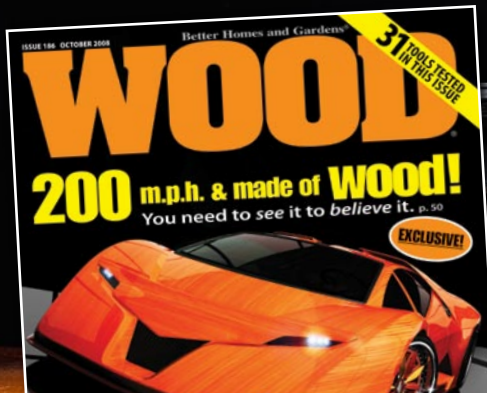


## 3 Types of Sharpening Systems Compared

# Get sharp, stay sharp!

Good news: Easy and precise sharpening doesn't have to cost a lot of coin.



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Honing guides  
Price range: \$12–\$80  
Shown: Veritas MkII, \$58



Powered wet sharpeners  
Price range: \$160–\$590  
Shown: Tormek T-7, \$590

The first hand plane I ever used came out of Grandpa's box of discarded tools. With visions of a fragile wood curl spiraling out of its mouth, I ran the tool along the edge of a nearby chunk of walnut. But the blade in Grandpa's neglected plane was so dull that my dream turned into a nightmare. Disappointed, I pretty much swore off—and at—hand tools until about 10 years ago, when a custom furniture-maker taught me the joys of razor-sharp hand tools. Now, I always keep a well-honed block plane in my shop apron.

Don't get me wrong: I'd rather be using tools than sharpening them. And tool manufacturers must think so, too, because in the past few years, several new sharpening systems have been introduced to take the drudgery out of putting on a keen edge. Those products fall into three general types: wet-wheel sharpeners, powered sandpaper sharpeners, and human-powered honing guides you use with your own stones or sandpaper.

To help you decide which type and model is best for you, we rounded up

dozens of sharpeners and spent more than a month testing them. Although some models can be used to sharpen jointer knives or lathe tools, we focused our testing on flat cutters, such as chisels and plane blades—the tools you'll likely sharpen most often. Maybe if he'd had one of these 40 years ago, Grandpa would never have chucked out that old plane.

*Dave Campbell*  
Dave Campbell  
WOOD® Magazine Deputy Editor

## Honing guides: Economy, simplicity, and accuracy

It takes a practiced hand to freehand sharpen without accidentally changing the bevel angle or putting the cutting edge out of square with the tool edge. A wheeled honing guide, though, maintains the tool at the correct sharpening angle as you roll it back and forth over an abrasive.

Increasing the *projection* (the amount of blade extending out the front of the guide) makes the bevel flatter; decreasing the projection steepens the bevel. If you know or can measure the bevel, most guides come with a gauge or chart that shows the correct projection for that angle, and sharpening a tool to the same angle goes pretty quickly. On the other hand, reestablishing or changing the bevel angle of a cutter becomes tedious because you have to remove a lot more steel.

Honing guides make a good entry point into sharpening because of their low cost (\$12–\$80), effectiveness, and uncomplicated setup. You can use them with sandpaper, oil- or waterstones, or even diamond paste, although models with widely spaced wheels may not fit on all sharpening stones.

### What to look for

A rock-solid registration method—a fence of sorts—to keep the cutting edge square to the edge of the blade ensures accuracy and consistency, as does a tool-clamping system that holds all widths of tools securely. (Some honing guides have difficulty with chisels less than about  $\frac{3}{4}$ " wide.) Narrow chisels also ben-

efit from the additional stability of a honing guide with widely spaced wheels or a single wide roller, like the one on the Veritas MkII, shown at *bottom right*.

On the other hand, some hand-plane users prefer to slightly round (or *camber*) the cutting edge so the corners don't gouge into a workpiece. In that case, a narrow stance allows some side-to-side rocking of the guide and blade during sharpening to create camber.

*Honing guides make a good entry point into sharpening because of their low cost (\$12–\$80), effectiveness, and uncomplicated setup.*

### Best buys

Of the half-dozen models we tried, the Veritas MkII Honing Guide (\$58, Lee Valley, 800-871-8158, leevalley.com) performed best. The included setup gauge (demonstrated *below*) locates the blade for perfect sharpening every time. And the wide roller provides a great foundation for this guide: It's stable with even the narrowest chisels; works on sandpaper or stones; easily adjusts to add a microbevel (a slightly steeper cutting angