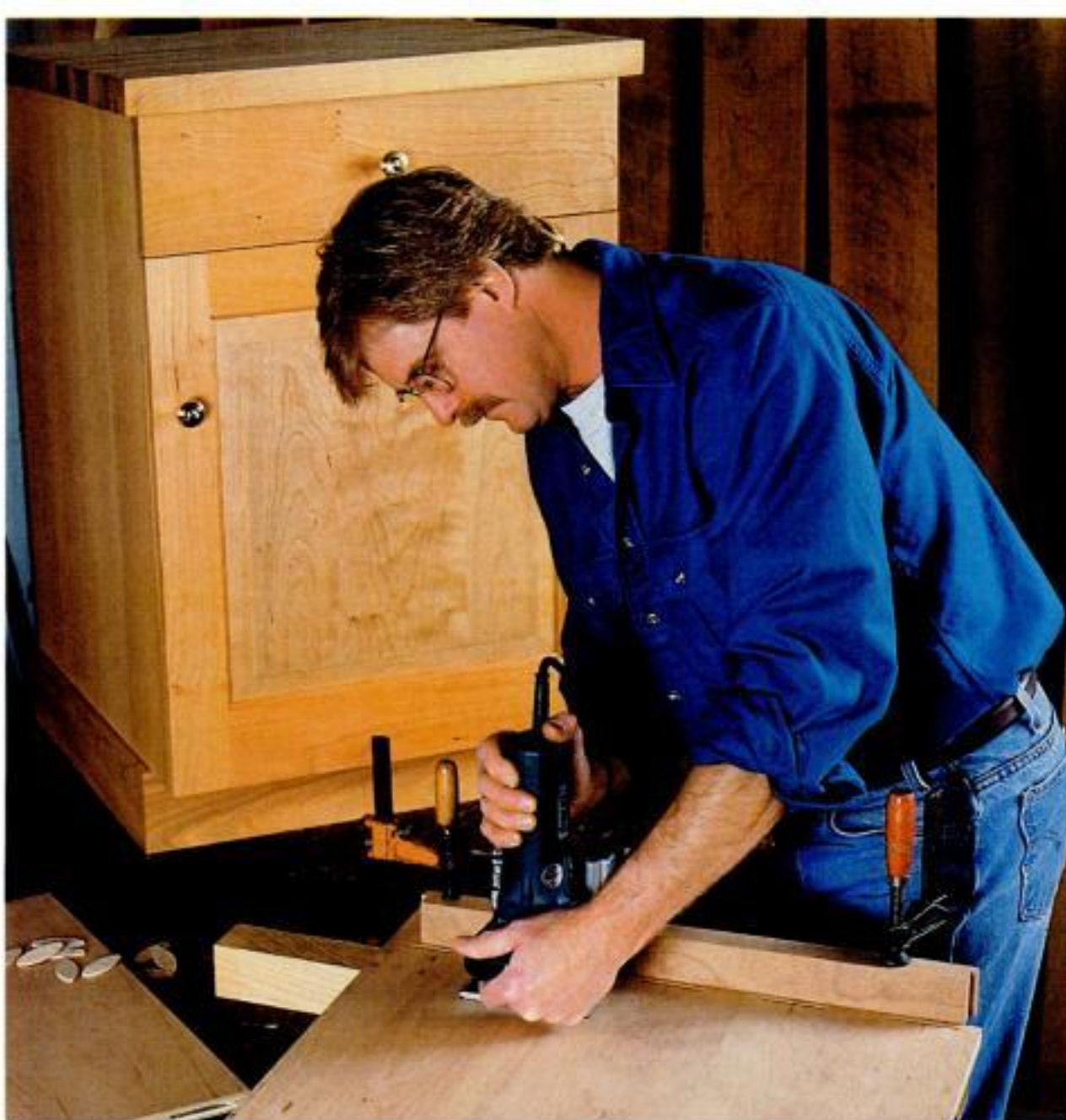
Jet JWBS-20-1

Brand & Model	List Price	Size (in.)	Resaw Capacity (in.)	Table Tilt Left, Right (°)	Blade Guide Type	Maximum Blade Width (in.)	HP	Volts	Dust Collection Port	Weight (lbs.)	Comments & Features
Transpower SB500	\$250	14	6	10, 45	BB	3/4	1	115	N	195	3 speeds.
Hitachi CB75F	4,770	14 1/2	11 3/16	0, 45	BB, P	3	2 7/10	115	Y	309	Accepts wide blades.
Star S3501	380	14 1/2	6	0, 45	M	1	3/4	115	N	210	
Craftsman 24393	700	15	8 1/2	0, 45	M	3/4	3/4	115	Y	220	Wheel brush.
General 490-1-M1	1,418	15	6 3/4	10, 45	M	3/4	3/4	115/230	N	300	Solid 1-piece cast-iron frame.
Grizzly G1148	445	15	7 3/8	10, 45	M	3/4	3/4	115/230	Y	164	2 speeds; micro-adj. blade guides.
Lobo BS-0153	349	15	10	0, 45	M	3/4	3/4	115	N	82	3 speeds.
Grizzly G1073	575	16	7 3/4	0, 45	M	1 1/2	1	115/230	Y	450	3 speeds; micro-adj. blade guides.
Laguna Tools LT 16	1,445	16	9 1/4	5, 45	BB	1	1 4/5	230	Y	295	2 dust-collection ports.
Laguna Tools LT 16 SEC	1,595	16	12	5, 45	BB	1	2 1/2	230	Y	300	Rack & pinion guide bar; ft. brake.
Lobo BS-0163	619	16	10	10, 45	P	1	1 1/2	115	N	290	3 speeds.
Reliant EE166	500	16	10 1/2	5, 45	M	1	1 1/2	115/230	N	286	3 speeds.
Transpower SB600	475	16	10 1/2	10, 45	BB	1	1 1/2	115	N	325	3 speeds.
Bridgewood PBS-440B	1,595	18	9	5, 45	BB	1 3/16	2	230	Y	395	Rack & pinion guide post.
Craftsman 24396	1,200	18	11	0, 45	M	1	1	115	Y	270	Wheel brush.
Grizzly G1012	350	18	9 1/2	0, 45	M	2	1 1/2	230	N	350	3 speeds; magnetic switch.
Laguna Tools LT 18	1,895	18	12	5, 45	BB	1	3	230	Y	380	Micro-adjusting blade guides.
Lobo BS-0181	979	18	9 3/4	10, 45	RB	1 1/2	2	230	Y	420	Wheel brush.
Lobo BS-0183	779	18	9 1/2	10, 45	P	1	2	230	N	500	3 speeds.
Mini Max S-45	1,695	18	10	0, 45	BB	1	1 1/2	230	Y	330	Quick-set top guides; 3-phase opt.
Reliant DD18	630	18	9 3/4	5, 45	M	1 1/2	2	115/230	N	366	3 speeds.
Sunhill VBS-18	795	18	12	15, 45	M	1 1/4	2	115/230	N	450	Open stand.
Transpower SB800	625	18	10 1/2	10, 45	BB	1 1/2	2	115/230	Y	425	3 speeds.
Jet JWBS-20-1	2,379	20	11 3/4	10, 45	CR	1	2	115/230	Y	880	Miter gauge; rip fence; foot brake.
Jet JWBS-20-3	2,379	20	11 3/4	10, 45	CR	1	2	230/460	Y	880	Miter gauge; rip fence; foot brake.
General 390	3,200	20	12 1/4	10, 45	M	1	2	230	Y	900	
Grizzly G1258	1,295	20	12 3/8	0, 45	M	2	1 1/2	230	Y	580	Micro-adjusting blade guides.
Inca 710	1,695	20	8	45, 0	BB	1	1 1/2	115/230	Y	160	3-wheel saw.
Star S3506	1,850	20	12	10, 45	BB	1 1/2	3	230	Y	650	Miter gauge; wheel brake.
Woodtek 811630	1,825	20	12 1/2	0, 45	BB	1	2	230	Y	727	Precision blade guides; foot brake.

FLOOR MODELS

See page 136 for listing of manufacturers.

KEY: Blade Guide Type: BB = ball bearing, CB = Cool Blocks®, CR = carbide, M = metal, N = nylon, P = plastic, RB = roller bearing. — = not applicable. NA = information not available. Y = yes, N = no. OPT = optional.



Slot and spline. Biscuit joiners cut slots for flat, football-shaped biscuits of compressed wood. The biscuits swell when glued to make strong joints.

Biscuit Joiners

Biscuit joiners are quick and efficient at making joints in solid wood or man-made boards. To cut a biscuit joint, you plunge the tool's spinning cutter into the mating workpieces to make a pair of matching, arc-shaped slots. Then you glue in a flat, football-shaped "biscuit." Made from compressed wood, the biscuit swells from the glue's moisture to create a tight, strong joint.

Biscuit joiners are ideal for carcass joinery in man-made boards like medium-density fiberboard and particleboard. They'll also make butt, corner, and miter joints in framework and help align boards for edge gluing.

2 Types of Biscuit Joiners

Portable

Practically all the biscuit joiners on the market are portable, hand-held models. They're most popular because they're very versatile.

With a portable biscuit joiner, you place the tool on the workpiece. This means you can cut joints just about anywhere—even in the middle of a panel face or a very large workpiece. But a portable model can be tiring to use when you're working with small stock in a production situation.



Features to Consider

Fence-Height Adjustment

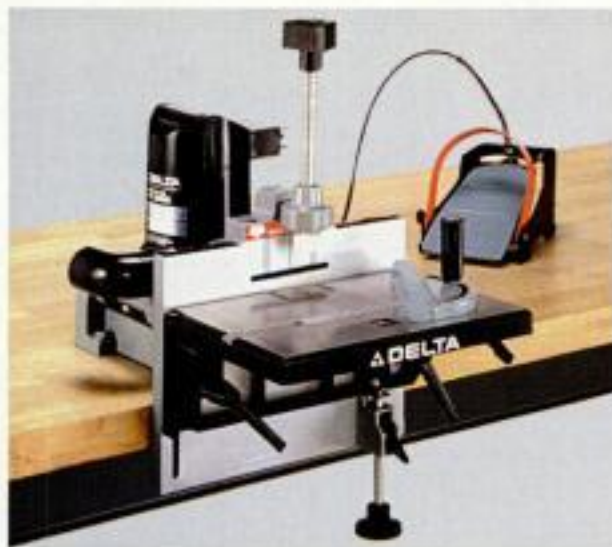
Fence height is most easily adjusted using locking levers; Allen-screw mechanisms can be frustrating to use. The DeWalt's double rack-and-pinion mechanism keeps the fence parallel during adjustment.

Depth-of-Cut Adjustment

All full-size biscuit joiners have a slot-cutting adjustment to accommodate the three common biscuit sizes: #0, #10 and #20. Some also cut deeper slots for oversized biscuits and special biscuit-shaped hardware and hinges. Ryobi's new Detail Biscuit Joiner uses miniature biscuits in three sizes: 5/8 in., 3/4 in., and 1 in.

Fence Construction

Better fences are made of precision-machined steel or aluminum. Plastic fences can flex in use, reducing slotting accuracy.



Benchtop

Delta makes a biscuit joiner that anchors to a benchtop—you handle the work instead of the machine. This is helpful for small, repetitive work. But feeding large panels can be awkward.

You register the workpiece against the fence and step on a foot pedal to drive the blade into the piece. The tabletop adjusts for height and tilt; it also accommodates a miter gauge, which is included.

Slip Clutch

The slip clutch on the Lamello Classic, Standard 10 and Top 10 makes the blade stop if the cutter jams, reducing wear on the motor.

Dust Collection

Most of these machines have a dust bag, but these tend to fill up quickly. Some models have a port to which you can connect an optional vacuum fitting—a good feature.

Cordless Cutting

If electrical cords bog you down, consider Lamello's new 12-volt cordless biscuit joiner. (See chart, page 66.)

Anti-Slip Devices

Most biscuit joiners use small retractable pins or small rubber pads to prevent the machine from slipping sideways as its blade bites into the wood. A full-width rubber pad works best, especially when you're gripping small workpieces. (See photo, right.)

FENCE-ANGLE ADJUSTMENT

Fences are either fixed or adjustable to allow for cutting slots in angled joints. (See photos, below.) Fixed fences will work on 90°, 45°, and 135° angles. A biscuit joiner with a continuous protractor scale lets you set the fence to any angle within a given range. With this type of adjustable fence, you can join boards at odd angles. See the Fence-Angle Adjustment column in the chart on page 66.



Biscuit-joined miters. At left, a biscuit joiner with a fixed 45° fence registers against the inside face of the workpiece. Below, adjustable fences capture the beveled edge of the miter. This will align the outside corners of the workpiece when the joint is assembled.



Pads and pins.

Full-face rubber pads like the one on the Makita at left work best for gripping a workpiece. The DeWalt, at right, employs pronged, spring-loaded pins which press against the work.

Biscuit Joiners

New models in red.



DeWalt DW682K



Ryobi DBJ50

Brand & Model	List Price	Fence-Angle Adjustment (°)	Depth Stops	Anti-Slip Device	Amps	Dust Collection	Weight (lbs.)	Comments & Features
AMT 4960	\$165	Fixed 90, 135	3	FP	6	DB	6.8	2-lever fence lock.
Craftsman 17501	100	Adj. 90 - 135	3	RU	6	DB	7	2-knob fence lock.
Craftsman 27730	220	Adj. 90 - 180, notch at 45	4	RP	6.5	DB, VP	6.6	Rack & pinion fence height adjustment.
DeWalt DW682K	448	Adj. 90 - 180, notch at 45	4	RP	6.5	DB, VP	6.6	Rack & pinion fence height adjustment.
Freud JS100	333	Fixed 90, 135	6	RU	5	DB, VP	6.2	Anti-kickback blade.
Freud JS102	355	Fixed 90, 135, adj. 90 - 180	6	RU	5	DB, VP	6.3	Anti-kickback blade.
Jepson 7204	230	Fixed 90, 135	3	RP	6	DB	4.5	Anti-kickback blade.
Lamello Classic	399	Adj. 90 - 180	6	RU	6.5	VP	6.8	Slip clutch. (See text.)
Lamello Cobra 10	375	Adj. 0 - 90	6	RU	2.2	VP	6.5	
Lamello Dynamic	725	Adj. 90 - 180	6	RU	—	DB	5.7	12-volt cordless.
Lamello Standard 10	565	Fixed 90, notch at 45	6	RU	5.9	VP	6.6	Slip clutch. (See text.)
Lamello Top 10	799	Adj. 0 - 90	6	RU	6.5	VP	7	Slip clutch. (See text.)
Makita 3901	376	Adj. 0 - 90	6	RU	5.6	DB	6.2	Rack & pinion adj.
Porter-Cable 555	320	Fixed 45, 90	3	FP	5	—	6	Vertical handle.
Porter-Cable 556	240	Adj. 0 - 90	2	RP	5	—	6	Vertical handle.
Practical Products CA-800	221	Adj. 90 - 180; 15° notches from 0 - 90	6	RP	6	DB, VP	7	Tilt, height adjust independently.
Ryobi DBJ50	80	Fixed 45, 90, 180	3	RU	3.5	—	4	Uses mini biscuits.
Ryobi JM-80K	100	Adj. 0 - 135	4	RU	6	DB	7	
Ryobi JM-100K	250	Adj. 45 - 180	3	RU	5.3	DB	7.3	Wide fence-angle adj.
Skil HD1605	179	Fixed 90, 135	3	RU	5	DB, VP	6.6	Allen wrench fence adj.
Skil HD1606-02	234	Adj. 0 - 90	3	RU	5	DB, VP	6.6	Tool-free fence adj.
Virutex AB-11C	265	Adj. 90 - 180	3	RU	6	VP	7	
Delta 32-100	351	Adj. 90 - 135	3	WC	10	VP	39.6	Benchtop model.

See page 136 for listing of manufacturers.

KEY: Anti-Slip Device: FP = fixed pins, RP = retractable pins, RU = rubber pads, WC = work clamps. Dust Collection: DB = dust bag, VP = vacuum port. — = not applicable.

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Shop chops. For portability, precision and ease of use, miter saws beat radial-arms. This sliding compound saw can crosscut stock up to 12 in. wide.

Power Miter Saws

Power miter saws, often called “chop saws,” have mitered and beveled their way to become highly prized tools in workshops and on jobsites. It’s easy to see why. These portable saws can handle everything from trimming studs to mitering picture frames and cutting crown moldings. Chop saws excel at making precise cuts at various angles and then quickly and reliably adjusting back to square.

The size of a miter saw is based on its blade diameter. Saws come in sizes ranging from 6½ in. to 15 in. Larger saws typically have greater cutting capacity. ([See chart, page 70.](#)) Conventional chop saws are designed to handle cutoff work in relatively narrow stock—under 6 in. wide. Sliding compound-miter saws can slice through stock up to 12 in. wide.

3 Types of Miter Saws

Conventional Saws

These machines are designed for cutting miters from 0° to 45° (or more on some machines). Most 10-in. models can cut a 2x6 or 4x4 at 90° and a 2x4 at 45°.



Features to Consider

Adjustments

Look for smooth-working miter and bevel adjustments and easy-to-read scales. Large, accessible miter and bevel locking mechanisms make a difference when you need to switch angle settings frequently. Similarly, detents, or stops, are useful for homing in on common angles such as 0°, 22½° and 45°. Some compound saws have bevel detents at 31.6° and 33.9° for cutting standard crown moldings.

Other handy features include spindle locks for one-wrench blade changing and—on sliding compound saws—depth stops for making stopped cuts to a precise depth. (See near right photo, opposite.)

Fences

All miter saws have a split fence design with a gap in the middle for the blade. On some saws, this gap is too wide to safely

Compound Saws

These take conventional miter saws one step further. A compound-miter saw has a head that tilts 45° (or more) to one or both sides for bevel cuts. By combining a bevel cut with a miter cut, this type of saw can make compound miters. Capacities are similar to those of conventional miter saws.

Compound-miter saws are especially useful for cutting wide baseboard trim, crown molding and other cornice treatments that require compound cuts.



Sliding Compound Saws

Like the compound-miter saw, this newest type of miter saw has a head assembly that rotates and tilts for compound cutting. Two of these saws, the Makita LS1211 and Hitachi C10FS, tilt both left and right.

The head on a sliding saw is mounted on a rail system that allows it to slide forward and back. This increases crosscutting capacity to just over 12 in. on some models. To operate the saw, you pull the elevated blade toward you, pivot it down into the front edge of the stock, then push it back toward the fence to complete the cut. This "chop and push" motion is safer than a radial-arm saw.

Options Worth Having

Blades. Carbide-tipped, finish-cutting crosscut blades cut more smoothly than steel blades. A 10-in. blade with 60 or more teeth and a low hook angle makes glass-smooth cuts in molding and thin stock. For sliding saws, get a blade with a 0° or 5° negative hook. (For more on blades, see AW #32.)

Workstation. No machine benefits more from a dedicated stand than the chop saw. A well-designed workstation will include extension tables and fences. Aftermarket stands are available, or you can make your own. (See AW #31.)

Table extensions and adjustable stops. If you don't plan on a shop-made work table, invest in a set of factory-made extension rails and stops to support long stock and make repetitive cuts accurately.

Work clamps. These accessory clamps secure your work against the table and the fence.

support short stock, so you'll need to attach a wooden auxiliary fence. Some saws offer an adjustable fence.

Safety Features

Look for a blade guard that retracts smoothly as you pivot the blade into the work. Also, look for an electric brake that stops the blade when you release the on-

off switch or press a button. Some saws have a safety button that must be depressed before you can turn on the saw.

Dust Busting

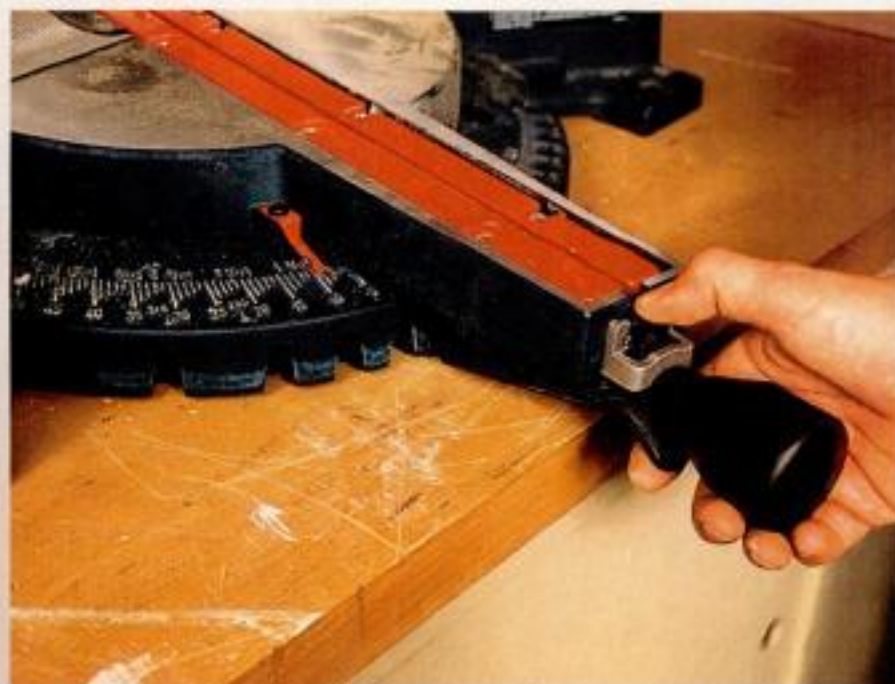
Although most saws come with a dust bag, more dust ends up on the floor than in the bag. Models that can be hooked up to a shop vacuum will be less dusty.

For More Info

Check out the detailed test results in "Shop Tested: Sliding Compound-Miter Saws," AW #53 (August 1996).



Dado depth. A depth-stop mechanism on sliding compound saws is good for dadoing, or whenever you need precise cuts to a certain depth.



Stops and scales. A solid wedge & slot design and easy-to-read scales on the Bosch sliding compound saw makes for precise mitering.

Power Miter Saws

New models in red.



Milwaukee 6491



Craftsman 23492



Hitachi C8FB2



Ryobi TSS200

Brand & Model	List Price	Blade Dia. (in.)	Maximum Crosscut T x W (in.)	Max. Miter Cut T x W (in.) @ 45°	Miter Adj. Range (° L, ° R)	Bevel Adj. Range (° L, ° R)	Amps	Weight (lbs.)	Comments & Features
MITER									
Black & Decker 1710	\$169	10	2 x 6	2 x 4	45, 45	—	12	28	Adjustable miter detents.
Craftsman 23510	180	10	2 ⁵ / ₈ x 5 ³ / ₄	2 ⁵ / ₈ x 4 ¹ / ₄	49, 49	—	12	32	Yoke-style pivot.
Delta 34-080	288	10	2 ¹ / ₂ x 5 ³ / ₄	3 ¹ / ₂ x 2 ⁷ / ₈	47, 48	—	13	55	Replaceable table insert.
Delta 36-070	217	10	2 ¹ / ₄ x 5 ³ / ₄	2 ¹ / ₄ x 4 ¹ / ₈	48, 50	—	13	28	Electric blade brake; carry handle.
Delta Sidekick 36-090	310	10	2 ¹ / ₂ x 5 ¹ / ₂	2 ¹ / ₂ x 3 ⁷ / ₈	47, 47	—	12	30	Adjustable handle.
Jepson 9211NB	378	10	3 ¹ / ₈ x 4 ¹⁵ / ₁₆	3 ¹ / ₈ x 3 ¹ / ₈	47, 47	—	15	58	60-tooth carbide blade included.
Makita LS1030	428	10	2 ³ / ₄ x 4 ⁶ / ₁₆	2 ³ / ₄ x 3 ¹ / ₂	45, 45	—	12	23	Quick-release work clamp.
Milwaukee 6490	486	10	3 ¹ / ₂ x 3 ⁷ / ₈	3 ¹ / ₂ x 2 ³ / ₄	51, 59	—	15	31.5	Extra-tall fence.
Milwaukee 6491	584	10	3 ¹ / ₂ x 3 ⁷ / ₈	3 ¹ / ₂ x 2 ³ / ₄	51, 59	—	15	32.3	6490, plus dust bag, 80-tooth CT blade.
Milwaukee 6492	649	10	3 ¹ / ₂ x 3 ⁷ / ₈	3 ¹ / ₂ x 2 ³ / ₄	51, 59	—	15	35.6	6491, plus extension with stop gauge, vise.
Porter-Cable 7700	646	10	3 ¹ / ₂ x 5 ¹ / ₂	3 ¹ / ₂ x 3 ¹ / ₂	46.5, 46.5	—	13	36	Laser line-of-cut indicator.
Ryobi TS254	200	10	3 ⁹ / ₁₆ x 5 ⁹ / ₁₆	3 ⁹ / ₁₆ x 3 ⁷ / ₈	46, 46	—	12.5	34	Carbide blade.
Tradesman 8322	169	10	3 ¹ / ₈ x 4 ¹ / ₄	2 ⁷ / ₈ x 4 ¹ / ₄	45, 60	—	12	53	Cast-iron base; work clamp.
DeWalt DW704	570	12	2 ¹ / ₂ x 7 ⁷ / ₈	2 ¹ / ₂ x 5 ¹ / ₂	48, 48	—	13	36	Extra-tall fence.
Hitachi C15FB	1,346	15	4 ³ / ₄ x 7 ⁹ / ₃₂	4 ³ / ₄ x 5 ¹⁵ / ₃₂	52, 52	—	15	55	Center-beam construction for accuracy.
COMPOUND-MITER									
Craftsman 23468	160	8 ¹ / ₄	2 ¹ / ₁₆ x 5 ¹ / ₂	2 ¹ / ₁₆ x 3 ³ / ₄	49, 49	45, 0	9	38	Crosscuts finished 2x6.
Delta 36-040	190	8 ¹ / ₄	2 ¹ / ₈ x 5 ¹ / ₈	2 ¹ / ₈ x 3 ¹ / ₂	47, 47	47, 2	9	16	Table insert.
Pro-Tech 7203	159	8 ¹ / ₄	2 ¹ / ₈ x 5 ¹ / ₈	2 ¹ / ₈ x 3 ¹ / ₂	47, 47	47, 0	9	15.4	Electric blade brake; table insert.
Tradesman 8325	129	8 ¹ / ₄	2 ¹ / ₈ x 5 ¹ / ₄	2 ¹ / ₈ x 3 ⁵ / ₈	45, 60	45, 0	9	28	Extension wings; work clamp; stop block.
Craftsman 23520	220	10	2 ⁵ / ₈ x 5 ³ / ₄	2 ⁵ / ₈ x 4 ¹ / ₄	49, 49	46, 0	15	35	Yoke-style pivot; arbor lock.
Delta 36-220	294	10	2 ³ / ₄ x 5 ¹ / ₈	2 ³ / ₄ x 3 ¹ / ₂	47, 47	47, 2	15	60	Work clamp.
Delta Sidekick 36-210	344	10	2 ¹ / ₂ x 5 ⁵ / ₈	2 ¹ / ₂ x 4	47, 47	47, 2	13	30	Adjustable handle.
Hitachi C10FC	533	10	2 ⁵ / ₈ x 5 ³ / ₄	2 ³ / ₄ x 3 ¹ / ₂	60, 45	45, 0	15	32	Brake.
Milwaukee 6494-6	550	10	3 ¹ / ₂ x 3 ⁷ / ₈	3 ¹ / ₂ x 2 ³ / ₄	51, 59	50, 3	15	39	Adjustable fence.
Milwaukee 6495	700	10	3 ¹ / ₂ x 3 ⁷ / ₈	3 ¹ / ₂ x 2 ³ / ₄	51, 59	50, 3	15	37.5	6494, plus dust bag, stop gauge, vise.
Pro-Tech 7208 Type II	249	10	2 ³ / ₄ x 5 ³ / ₄	2 ³ / ₄ x 3 ⁵ / ₈	50, 50	47, 0	15	37	Extension wings; work clamp; stop block.
Ryobi TS260	250	10	3 ⁹ / ₁₆ x 5 ³ / ₁₆	3 ⁹ / ₁₆ x 3 ¹ / ₁₆	45, 45	45, 0	15	52	Adjustable fence; work clamp.
Tradesman 8332	199	10	2 ⁵ / ₈ x 5 ³ / ₄	2 ⁵ / ₈ x 4 ¹ / ₄	45, 60	45, 0	15	49	Extension wings; work clamp; stop block.
Craftsman 23512	320	12	2 ¹ / ₂ x 7 ⁷ / ₈	2 ¹ / ₂ x 5 ¹ / ₂	47, 47	46, 0	15	45	Thin-kerf carbide blade.
Delta Sidekick 36-230	480	12	2 ¹ / ₂ x 8	2 ¹ / ₂ x 5 ³ / ₄	48, 48	47, 2	13	47	Work clamp; carbide blade.
DeWalt DW705	734	12	2 ¹ / ₂ x 7 ⁷ / ₈	2 ¹ / ₂ x 5 ¹ / ₂	48, 48	48, 0	13	38	Extra-tall fence.
Pro-Tech CS7212	349	12	3 ⁷ / ₈ x 5 ⁷ / ₈	3 ⁷ / ₈ x 4 ¹ / ₈	49, 49	47, 2	15	41.4	Internal blade guard; crown mldng. detents.
Skilsaw HD3812	624	12	2 ¹ / ₂ x 7 ⁷ / ₈	2 ¹ / ₂ x 7 ⁷ / ₈	52, 52	50, 3	15	43	Detent override; crown mldng detents.

Chart continued on page 72.

See page 136 for listing of manufacturers.

KEY: — = not applicable.

Power Miter Saws

New models in red.



Delta Sidekick 36-250



Makita LS1011

See page 136 for listing of manufacturers.

Brand & Model	List Price	Blade Dia. (in.)	Maximum Crosscut T x W (in.)	Max. Miter Cut T x W (in.) @ 45°	Miter Adj. Range (° L, ° R)	Bevel Adj. Range (° L, ° R)	Amps	Weight (lbs.)	Comments & Features
Delta Sidekick 33-060	\$541	6 1/2	1 3/4 x 12	1 3/4 x 9 1/2	47, 47	47, 2	12	42	Frame-and-trim saw.
Delta Sawbuck 33-055	846	8	2 3/4 x 16	1 3/4 x 12	47, 47	47, 2	15	96	Frame-and-trim saw.
Craftsman 23492	450	8 1/4	2 1/2 x 12	2 1/2 x 8 5/8	47, 50	45, 0	10	42	Rafter slope & crown molding detents.
Freud TR215	689	8 1/2	2 3/4 x 11 3/4	2 3/4 x 8 1/4	45, 45	45, 0	9.7	37	Electric blade brake; carbide blade.
Hitachi C8FB2	1,169	8 1/2	2 9/16 x 12	2 9/16 x 8 21/32	45, 57	47, 0	9.5	38.6	Slide fence and vise.
Ryobi TSS200	400	8 1/2	2 5/8 x 12	2 5/8 x 8 1/2	45, 45	45, 0	10	39	Triple sliding rail; work clamp.
Tradesman 8335	349	8 1/2	2 9/16 x 12	2 9/16 x 8 1/2	45, 45	45, 0	10	39	Extension wings; work clamp; stop block.
Bosch B3915	1,050	10	3 1/2 x 12	3 1/2 x 8 5/8	52, 62	50, 3	13	47	Wedge-&-slot detents; left extension table.
Delta Sidekick 36-250	696	10	3 5/8 x 11 1/2	3 5/8 x 8	51, 47	45, 0	13	59	Stand with stock supports, work clamp.
Hitachi C10FS	1,627	10	3 11/32 x 12 9/32	3 11/32 x 8 15/32	45, 57	45, 45	10	44	Tilts left & right; speed control; soft start.
Makita LS1011	995	10	2 15/16 x 12	2 15/16 x 8 15/32	46, 58	45, 0	12	35	Single sliding rail.
Milwaukee Magnum 6496	1,050	10	3 7/16 x 12 3/8	3 7/16 x 8 3/4	51, 59	48, 3	15	52	Wedge-&-slot detents; 2-way fence.
Makita LS1211	1,620	12	4 3/16 x 11 7/16	4 3/16 x 8 5/8	60, 60	45, 45	15	51	Tilts left & right; single sliding rail.

SLIDING COMPOUND-MITER

KEY: — = not applicable.

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Straight and flat. The jointer can transform boards that are rough or uneven, leaving smooth, straight surfaces and square or beveled edges.

Jointers

Woodworking demands square, straight edges and flat surfaces. Nothing beats a jointer when it comes to meeting these conditions. With this machine, you can transform a roughsawn surface into a smooth one, or plane a cupped board flat. When a board is a bit too wide or thick, the jointer can remove stock in tiny increments, yielding the final dimension or fit that you're after. If your jointer has a rabbeting ledge, you can use it to cut both rabbets and tongues.

The size of a jointer is based on its maximum width-of-cut. While jointers are made in sizes up to 24 in., 6- and 8-in. models are most popular.

When you're using a jointer (see lead photo), the workpiece runs against a fence and over a spinning cutterhead that's located between the infeed and outfeed tables.

2 Types of Jointers

Floor-Model Jointers

These machines are the best choice for handling longer and heavier boards. Professionals usually choose stationary jointers over benchtop models for their capacity, stability and durability. A stationary jointer is a smart investment for any woodworker who does a substantial amount of dimensioning, especially in hardwoods.



Features to Consider

Size

Unless you specialize in small-scale work, a 6-in. or 8-in. jointer will probably serve you best. If you frequently joint or plane long boards, extra infeed and outfeed length (called "bed length") is a good idea. Check the Bed Length column in the chart on page 76.

Knives and Rpm

The cutterhead in a jointer can have two, three or four knives. You'll find a three- or four-knife cutterhead in most floor models; benchtop jointers usually have two knives. Although all the knives cut, they are rarely at precisely the same height, so only the highest knife produces the finished surface. In general, higher cutterhead speeds produce finer surfaces.

Options Worth Having

Push blocks. Push blocks are a must for safe jointing and planing operations. Aftermarket blocks are available, or you can make your own.

Extension rollers or supports. If you don't have a long-bed jointer, adjustable rollers or supports will give added stability when you're jointing or planing long stock.

Extra knives. With an extra set of knives, your downtime is minimized when knives get dull or nicked.

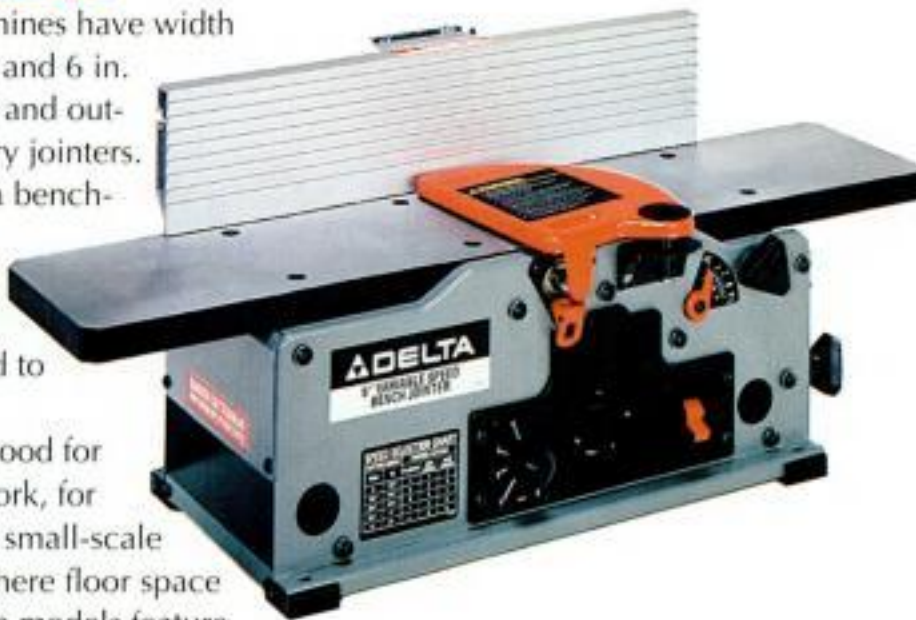
Knife-setting jig. If your jointer doesn't come with its own jig for changing knives, an aftermarket version will make it much easier to reinstall knives after they've been sharpened.

Benchtop Jointers

These scaled-down machines have width capacities between 4 in. and 6 in. and much shorter infeed and outfeed tables than stationary jointers. The universal motor on a benchtop jointer is louder than the induction motor on a typical floor model, and it's not suited to heavy-duty use.

Benchtop jointers are good for light- to medium-duty work, for woodworkers who build small-scale projects, and in shops where floor space is scarce. Some benchtop models feature variable speed control, which lets you tailor your cutting speed to the hardness of the material you're working and to the desired cutting smoothness.

(See chart, page 76.)



Good Beds

Look for flat, well-machined surfaces on infeed and outfeed beds. An adjustable outfeed bed makes it easier to change and adjust knives.

The Fence

Like the beds, the fence should be machined flat, with a smooth finish that will allow the workpiece to slide easily against it. In general, you'll find that a center-mounted fence is more stable than an end-mounted fence.

The Base

Except with benchtop models, a factory-made base should be included in the price of the jointer. Look for sturdy, steel construction. The base should include a dust chute and/or dust collection port.

Rabbeting Ledge

This feature, which is found on many stationary jointers, enables you to mill rabbets and tongues on your jointer. (See photo, right.)



A ledge for rabbets. On a jointer equipped with a rabbeting ledge, you can quickly and easily mill rabbets and tongues.

Jointers

New models in red.

For jointer-planers, see page 118.



Ryobi JP155



Bridgewood BW-6J



Delta 37-190 Deluxe



Sunhill CT-60L

Brand & Model	List Price	Max. Cutting Width (in.)	Bed Length (in.)	No. of Knives x Rpm	HP	Volts	Dust Collection Port	Weight (lbs.)	Comments & Features
BENCHTOP									
AMT 4503	\$159	4 1/8	22 5/8	2 x 8,000	5/8	115	Y	35	Cast-iron & steel const.
Craftsman 23624	149	4 1/8	22 5/8	2 x 9,000	5/8	115	Y	35	Cast-iron & steel const.
Tradesman 8215	199	4 1/8	26	2 x 10,000	NA	115	Y	27	Includes 2 push blocks.
AMT 4800	199	5 1/8	25 1/8	2 x 9,000	7/8	115	Y	45	Cast-iron & steel const.
Craftsman 23632	199	5 1/8	25 1/8	2 x 9,000	7/8	115	Y	45	Cast-iron & steel const.
AMT 4540	269	6 1/8	30	2 x 10,000	1 1/2	115	Y	53	Cast-iron & steel const.
Craftsman 23628	279	6 1/8	31	2 x 10,000	1 1/2	115	Y	53	Cast-iron & steel const.
Delta 37-070	351	6 1/8	30	2 x 6,000 - 11,000	NA	115	N	35	Variable speed.
Ryobi JP155	400	6 1/8	28	2 x 8,000 - 16,000	NA	115	Y	27	Variable speed.
FLOOR MODELS									
Star S3100	300	4	31	3 x 5,000	1/2	115/230	Y	110	Center-mounted fence; optional mobile base.
AMT 4124	379	6	46	3 x 5,000	1	115/230	N	220	Micrometric blade adj.
Belsaw MC-6JT	639	6	45 1/2	3 x 4,500	3/4	115/230	Y	251	Center-mounted fence.
Bridgewood BW-6J	349	6	45 1/2	3 x 4,500	1	115/230	N	193	Handwheel adjusts table height.
Bridgewood BW-6R	399	6	45 1/2	3 x 4,500	1	115/230	Y	239	Fence tilts both ways; handwheel adj. table.
Delta 37-190 Deluxe	603	6	46	3 x 4,800	3/4	115/230	Y	210	Center-mounted fence.
Delta DJ-15 37-154	1,586	6	55 1/2	3 x 5,500	3/4	115/230	Y	328	Counterbalanced table support.
General 1180-1	937	6	42 1/2	3 x 4,200	—	—	Y	185	Motor not included.
General 1180-1-M1	1,217	6	42 1/2	3 x 4,200	3/4	115/230	OPT	210	
Grizzly G1182	375	6	47	3 x 5,000	1	115/230	OPT	250	Ball-bearing cutterhead; adj. infeed & outfeed.
Lobo JT-1006	289	6	42 1/2	3 x 4,500	1	115	N	205	End-mounted fence; handwheel adj. table.
Lobo JT-2206	379	6	42 1/2	3 x 4,500	1	115	Y	205	Center-mounted fence; cabinet stand.
Powermatic 50	1,672	6	56	3 x 7,000	3/4	115/230	Y	434	Fence can be skewed for shear cuts.
Powermatic 54	751	6	45 1/2	3 x 4,500	3/4	115/230	Y	215	Center-mounted cast-iron fence.
Reliant DD39C	370	6	45 1/2	3 x 4,500	1	115/230	Y	214	Knife-setting gauge.
Star S3101	385	6	47	3 x 5,000	1	115/230	Y	230	Center-mounted fence; optional 1-piece stand.
Star S3104	445	6	47	3 x 5,000	1	115/230	Y	250	Nylon table protector; center-mounted fence.
Sunhill CT-60L	395	6	52	3 x 4,500	1	115	Y	220	Cast-iron table extensions.
Sunhill CT-150E	379	6	46	3 x 5,000	1	115	Y	210	Center-mounted fence.
Tradesman 8202A	399	6	42	3 x 4,000	1	115/230	OPT	169	Front-mounted fence.
Transpower JT650	250	6	42	3 x 4,500	1	115	Y	198	End-mounted fence.
Transpower JT680	325	6	46	3 x 4,500	1	115	Y	225	Center-mounted fence.
Woodtek 801589	395	6	42 1/2	3 x 6,000	1	115/230	Y	191	Front and rear guards.
Jet JJ-6CSX	639	6 1/16	46	3 x 4,800	3/4	115/230	Y	275	Center-mounted fence.
Craftsman 23221	400	6 1/8	36	3 x 4,300	1	115	N	150	Single knob adjusts table height.
Lobo JT-1007	299	7	42 1/2	3 x 4,500	1	115	N	205	Wider table than 1006.
Bridgewood BW-8J	949	8	66	4 x 4,500	1 1/2	115/230	Y	420	Handwheel adj. table.
Craftsman 20651	1,500	8	66	3 x 4,500	1 1/2	230	Y	476	Rollers extend table to 86 in. long.
Delta DJ-20 37-350	1,418	8	76 1/2	3 x 5,500	—	—	N	335	Stand & motor extra.
General 480-1	1,997	8	64	3 x 4,500	—	—	Y	360	Motor not included.
General 480-1-M1	2,417	8	64	3 x 4,500	1 1/6	230	Y	440	Magnetic starter.
Grizzly G1018	660	8	65	3 x 5,000	1 1/2	230	OPT	445	Position stop 90° & 45°.
Jet JJ-8CS	1,399	8	66	3 x 5,500	2	230	Y	398	Center-mounted fence.
Lobo JT-1008	689	8	66	3 x 4,500	2	115/230	Y	520	Double V-belt drive.
North State CT 200	795	8	68	3 x 4,500	2	230	Y	512	Knife-setting gauge.

Chart continued on page 78.

See page 136 for listing of manufacturers.

KEY: NA = information not available. — = not applicable. Y = yes. N = no. OPT = optional.

Jointers

New models in red.

For jointer-planers, see page 118.



Jet JJ-6CSX

Brand & Model	List Price	Max. Cutting Width (in.)	Bed Length (in.)	No. of Knives x Rpm	HP	Volts	Dust Collection Port	Weight (lbs.)	Comments & Features
Powermatic 60	\$2,147	8	72	3 x 7,000	1 1/2	115/230	Y	547	Fence can be skewed for shear cuts.
Seco SK-0008JT	920	8	66	3 x 4,500	2	230/460	Y	400	Double V-belt drive.
Star S3102	695	8	65	3 x 5,000	1 1/2	230	Y	450	Nylon table protector.
Star S3107	875	8	65	3 x 5,000	2	230	Y	450	Nylon table protector; center-mounted fence.
Sunhill CT-204L	859	8	72	4 x 4,500	2	230	Y	500	Cast-iron table extensions.
Transpower JT860	615	8	65	3 x 4,500	2	115/230	Y	475	Handwheel adjusts table height.
Transpower JT980	725	8	67	4 x 4,500	3	230	Y	485	Handwheel adjusts table height.
Reliant DD40	680	8 1/8	66	3 x 4,500	2	230	Y	400	Center-mounted fence.
Delta DJ-30 37-360	4,260	12	84	3 x 5,000	3	230/460	Y	706	Center-mounted fence.
General 780-1-M1	4,100	12	84	4 x 4,500	3	230	OPT	1,500	
Star S3103	1,799	12	72	3 x 5,000	3	230	Y	1,200	Magnetic starter; center-mounted fence.
Mini Max F1	5,995	16	102	4 x 5,000	6 2/3	230/460	OPT	1,653	

See page 136 for listing of manufacturers.

KEY: NA = information not available. — = not applicable. Y = yes. N = no. OPT = optional.

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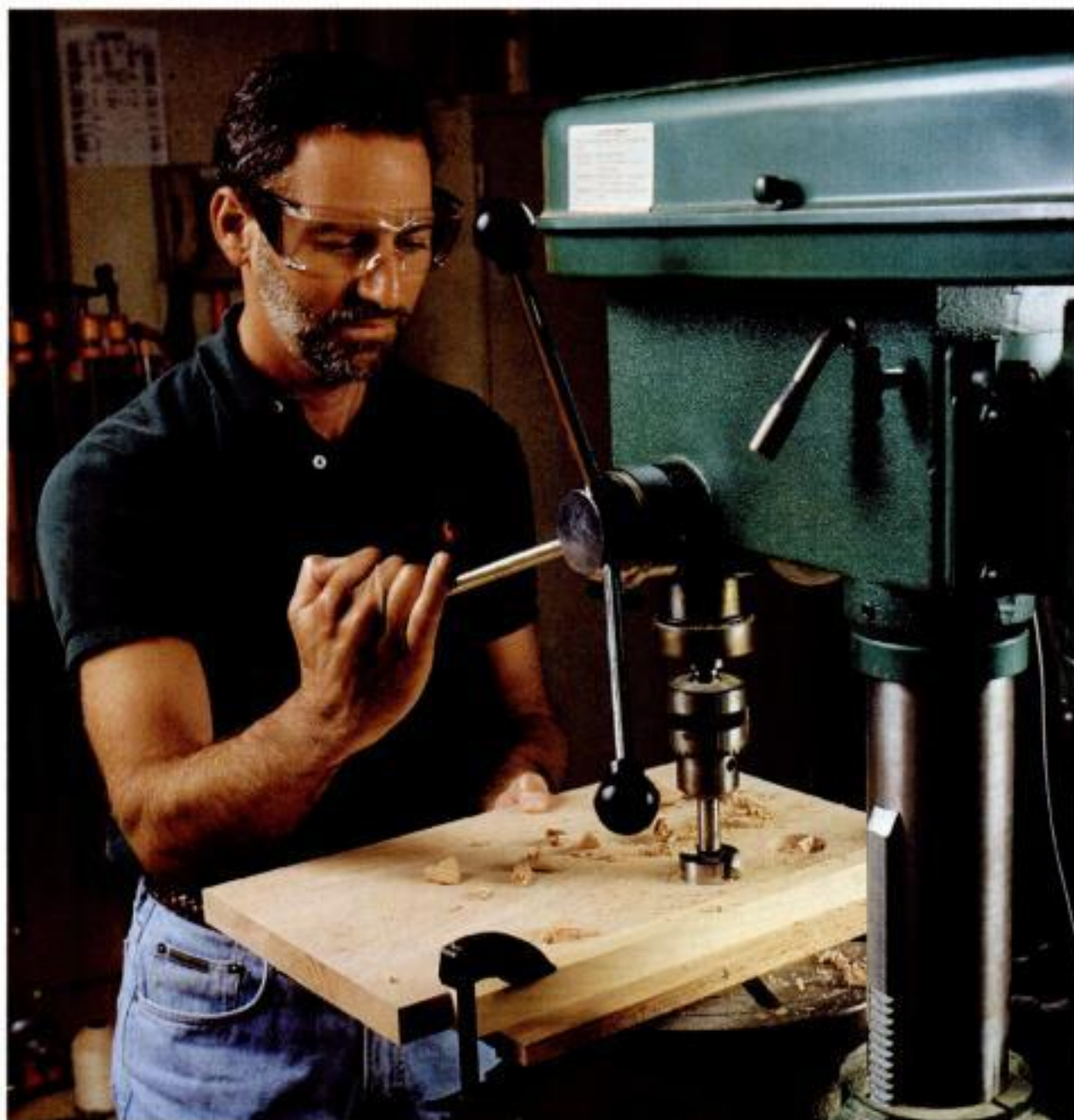
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WOODSMITH MAGAZINE

CIRCLE NO. 20 ON PRODUCT INFORMATION FORM



The hole story. A drill press isn't just for drilling: It also cuts plugs, chops mortises, and powers a wide variety of accessories.

Drill Presses

For precision drilling and boring, or for cutting accurately centered holes to precise angles and depths, nothing beats a drill press. But this machine can also tackle mortising and drum sanding, and it can power a variety of specialty cutters—from plug cutters to rotary planers.

On most drill presses you'll find a work table that adjusts up and down on a support column, and multiple speeds to cover many applications and materials. Most models also have a mechanism that lets you set a positive depth stop at any point in the downward stroke.

The size of a drill press is typically expressed in terms of *throat capacity*, the distance between the column and the center of the chuck. A drill press with a throat capacity of 5 in. can drill to the center of a 10-in.-wide workpiece.

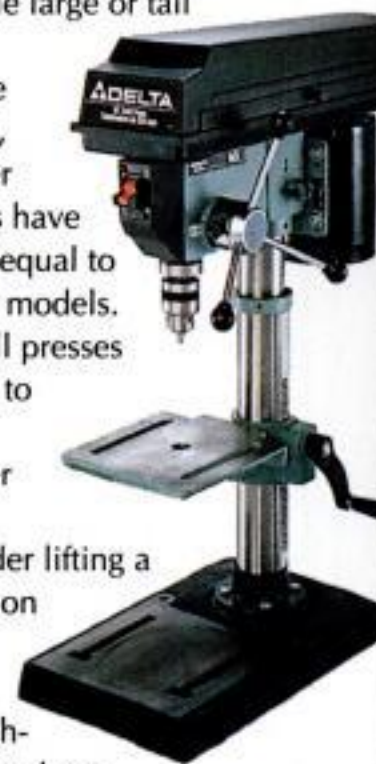
3 Types of Drill Presses

Benchtop Drill Presses

If low price is important, a benchtop model is worth considering. But your capacity to handle large or tall work is limited.

As shown in the chart on page 82, some of the larger benchtop models have throat capacities equal to some of the floor models. Yet benchtop drill presses stand only 22 in. to 46 in. high.

Space is another consideration. You might consider lifting a smaller machine on and off your workbench. But a larger benchtop model will require a more permanent location, and it will take up the same space as a floor model.



Features to Consider

Speed Control

A standard five- or six-speed drill press is adequate for most operations. If you plan to do a lot of drum sanding, circle cutting or rosette work, consider a model with more speeds—this will help minimize burning and tearout. For metalworking, you'll want a low speed of about 250 to 300 rpm. Continuous variable speed control is more convenient than the standard procedure of changing the drive belts' positions on the pulleys. (See bottom left photo, opposite page.)

Quill Travel

Quill travel, or stroke length, describes just how deep a hole you can drill without changing the table height. This distance varies from 1 7/8 in. on the smallest benchtop model to 6 in. on the largest floor model. For drilling thick stock, you'll want a quill travel of 4 in. or more.

Floor Drill Presses

A floor-model drill press is the first choice for most woodworkers. Despite its size, a freestanding press demands less space than most other stationary machines. Plus, it's got the capacity to handle aftermarket mortising attachments. It also has enough power to run attachments that can bog down smaller machines—such as circle cutters, rosette cutters and big Forstner bits.

Throat capacity for floor models ranges between 6 $\frac{1}{4}$ in. and 15 in. (See chart.)

These machines stand between 52 in. and 76 in. high.



Radial Drill Presses

These are the models of choice for chair-makers and others who drill a lot of angled or compound-angled holes.

On a radial drill press, the *head*—which includes the motor, quill and pulleys—is mounted on a horizontal tube, called a *ram*, that can move in and out and rotate in both directions. This way you can adjust the bit to bore at any angle you want.

Radial drill presses offer certain advantages for angle boring. They can even tilt sideways for horizontal boring work. And they have larger throat capacities than most standard models. Both floor and benchtop models are available.



Options Worth Having

Sanding drums. A set of different-diameter drums lets you smooth all kinds of curved work.

Cross-slide vise. A vise is the safest way to hold small work. With its screw-controlled adjustments, this work-table accessory makes it easy to precisely position your work or jig.

Mortising attachment. This cutting tool consists of a bit within a square, hollow chisel. As the tool plunges into the wood, the bit drills the hole and the chisel cleans up the corners and sides. (See bottom center photo.) The result: a square-sided, flat-bottomed mortise.



Simple speed control. Most models use a step-pulley system to regulate spindle speed.

Work Table

A large table will provide support for oversized work and extra purchase for clamps and jigs. Many tables tilt by rotating on a pivot. To adjust table height, rack-and-pinion cranking mechanisms are preferable to raising a heavy cast table by hand. (See photo, far right.)

Hollow-Chisel Mortising

With a hollow-chisel mortising attachment fitted on your drill press, you can make square-edged mortises quickly and accurately. (See photo, below.) Some drill presses—especially smaller ones—don't have the capacity to accept mortising attachments. Make sure yours can if you plan to do mortising.



Crank it up. A rack-and-pinion mechanism makes it easier to adjust heavy cast tables, and lessens the risk of a crushed toe.

Easy mortises. A hollow-chisel mortising attachment quickly makes square-ended, flat-bottomed mortises.

Drill Presses

New models in red.



Skil 3380



Ryobi WDP1850



Jet JPD-17MF

See page 136
for listing of manufacturers.

Brand & Model	List Price	Throat Capacity (in.)	Chuck Capacity (in.)	Quill Travel (in.)	Spindle Speed* (rpm)	HP	Volts	Amps	Weight (lbs.)	Comments & Features
AMT 5740	\$130	4	1/2	2	620 - 3,100	1/3	115	2.2	45	Built-in oscillating spindle sander.
Craftsman 21320	120	4	1/2	2	620 - 3,100	1/6	115	2.5	43	Table tilts.
Delta 11-950	179	4	1/2	2	620 - 3,100	1/4	115	2.5	49	Table tilts.
Jet JDP-8	193	4	1/2	2	620 - 3,100	1/6	115	2.5	42	
Pro-Tech 1201	119	4	1/2	2	690 - 3,000	1/4	115	2.5	40	Table tilts; adjustable depth stop.
Ryobi DP80	130	4	1/2	2	540 - 3,600	1/4	115	5.9	44	Table tilts.
Skil 3380	288	4	1/2	2	620 - 3,100	1/4	115	5.9	47	Bit, chuck key storage.
Tradesman 8050	119	4	1/2	2	620 - 3,100	1/4	115	4.5	54	5 speeds; table tilts; 3 vises.
Woodtek 829785	99	4	1/2	2	620 - 3,100	1/4	115	5.6	40	Table tilts.
Reliant JDP3	100	4 3/32	1/2	17/8	700 - 3,000	1/4	115	3	53	
Black & Decker 9400	266	4 3/8	1/2	2	620 - 3,100	1/6	115	2.2	47	Table tilts.
Bridgewood BW-1012BA	149	5	1/2	2 3/8	690 - 3,000	1/3	115/230	8/4	67	Table tilts; rack & pinion height adj.
Craftsman 21324	180	5	1/2	2 3/8	480 - 3,000	1/4	115	3.2	64	Includes 4 drill bits.
Delta 11-980	186	5	1/2	2 1/4	620 - 3,100	1/4	115	5	72	Table tilts.
Jet JDP-10	223	5	1/2	2 1/2	540 - 3,600	1/3	115	5	70	Table tilts.
Ryobi DP100	160	5	1/2	2 3/8	620 - 3,100	1/4	115	5.9	68	Table tilts.
Tradesman 8060	169	5	1/2	2 1/4	540 - 3,600	1/3	115	5.9	73	5 speeds; table tilts; rack & pinion ht. adj.
Delta 11-990	255	6	1/2	2	620 - 3,100	1/3	115	7.2	71	Table tilts; rack & pinion height adj.
Tradesman 8065	189	6	1/2	2 1/4	620 - 3,100	1/2	115	7.6	80	5 speeds; table tilts; rack & pinion ht. adj.
Reliant DD50	160	6 1/2	1/2	3	700 - 3,000	1/3	115	3.3	143	Table tilts; rack & pinion height adj.
Skil HD3580	456	6 1/2	5/8	3 3/8	500 - 3,100	1/3	115	6	102	Fence; bit & chuck key storage.
Transpower DP130	165	6 3/4	1/2	3 1/8	500 - 3,760	1/2	115	9.8	99	Table tilts; rack & pinion height adj.
Bridgewood BW-1412B	239	7	1/2	3 5/16	480 - 2,120	1/2	115/230	7/3.5	138	Table tilts, rotates; rack & pinion ht. adj.
Grizzly G1199	239	7	5/8	3	250 - 3,100	1/2	115	8.3	140	Table tilts.
Grizzly G4008	160	7	5/8	3 1/4	250 - 3,000	1/2	115	4.2	155	Mortising attachment available.
Jet JDP-14J	343	7	1/2	3 3/8	460 - 2,500	1/2	115/230	7.4/3.7	132	Table tilts; worklight.
Jet JDP-14M	399	7	5/8	3 1/4	200 - 3,630	1/2	115/230	7.4/3.7	132	Table tilts; worklight.
Penn State DPT	180	7	5/8	3 1/8	600 - 3,720	1/2	115	5.9	110	Worklight; square table; depth stop.
Tradesman 8075	199	7	5/8	3 3/8	250 - 3,100	1/2	115	7.6	121	12 speeds; table tilts; rack & pinion ht. adj.
General 34-02	760	7 1/2	1/2	4 1/2	460 - 4,910	—	—	—	110	Motor not included.
General 34-02-M1	989	7 1/2	1/2	4 1/2	460 - 4,910	3/4	115/230	8	200	Split head to adjust quill.
Black & Decker DP600	225	8	1/2	4	620 - 3,100	1/4	115	2.5	55	5 speeds.
Ryobi WDP1850	550	9 1/4	1/2	3 1/3	500 - 3,000*	1/3	120	NA	134	Table tilts; fence.
AMT 4562	199	6 1/4	5/8	3 1/4	250 - 3,100	3/4	115	10	120	Worklight.
Craftsman 21313	250	6 1/2	1/2	3 1/4	500 - 3,100	1/3	115	6	131	Table tilts; rack & pinion height adj.
Transpower RX160	195	6 3/4	5/8	3 1/8	300 - 3,700	3/4	115	13.8	130	Table tilts; rack & pinion height adj.
Delta 14-070	395	7	5/8	3 21/64	250 - 3,000	1/2	115	9.8	157	Table tilts; rack & pinion height adj.
Grizzly G1200	300	7	5/8	3	250 - 3,100	1/2	115	8.3	150	Table tilts.
Grizzly G4009	200	7	5/8	3 1/4	250 - 3,000	1/2	115	4.2	155	Mortising attachment available.

Chart continued on page 84.

KEY: — = not applicable. NA = information not available. *Starred models have continuous variable speed.

Drill Presses

New models in red.



Powermatic 1140-A



Craftsman 21333

Brand & Model	List Price	Throat Capacity (in.)	Chuck Capacity (in.)	Quill Travel (in.)	Spindle Speed* (rpm)	HP	Volts	Amps	Weight (lbs.)	Comments & Features
Jet JDP-14JF	\$412	7	1/2	3 3/8	460 - 2,500	1/2	115/230	7.4/3.7	156	Table tilts; worklight.
Jet JDP-14MF	455	7	1/2	3 1/4	200 - 3,630	3/4	115/230	10.2/5.1	167	Table tilts; worklight.
Penn State DPF	220	7	5/8	3 1/8	600 - 3,720	1/2	115	5.9	110	Worklight; square table; depth stop.
Powermatic 1140-A	454	7	1/2	3 1/8	250 - 3,100	3/4	115/230	13	170	Depth adj. w/threaded rod & lock nuts.
Tradesman 8100	249	7	5/8	3 3/8	195 - 3,630	3/4	115	11	142	16 speeds; table tilts; rack & pinion ht. adj.
Craftsman 21315	300	7 1/2	5/8	3 1/4	250 - 3,100	1/2	115	8	154	Table tilts; rack & pinion height adj.
General 34-01-M1	760	7 1/2	1/2	4 1/2	460 - 4,910	3/4	115/230	8	200	
Powermatic 1150-A	2,681	7 1/2	1/2	6	475 - 4,800*	1	115/230	16	325	
Lobo DP-016F	249	8	5/8	3 1/2	240 - 3,800	3/4	115	NA	135	T-slot in table.
Delta 17-900	470	8 1/4	1/2	3 21/64	250 - 3,000	3/4	115	13.8	194	Table tilts; rack & pinion height adj.
Tradesman 8105	349	8 1/4	5/8	3 1/2	250 - 3,000	3/4	115/230	12/6.2	183	12 speeds; table tilts; rack & pinion ht. adj.
Woodtek 816805	379	8 1/4	5/8	3 1/4	250 - 3,000	3/4	115/230	10/5	165	Table tilts.
Woodtek 816812	699	8 1/4	5/8	4 13/16	180 - 4,200	1	115/230	14.6	346	Table tilts; free mortising attachment.
Bridgewood BW-1758FA	329	8 1/2	5/8	3 1/8	350 - 3,900	3/4	115/230	11/5.5	172	Table tilts; rack & pinion height adj.
Craftsman 21317	400	8 1/2	5/8	3 1/4	200 - 3,630	3/4	115	10	195	Table tilts; worklight; rack & pinion ht. adj.
Jet JDP-17MF	477	8 1/2	1/2	4 3/8	200 - 3,630	3/4	115/230	10.2/5.1	189	Worklight.
Powermatic 1170	479	8 1/2	5/8	3 1/4	240 - 3,800	1	115/230	16	195	Depth adj. w/threaded rod & lock nuts; light.
Reliant DD55	270	8 1/2	5/8	3 1/4	340 - 2,800	3/4	115	5.3	194	Table tilts; rack & pinion height adj.
Transpower RX180	225	8 1/2	5/8	3 5/16	240 - 3,800	1	115	16	178	Worklight.
Grizzly G1201	475	9	5/8	5	150 - 2,470	3/4	115/230	12/6	300	#3 Morse taper spindle; worklight.
Craftsman 21321	600	10	3/4	4 1/4	150 - 4,200	1	115	12.8	319	Oversize table.
Jet JDP-20 MF	871	10 1/4	3/4	4 5/8	150 - 4,200	1 1/2	115/230	18/9	288	Table tilts; worklight.
General 34-01	989	15	1/2	4 1/2	460 - 4,910	3/4	115/230	10.8/5.4	200	Split head to adj. quill.
Grizzly G1131	220	3 3/4	1/2	2 7/8	750 - 3,500	1/3	115	6	84	Head tilts 45°L/90°R.
Delta 11-090	405	16	1/2	3 3/8	580 - 3,450	1/3	115	7.2	82	Head tilts 90°L/45°R.
AMT 4910	324	17	1/2	3 5/16	540 - 3,600	1/3	115	4.5	90	Head tilts 90°L/45°R.
Tradesman 8090	299	17	1/2	3 5/16	250 - 3,100	1/2	115	8	120	Head tilts 45°L/90°R.
AMT 5171	429	17 1/8	5/8	3 5/16	250 - 3,100	1	115	8	120	Head tilts 45°L/90°R.
Craftsman 21334	299	17 1/8	1/2	3 5/16	540 - 3,600	1/3	115	4.5	80	Head tilts 45°L/90°R.
AMT 5175	499	17 1/8	5/8	3 5/16	250 - 3,100	1	115	8	165	Floor model; head tilts 45°L/90°R.
Craftsman 21333	499	17 1/8	5/8	3 5/16	250 - 3,100	1	115	8	161	Floor model; head tilts 90°L/45°R.

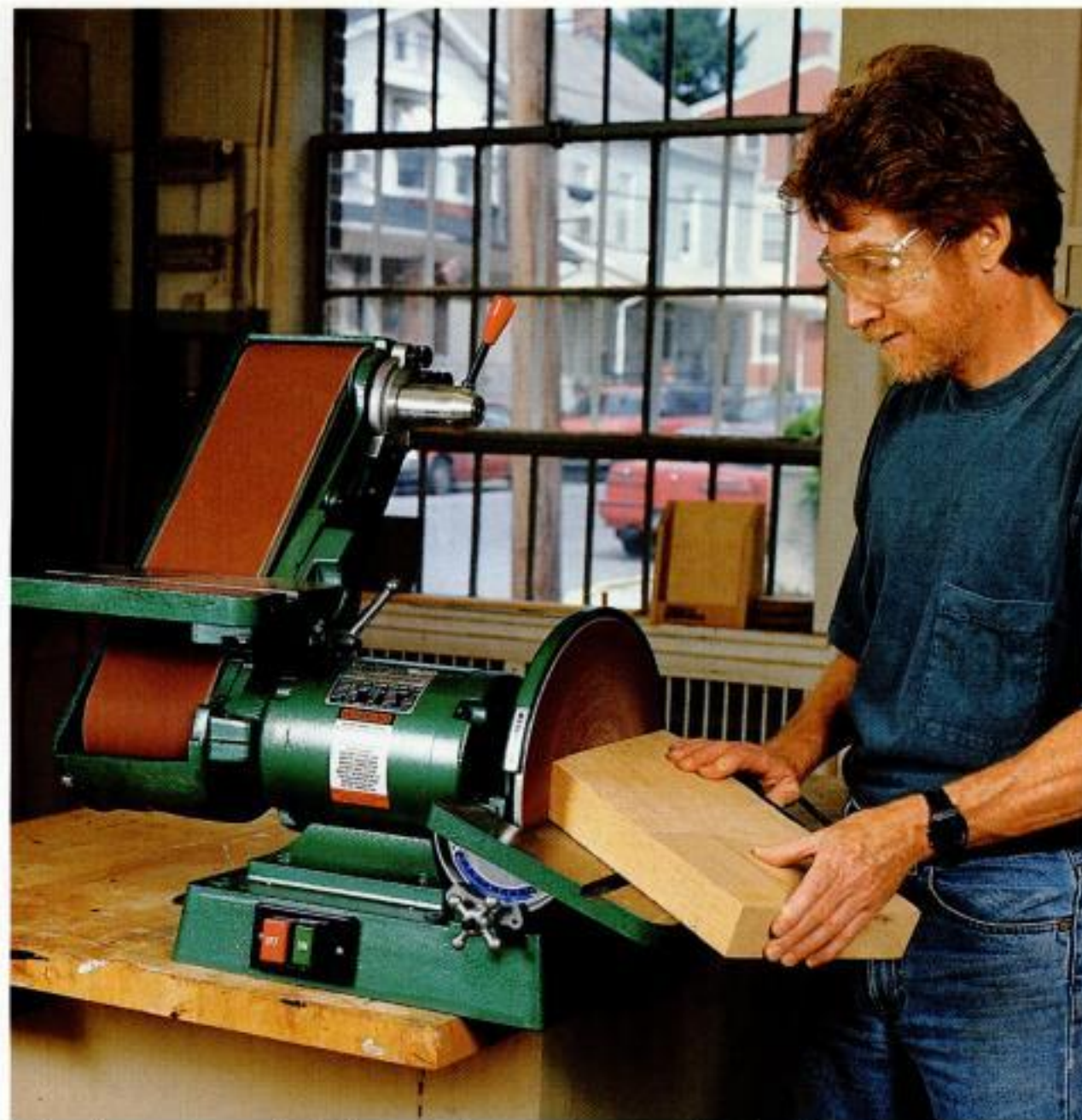
See page 136 for listing of manufacturers.

KEY: — = not applicable. NA = information not available. * Starred models have continuous variable speed.

2 Types of Sanders

Floor-Model Sanders

These come with metal stands. They vary greatly in price depending on construction and standard features. Models with 1-HP or larger motors are generally better suited to heavier production sanding.



Abrasive power. A belt-disc sander excels at a multitude of precision stock-removal tasks such as trueing compound-angled surfaces.

6"x48" Belt-Disc Sanders

Consisting of two separate machines powered by a single motor, the belt-disc sander is unrivaled for accurately shaping and refining wooden surfaces, squaring up the faces and ends of workpieces, and contouring convex curves.

The disc sander's aggressive cutting action removes material quickly. By tilting the table, you can sand compound angles. And with simple, shop-made fixtures, it's easy to create perfect circles and dead-accurate miters.

The belt sander is great for flattening and smoothing flat and convex surfaces. You can even use the belt sander for grinding chisels, plane irons and turning tools. (*Fire hazard:* Before grinding metal, always vacuum the machine and surrounding area and disconnect any dust-collection attachments.)

Features to Consider

Size

All the machines listed in the chart on page 88 are sized to accept 6-in.-wide by 48-in.-long sanding belts. Among these sanders, disc diameter varies from 9 in. to 12 in. Larger discs allow you to sand larger surfaces, but keep in mind that only half of the disc is exposed and most sanding occurs on about one-quarter of the disc's total surface area.

Tables

Some belt-disc sanders have a single table that must be switched from one sander to the other, or else remain on one—usually the disc. (See chart.) It's much more convenient to have a separate table for each sander. Look for sturdy cast-iron tables that are machined flat, with miter-gauge slots that are parallel to the sanding disc or belt platen. (See bottom photo, opposite.)



Benchtop Sanders

Five of the sanders listed in the chart (see page 88) are technically benchtop models, because they are sold without stands. But they are not light-duty machines—in fact, a quick scan of weights and prices shows that these are actually heavier and more expensively built than many lighter-weight floor models. All you need to do is bolt them firmly to a bench or shop-made stand.



Angling the belt. With some belt-disc sanders, you can work with the belt adjusted between horizontal and vertical positions.

The table's semicircular supports, or *trunnions*, allow you to tilt the table for sanding at an angle to the belt or disc. Trunnions should work smoothly and lock rigidly in place, without moving as the locking handles are tightened. Cast-iron trunnions offer more solid support than those made of sheet metal.

Speed

Faster isn't necessarily better with these machines. Higher disc or belt speeds are more prone to leave burn marks on your work, particularly on end grain, so you'll have to use fresher sandpaper and a lighter touch to avoid burning.

Belt Tracking Controls

All belt-disc sanders have a tracking adjustment knob that you turn to center the sanding belt on the end rollers. However, not all models have a means of locking the tracking knob once it's set. A locking mechanism will help to keep the belt from drifting off track while it's running.

Table manners.

On a quality belt-disc sander, well-machined cast tables and trunnions provide solid support for sanding at a variety of angles.



Quick Belt Release

This feature allows you to change the sanding belt without having to loosen and retighten a belt-tensioning screw, saving time and frustration.

Dust Collection

Belt-disc sanders generate enormous amounts of fine dust. It's inconvenient to turn on your dust collector every time you want to touch up a small piece of

wood. However, if you occasionally do a lot of sanding or if you're planning on production work, a dust-collection port is a must.

Belt Position

On most models, the belt sander may be positioned horizontally or vertically—or somewhere in between. (See photos, above.) This capability allows you to pick the best position for the job at hand.

6"x48" Belt-Disc Sanders

New models in red.



Tradesman 8190



Delta 31-280

See page 136
for listing of manufacturers.

	Brand & Model	List Price	Disc Diameter (in.)	Disc Speed (rpm)	Belt Speed (ft./min.)	HP	Volts	Dust Collection Port	Weight (lbs.)	Comments & Features
BENCHTOP	Powermatic 84	\$615	10	2,000	2,500	1	115/230	Y	120	Optional enclosed stand.
	Grizzly G1183	399	12	3,450	5,000	1	115/230	Y	155	Quick belt release.
	Grizzly G1276	435	12	1,725	2,500	1	115/230	Y	155	Quick belt release.
	Sunhill SB-12	449	12	1,750	2,925	1	115/230	N	160	
	Transpower VH120	450	12	2,800	2,800	2	115/230	N	275	
FLOOR MODELS	Belsaw MC-6/98D	525	9	1,725	2,100	3/4	115/230	N	106	Micro-adj. tracking belt.*
	Bridgewood BWSB9E	249	9	1,725	1,356	3/4	115	N	112	*
	Craftsman 22594	350	9	2,700	2,100	3/4	115	Y	105	Single-knob tracking adj.*
	Grizzly G1014Z	200	9	1,720	2,323	3/4	115/230	Y	114	Quick belt release.*
	Lobo SD-0069	249	9	1,725	1,356	3/4	115	OPT	140	Micro-adj. tracking belt.*
	Penn State S69-Q	230	9	1,720	1,800	3/4	115/230	Y	110	Quick belt release.*
	Reliant DD79	200	9	3,450	2,100	3/4	115/230	N	115	*
	Star S3401	199	9	2,700	2,100	3/4	115/230	Y	110	Optional mobile base.*
	Total Shop 932	239	9	1,725	2,350	3/4	115	Y	120	Micro-adj. tracking belt.*
	Tradesman 8190	249	9	1,725	2,100	3/4	115/230	OPT	104	*
	Transpower SD650	185	9	2,700	1,750	1	115	N	135	*
	Woodtek 814253	269	9	1,725	2,100	3/4	115/230	Y	131	Fence stop.*
	Delta 31-280	1,012	12	2,500	1,971	1 1/2	115/230	Y	182	Many optional accessories.
	Delta 31-730	1,108	12	2,100	3,030	1 1/2	115/230	N	158	Optional enclosed stand.
	Jet JSG-6	809	12	1,725	2,500	1 1/2	115/230	Y	150	
	Lobo SD-0612	479	12	1,800	2,323	1 1/2	115/230	Y	180	Enclosed stand.*
	Powermatic 31	1,667	12	2,400	2,850	1 1/2	115/230	Y	308	Belt adjusts to 4 positions.
	Reliant DD126	399	12	2,000	1,576	1 1/2	115	Y	145	Miter gauge.
	Star S3402	450	12	2,000	1,576	1	115	Y	199	Quick-release dust hood.*

KEY: Y = yes. N = no. OPT = optional. *Model has only one table for belt and disc.

veritas® Router Table Top & Fence Product Development Casebook

The Table Top Problem:

To develop a router table top that is rigid, does not sag with time or router weight, and can have a router clamped to it without removing the base plate.



Flat, no sag,
3/16" thick
steel table

Quick-change clamps adjust to fit all routers and let you remove or replace a router in 30 seconds.

Flush-locking inserts with a guaranteed tolerance of $\pm .0001$ -.0004"

The Table Top Solution:

A sheet of 3/16" steel (16" x 24") hand coined to have no sag even after a 9 lb router is attached to it, combined with quick-lock table inserts and a universal router clamping system.

Veritas® Router Table Top \$139.00

Accessories



Hold Down



Safety Shields



Magnetic Dust Chute

The Fence Problem:

To design a rigid, accurate, easily adjusted fence suited to large and small workpieces.

Adjustable fence
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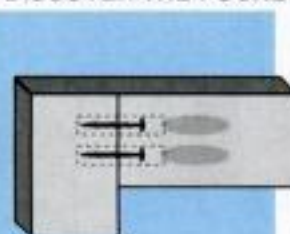
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CIRCLE NO. 96 ON PRODUCT INFORMATION FORM



Fast and fun. With a lathe you can quickly turn out an array of round wooden objects, from bowls to table legs and chair parts.

Lathes

The lathe is one woodworking machine that provides instant gratification. Hold a sharp chisel to a spinning workpiece and a form develops in just a few minutes. With a lathe, you can create three-dimensional shapes not possible with other machines—from turned table legs to bowls and candlesticks.

The lathe is a fairly simple machine. The workpiece spins between a motor-driven headstock and (for spindle turning) a tailstock. The headstock is fixed on the lathe bed; the tailstock can be adjusted along the bed according to the length of the work.

A lathe's size is designated by the *swing*, the maximum diameter of work it will handle. *Length* refers to the distance between centers, the longest stock the tool will hold between the headstock and the tailstock.

3 Types of Lathes

Floor-Model Lathes

These lathes are favored by serious turners. The key advantages here are stability and increased capacity. Sturdier than their benchtop counterparts, floor models reduce or eliminate the vibration that makes clean cutting impossible.



Features to Consider

Spindles

Tapered spindles are best for durability and versatility. The tapers are hollow to accept various centers that hold the workpiece. Look for a headstock and tailstock with a No. 2 Morse taper. In most cases, you're better off with a standard headstock spindle size—either 1 in. dia. by 8 threads per in. (tpi), 1 in. dia. by 12 tpi, or 1 1/4 in. dia. by 8 tpi.

Weight

Weight is an advantage in a lathe because it dampens vibration and promotes stability. Look for cast-iron components and—in floor models—a stand of heavy-gauge steel.

Speed and Drive Systems

For general turning, get a machine with a range of speeds from 400 rpm or slower (for larger-diameter work such as bowls)



Bowl lathe

Specialty Lathes

Bowl lathes are no-bed or short-bed models designed for large-diameter work. Since they can't handle long spindles, bowl lathes aren't good for general-purpose work.

Mini lathes are benchtop machines designed to hold small-scale work. Better models offer the precision and stability necessary for exacting miniature work. (For more on mini lathes, see "Shop Tested: Mini Lathes," AW #52.)

Copy or "duplicator" lathes are designed for the quick and efficient production of duplicate turnings. This type of lathe usually falls short for general-purpose turning.



Benchtop Lathes

Less expensive than stationary models, most benchtop lathes have less capacity and less stability than their big brothers. This makes them a good choice for light spindle work and other small jobs.

Because of its lighter weight, a benchtop lathe should be bolted securely to a sturdy workbench or base to dampen vibration. If you plan to do turning work only occasionally, and if limited space and lower cost are important, a benchtop lathe could be the right choice.



Mini lathe

Options Worth Having

"Live" center for the tailstock. This spinning center prevents burning the tailstock end of your workpiece.

Jacobs-type drill chuck. This three-jaw chuck can hold drill bits for horizontal boring.

Screw chuck. The deep threads on this chuck secure faceplate work.

Three- or four-jaw chuck. Adjustable jaws grip a variety of diameters for faceplate work.

to 2,500 rpm (for most spindle work). Three types of drive systems are available: step-pulleys, mechanical variable speed, and electronic variable speed.

Step-pulleys are simple and foolproof. To change speeds, you stop the motor and reposition the belt to fit around a different pair of pulleys. With step-pulley drive, you're limited to a few fixed speeds. These drives are best for spindle turning and small faceplate work.

Mechanical variable speed systems, or Reeves drives, have infinite speeds within the tool's range. To vary the speed, you turn a crank or lever while the lathe is running. While this adjustment provides more versatility than step-pulleys, the low speeds can still be too fast for turning larger-diameter work like bowls.

Electronic variable speed (EVS) offers the most control and convenience for all kinds of turning work. EVS control allows infinite speed adjustment within the tool's range, at the simple turn of a knob. These direct-current or "DC" drives are expensive, but low-speed torque is excellent—

a great advantage when turning large objects. And some models offer reversible spindle direction. (For more information on DC drives, see AW #34.)

Power

A 1-HP motor will do well for general-purpose use. For large work, look for a motor in the 1½-HP to 2-HP range.

Swiveling Headstocks

Some lathes have headstocks that swivel for outboard turning while still using the standard tool-rest system, so you can turn larger-diameter work. (See photo, right.)

Spindle Locks and Indexing Features

Lathes with locking spindles make it easier to remove faceplates and chucks. Indexing heads let you lock the headstock in graduated increments for laying out flutes, spirals and other decorative work.



Swiveling headstock. A headstock that swivels 90° gives you the room to turn large-diameter work, unimpeded by the lathe's bed.

Lathes

New models in red.



Reliant DD70



Grizzly G1025



Robert Sorby RS3



Grizzly G1067

Brand & Model	List Price	Capacity: Swing x Length (in.)	Spindle Dia. (in.) x tpi	Bed Type	Outboard Turning	Drive Type	Rpm	HP	Weight (lbs.)	Comments & Features
Reliant DD70	\$150	10 x 20	3/4 x 10	TS	N	SP-4	980 - 3,010	1/2	64	6-in. faceplate incl.
General 160	975	12 x 15	1 x 8	CI	Y	SP-4	850 - 3,500	—	140	Motor not included.
AMT 4370	246	12 x 36	3/4 x 16	CI	N	SP-5	275 - 3,065	—	100	Motor not included.
Craftsman 22816	350	12 x 36	3/4 x 16	TS	N	SP-4	875 - 3,450	1/2	84	
Delta 46-700	575	12 x 36	1 x 8	CI	Y	RD	500 - 2,000	3/4	125	Swiveling headstock.
Record CL1/36X15C	705	12 x 36	3/4 x 16	ST	Y	SP-3	540 - 2,440	1/3	152	Swiveling headstock.
Record CL3/36X30C	1,197	12 x 36	3/4 x 16	ST	Y	SP-5	510 - 2,400	3/4	190	Swiveling headstock.
Vega 1200	580	12 x 36	3/4 x no threads*	TS	N	SP-8	275 - 3,900	1/2	115	Reverses for sanding; guard.
Bridgewood BW-1240	209	12 x 37	3/4 x 16	TS	Y	SP-5	575 - 3,580	3/4	80	
Tradesman 8230	179	12 x 37	3/4 x 16	CI	N	SP-3	1,035 - 3,450	1/2	67	6- x 12-in. tool rests.
Poole Wood PW38/40	2,350	14 x 40	1 1/4 x 8	TS	Y	ED	0 - 2,750	1	330	Swiveling headstock.
Record CL5/12X15C	646	15 x 12	3/4 x 16	ST	Y	SP-3	540 - 2,440	1/3	127	Swiveling headstock.
Grizzly G1025	159	15 x 38 1/4	1 x 8	ST	N	SP-4	980 - 3,010	1/2	70	Spur center & faceplate.
Woodfast M408-B	1,495	16 x 16	1 1/4 x 8	CI	Y	SP-5	370 - 2,700	—	210	Motor optional.
Hegner 200S	1,599	16 x 36	#2 MT x 33mm	ST	Y	SP-5	400 - 2,800	3/4	125	Swiveling headstock; index head; legs opt.
Woodfast M908-B	1,625	16 x 39	1 1/4 x 8	CI	Y	SP-5	370 - 2,700	—	270	Motor optional.
Record CL2/36X18C	745	18 x 36	3/4 x 16	ST	Y	SP-3	550 - 2,475	1/2	186	Swiveling headstock.
Woodfast Cobra	1,295	18 x 39	1 1/4 x 8	TS	N	SP-6	300 - 3,000	—	209	Motor & stand opt.
Woodfast M410-B	1,695	20 x 16	1 1/4 x 8	CI	Y	SP-5	370 - 2,700	—	240	Motor optional.
Woodfast M910-B	1,895	20 x 39	1 1/4 x 8	CI	Y	SP-5	370 - 2,700	—	300	Motor optional.
Record CL3/48X30C	1,314	30 x 48	3/4 x 16	ST	Y	SP-5	515 - 2,420	3/4	200	Swiveling headstock.
Jet JWL-1236	699	12 x 34 1/2	1 x 8	CI	Y	RD	550 - 3,000	3/4	183	Swiveling headstock.
Woodtek 829806	1,050	12 x 37 1/2	1 x 8	CI	Y	RD	360 - 2,100	3/4	285	Outboard extension; tool-rest base.
Delta 46-612	3,601	12 x 38	1 x 8	CI	Y	RD	340 - 3,200	1	588	
General 160-1-M1	1,530	12 x 38	1 x 8	CI	Y	SP-4	850 - 3,500	3/4	255	
General 160-2-M2	1,815	12 x 38	1 x 8	CI	Y	RD	500 - 3,000	3/4	370	
General 260	2,734	12 x 38	1 1/4 x 8	CI	Y	SP-4	600 - 2,800	1	610	Riser kit available.
General 260-1	2,948	12 x 38	1 1/4 x 8	CI	Y	RD	375 - 3,300	1	630	Riser kit available.
General 260VD	3,399	12 x 38	1 1/4 x 8	CI	Y	ED	5 - 3,000	1	630	Riser kit available.
Delta 46-221	1,979	12 x 39	1 x 8	CI	Y	SP-4	915 - 3,260	3/4	305	
Delta 46-541	2,041	12 x 39	1 x 8	CI	Y	RD	340 - 3,600	3/4	410	
Powermatic 45	3,609	12 x 39	1 x 8	CI	Y	RD	330 - 2,100	3/4	553	4-sp. pulleys avail.
Robert Sorby RS2	1,695	13 x 24	1 x 8	ST	Y	SP-5	265 - 2,400	3/4	165	#2 MT; swiveling headstock.
Robert Sorby RS3	1,749	13 x 36	1 x 8	ST	Y	SP-5	265 - 2,400	3/4	175	#2 MT; swiveling headstock.
Robert Sorby RS4	1,795	13 x 48	1 x 8	ST	Y	SP-5	265 - 2,400	3/4	185	#2 MT; swiveling headstock.
Grizzly G1067	449	13 3/4 x 40	1 x 12	CI	Y	RD	600 - 2,100	1/2	200	Swiveling headstock.
Lobo CL-1000	699	14 x 14	1 x 12	TS	Y	RD	560 - 3,600	2	290	Sanding disc.
Transpower HD1500	625	14 x 39	1 x 12	CI	Y	SP-6	560 - 3,500	1	480	Sanding disc.
Grizzly G1495	695	14 x 40	1 x 12	CI	Y	RD	500 - 3,000	3/4	275	Accepts copy attach.
Lobo CL-1140	639	14 x 40	1 x 12	CI	Y	RD	560 - 3,600	3/4	280	Sanding disc.
Transpower CP1000	320	14 x 40	1 1/8 x 12	CI	Y	SP-3	860 - 3,096	3/4	180	Sanding disc.
Vega 1446	1,255	14 x 46	1 1/8 x 8	TS	Y	RD	320 - 3,400	1	375	Guard.
Vega 1553	1,710	15 x 53	30mm x no threads*	TS	Y	RD	320 - 3,400	1	285	Reverses for sanding; guard.
Vega 1596	2,625	15 x 96	30mm x no threads*	TS	Y	RD	320 - 3,400	1 1/2	380	Reverses for sanding; guard.
Woodfast M408-5	2,450	16 x 16	1 1/4 x 8	CI	Y	SP-5	370 - 2,700	1 1/2	385	
Woodfast M408-V	2,595	16 x 16	1 1/4 x 8	CI	Y	ED	0 - 2,750	1	385	
Hegner 200	2,495	16 x 39	33mm x 16mm	ST	N	SP-4	800 - 2,800	3/4	250	Accepts copy attachments.

Chart continued on page 94.

See page 136 for listing of manufacturers.

KEY: MT = Morse taper. OD = outside diameter. Bed Type: AL = aluminum, CI = cast iron, ST = steel, TS = tubular steel, WO = wood. Drive Type: ED = electronic, RD = Reeves drive, SP-# = step pulleys - # of speeds. Y = yes. N = no. — = not applicable. *Setscrew secures faceplates and chucks.

Lathes

New models in red.



Vega 1596



Woodfast M408-5



Carba-Tec



Vega 24

	Brand & Model	List Price	Capacity: Swing x Length (in.)	Spindle Dia. (in.) x tpi	Bed Type	Outboard Turning	Drive Type	Rpm	HP	Weight (lbs.)	Comments & Features
FLOOR	Woodfast M410-V	\$2,850	16 x 39	1 1/4 x 8	CI	Y	ED	0 - 2,750	1	520	
	Delta Top-Turn 46-860	3,930	16 x 40	1 x 8	CI	Y	SP-5	350 - 3,000	1 1/2	410	Modular bed sections.
	Total Shop 89570	695	16 x 40	5/8 x no threads*	TS	Y	RD	850 - 5,200	1 1/2	240	Sliding tool rest; sliding power head.
	Hegner 200/1250	2,895	16 x 49	33mm x 16mm	ST	N	SP-4	800 - 2,800	3/4	290	Accepts low-volume copy attachments.
	Colonial Saw MVM T-1500	4,300	16 x 59	61.35mm x 2mm	ST	Y	SP-4	720 - 3,100	2	495	
	Conover Deluxe	2,394	16 x unlim.	1 1/2 x 8	WO	Y	SP-4	600 - 2,600	1 1/2	350	Wood bed.
	Conover Master Turner	2,894	16 x unlim.	1 1/2 x 8	WO	Y	ED	0 - 2,600	1 1/2	350	Wood bed; optional reverse.
	Woodfast M908-V	2,750	20 x 16	1 1/4 x 8	CI	Y	ED	0 - 2,750	1 1/2	385	
	Woodfast M908-5	2,595	20 x 39	1 1/4 x 8	CI	Y	SP-5	370 - 2,700	1 1/2	520	
MINI	Woodfast M910-V	2,995	20 x 39	1 1/4 x 8	CI	Y	ED	0 - 2,750	1 1/2	520	
	Klein Mini Lathe	349	5 x 12	3/4 x 16	AL	N	SP-6	500 - 5,200	—	8	Motor not included; threading jig opt.
	Carba-Tec	200	6 x 12	3/4 x 16	CI	N	SP-4	800 - 3,475	—	28	Motor not included.
	Carba-Tec II	270	6 x 12	3/4 x 16	CI	N	ED	860 - 4,500	1/6	36	Copy attachmt. opt.
	Ryobi ML618	250	6 1/4 x 18	3/4 x 16	TS	Y	ED	500 - 2,500	1/3	29	
	Record RPML 300C	437	8 1/2 x 12	3/4 x 16	CI	Y	SP-3	540 - 2,400	1/3	77	Swiveling headstock.
	Vicmarc	350	9 x 12	1 x 8	CI	N	SP-5	500 - 3,600	—	48	Motor not included.
	Vicmarc VL100	400	9 x 12	1 x 8	CI	N	SP-6	685 - 4,280	—	58	Motor not included.
COPY	Colonial Saw MVM T-1500C	5,900	8 x 39 3/8	#4 MT on OD	ST	Y	SP-4	720 - 3,100	2	595	Manual, with reverse.
	Colonial Saw MVM T-1500CA	7,900	8 x 39 3/8	#4 MT on OD	ST	Y	SP-4	720 - 3,100	2	625	Semi-automatic, with reverse.
	Vega 12D36	1,205	10 x 36	3/4 x no threads*	TS	N	SP-8	275 - 3,900	1/2	175	Reverse; copier; cutter; guard.
	Vega 15D48	2,470	13 x 48	30mm x no threads*	TS	Y	RD	320 - 3,400	1	350	Reverse; copier; cutter; guard.
	Vega 15D96	3,675	13 x 96	30mm x no threads*	TS	Y	RD	320 - 3,400	1 1/2	475	Reverse; copier; cutter; guard.
	Lobo CL-1000AT	990	14 x 14	1 x 12	TS	Y	RD	560 - 3,600	2	390	Sanding disc.
	Grizzly G1174	395	14 x 40	1 1/8 x 12	ST	Y	SP-3	860 - 3,096	1/2	180	Sanding disc.
	Mini Max T124	2,795	16 x 47	1 x #2 MT	TS	Y	SP-4	680 - 3,000	1	375	Copier; cutters.
	Record CLB22	582	22 x none	3/4 x 16	CI	Y	SP-3	450 - 2,000	1/2	108	
BOWL	Vega 24	475	24 x none	3/4 x no threads*	TS	N	SP-8	200 - 2,900	1/2	105	Reverse; end access; guard.
	Robert Sorby RS1	1,595	30 x none	1 x 8	ST	Y	SP-5	265 - 2,400	3/4	155	#2 MT; swiveling headstock.
	Hegner VB36	4,995	36 x 7	1 1/2 x 8	CI	Y	ED	230 - 2,150	2	470	

See page 136 for listing of manufacturers.

KEY: MT = Morse taper. OD = outside diameter. Bed Type: AL = aluminum, CI = cast iron, ST = steel, TS = tubular steel, WO = wood. Drive Type: ED = electronic, RD = Reeves drive, SP-# = step pulleys - # of speeds. Y = yes. N = no. — = not applicable. *Setscrew secures faceplates and chucks.



Finish faster. Random-orbit sanders work well for flat and contour sanding, and they leave a virtually scratch-free surface.

Random-Orbit Sanders

Nothing beats random-orbit sanders for all types of flat sanding work.

They're powerful and aggressive enough for heavy sanding, yet smooth enough for finish work—even on delicate veneered surfaces. With their combination of rotary and orbital action, random-orbit sanders produce a scratch-free surface even sanding across the grain, so you can sand face frames after assembly.

These sanders perform so smoothly that you may end up skipping some grits without sacrificing surface quality.

Random-orbit sanders come in electric or pneumatic (air-powered) models. The pneumatic sanders require a big (5-HP or larger) compressor to run. Both types are sized according to the diameter of the abrasive disc they use. There are 3½-in., 4½-in., 5-in., 6-in. and 8-in. models.

4 Types of Sanders

Right-Angle Sanders

These heavy-duty sanders are the most powerful among electric random-orbit sanders, but their offset motors make them the most prone to vibration. Two hands are needed to balance these tools, and a dust-collection hookup is a must.



Features to Consider

Size

If you plan to do a lot of sanding on large, flat surfaces, consider purchasing a 6-in. sander—one that takes 6-in.-dia. discs. For general-purpose sanding, 5-in. discs are the most convenient to use, and they are also the most commonly available.

Variable Speed Control

Variable speed control allows you to slow down the sander for delicate work like buffing, polishing, or light sanding between finish coats. Variable speed control is also useful for sanding contours, edges and metal. Some models have a speed control dial separate from the trigger switch, so you can change speeds while you're sanding.



In-Line Sanders

On this type of sander, the motor is positioned directly above the sanding pad, and there are usually two handles. The primary handle has a trigger-type switch.

These well-balanced units are designed so that you can use them with one or two hands. Beefier in-line models approach right-angle sanders in power; lightweight models can fall into the palm-grip league. Overall, their combination of power, balance and smooth operation makes in-line sanders the most versatile of the random-orbit sander types.

Palm-Grip Sanders

This type of sander is essentially an in-line sander without the handles. These compact models provide moderate power and excellent balance for light-duty use.



Pneumatic Sanders

Air-powered sanders are usually more aggressive than electric models, and they tend to run more smoothly. They're also smaller and lighter, so they're easier to control and less tiring to use. Pneumatic sanders require a 5-HP or larger air compressor to run efficiently.



Options Worth Having

Replacement backing pads. For sanding contoured parts, you'll want to use a soft backing pad.

Abrasive and polishing pads. Use woven abrasive discs for sanding between coats of finish. Sponge pads are available for polishing.

Suction hood and vacuum hose. Adding a suction hood will increase your sander's dust-collection efficiency. For dust control during heavy-duty sanding, use a vacuum hose to connect your sander to a dust bag or shop vacuum.

For More Info

Check out the detailed test results in our "Buyer's Guide to Random-Orbit Sanders," AW #39 (August 1994).

Pressure-Sensitive Adhesive (PSA) vs. Hook-and-Loop Discs

Some random-orbit sanders are designed to use pressure-sensitive, adhesive-backed (PSA-type) discs, while others take hook-and-loop discs. Though they're more expensive than the PSA variety, hook-and-loop discs can be removed and reused many times. Hook-and-loop discs also make it easy to switch grits.

Pad Brake

Setting a spinning pad on your workpiece can create swirl marks or even gouge the surface. A brake keeps the pad from free-wheeling too quickly.



Pads, discs and dust extraction. Accessory pads (bottom right) let you use your sander for buffing and polishing. On some sanders, dust is extracted via holes in the abrasive discs (bottom left). The plastic dust skirt (center) fits around the sander to promote dust collection. For optimum dust control, connect your sander to a shop vacuum with a flexible hose (top).

Random-Orbit Sanders: Electric

New models in red.

For pneumatic models, see page 100.



Milwaukee 6127



Bosch 3725DVS



Hitachi FSV13Y



DeWalt DW423



Porter-Cable 332

See page 136 for listing of manufacturers.

Brand & Model	List Price	Pad Dia. (in.)	Pad Type	Pad Brake	Orbits per Minute	Dust Collection	Amps	Weight (lbs.)	Comments & Features
Black & Decker RO100	\$50	5	HL	Y	12,000	DB	2	3.5	Pad brake controls pad speed.
Milwaukee 6125	212	5	PSA	N	10,000	OPT	5.5	5	
Milwaukee 6127	274	5	PSA	N	10,000	VP	5.5	5.5	6-ft. dust hose.
Porter-Cable 7334	225	5	PSA	N	6,000	VP	3.7	5.5	Dust skirt optional.
Porter-Cable 7335	254	5	PSA	N	2,500 - 6,000	OPT	3.7	5.5	Dust skirt optional.
Porter-Cable 97335	274	5	HL	N	2,500 - 6,000	VP	3.7	8	Dust skirt optional.
Bosch 1370DEV5	446	6	HL	Y	4,800 - 12,000	DB, VP	5	5	2-way drive system.
DeWalt DW443	266	6	HL	Y	4,300 - 6,800	DC, VP	4.3	5.7	Rubber-covered gear case.
DeWalt DW444	266	6	PSA	Y	4,300 - 6,800	DC, VP	4.3	5.7	Rubber-covered gear case.
Fein MSF 636-1	745	6	HL	Y	7,500	VP	3.3	3.7	
Milwaukee 6126	217	6	PSA	N	10,000	OPT	5.5	5	Paddle on-off switch.
Porter-Cable 7336	259	6	PSA	N	2,500 - 6,000	OPT	3.7	5.8	Dust skirt optional.
Porter-Cable 97366	284	6	HL	N	2,500 - 6,000	VP	3.7	8.3	
Ryobi RS-115	70	4 1/2	HL	N	11,000	DB	2	3	Buffing pad optional.
Bosch 3107DVS	165	5	HL	Y	4,500 - 13,000	DB, VP	3.3	5	Adjustable front handle.
Bosch 3725DVS	256	5	HL	Y	4,500 - 12,000	DB, VP	3.3	4.4	
Bosch B7255	165	5	HL	Y	4,500 - 13,000	DB, VP	3.3	5	Adjustable front handle.
Craftsman 27717	70	5	PSA	Y	13,000	DC	3	3.5	Hook & loop adaptor pad available.
Hitachi FSV13Y	195	5	HL	N	6,500 - 11,000	DB, VP	2.5	3.7	Steel case.
Hitachi FSV13YK	223	5	HL	N	6,500 - 11,000	DB, VP	2.5	4.2	Steel case.
Metabo 0125	239	5	HL	Y	5,000 - 12,000	DB	1.8	5.2	
Ryobi RS 200	80	5	PSA	Y	13,000	DC	3	4	10-ft. cord.
Skil 7435	118	5	HL	Y	7,000 - 12,000	DB, VP	2.8	3.8	Adjustable front handle.
Wen 18	60	5	HL	N	12,000	DC	2	3	Auxiliary handle.
Bosch 3727DVS	266	6	HL	Y	4,500 - 12,000	DB, VP	3.3	4.6	
Craftsman 27714	40	4 1/2	PSA	N	11,000	—	2.7	3.3	Sealed on-off switch.
Ryobi RS112	50	4 1/2	HL	N	11,000	—	2	2.1	Sealed on-off switch.
DeWalt DW420	124	5	PSA	Y	12,000	—	2	3	Sealed on-off switch.
DeWalt DW421	144	5	HL	Y	12,000	DC, VP	2	3.2	Sealed on-off switch.
DeWalt DW422	144	5	PSA	Y	12,000	DC, VP	2	3.2	
DeWalt DW423	170	5	HL	Y	7,000 - 12,000	DC, VP	2	3.2	Electronic variable speed.
Jepson 6250	90	5	HL	Y	11,000	DB	1.9	3	
Makita BO5001	125	5	HL	N	10,000	OPT	1.7	2.9	
Porter-Cable 332	133	5	PSA	Y	12,000	—	1.7	3.2	Hook & loop adaptor pad available.
Porter-Cable 333	148	5	HL	Y	12,000	DC	1.7	3.5	
Porter-Cable 334	148	5	PSA	Y	12,000	DC	1.7	3.5	
Wen 15	70	6	PSA	N	3,000	—	2.5	3.5	

KEY: Pad Type: HL = hook-and-loop, PSA = pressure-sensitive adhesive. Dust Collection: DB = dust bag, DC = dust canister, VP = vacuum port. Y = yes, N = no, OPT = optional, — = not applicable, NA = information not available.

Random-Orbit Sanders: Pneumatic

New models in red.

For electric models, see page 98.



Aro RS25A-CSV

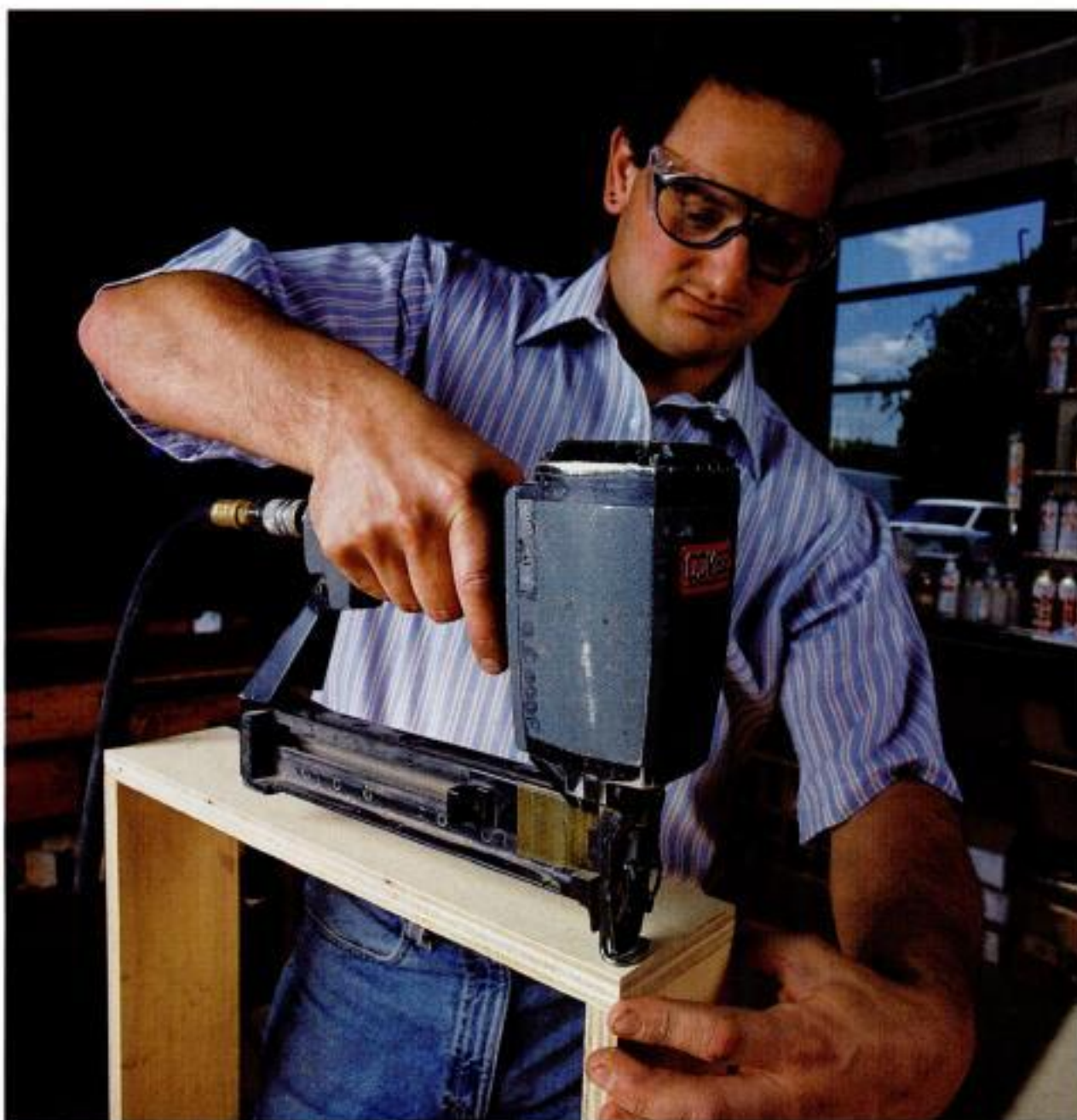


Craftsman Air Drive 18978

Brand & Model	List Price	Pad Dia. (in.)	Pad Type	Pad Brake	Orbits per Minute	Dust Coll.	Air Required (cfm @ psi)	Weight (lbs.)	Comments & Features
Dotco 12L1800-03	\$241	3 1/2	PSA, HL	N	10,000	OPT	17 @ 90	2.5	
Aro RS25A-CSV	270	5	PSA	N	12,000	VP	16 @ 90	1.8	Lube free.
Aro RS25A-PSV	245	5	PSA	N	12,000	—	16 @ 90	1.8	Lube free.
Aro RS25A-VLV	300	5	PSA	N	12,000	DB	16 @ 90	1.9	Lube free.
Dotco 12L1800-05	241	5	PSA, HL	N	10,000	OPT	17 @ 90	2.6	
Dynabrade Dynorbital 5-Inch 2-Hand	290	5	PSA	N	10,000	VP, DB	14 @ 90	2.8	Central-vacuum-ready models available.
Dynabrade Dynorbital New Supreme	235	5	PSA	N	10,000	VP, DB	14 @ 90	2.1	Handle designed for small hands.
Dynabrade Dynorbital Supreme	235	5	PSA	N	10,000	VP, DB	14 @ 90	2.1	
Master Power 4407	220	5	PSA	N	10,000	—	5.5 @ 90	2.5	
Master Power 4407DF	235	5	PSA	N	10,000	VP	5.5 @ 90	2.5	
Master Power RO51	220	5	PSA	N	10,000	—	5.5 @ 90	2.5	
Master Power RO51DF	235	5	PSA	N	10,000	VP	5.5 @ 90	2.5	
Sioux 790	233	5	PSA	N	10,000	—	16 @ 90	2.3	Insulated housing cover.
Sioux 790V	263	5	PSA	N	10,000	VP	16 @ 90	2.3	Insulated housing cover.
Sioux 790VV	295	5	PSA	N	10,000	DB	16 @ 90	2.3	Insulated housing cover; Venturi vacuum.
Coleman Powermate 024-0092SP	60	6	PSA	N	9,000	—	6 @ 90	2	
Craftsman Air Drive 18978	65	6	PSA	N	8,500 - 10,000	—	4 @ 90	4	
Dotco 12L1800-06	241	6	PSA, HL	N	10,000	OPT	17 @ 90	2.7	
Dynabrade Dynorbital 6-Inch 2-Hand	290	6	PSA	N	10,000	VP, DB	14 @ 90	2.8	Central-vacuum-ready models available.
Fein M10000-6	695	6	HL	Y	10,000	DC	6 @ 86	2.4	
Master Power 4415	255	6	PSA	N	10,000	—	5.5 @ 90	1.5	Feathering throttle for precise control.
Master Power 4408	220	6	PSA	N	10,000	—	5.5 @ 90	2.6	
Master Power 4408DF	235	6	PSA	N	10,000	VP	5.5 @ 90	2.7	
Sioux 797	233	6	PSA	N	10,000	—	16 @ 90	2.3	Insulated housing cover.
Sioux 797V	263	6	PSA	N	10,000	VP	16 @ 90	2.3	Insulated housing cover.
Sioux 797VV	295	6	PSA	N	10,000	DB	16 @ 90	2.3	Insulated housing cover.
Dynabrade Dynorbital 8-Inch	335	8	PSA	N	10,000	VP, DB	14 @ 90	4.1	Central-vacuum-ready models available.

See page 136 for listing of manufacturers.

KEY: Pad Type: HL = hook-and-loop, PSA = pressure-sensitive adhesive. Dust Collection: DB = dust bag, DC = dust canister, VP = vacuum port. Y = yes, N = no. OPT = optional, — = not applicable. NA = information not available.



Single-shot nailing. A pneumatic nail gun greatly speeds up nailing, and it won't knock pieces out of alignment like a hammer can.

Pneumatic Finish Nailers

Whether you're fastening a cabinet back, attaching molding or cobbling together a jig, there is nothing that speeds up nailing like a pneumatic finish nailer. A pneumatic, or air-powered, nailer drives a nail in a single stroke with the pull of a trigger. It can set a brad or finish nail below the surface of the wood in the same stroke. Pneumatic nailers won't knock two aligned surfaces out of place like a hammer will. And the nails that these guns use tend to tear their way through wood rather than splitting it like conventional nails.

Almost any small, 3/4-HP air compressor with a tank will provide the 100 psi necessary to drive a brad gun or finish nailer. You'll also need a pressure regulator for the compressor.

2 Types of Nailers

Brad Nailers

Brad nailers shoot 18-gauge finish nails called brads. The guns typically accept brads from 5/8 in. to about 1 1/2 in. long, although some will accept brads as short as 3/8 in. and as long as 2 in. A few models will also drive narrow crown staples. (See chart, page 104.) Generally used to attach thinner materials such as cabinet backs or thin trim moldings, brads are less likely than finish nails to split wood. A brad nailer also has a smaller nose than a finish nailer and will fit more easily into tight spaces and complex molding profiles.



Features to Consider

Weight

Although weight is not a problem with brad guns, finish nailers over 5 lbs. can get tiresome to handle.

Nail Magazine Angle

The nail magazine on some finish nailers is angled back toward the gun's handle, making it easier to get into corners and tight spots.

Safety System

Most guns have a retractable nosepiece that must be depressed against the workpiece before the trigger can fire. Some guns have double triggers instead, both of which must be pulled to fire the gun. A few guns have a manual trigger lock, which only works if you remember to use it.



Finish Nailers

Finish nailers shoot 15- or 16-gauge nails typically ranging from about 1 in. to 2½ in. long. (See chart.) These nails, thicker and stronger than brads, are better suited to nailing thicker stock like cabinet carcasses and large crown moldings. The longer nails will also extend through drywall and into wall studs, for attaching door and window casings and other architectural trim work. Finish nails will penetrate dense hardwoods without crumpling like brads might.

Bounce Firing

Bounce firing capability lets you nail by simply pressing the safety tip against the workpiece while holding the trigger down. You don't have to release the trigger after every shot.

Rubber Nose Tip

A rubber nose tip prevents the gun's nose from marring soft wood. Although rubber tips are not available for some models, they are standard or optional for others.

Quick-Release Nosepiece

This feature, found on some nailers, is useful for clearing nail jams quickly.

Drive-Depth Adjustment

A few guns sport a dial near the tip that lets you adjust the amount of countersink, or set, of the nail without changing the air-line pressure.

Quick-release nosepiece. A draw-catch release allows quick access to the firing compartment for clearing jams.

Rubber nose tip. A rubber nose tip keeps soft wood from being marred by the gun's nose.

Options Worth Having

Nails. Some guns will accept nails made by other manufacturers. Some models are prone to poor operation if other brands of nails are used. Make sure to check with the gun manufacturer regarding the availability of nails for their models.

Swivel fitting. A swivel air-line fitting connected to your gun will give you greater maneuverability in tight spots.



Pneumatic Nailers

New models in red.



Hitachi NT50AD



Porter-Cable BN200



Stanley-Bostitch BT-35B



Makita AF631

Brand & Model	List Price	Length Range	Magazine Type, Material	Safety System	Bump Firing	Rubber Nose Tip	Quick-Release Nose-piece	Drive Depth Adj.	Recomm. Air Pressure (psi)	Pressure Regulator	Weight (lbs.)	Comments & Features
Airy ATT-02415K	\$188	3/8 - 1 9/16	S, P	2	N	N	Y	Y	80 - 100	N	2.6	Case; 5,000 assorted fasteners.
Airy EZ-2	310	5/8 - 1 1/4	S, AL	2	N	N	N	Y	80 - 100	N	3	Also shoots narrow crown staples.
Atro I-Strong	370	5/8 - 1	S, AL	2	N	N	Y	N	70 - 85	NA	2.6	
Atro TI-Pin 44	390	5/8 - 1 3/4	S, AL	DT	N	OPT	Y	Y	65 - 120	NA	2.5	Lubrication optional.
Campbell Hausfeld SN258K	99	3/8 - 1	S, AL	DT	N	N	N	N	50 - 100	OPT	2.7	
Campbell Hausfeld NB0030	99	3/8 - 1 1/4	S, AL	DT	N	N	N	N	50 - 100	OPT	2.6	
Craftsman 18309	95	3/8 - 1 1/4	S, AL	DT	Y	N	N	N	60 - 100	N	2.5	Oil-less; case available.
Craftsman 18323	135	5/8 - 2	S, AL	DT	Y	N	Y	N	60 - 100	N	3.3	
DeVilbiss SHBN4	119	1/4 - 1 1/4	S, AL	DT	Y	N	Y	N	65 - 100	N	2.7	
Duo-Fast DBN4052S	139	5/8 - 1 9/16	S, P	2	N	N	N	N	55 - 95	N	2	Lightweight; compact.
Grizzly G1852	60	3/16 - 3/8	S, AL	DT	Y	N	N	N	90 - 100	N	2.6	
Grizzly G1861	80	9/16 - 5/8	S, AL	DT	Y	N	N	N	90 - 100	N	3.3	
Haubold SKN-40V/12	420	3/4 - 1 9/16	S, AL	DT	Y	Y	Y	N	57 - 100	N	3.7	
Hitachi NT50AD	552	1 - 2	S, AL	DT, 2	N	Y	N	Y	70 - 120	N	2.5	360° exhaust; leather grip.
ITW Paslode 2138-F18H	482	5/8 - 1 3/8	S, AL	DT	Y	N	Y	N	80 - 120	N	4.8	Lightweight; high powered.
Jamco JTBN1832	96	3/8 - 1 1/4	S, AL & ST	DT	Y	N	N	N	60 - 100	N	2.5	
Jamco JTBN1832A	124	3/8 - 1 1/4	S, AL & ST	DT	Y	N	N	N	60 - 100	N	2	Directional exhaust.
Jamco JTBN1850	146	5/8 - 2	S, AL & ST	DT	Y	N	N	N	60 - 100	N	3.2	
Jamco JTBN1850A	171	5/8 - 2	S, AL & ST	DT	Y	N	N	N	60 - 100	N	2.7	Directional exhaust.
Josef Kihlberg JK24-512	400	5/8 - 1 3/16	S, AL	DT	Y	N	N	N	58 - 87	N	2.4	
Max NF211/18-25	495	3/8 - 1	S, AL	DT	Y	Y	Y	Y	60 - 100	OPT	2.2	Directional exhaust.
Max NF211/18-50	525	3/4 - 2	S, AL	DT	Y	Y	Y	Y	60 - 100	OPT	2.6	Directional exhaust.
Penn State PSI ANK-SUP	110	3/8 - 1 9/16	S, P	DT	N	N	N	Y	100	N	2	Case; extra drive blade; nails.
Penn State PSI ANK-2	130	5/8 - 2	S, AL	DT	Y	N	N	N	100	N	3.7	Case; extra drive blade; nails.
Porter-Cable BN125	154	5/8 - 1 1/4	S, AL	DT	Y	N	Y	N	70 - 120	N	2.8	Case; 1,000 nails.
Porter-Cable BN200	238	3/4 - 2	S, AL	DT	Y	N	Y	N	70 - 120	N	3.4	Case; 1,000 nails.
Reliant DD241	80	3/8 - 1 3/16	S, AL	DT	N	N	N	N	60 - 100	N	2.5	Narrow nosepiece.
Reliant DD243	120	3/8 - 1 5/8	S, AL	DT	N	N	N	N	60 - 100	N	3	Narrow nosepiece.
Senco LS1 Headless Pinner	310	1/2 - 1	S, AL	DT	N	N	Y	N	80 - 110	N	2.7	Easy to maneuver.
Senco SLP20 Brad Nailer	325	5/8 - 1 5/8	S, P	DT	N	N	Y	N	70 - 120	N	2.3	Oil-less.
Spotnails CB1820	118	3/16 - 1 1/4	S, AL	DT	Y	N	N	N	85 - 100	OPT	2.1	
Spotnails DB1825	234	5/8 - 1	S, ST	DT	Y	N	N	N	85 - 100	OPT	3.2	

BRAD NAILERS = 18 GAUGE

Chart continued on page 106.

See page 136 for listing of manufacturers.

KEY: Magazine Type: S = straight, A = angled. Magazine Material: AL = aluminum, G = graphite, P = plastic, ST = steel. Safety System: 2 = 2 triggers, DT = depress tip on work surface, SL = safety lock. Y = yes, N = no. OPT = optional. NA = information not available.

Pneumatic Nailers

New models in red.



Porter-Cable DA250A



Senco SFN1+



Airy ATF-0350K



Campbell Hausfeld NB3565

Brand & Model	List Price	Length Range	Magazine Type, Material	Safety System	Bump Firing	Rubber Nose Tip	Quick-Release Nose-piece	Drive Depth Adj.	Recomm. Air Pressure (psi)	Pressure Regulator	Weight (lbs.)	Comments & Features
BRAD NAILERS = 18 GAUGE												
Spotnails GB1832	\$262	7/8 - 1 3/4	S, ST	DT	Y	N	Y	N	85 - 100	OPT	3.5	
Stanley-Bostitch BT-35B	279	5/8 - 1 3/8	S, AL	2	N	N	Y	N	70 - 100	OPT	2.4	Anti-jam magazine.
Stanley-Bostitch BT-50B	335	1 3/16 - 2	S, AL	2	N	N	Y	N	70 - 100	OPT	2.6	Anti-jam magazine.
Woodtek 832364	110	5/8 - 1	S, P	2	Y	N	N	Y	80 - 100	N	3	Also shoots narrow crown staples.
Woodtek 832371	139	5/8 - 1 1/2	S, P	2	Y	N	N	Y	80 - 100	N	2.3	
Woodtek 832378	170	3/4 - 2	S, ST	2	Y	N	N	Y	80 - 100	N	3.5	
Woodtek 882371	86	5/8 - 1 1/2	S, ST	2	Y	N	N	Y	80 - 100	N	2.3	Also shoots narrow crown staples.
Airy ATH-0565T	418	1 - 2 1/2	A, ST	DT	Y	Y	Y	N	80 - 100	N	5.1	14 or 15 gauge.
Jamco JTAFN1464	380	1 1/4 - 2 1/2	A, AL & ST	DT	Y	Y	Y	Y	70 - 110	N	5.4	14 or 15 gauge.
Craftsman 18329	290	1 1/2 - 2 1/2	A, AL	DT	Y	Y	Y	N	60 - 100	N	5.8	15 gauge.
DeVilbiss AFN5	280	1 - 2 1/2	A, AL	DT	Y	Y	Y	N	75 - 100	N	6	15 gauge.
Makita AF631	425	1 1/4 - 2 1/2	A, AL	DT, 2, SL	Y	Y	Y	N	65 - 120	N	5.5	15 gauge.
Penn State PSI ANK-5	250	1 - 2 1/2	A, AL	DT	Y	Y	Y	N	100	N	5.3	15 gauge; case; extra drive blade.
Porter-Cable DA250A	418	1 - 2 1/2	A, AL	DT	Y	Y	Y	Y	70 - 120	N	14	15 gauge; soft-grip handle.
Reliant DD244	230	1 1/2 - 2 1/2	A, AL	DT	Y	Y	Y	N	80 - 120	N	6	15 gauge; 100-nail capacity.
Senco SFN1+	390	1 - 2	A, P	DT	Y	Y	Y	Y	70 - 120	N	4.3	15 gauge; oil-less.
Senco SFN40	465	1 1/4 - 2 1/2	A, P	DT	Y	Y	Y	Y	80 - 110	N	4.7	15 gauge; oil-less.
Spotnails HLB1516	444	1 1/8 - 2	S, AL	DT	Y	Y	Y	N	85 - 110	OPT	4.9	15 gauge.
Spotnails HLB1520	458	1 1/8 - 2 1/2	S, AL	DT	Y	Y	Y	N	85 - 110	OPT	4.1	15 gauge.
Woodtek 832392	270	1 - 2 1/2	A, ST	DT	Y	Y	Y	Y	80 - 100	N	7	15 gauge; case.
Atro Monza Brad 64	560	1 1/4 - 2 1/2	A, AL	DT	N	Y	Y	Y	65 - 120	NA	4.3	15 or 16 gauge; lube optional.
Woodtek 864374	235	1 - 2	S, P	DT	Y	N	N	Y	80 - 100	N	4	15 or 16 gauge; case.
Airy ATF-0350K	340	3/4 - 2	S, P	DT	Y	Y	Y	Y	80 - 100	N	4	Case; assorted fasteners.
Atro Tip 50	470	1 - 2	S, AL	DT	Y	NA	Y	N	90 - 120	NA	4.3	
Stanley-Bostitch N60SN	557	1 1/4 - 2 1/2	A, AL	2	N	Y	Y	Y	70 - 100	OPT	4.6	Multidirectional exhaust.
Campbell Hausfeld NB0050	199	3/4 - 2	S, AL	DT	Y	Y	Y	N	70 - 110	OPT	4.8	
Campbell Hausfeld NB3565	279	1 1/2 - 2 1/2	A, AL	DT	Y	Y	Y	N	70 - 110	OPT	5.3	
Craftsman 18314	190	3/4 - 2	S, AL	DT	Y	Y	Y	N	60 - 100	N	5.3	Case available.
DeVilbiss FN7	199	3/4 - 2	S, AL	DT	Y	N	Y	N	65 - 100	N	5.1	
Grizzly G2413	170	1 1/2 - 2 1/2	S, AL	DT	Y	N	N	N	90 - 100	N	5.9	
Haubold SKN40V/16	414	5/8 - 1 5/8	S	DT	Y	Y	Y	N	57 - 100	N	3.7	
FINISH NAILERS = 15 OR 16 GAUGE												

Chart continued on page 108.

See page 136 for listing of manufacturers.

KEY: Magazine Type: S = straight, A = angled. Magazine Material: AL = aluminum, G = graphite, P = plastic, ST = steel. Safety System: 2 = 2 triggers, DT = depress tip on work surface, SL = safety lock. Y = yes, N = no. OPT = optional. NA = information not available.

Pneumatic Nailers

New models in red.



Hitachi NT65A



Porter-Cable FN250A

Brand & Model	List Price	Length Range	Magazine Type, Material	Safety System	Bump Firing	Rubber Nose Tip	Quick-Release Nose-piece	Drive Depth Adj.	Recomm. Air Pressure (psi)	Pressure Regulator	Weight (lbs.)	Comments & Features
Haubold SKN64A/16	\$444	1 3/16 - 2 1/2	S	DT	Y	OPT	N	N	85 - 110	N	4.8	
Hitachi NT65A	749	1 - 2 1/2	S, AL	DT	Y	Y	N	Y	70 - 120	N	4.6	Excellent power-to-weight ratio.
Jamco JTFN1650	241	3/4 - 2	S, AL & ST	DT	Y	N	N	N	70 - 110	N	4.4	
Jamco JTFN1664	361	1 - 2 1/2	S, AL & ST	DT	Y	Y	Y	Y	70 - 110	N	5.4	Countersinks even in hard woods.
Penn State PSI ANK-3	210	5/8 - 2 1/2	S, AL	DT	Y	N	N	N	100	N	5	Case; extra drive blade; nails.
Porter-Cable FN250A	320	3/4 - 2 1/2	S, AL	DT	Y	Y	Y	Y	70 - 120	N	14	Soft-grip handle.
Reliant DD211	200	3/4 - 2 1/2	S, AL	DT	N	N	N	N	75 - 120	N	5.8	
Spotnails FB1632	268	3/8 - 2	S, AL	DT	Y	N	N	N	85 - 100	OPT	3.6	
Spotnails HB1640	380	1 - 2 1/2	S, AL	DT	Y	N	Y	N	85 - 100	OPT	5.5	
Woodtek 832385	225	1 - 2 1/2	S, ST	DT	Y	N	N	Y	80 - 100	N	7	Fitted case.

FINISH NAILERS - 16 GAUGE

See page 136 for listing of manufacturers.

KEY: Magazine Type: S = straight, A = angled. Magazine Material: AL = aluminum, G = graphite, P = plastic, ST = steel. Safety System: 2 = 2 triggers, DT = depress tip on work surface, SL = safety lock. Y = yes, N = no, OPT = optional, NA = information not available.

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Radial revolution. The radial-arm saw is ideal for crosscutting or mitering large stock. It can also be a versatile tool for dimensioning and shaping wood.

Radial-Arm Saws

Engineered to be a jack-of-all-trades, the radial-arm saw can crosscut, rip, miter and bevel stock. With optional blades and accessories, you can also use it to dado, rabbet, mold, plane, drum sand and rout.

Many woodworkers reserve the radial-arm saw for crosscutting and mitering long stock. It is particularly well suited to these jobs, because the stock remains stationary while you pull the blade through it. For ripping, you pivot the blade and lock it parallel to the fence, then feed your stock from behind the blade.

The length of the saw's arm determines the maximum ripping width.

A radial-arm saw's size is determined by its maximum blade diameter.

The larger the saw, the thicker the wood you can cut. Saws range from 8¹/₄-in. benchtop models to 16-in. industrial giants; 10-inch models are most popular.

2 Types of Radial-Arm Saws

Single-Arm Saws

This type of radial-arm saw has a single long arm on which the motor carriage travels. The arm pivots and adjusts up and down from the back column of the machine. Single-arm saws are more common and less expensive than double-arm saws.

Though single-arm saws are simpler in design and easier to tune than double-arm saws, they have one important limitation: When the arm is pivoted to the left, the crosscut capacity of the saw is lessened and the motor may overreach the left side of the table. Unless you plan to cut a lot of miters in wide stock, this will be only a minor inconvenience.



Features to Consider

Rigidity

Clean, accurate cuts depend on how rigidly the saw is built. The columns and arms of lighter-duty saws are less rigid in use than those on heavier, more expensive models. Lighter-duty saws also tend to slip out of adjustment more easily, especially if you jam a workpiece into the blade or vice versa. When this happens, your cuts will be out of square; and you might not realize it until it's too late. Solid locking devices and steel-on-steel carriage bearings are more rigid and hold their adjustment better than plastic components. (See bottom photo, opposite.)

Safety

Safety features are important on any radial-arm saw because of the saw blade's tendency to pull itself into the work during crosscutting operations. When



Double-Arm Saws

Double-arm or "turret" saws—available from Delta and General—have an upper arm that adjusts up and down from the back column and a lower arm that rotates 360° above the center of the work table. This arrangement gives you full table capacity for both left- and right-hand miters.

Options Worth Having

Low-hook-angle blades. Blade manufacturers offer safety-engineered blades specifically for radial-arm saws. These low-hook or negative-hook blades are not only less prone to self-feeding; they also produce very clean cuts.

Dado head. With this accessory, you can cut tenons, rabbets and grooves in addition to dados.

Molding head and guard. With a molding head and a selection of molding knives, you'll be able to mill a variety of profiles.

Fence stops. Fence stops are a must for repetitive cutting jobs. They enable you to make multiple cuts without having to remeasure. You can buy aftermarket fence stops or make your own.

Sanding discs and spindles. Replace the blade with a sanding disc and you have an effective disc sander. Use sanding spindles to smooth curves and contours. Depending on your saw, spindles mount either onto the blade arbor or onto an auxiliary arbor opposite the blade arbor.

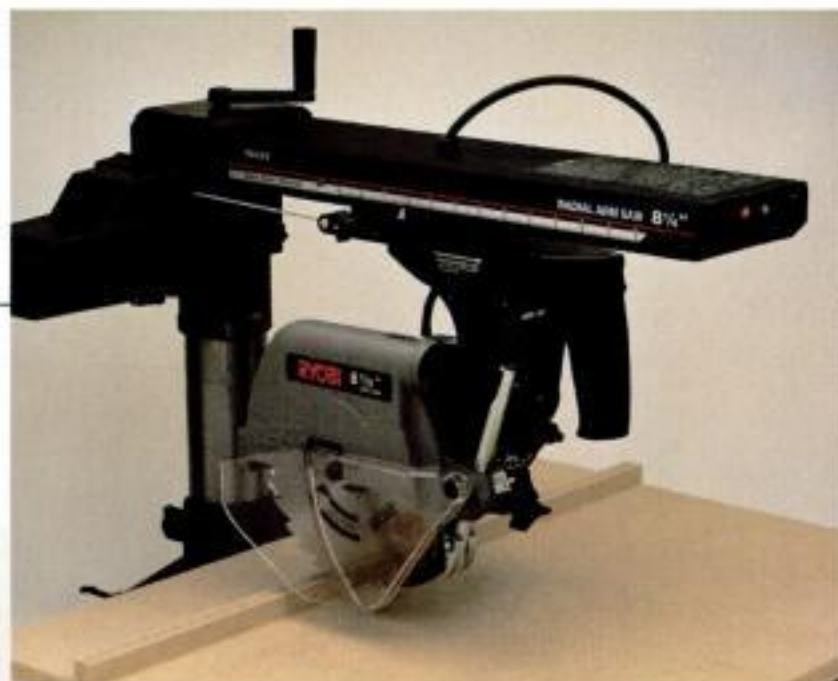
you're shopping for a radial-arm saw, look for anti-kickback pawls, a magnetic switch and a blade brake. Some manufacturers have incorporated additional safety features. (See photos at right.)

Size

Specifications for crosscut capacity and cutting depth are listed in the chart on page 112. A 10-in. or 12-in. saw will suffice for general-purpose use.

The Benchtop Option

Lighter and more compact than a floor model, a benchtop saw makes sense if you have limited shop space.



Climb-cut control. Ryobi's RA202 benchtop saw has a carriage advance control that helps prevent self-feeding and also retracts the motor and blade after each cut.



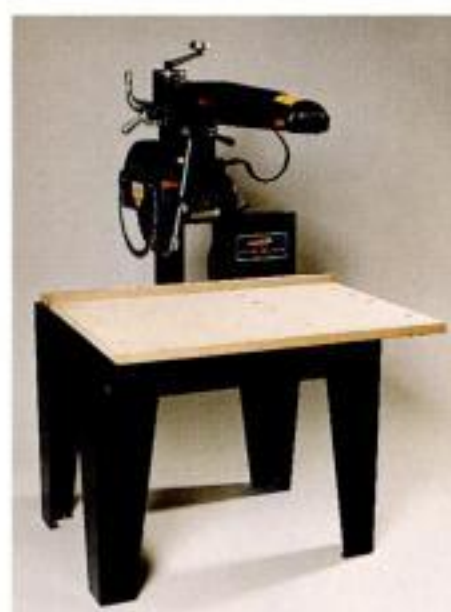
Safety lock. The guard mechanism on this Craftsman saw locks the blade behind the fence until you trigger the release lever on the handle.

Radial-Arm Saws

New models in red.



Craftsman 23480



The Original 3531

	Brand & Model	List Price	Blade Dia. (in.)	Saw Type	Crosscut Cpy. (in.)	Cutting Depth (in.) @ 90°	Table W x D (in.)	HP	Volts	Amps	Dust Coll. Port	Weight (lbs.)	Comments & Features
BENCH	Craftsman 23480	\$350	8 1/4	SA	12 1/2	2 3/4	30 x 21 1/2	2 1/2	115	13	Y	76	Precision roll-formed steel track.
	Ryobi RA202	450	8 1/4	SA	10 15/16	2 1/8	21 3/8 x 27 1/2	2	115	12.5	Y	65	Carriage advance control.
FLOOR MODELS	Craftsman 19633	550	10	SA	15 1/2	3	40 x 27	1 1/2	115/230	12/6	N	181	Capacitor start motor.
	Craftsman 19642	650	10	SA	15 1/2	3	40 x 27	1 1/2	115/230	13/6.5	N	192	Capacitor start/cap. run motor.
	Delta 33-990 Deluxe	885	10	DA	12 3/4	3	42 x 24 3/4	1 1/2	115/230	16/8	Y	178	Blade brake.
	Delta 33-890	1,903	12	DA	14 3/8	4	25 1/2 x 30	2	230	20/10	Y	300	Turret arm rotates 360°.
	Lobo RS-612	1,390	12	SA	13 1/2	3 1/2	32 1/2 x 23	2	115	20	Y	170	1-piece cast iron arm.
	The Original 3512	2,495	12	SA	24	2 1/4	36 x 29 1/2	2	230	11.2	Y	360	Automatic brake & auto return.
	Transpower RS415	1,200	12	SA	20 1/8	4	31 7/8 x 26	3	230	18	Y	385	
	Mini Max RS25	3,670	13 3/4	SA	25 1/4	4	45 x 30 1/2	3	230	15	Y	482	Replaceable guide ways; opt. 3-phase
	Delta 33-400	4,857	14	DA	29	4	44 x 36 1/2	3	230	17	Y	725	Turret arm.
	Delta 33-401	4,705	14	DA	29	4	44 x 36 1/2	5	230/460	13.2/6.6	Y	725	Turret arm.
	General 154-4	5,100	14	DA	25	4 5/8	28 x 41	3	230	18	OPT	550	Turret arm.
	General V-154	3,400	14	SA	25	4 5/8	28 1/2 x 41 1/2	3	230	12	OPT	550	Replaceable carriage tracks.
	Lobo RS-640	2,090	14	SA	21 1/2	4 3/4	44 x 33 3/4	4	230	12	Y	410	Automatic carriage return.
	North State RS420	2,300	14	SA	27 3/4	4 1/2	46 x 35	5	230	20	Y	500	Replaceable carriage tracks.
	The Original 3531	3,968	14	SA	16	4 1/8	46 x 33	3	230	18	Y	475	Automatic brake & auto return.
	The Original 3531-03	4,100	14	SA	16	4 1/8	46 x 33	5	230/460	13/6.5	Y	475	3-phase; automatic brake & return.
	The Original 3536	4,174	14	SA	24	4 1/8	46 x 33	3	230	18	Y	495	Automatic brake & auto return.
	The Original 3536-03	4,305	14	SA	24	4 1/8	46 x 33	5	230/460	13/6.5	Y	495	3-phase; automatic brake & return.
	Mini Max RS36	4,170	15 3/4	SA	35 3/4	5 1/8	55 x 41 3/4	4 1/2	230	NA	Y	652	3-phase.

See page 136 for listing of manufacturers.

KEY: Saw Type: SA = single-arm, DA = double-arm. — = not applicable. NA = information not available. Y = yes. N = no. OPT = optional.



Shaving it down to size. A thickness planer allows you to mill lumber to the exact thickness you want for your project.

Thickness Planers

Efficient, accurate woodworking depends on boards of uniform thickness.

A thickness planer will mill stock to any uniform thickness you like, smooth roughsawn lumber, and true up the faces of glued-up panels. It's a machine no serious woodworker should be without.

When you feed a board through a planer, rollers press the board down flat on the table as rotating knives remove wood from the top face of the board. The board comes out thinner, with parallel faces top and bottom. A planer won't remove warp, twist or cup from a board unless one face is flattened first on a jointer or with a hand plane.

Thickness planers are sized by the maximum width of stock they can handle; a 12-in. planer will surface boards up to 12 in. wide.

3 Types of Planers

Stationary Planers

A stationary, or floor-model, thickness planer is a key machine in any serious woodworking shop. With width capacities of 12 in. or more, these machines can surface wide boards and glued-up panels. They're also better at handling long boards, thanks to bed rollers and the infeed and outfeed rollers that are standard on some models.

Floor-model planers can also take a heavy bite—up to $\frac{5}{16}$ in. in some cases—so you'll save a lot of time when you've got large amounts of lumber to surface. If you don't have a dust-collection system, plan to get one if you're buying a big planer. These behemoths produce plenty of shavings.



Features to Consider

Number of Knives

Three- or four-knife cutterheads don't need to turn as fast as those with only two knives to produce the same number of cuts per minute. Lower rpm means quieter operation and longer life for moving parts.

Maximum Cutting Depth

When you're evaluating a planer's power, keep in mind that maximum cutting depth is just as important as the horsepower rating. As shown in the chart on page 116, maximum cutting depth ranges from $\frac{1}{16}$ in. to $\frac{5}{16}$ in.

The Bed

For heavy stock, nothing beats a cast-iron bed with bed rollers. (See bottom left photo, opposite.) You'll find this type of bed on many floor models. If you won't be planing long, large-dimension



Portable Planers

Portable models offer good value for small-shop woodworkers. Intended for light- or medium-duty use, most of these machines cost under \$500 and will handle boards up to 6 in. thick and 12 in. wide. (See chart, page 116.) Many woodworkers treat their portable planers like stationary machines, building a stand and adding infeed and outfeed supports to create a permanent workstation.

A couple of things to note: The high-rpm universal motors on most portable planers make them very noisy, so don't forget to wear ear protection. Also, if you're looking for a planer for frequent jobsite use, or if you need one that's small enough to move around a crowded shop, check out the weights listed in the chart. Some "portable" models weigh more than 70 lbs.

Jointer-Planers

Combination machines, which utilize one motor for both jointing and planing operations, take up less space than separate machines. They sacrifice little in the way of features, but can take a few moments to switch functions.



Options Worth Having

Extra knives. A spare set is important for anyone with an aversion to downtime. Carbide-tipped knives are expensive but, on the plus side, they don't need to be changed nearly as often as steel knives.

Knife-setting jig. If your thickness planer doesn't come with its own knife-setting jig, an aftermarket jig will pay off in accuracy and time savings.

Support stand. Aftermarket steel stands are available for portable planers. Add locking casters, and you'll be able to move the machine out of the way when you're not using it.

Outfeed rollers. If you're working by yourself—and especially if you're planing long or heavy boards—outfeed rollers will take the place of a helper on the other side of the machine.

stock, a polished-aluminum or steel bed (found on most portable models) will do.

Feed Rollers

Many stationary planers have serrated or textured steel rollers to push the board into the cutterhead. (See photo, below

right.) These can leave marks, which are planed off as the wood passes through the cutterhead. A light pass, however, may not remove them.

The rubber-coated infeed rollers found on most portable planers leave no marks on the wood, but they wear out sooner

and don't usually grip as well as steel rollers, especially on long, heavy stock.

Extra Capability

Some planers can be fitted with molding knives and sanding drums. Check the Comments column in the chart.



Entry-level. Bed rollers and a cast-iron bed can handle heavy use and large, long stock.



Infeed rollers. Serrated infeed rollers are effective in moving heavy boards through the machine.

Thickness Planers

New models in red.

For jointer-planers, see page 118.



Ryobi AP12



Jet JWP-12



RBI 812

Brand & Model	List Price	Max. Stock T x W (in.)	Max. Cutting Depth (in.)	No. of Knives x Rpm	HP	Volts	Dust Coll. Port	Weight (lbs.)	Comments & Features
Williams & Hussey W7S	\$1,019	8 x 7	1/4	2 x 3,450	—	—	Y	85	Motor costs extra; molding capability.
Lobo WP-0010	369	5 x 10	1/8	2 x 8,000	2	115	OPT	58	
Reliant NN910	270	5 x 10	1/8	2 x 8,000	2	115	OPT	58	Top carrying handle.
Grizzly G1017	399	5 x 12	1/16	2 x 8,500	2	115	OPT	80	4-column support for cutterhead.
AMT 4651	355	6 x 12	1/8	2 x 8,000	2	115	N	68	Smooth top for easy stock return.
Delta 22-540	557	6 x 12	3/16	2 x 8,000	NA	115	N	68	4-column support for cutterhead.
Makita 2012	959	6 x 12	3/32	2 x 8,000	2	115	OPT	53	Disposable double-edged knives.
Penn State Super 125	359	6 x 12	3/32	2 x 8,000	2	115	N	63	Opt. 2 1/2-in. dust-collection chutes.
Reliant NN912	400	6 x 12	1/8	2 x 8,000	2	115	OPT	63	Top carrying handle.
Woodtek 900853	349	6 x 12	1/8	2 x 8,000		115/230	OPT	63	Double-edged knives; adjustable bed rollers.
Lobo WP-0012	395	6 x 12 1/8	1/8	2 x 1,600	2	115	OPT	63	Top carrying handle.
Hitachi P12R	1,688	6 5/8 x 12 9/32	3/16	2 x 10,400	2.4	115	Y	62	Knife-setting gauge.
Ryobi AP12	450	6 x 12 5/16	1/8	2 x 8,000	NA	115	OPT	63	Double-edged knives.
Craftsman 23383	700	5 x 12 1/2	3/32	3 x 4,500	2 1/2	115	OPT	123	Molding capability.
Craftsman 23373	460	6 x 12 1/2	3/32	2 x 8,000	2	115	OPT	73	Top rollers for easy stock return.
Jet JWP-12	532	6 x 12 1/2	3/32	2 x 8,000	2	115	OPT	68	Extension table rollers.
Star S3712	440	6 x 12 1/2	1/8	2 x 8,000	2	115/230	OPT	68	Double-edged knives; opt. 4-in. dust hood.
Sunhill CT-318	369	6 x 12 1/2	1/8	2 x 8,000	NA	115	OPT	68	Knife-setting gauge.
Tradesman 8312	399	6 x 12 1/2	1/8	2 x 8,000	2 1/2	115	OPT	78	Top rollers for easy return; side handles.
Transpower AP150	345	6 x 12 1/2	1/8	2 x 8,000	2	115	OPT	75	Extension table rollers.
Shopsmith Professional Planer	1,100	4 x 12	1/8	3 x 5,750	1 3/4	115	Y	151	Separate motors for feed & cutterhead.
Powermatic 100	3,543	5 x 12	1/4	3 x 5,300	3	230	OPT	612	1-pc. cast-iron frame.
RBI 812	1,099	8 x 12 1/8	3/16	3 x 5,500	3	230	OPT	254	Molding & sanding.
Woodmaster 712	1,353	7 x 12 1/2	3/16	3 x 4,200	5	230	OPT	300	Variable feed; optional molding, sand, sawing.
Jet JPM-13	999	5 x 13	3/32	3 x 4,500	1 1/2	115/230	Y	204	Molding capabilities; custom knives avail.
General 130-1	3,900	6 x 14	1/16	3 x 4,500	3	230	OPT	610	Transmission type gear box.
General 130-1-M1	3,200	8 x 14	1/8	3 x 4,500	3	230	OPT	650	
AMT 4490	890	6 x 15	1/8	3 x 4,800	2	230	Y	446	Lever adjusts feed.
Bridgewood BW-15P	949	6 x 15	1/8	3 x 4,500	3	230	Y	446	Top rollers for easy stock return.
Craftsman 23374	1,300	6 x 15	1/4	3 x 5,000	2	230	Y	319	Top rollers for easy stock return.
Grizzly G1021	765	6 x 15	1/8	3 x 5,000	2	230	Y	475	All cast iron; 4 steel columns; 2 speeds.
Jet JWP-15HO	1,699	6 x 15	1/8	3 x 4,500	3	230	Y	480	Adjustable extension table rollers.
Lobo WP-0015	999	6 x 15	1/8	3 x 4,500	3	115/230	Y	520	Top rollers for easy stock return.
Powermatic 15	1,891	6 x 15	1/8	3 x 4,500	3	230	Y	484	Top rollers for easy stock return.
Reliant DD37	895	6 x 15	1/8	3 x 4,500	3	230	Y	529	Top rollers for easy stock return.
Sunhill CT-38B	889	6 x 15	1/4	3 x 4,500	3	230	Y	506	Triple V-belt drive; magnetic controls.
Sunhill CTM-16	799	6 x 15	1/4	3 x 4,500	2	230	Y	450	Adjustable head.
Woodtek 875001	1,085	6 x 15	1/8	3 x 4,850	2	230	Y	470	Adjustable extension table and feed rollers.
Delta 22-675	1,439	6 1/2 x 15	3/16	3 x 5,000	2	230	OPT	363	Adjustable bed rollers.
North State 315	859	6 1/2 x 15	3/16	3 x 5,000	3	230	Y	485	Triple V-belt drive.
Lobo WP-1015	869	8 x 15	1/8	3 x 4,500	3	230	Y	480	

PORTABLE

FLOOR MODELS

Chart continued on page 118.

See page 136 for listing of manufacturers.

KEY: Y = yes. N = no. OPT = optional. — = not applicable. NA = information not available.

Thickness Planers

New models in red.



Grizzly G1021



Powermatic 15

Brand & Model	List Price	Max. Stock T x W (in.)	Max. Cutting Depth (in.)	No. of Knives x Rpm	HP	Volts	Dust Coll. Port	Weight (lbs.)	Comments & Features
Transpower AP850	\$790	8 x 15	3/16	3 x 5,600	3	230	Y	500	Triple extension rollers.
Makita 2040	2,610	7 5/8 x 15 5/8	3/16	2 x 6,500	2	115	OPT	254	Ball-and-needle bearing construction.
Bridgewood BW-16PV	2,795	7 x 16	1/4	3 x 5,600	3	230	Y	748	Variable feed; sectional infeed rollers.
Transpower AP800	740	8 x 16	3/16	3 x 5,600	3	230	Y	480	Triple extension rollers.
RBI 816	1,799	8 x 16 1/4	5/16	4 x 4,600	5	230	OPT	440	Molding, sand, sawing; opt. variable speed.
Powermatic 180	7,587	6 x 18	1/2	3 x 4,800	5	230/460	OPT	1,523	Quick-change cutterhead available.
Woodmaster 718	1,727	7 x 18 1/2	3/16	3 x 4,200	5	230	OPT	420	Variable feed; optional molding, sand, sawing.
Bridgewood BW-200P	2,595	6 1/2 x 20	1/4	3 x 5,000	5	230	Y	780	Anti-kickback fingers; sectional infeed rollers.
Bridgewood BW-20PV	3,395	7 x 20	1/4	3 x 5,600	5	230	Y	857	Variable feed; sectional infeed rollers.
Grizzly G1033	1,295	7 x 20	3/16	4 x 4,833	3	230	Y	800	3-belt drive; 2 speeds.
Jet JWP-20H-1	4,134	7 x 20	1/4	3 x 5,600	3	230	Y	1,058	Sectional infeed rollers.
Woodtek 816427	2,499	7 x 20	3/16	3 x 6,000	3	230	Y	790	Top rollers for easy stock return.
Jet JWP-208-1	2,492	8 x 20	3/32	4 x 5,000	3	230	Y	770	Magnetic switches.
Lobo WP-0020	1,590	8 x 20	1/4	4 x 5,000	3	115/230	Y	920	Top rollers for easy stock return.
Lobo WP-1120	2,390	8 x 20	1/4	3 x 5,000	3	230	OPT	1,000	Solid cast-iron body.
Lobo WP-2000	2,890	8 x 20	1/4	3 x 5,500	3	230	OPT	850	30 fpm for production.
Star S3715	1,050	8 x 20	1/8	3 x 5,000	3	230	Y	475	Knife-setting gauge.
Star S3720	1,500	8 x 20	1/8	4 x 5,000	3	230	Y	810	Knife-setting gauge.
Star S3725	1,750	8 x 20	1/8	4 x 5,000	5	230	Y	850	Knife-setting gauge.
Sunhill CT-508	1,395	8 x 20	1/4	4 x 5,000	3	230	Y	925	Triple V-belt drive.
Transpower AP200	1,950	8 x 20	1/4	4 x 5,200	5	230	N	1,100	Top rollers for easy stock return.
Transpower AP200A	1,245	8 x 20	1/4	4 x 5,600	5	230	Y	882	Extension table rollers.
North State CT-508	1,360	8 1/2 x 20	1/4	4 x 5,000	5	230	Y	882	Feed pressure adjustment.
Delta 22-450	4,409	8 5/8 x 20	1/8	3 x 4,650	5	230	Y	840	Adjustable bed rollers.
Bridgewood BW-508	4,395	9 x 20	1/4	3 x 5,200	5	230	Y	1,370	Separate motors for stock feed, cutterhead.
General 330	8,500	9 x 20	1/8	4 x 4,500	5	230	OPT	2,000	Solid cast iron.
Sunhill CM-510	3,675	9 x 20	5/16	3 x 5,000	5	230	Y	1,500	Quick-set bed rollers.
RBI 820	2,199	8 x 20 1/4	5/16	4 x 4,600	5	230	OPT	500	Molding, sand, sawing; opt. variable speed.
Mini Max SP-1	7,195	9 3/4 x 20 1/2	5/16	4 x 4,500	9	230/460	Y	1,496	3-phase; very quiet.

FLOOR MODELS

Jointer-Planers

For jointers, see page 76.



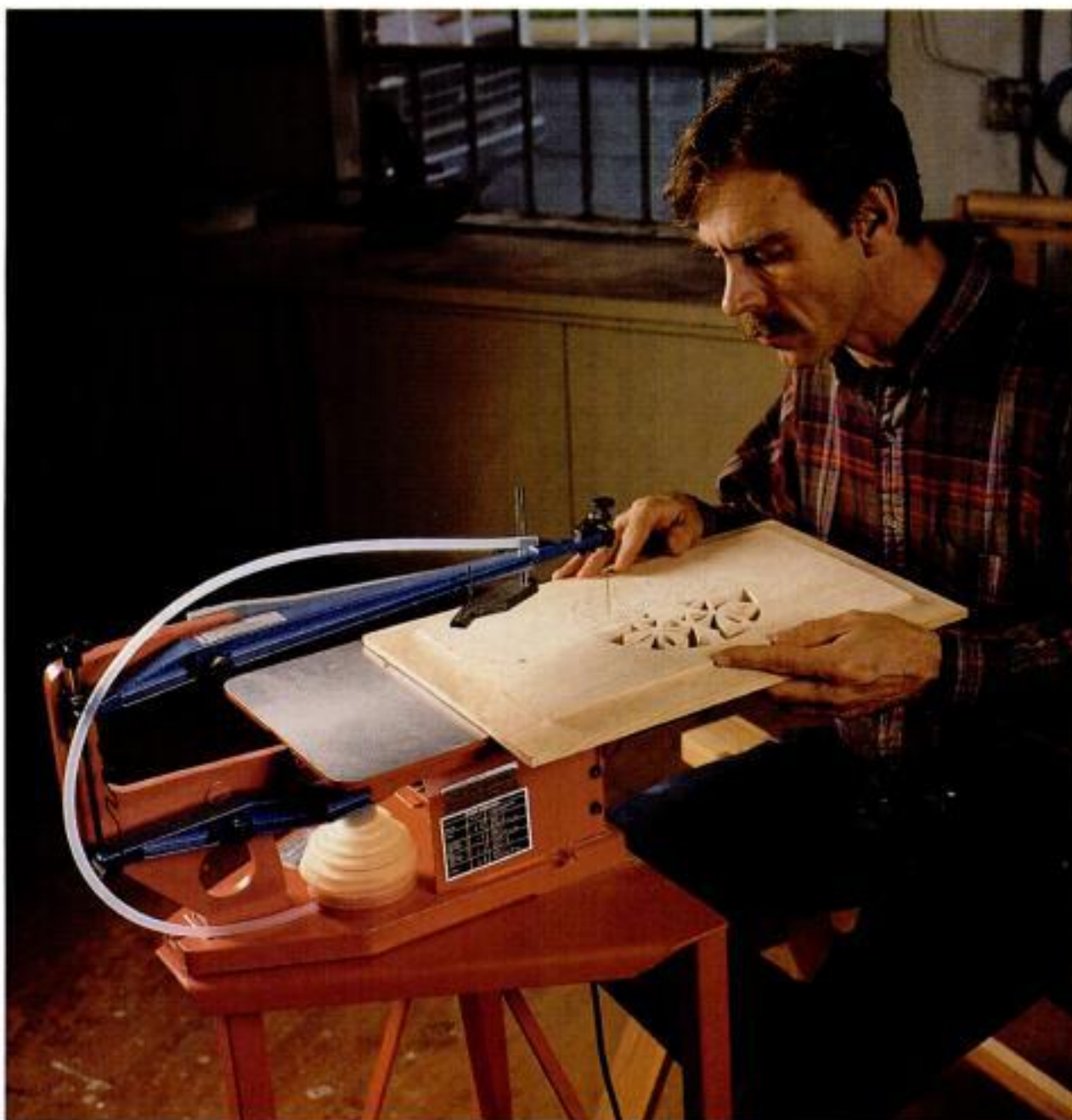
Hitachi P12RA

Brand & Model	List Price	Max. Stock T x W (in.)	Jointer Max. Cutting W (in.)	Jointer Bed Length (in.)	No. of Knives x Rpm	HP	Volts	Dust Coll. Port	Weight (lbs.)	Comments & Features
Hitachi P12RA	\$2,203	6 5/8 x 12 9/32	6 1/8	28 11/32	2 x 10,400	2 1/2	115	Y	99.5	Portable; jointer removable.
Inca 570	2,495	6 1/4 x 10 1/4	10 1/4	42	3 x 6,000	2	115/230	Y	180	Tersa type cutterhead.
Mini Max FS-30	2,995	8 x 11 1/4	11 1/4	58 1/2	3 x 5,000	3	230	OPT	530	Opt. slot mortiser.
Robland XSD 31	2,695	9 x 12	12	55	3 x 6,000	3	230	Y	650	Variable feed avail.
Hitachi F1000A	4,600	6 9/32 x 12 5/32	6 9/32	63 3/32	2 x 10,400	2 7/10	115	OPT	320	Collapsible jointer bed extensions.
Mini Max FS350	3,995	9 1/4 x 13 3/4	13 3/4	71	3 x 4,500	3	230	OPT	695	Optional slot mortiser.
Veba FS400	6,495	7 13/32 x 15 11/16	15 11/16	79	3 x 4,900	4	230	Y	1,000	2-speed planer feed.

FLOOR MODELS

See page 136 for listing of manufacturers.

KEY: Y = yes. N = no. OPT = optional. — = not applicable. NA = information not available.



Curvy cuts. The scroll saw fills the bill when you want to cut fretwork, marquetry, puzzles or anything intricate.

Scrollsaws

Nothing beats a scrollsaw when it comes to cutting intricate curves.

With its delicate blade and reciprocating cutting action, a scrollsaw lets you make hairpin turns and inside cuts in wood and other materials.

Power isn't important when you're choosing a scrollsaw—the delicate blade will probably break before the machine's modest motor bogs down. By selecting the right type of blade, tailoring the cutting speed to the material, and controlling the feed rate, you can cut wood up to 2 in. thick. But many woodworkers love this machine for the fine fretwork and marquetry they can create in thinner stock.

3 Types of Scrollsaws

Parallel-Arm Saws

On these models, the arms are connected at their back ends by a threaded rod. But they pivot separately on the saw frame, moving the blade straight up and down. This vertical cutting action is good for extra-fine work and anywhere you need a perfectly square cut.



Features to Consider

Benchtop vs. Floor Models

A benchtop scrollsaw is worth considering if you'll need to stow it frequently or if you're on a tight budget. Keep in mind, however, that it should be bolted down in use, because scrollsaws are inherently prone to vibration.

If you'll be doing a lot of scrollsaw work, consider a floor model. Many of these are simply benchtop models attached to sheet-metal stands for increased stability.

Cutting Speed

With scrollsaws, speed is measured in strokes per minute (spm), and there are several speed choices. Scrollsaws are available in single-, multiple-, and variable-speed models. Lower speeds—200 spm, for example—are good for cutting plastics and metals, and for making

Parallel-Link Saws

This variation on the parallel-arm design is available on Excalibur scrollsaws. These models also have vertical cutting action.

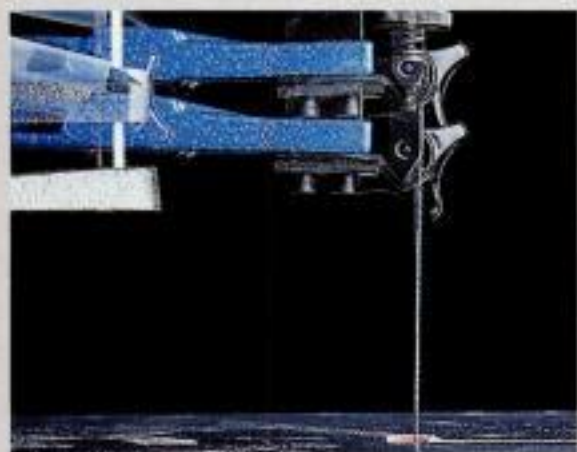


C-Arm Saws

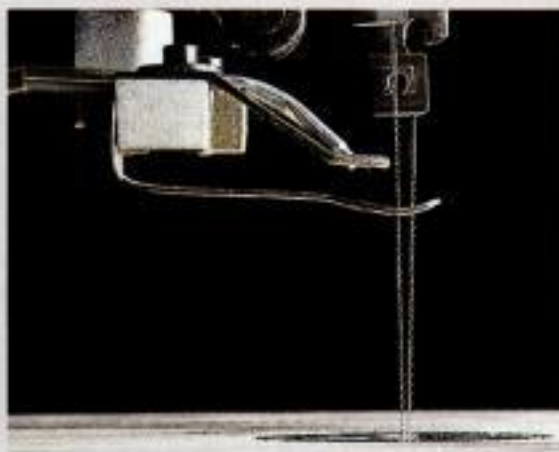
On these saws, blades are held between two ends of a single C-shaped casting that moves up and down. Since the C-arm saw blade moves in a slight arc, the cutting action is more aggressive. But it also tends to be slightly rougher than the cutting action of a parallel-arm saw.



HOW THEY WORK



Parallel-arm action. The parallel-arm design on the Hegner saw moves the blade straight up and down, which results in a square cut.



C-arm action. The C-arm design on the Craftsman moves the blade in a small arc, slightly beveling the edge of the workpiece.

Options Worth Having

Electronic variable speed (EVS) control. You can transform a single-speed saw into one with EVS with this aftermarket accessory, available from many mail-order tool suppliers.

Foot switch. This remote switch frees up both hands to maneuver the workpiece.

Quick-change blade holders. These tool-free holders make blade changing easy; they're standard on some scrollsaws. (See chart, page 122.) Aftermarket blade holders, or "quick clamps," are available from Seyco Sales, (800) 462-3353. They come in a variety of styles, to fit different brands of scrollsaws.

Plain-end blade adaptors. These adaptors let you use plain-end blades on a saw designed to mount pin-end blades.

Magnifier lamps. These use a magnifying lens and a fluorescent "circline" bulb to let you see tiny details better.

intricate cuts in very thin stock. Higher speeds (up to 2,000 spm) are good for quick cutting in wood.

Speed changes can be made by rocker switch (as with many two-speed models), by manually repositioning the drive belt on a step pulley, or by electronic variable speed (EVS) control. Despite the added expense, many serious scrollsaw users favor EVS control. This electronic circuitry helps the motor maintain constant speed under varying loads, and provides infinite, convenient adjustment over the tool's speed range.

Table Tilt

Nearly all tables tilt at least 45° in one direction. On a table that tilts both ways, you can cut dovetails.

Blade Changing

On all scrollsaws, the blade is held between blade clamps that pivot on the end of the saw arm. Scrollsaw blades tend to wear quickly and break easily, so easy blade changing is an important feature.

Many less expensive scrollsaws are designed to hold pin-end blades. Though easier to mount and less prone to slippage than plain-end blades, the variety of pin-end blades is limited. On a saw that takes plain-end blades, you'll appreciate quick-release blade holders, which make blade changing much easier.

Throat Depth

Scrollsaw size is designated by *throat depth*—the distance from the blade to the back of the saw's arm or arms. The smallest saws have throat depths of 13 in. or 14 in.; the largest saw is 30 in. deep. Choose a scrollsaw sized to fit the kind of work you plan to do.

Cutting Depth

Most saws can handle stock up to 2 in. thick. Saws with longer stroke lengths cut thick stock more efficiently because they clear more sawdust out of the cut.



Faster blade changing. Quick-release blade tensioners and holders reduce blade-changing time—handy for making inside cuts.

For More Info

Check out the detailed test results in "Shop Tested: Floor-Model Scrollsaws," AW #54 (October 1996).

Scrollsaws

New models in red.



Dremel 1672



Craftsman 23616



RBI Hawk 220 Ultra

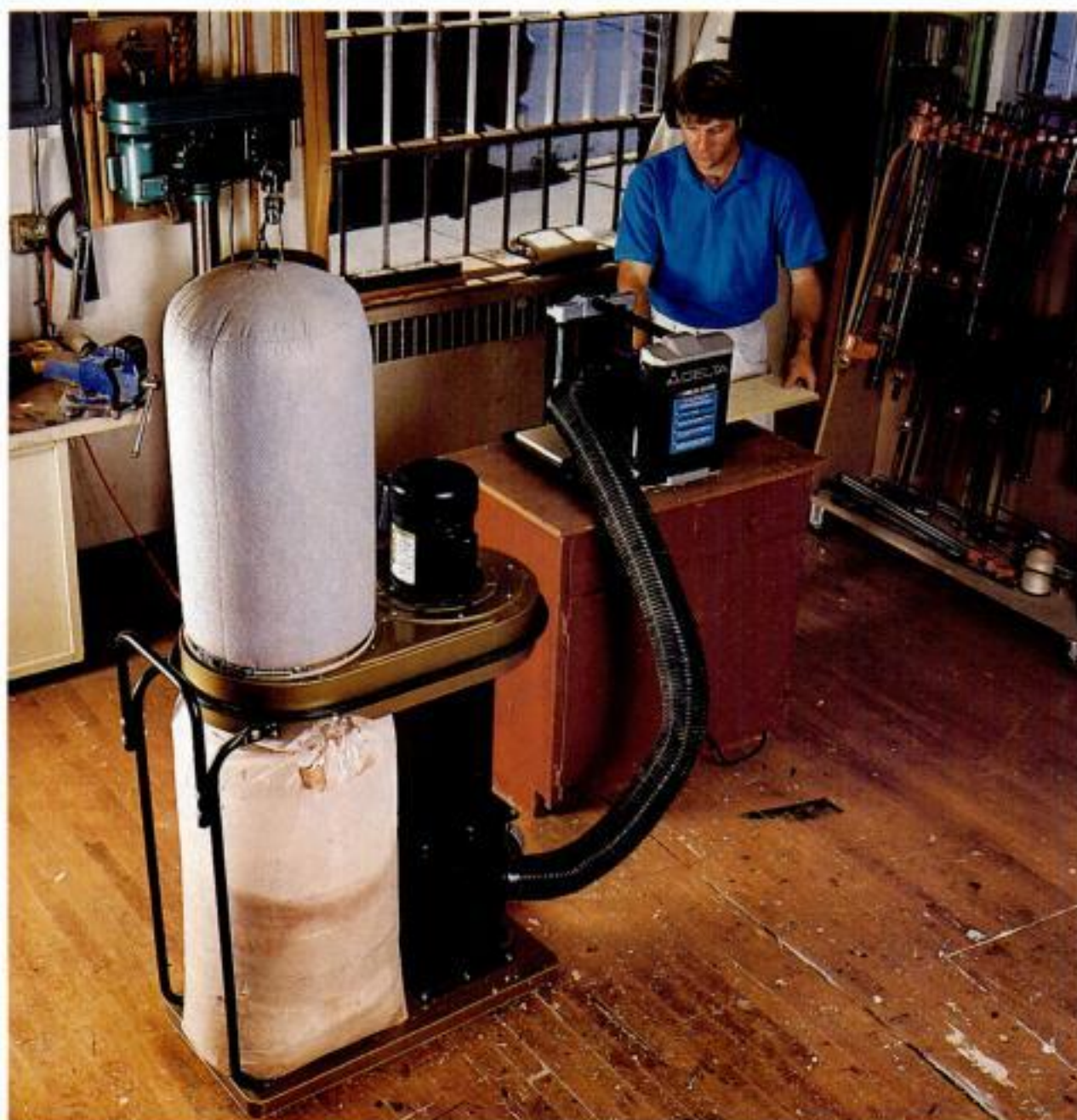


Hegner Multimax 18VQ

See page 136
for listing of manufacturers.

Brand & Model	List Price	Throat Cpy. (in.)	Max. Stock T (in.)	Arm Type	Speed: Strokes per Minute*	Table Tilt Range Left-Right (°)	Dust Coll. Port	Weight (lbs.)	Comments & Features
Craftsman 23627	\$100	13	1	CA	1,700	45 - 0	N	29	Induction motor.
Bridgewood SS-15B	99	15	2	PA	1,725	45 - 0	N	38	Dust blower.
Delta 40-150	142	15	2	PA	1,725	45 - 0	N	37	Dust blower.
Grizzly G1572	110	15	2	CA	1,725	0 - 45	N	40	Dust blower.
Penn State Super VS-15	170	15	2	PA	400 - 1,800	0 - 45	N	35	Dust blower.
Powermatic 93	192	15	2	PA	1,725	45 - 0	N	42	Dust blower.
Tradesman 8350	99	15	2	PA	1,725	45 - 0	Y	40	Dust blower; quick blade change.
AMT 4602	169	16	2	PA	2 (890, 1,780)	45 - 0	N	45	Cast-iron construction.
Craftsman 23558	120	16	2	PA	1,700	45 - 0	N	40	Cast-iron base & housing.
Craftsman 23609	180	16	2	PA	500 - 1,700	45 - 0	N	35	Quick blade change.
Delta 40-530	153	16	2	PA	1,750	0 - 45	N	40	Dust blower.
Delta 40-540	230	16	2	PA	600 - 1,800	0 - 45	N	46.5	Quickset II® blade holder.
Delta 40-560 Type 2	230	16	2	PA	2 (850, 1,725)	45 - 0	N	47	Quickset II® blade holder.
Dremel 1671	179	16	2	PA	2 (890, 1,790)	45 - 0	Y	45	Dust blower.
Dremel 1672	189	16	2	PA	2 (890, 1,790)	45 - 0	Y	45	Quick blade change.
Dremel 1695	239	16	2	PA	200 - 2,000	45 - 0	Y	42	LED speed readout.
Grizzly G1257	170	16	2	CA	400 - 1,800	0 - 45	N	40	Dust blower.
Pro-Tech 3303	169	16	2	PA	400 - 1,600	45 - 15	Y	29	Quick blade change.
Ryobi SC160	150	16	2	PA	1,725	45 - 0	N	44	Dust blower.
Ryobi SC162	170	16	2	PA	1,725	45 - 13.5	Y	24	Dust blower.
Ryobi SC162VS	200	16	2	PA	400 - 1,600	45 - 15	Y	24	Rapidset® blade holder.
Skil 3333	272	16	2	PA	1,725	0 - 45	Y	43	Quick blade change; quick-release tensioner.
Tradesman 8365	159	16	2	PA	400 - 1,800	45 - 0	Y	41	Dust blower; quick blade change.
Grizzly G1060	160	22	2	CA	1,720	0 - 30	N	61	Dust blower.
Lobo JS-0022	159	22	2	CA	1,720	15 - 45	N	65	Dust blower.
AMT 4671	320	23	2	PA	2 (825, 1,725)	45 - 0	N	84	Cast-iron construction.
Craftsman 23616	299	23	2 ⁵ / ₈	PA	2 (825, 1,725)	45 - 0	N	80	Cast-iron construction.
Hegner Multimax 14E	649	14	2	PA	1,700	45 - 0	N	30	6-year warranty.
Hegner Multimax 14V	999	14	2	PA	400 - 1,700	45 - 0	Y	35	2 stroke lengths.
PS Wood 14	599	14	2 ¹ / ₄	PA	3 (1,060, 1,575)	45 - 35	N	65	Quick blade change.
RBI Hawk 216VS	899	16	2 ¹ / ₈	PA	300 - 1,450	45 - 45	N	74	Quick blade change.
Delta Q3 40-650	600	18	2	CA	300 - 2,000	9 - 45	N	90	Quickset II® blade holder.
Hegner Multimax 18S	999	18	2 ⁵ / ₈	PA	1,700	45 - 15	OPT	45	Quick blade change.
Hegner Multimax 18VQ	1,199	18	2 ⁵ / ₈	PA	400 - 1,700	45 - 12	OPT	51	Quick-Lock® tensioner.
Inca 460	895	18	2 ³ / ₈	PA	400 - 1,400	15 - 45	OPT	57	Many accessories.
Reliant AL18	200	18	2	CA	2 (850, 1,720)	30 - 0	N	112	Dust blower.
Excalibur EX19NM	819	19	2 ¹ / ₂	PL	3 (400, 1,400)	45 - 45	N	55	Motor not included.
Excalibur EX19SD	939	19	2 ¹ / ₂	PL	3 (400, 1,400)	45 - 45	N	65	Accessories included.
Excalibur EX19VS	1,169	19	2	PL	60 - 1,500	45 - 45	N	75	Accessories included.
Craftsman 23640	450	20	2	CA	300 - 2,000	35 - 45	N	137	Cast-iron table.
Hegner Polymax	2,399	20	2	PA	700 - 1,600	45 - 0	Y	100	Built for industrial use.
RBI Hawk 220 Ultra	1,099	20	2 ⁵ / ₈	PA	300 - 1,725	45 - 45	Y	93	Quick blade change; quick-release tensioner.
Shopsmith 555272	800	20	2	PA	500 - 1,450	45 - 45	Y	79	Takes pin-end blades.
PS Wood 21	799	21	2 ¹ / ₂	PA	5 (170, 1,370)	45 - 35	N	85	Quick blade change.
Woodtek 826398	399	21	2	PA	5 (170, 1,370)	45 - 15	N	85	Dust blower.
Hegner Multimax 22V	1,399	22	2 ⁵ / ₈	PA	400 - 1,700	45 - 15	OPT	66	6-year warranty.
Inca 600	1,125	24	2 ³ / ₈	PA	400 - 1,400	15 - 45	OPT	84	Many accessories.
Powermatic 95	1,987	24	1 ³ / ₄	FA	807 - 1,653	15 - 45	N	220	115/230V.
Hegner Multimax 25V	1,799	25	2 ³ / ₈	PA	400 - 1,700	45 - 0	Y	90	Oversize bushings.
RBI Hawk 226 Ultra	1,349	26	2 ⁵ / ₈	PA	300 - 1,725	45 - 45	Y	107	Quick blade change; quick-release tensioner.
Reliant DD26	250	26	2	CA	1,720	30 - 0	N	130	Dust blower.
Excalibur EX30VS	1,499	30	2 ¹ / ₂	PL	0 - 1,500	45 - 45	N	70	Accessories included.

KEY: Arm Type: CA = C-arm, FA = fixed-arm, PA = parallel-arm, PL = parallel-link. Y = yes. N = no. OPT = optional.
*Saws with 2 or more fixed speeds listed thus: # of speeds (low speed, high speed).



Keeping it clean. Dust and chips stay off the floor and out of the air, thanks to this mobile single-stage dust collector.

Dust Collectors

Shop cleanup doesn't have to involve scooping wood chips and dust into a garbage bag, if you own a dust collector. And your health will benefit, too. Long-term exposure to wood dust has been linked to respiratory and other health problems. A dust collector will make your shop a cleaner, more pleasant and healthier place to work.

Dust collectors vary widely in cost and capacity—from shop vacuums that suck dust from one small machine at a time, to dedicated collector units that can handle large quantities of dust and chips from several machines at once. To trap finer airborne dust particles, ambient air cleaners can be hung from the ceiling and run continuously to filter the shop's air.

5 Types of Dust Collectors

Shop Vacuums



Shop vacuums work well for light-duty dust collection from a router or electric sander, but with their modest airflows and small hose diameters, they can be overwhelmed by planer or jointer debris.

Further, their universal motors are less powerful and shorter-lived than the induction motors used on dedicated dust collectors.

Single-Stage Collectors

Single-stage blower-and-bag units are the next step up in price and performance. (See photo, left.) These units can handle large quantities of dust and chips. The more powerful models can be used to run a central dust-collection system when used with a system of ductwork connected to all of your major machinery.

A single-stage dust collector typically uses a pair of bags. The bag on the bottom gathers large debris before the airstream

Features to Consider

Portability

If you aren't planning to set up a permanent network of PVC or metal ducts, you'll want a roll-around collector that you can attach to each machine with a flexible hose as needed. Many portable models may be used as central dust collectors when you're ready to run the ductwork. (For more on designing a central dust-collection system, see AW #37.)

Airflow

Dust collectors are rated by the volume of air (cubic ft. per minute, or cfm) they can move at a given static, or constant, pressure (sp)—the resistance to airflow measured in "inches of water." The key to a realistic rating is the symbol "@." If a collector is rated "500 cfm @ 8 in. sp," that's what it will deliver under real load conditions. Buy a unit with enough



exits through the upper filter bag.

The drawback to a single-stage collector is that chips pass directly through the impeller, causing wear on the parts.

A single-stage collector can be changed into a two-stage unit by adding an in-line debris collector, available through many mail-order catalogs.

Two-Stage Collectors

On these units, the blower is usually mounted on top of a collection drum. Large chips fall into the drum before they reach the impeller, reducing wear on the blower. Fine dust collects in the filter bag.

One drawback to two-stage collectors is that you have to lift the heavy blower housing to empty the waste drum.



Cyclone Pre-Collectors

In this type of collector, the airstream enters a cone-shaped housing where the heavy debris drops into a waste container and the finer dust passes through the blower into the filter bag. Professionals favor these units because they can handle large volumes of debris.



Ambient Air Cleaners

These air-filtration units consist of a blower and a series of filters that trap fine dust particles. Hung from the ceiling, ambient air cleaners trap the fine, airborne dust particles that dust collectors miss. Continuous-duty motors let you operate these units for long periods.

Sizing Your Collector

Air volume requirements in cubic ft. per minute (cfm)

Machine	Required cfm
Planer, up to 12 in.	400
Planer, 13 to 20 in.	500
Spindle shaper	400
Bandsaw	300
Radial-arm saw	350
Tablesaw	350
Jointer, 4 to 12 in.	350
Belt-disc sander	300
Floor sweep	350
Lathe	500
Drill press	300
Scrollsaw	300

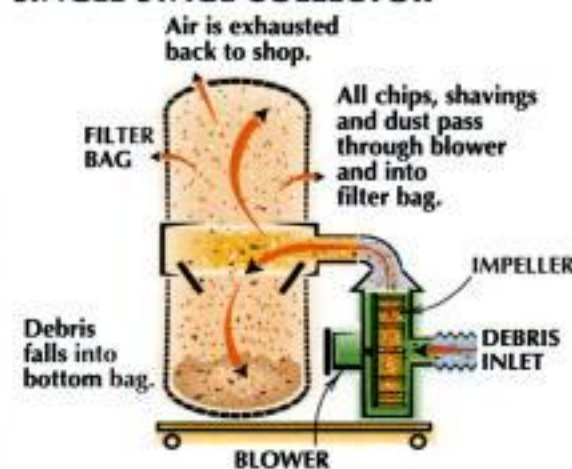
cfm to handle your biggest dust-producing machine. (See box, above right.) If you'll use more than one machine at a time, buy a collector with enough cfm to handle these machines simultaneously.

Filter-Bag Efficiency

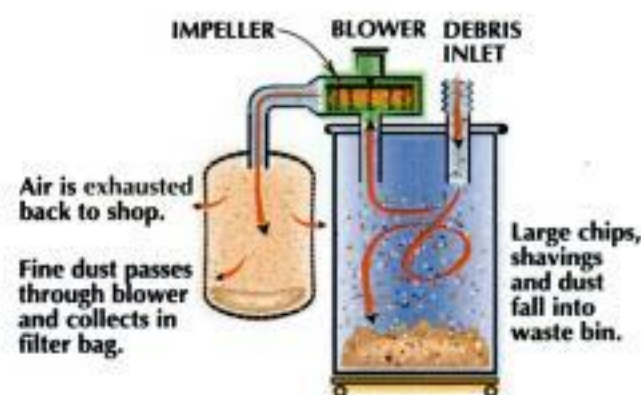
Filter bags vary in their ability to capture the tiniest, most hazardous dust particles—those under 10 microns in size. Typical bags trap particles down to about 50 microns, while super-efficient bags with a very fine weave can capture particles as small as 1 micron in size.

HOW DIFFERENT DUST COLLECTORS WORK

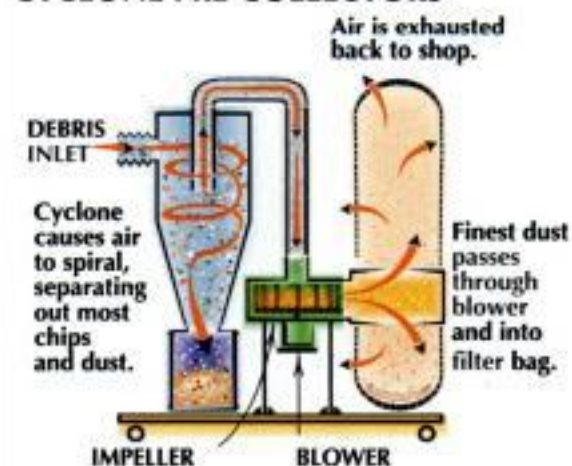
SINGLE-STAGE COLLECTOR



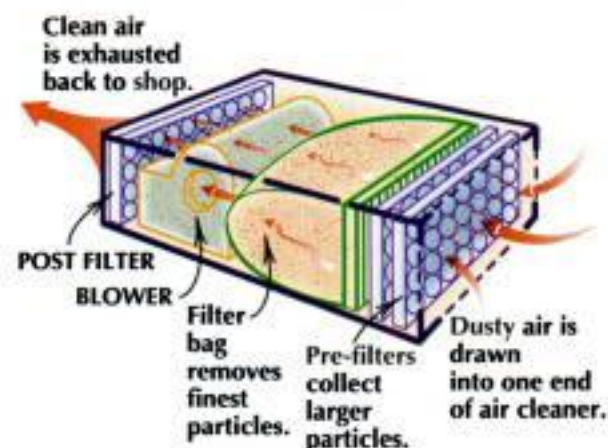
TWO-STAGE COLLECTOR



CYCLONE PRE-COLLECTORS



AMBIENT AIR CLEANERS



Dust Collectors

New models in red.



Grizzly G1032



Reliant NN620



Reliant NN830

Brand & Model	List Price	HP	Max. Cfm	Max. sp* (in. of water)	Sawdust Capacity (cu. ft.)	No. of Inlet Ports	Inlet Port Dia. (in.)	Volts	Weight (lbs.)
Penn State DC5-5	\$189	1/2	914	9.4	1	1	4	115	18
RBI 821	295	1/2	680	4.4	7.4	1	4	115	75
Shopsmith DC3300	500	1/2	330	NA	4	3	2 1/2	115	64
Woodmaster 820	295	1/2	680	4.4	**	1	4	115/230	50
Torit & Day 64	1,275	3/4	500	4.5	0.3	4	4	115/230	170
Tradesman 9992	299	3/4	453	6.5	1.5	1	4	115	64
Belsaw MC-CT-50S	189	1	700	5.5	2	1	4	115	46
Belsaw MC-CT-80A	249	1	600	5	2.2	1	4	115/230	70
Belsaw MC-CT-90C	299	1	700	5.5	2.2	1	4	115/230	73
Bridgewood BW-015	255	1	750	6	3	2	4	115/230	110
Bridgewood BW-015A	199	1	700	5.5	2.4	1	4	115/230	95
Craftsman 29978	300	1	650	8.5	1.5	1	4	115	72
Grizzly G1028	265	1	610	5.5	4.5	1	4	115/230	116
Grizzly G1032	190	1	450	2.8	2.2	1	4	115/230	79
Grizzly G1163	150	1	450	2.8	2	1	4	115/230	58
Hitachi RW200	1,908	1	700	2.8	1.1	1	4	115	66
Jet DC-650	294	1	650	8.5	2.1	1	4	115	84
Laguna Tools	545	1	880	NA	3.5	1	4	115	105
Lobo DC-1190	219	1	710	8.5	2.8	1	4	115	86
Makita 410	692	1	307	NA	7	1	4	115	20.4
Penn State DC1-5	240	1	700	5.5	2.2	2	4	115/230	66
Reliant NN620	150	1	500	NA	1.5	1	4	115	45
Reliant NN720	180	1	610	5.5	2.5	1	4	115	67
Seco UFO-40	132	1	500	4.5	1.5	1	4	115/230	45
Seco UFO-70F	225	1	655	5.5	2.5	1	4	115/230	88
Seco UFO-90	167	1	610	5.5	2.5	1	4	115	75
Star S3810	199	1	700	2.8	2.2	1	4	115/230	80
Sunhill UFO-90	189	1	610	5.5	2.5	1	4	115/230	70
Total Shop 90150	199	1	740	6.1	2.4	2	4	115	110
Woodtek 802124	229	1	650	5.5	2.5	2	4	115/230	85
Woodtek 864367	209	1	650	8.7	3.5	2	4	115	47
Penn State DC2-5	325	1 1/2	900	8.5	5.8	2	4	115/230	130
Penn State DC3-5	215	1 1/2	700	8.5	1.5	1	4	115/230	46
Powermatic 73	471	1 1/2	900	8	3.5	2	4	115	125
Transpower DC747	175	1 1/2	740	5.5	2	1	4	115	65
Belsaw MC-1DC	395	2	1,182	8.3	5.2	2	4	230	123
Bridgewood BW-002A	279	2	1,059	9.1	5.8	2	4	115/230	117
Grizzly G1029	275	2	1,182	9.1	4.5	2	4	230	140
Jet DC-1200	539	2	1,200	9.5	5.3	2	4	230	143
Lobo DC-101	379	2	1,300	9.1	5.2	2	4	115/230	155
North State UFO-101	295	2	1,182	9.5	5.4	3	4 & 5	115/230	140
Reliant NN820	300	2	1,182	7.6	5.2	2	4	115/230	140
Seco UFO-101	255	2	1,182	7.5	5.2	3	4 & 5	115/230	140
Star S3820	300	2	1,182	8.3	5.5	1 or 2	5 or 4	115/230	135
Sunhill UFO-101	299	2	1,182	7.5	5.2	2	4	115/230	143
Total Shop 908A	299	2	1,325	9.4	4.7	2	4	115/230	165
Transpower DC2000	275	2	1,200	9.1	4	3	8	115/230	128
Woodtek 805930	399	2	1,200	8.3	5.2	2	5	115/230	150
Penn State DC250	355	2 1/2	1,350	9.5	5.8	2	4	230	145
Belsaw MC-2DC	589	3	1,883	8.7	10	3	4	230	150
Belsaw MC-CT-201H	589	3	1,836	8.7	10	3	4	230	156
Bridgewood BW-003	795	3	1,950	5.8	19.3	4	4	230	242
Bridgewood BW-003A	495	3	1,836	5.8	13.5	4	4	230	202
Grizzly G1030	445	3	1,883	5.8	9	3	4	230	165
Jet DC-1900	819	3	1,900	10.2	10.6	3	4	230	198

SINGLE-STAGE

Chart continued on page 128.

See page 136 for listing of manufacturers.

KEY: NA = information not available. * Static pressure. (See text.) **User supplies waste drum.

Dust Collectors

New models in red.



RBI 004



Delta 50-180



Oneida 2 HP Industrial

Brand & Model	List Price	HP	Max. Cfm	Max. sp* (in. of water)	Sawdust Capacity (cu. ft.)	No. of Inlet Ports	Inlet Port Dia. (in.)	Volts	Weight (lbs.)	
SINGLE-STAGE	Lobo DC-102	\$519	3	1,883	9.5	10.5	3	4	115/230	198
	Lobo DC-103	399	3	1,560	9.5	10.5	2	4	115/230	160
	North State UFO-1023	485	3	1,883	9.5	5.4	4	5 & 6	230	180
	Penn State DC4-5	549	3	1,900	10.2	11.6	3	4	230	200
	Powermatic 75	796	3	1,900	8	10.5	3	4	230	215
	RBI 1900	499	3	1,900	9.2	7.4	1	6	230	110
	Reliant NN830	460	3	1,883	9.1	10.5	3	4	230	170
	Seco UFO-102B	429	3	1,883	9.1	10.5	4	4 & 6	230	180
	Star S3830	520	3	1,875	5.8	2	1 or 3	6 or 4	230	160
	Sunhill UFO-102B	439	3	1,883	9.1	10.5	3	4	230	181
	Total Shop 91010	499	3	1,900	5.8	9.2	3	4	230	195
	Transpower DC3000	345	3	1,850	5.6	5.3	3	8	230	178
	Transpower DC4000	450	3	1,968	5.8	6.7	4	6	230	250
	Woodmaster 1033	499	3	1,900	9.2	**	1	6	230	140
	Woodtek 864381	499	3	1,900	8.6	10.5	3	6	115/230	194
TWO-STAGE	RBI 004	499	1/2	450	7	2	1	4	115	120
	RBI 100	399	1/2	450	3	7	1	4	115	62
	Delta 50-179	523	3/4	580	7	4.7	1	4	115/230	53
	Delta 50-180	685	1	700	4.5	7.4	1	5	115/230	72
	Aget Dustkop 11SC51-D1	2,156	2	1,200	6.6	7.4	1	6	230	400
	Delta 50-181	958	2	1,100	8.5	7.4	1	6	230	97
	Dust Boy	495	2	1,100	8.5	4.7	1	6	115/230	75
	RBI 400	999	2	1,100	8.5	7	1	4	230	100
Delta 50-182	1,110	3	1,300	10	7.3	1	6	230/460	113	
CYCLONE	Oneida Air Cyclone Retrofit	425	Fits 2 HP	Fits 350 - 800 cfm	—	**	1	6	—	NA
	Oneida Air Cyclone Retrofit	690	Fits 3 HP	Fits 700 - 1,300 cfm	—	**	1	8	—	NA
	Torit & Day Model 13	2,000	3/4	540	5.6	4.8	1	4 - 6	230	255
	Dustvent 12T1 1/2	1,700	1 1/2	1,000	8	7.3	To suit	6 - 8	115/230	225
	Oneida Air 1 1/2 HP	794	1 1/2	800	10	5	1	6	115/230	105
	Aget Dustkop 11SN51-D1	1,746	2	1,200	6.6	7.4	1	6	230	400
	Blue Tornado 102 HD	798	2	1,200	9.6	14.8	1	6	115/230	206
	Oneida 2 HP Industrial	1,085	2	950	10	**	1	7	115/230	200
	Torit & Day Model 19	2,400	2	1,200	7.9	4.8	1	6 - 8	230	340
	Blue Tornado 103 HD	1,075	3	1,900	11	14.8	1	8	115	246
	Dustvent 15T3	2,400	3	1,600	12	7.3	To suit	8 - 9	230	375
	Dustvent 19T3	2,100	3	1,600	12	7.3	To suit	9 - 11	230	680
Oneida Air 3 HP Industrial	1,285	3	1,400	10	**	1	8	115/230	250	

Ambient Air Cleaners



Hartville Tool PureAir

Brand & Model	List Price	Airflow (cfm)	Number of Filters	Dust Removal Efficiency	Mounting Options	Cabinet L x W x D (in.)	Weight (lbs.)	Comments & Features
Total Shop 90175	\$249	265	3	99.7% @ 5 microns 98% @ 1 mic.	B, C, W	12 x 24 x 29	53	
Hartville Tool PureAir	249	326	3	99% @ 5 mic. 94% @ 1 mic.	B, C, W	20 x 24 x 12	30	3-stage filter.
JDS Air-Tech 2000 350	259	350	3	99% @ 5 mic. 80% @ 1 mic.	B, C	28 x 24 x 12	43	
Aim Tools FL 460	249	460	2	98% @ 3 mic.	B, C, W	30 x 24 x 12	37	Opt. washable pre-filter.
Aim Tools K 460	199	460	2	98% @ 3 mic.	B, C, W	30 x 24 x 12	17	User builds cabinet.

Chart continued on page 130.

See page 136 for listing of manufacturers.

KEY: * Static pressure. (See text.) ** User supplies waste drum.
Mounting Options: B = bench, C = ceiling, W = wall. — = not applicable. NA = information not available.

Ambient Air Cleaners

New models in red.



JDS Air-Tech 2000 8-12

Brand & Model	List Price	Airflow (cfm)	Number of Filters	Dust Removal Efficiency	Mounting Options	Cabinet L x W x D (in.)	Weight (lbs.)	Comments & Features
Bridgewood 460	\$249	460	2	98% @ 3 microns	B, C, W	30 x 24 x 12	43	
CMT ACS-100	439	460	3	98% @ 3 mic.	B, W	12 x 24 x 20	30	
Grizzly G4702	250	460	2	98% @ 3 mic.	C	30 x 24 x 12	37	
Penn State PSI AC465	239	465	2	65% @ 1 mic.	B, C	24 x 12 x 30	40	Optional filters.
Total Shop 90177	299	490	3	99.7% @ 5 mic. 98% @ 1 mic.	B, C, W	12 x 24 x 29	60	
Penn State PSI DC720	199	720	1	35% @ 1 mic.	B	23 x 10 ³ / ₈ x 8	25	Benchtop model.
JDS Air-Tech 2000 8-12	495	800 or 1,250	3	99% @ 5 mic. 80% @ 1 mic.	B, C	44 x 24 x 20	86	2 speeds; opt. charcoal filter.
Aim Tools FL 920	499	920	2	98% @ 3 mic.	B, C, W	30 x 24 x 12	47	Opt. washable pre-filter.
Aim Tools K 920	399	920	2	98% @ 3 mic.	B, C, W	30 x 24 x 12	25	User builds cabinet.
Grizzly G4705	396	920	2	98% @ 3 mic.	C	30 x 24 x 12	47	
Penn State PSI AC930	339	930	2	65% @ 1 mic.	B, C	24 x 12 x 30	51	2 speeds.
Total Shop 90180	429	980	3	99.7% @ 5 mic. 98% @ 1 mic.	B, C, W	12 x 24 x 37	65	
Bridgewood 1000	450	1,000	2	98% @ 3 mic.	B, C, W	30 x 20 x 20	61	
JDS Air-Tech 2000 10-16	695	1,000 or 1,600	3	99% @ 5 mic. 80% @ 1 mic.	B, C	44 x 24 x 20	92	2 speeds; opt. charcoal filter.
Total Shop 90185	499	1,400	3	99.7% @ 5 mic. 98% @ 1 mic.	B, C, W	20 x 20 x 40	78	
Aim Tools FL 2500	999	2,500	2	98% @ 3 mic.	C	24 x 24 x 56	150	Opt. washable pre-filter.
Penn State PSI AC2500	899	2,500	2	65% @ 1 mic.	B, C	24 x 24 x 54	160	

See page 136 for listing of manufacturers.

KEY: Mounting Options: B = bench, C = ceiling, W = wall. — = not applicable. NA = information not available.

BLUE TORNADO CYCLONES

MADE IN USA



- HIGHEST QUALITY/VALUE
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FREE TOOL CATALOG

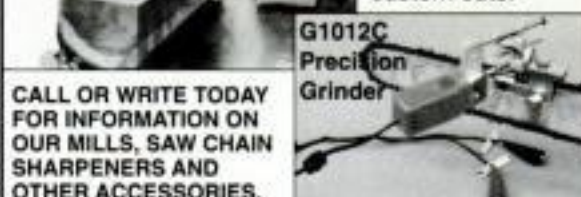
Helping You Become a Better Woodworker



CIRCLE NO. 94 ON PRODUCT INFORMATION FORM

FROM LOG TO LUMBER

with the Alaskan Saw Mill
(available in 24", 30", 36", 48", 56" sizes)



CALL OR WRITE TODAY FOR INFORMATION ON OUR MILLS, SAW CHAIN SHARPENERS AND OTHER ACCESSORIES.

GRANBERG INTERNATIONAL
PO Box 425, Richmond, CA 94807-0425
(510) 237-2099 Fax (510) 237-1667

CIRCLE NO. 93 ON PRODUCT INFORMATION FORM

BREATHE EASIER, CLEAN UP LESS, AND STOP DUST FROM SEEPING IN YOUR HOUSE



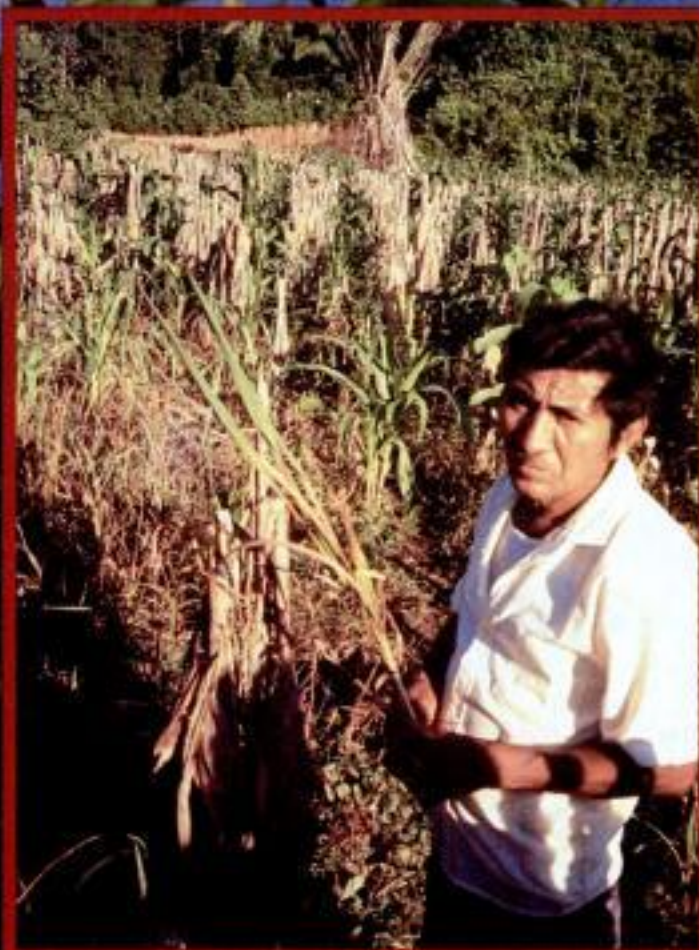
Eliminate dangerous airborne dust and finishing residue from ruining the time you spend in the shop. Do more with less clean-up and trap airborne particles before they seep into the rest of the house, or worse, into your lungs. Send today for all the facts about the PureAir Shop Filtration System.

Free Information Kit

Hartville Tool Company
13163 Market Ave N. Dept. AW1196P
Hartville, OH 44632
1-800-345-2396

CIRCLE NO. 59 ON PRODUCT INFORMATION FORM

HOPE Takes Root in the Guatemala Rain Forest!



Fast-growing weeds like this and shallow, infertile soil are the biggest agricultural obstacles to Guatemalan farmers' making a living off the land. **BUT NOW THERE'S A SOLUTION.**



In Guatemala's ecologically diverse Peten region, Rodale Institute's Centro Maya Project strikes a balance of meeting human needs and preserving the rain forest.

The myth about the nearly nine-million acre Guatemala rain forest is that money-hungry farmers and companies are bulldozing priceless rain forest for fast, short-term gain.

In reality, Guatemalan families simply want to put down roots and prosper on their land.

Who is showing the way? The Centro Maya Project of Rodale Institute.

Before the Centro Maya Project, farmers could farm a field for only a short time before soil nutrients were depleted and they had to move on. **NOW**, regenerative farming techniques help farmers stay put on their land. The "slash and burn" cycle of clearing forests for farmland is on its way out.

Before the Centro Maya Project, there was alarm that the rain forest would be wiped off the face of the earth. **NOW**, Guatemalans are learning how to *manage*, not destroy, the valuable resources of timber, medicinal plants and wildlife.

Before the Centro Maya Project, the children had to work to help their families make a living. **NOW**, training programs help families earn more, so their children can attend school.

People living in Guatemala's rain forest want to live and prosper there. *And they're succeeding.* And they're grateful for the practical support they receive from Rodale Institute's Centro Maya Project.

Here's the bean that's helping save the rain forest. The velvet bean — *frijol abono* — builds soil fertility and controls weeds better than any herbicide. It lets farmers stay on the land, raising healthy crops without chemicals — without having to cut down trees.



RODALE INSTITUTE

Healthy Soil • Healthy Food • Healthy People™

Rodale Institute works with people worldwide to achieve a regenerative food system that renews environmental and human health.

For more information about this vital project, please call Rodale Institute: (610) 683-1400 or write to our e-mail address: info@rodaleinst.org

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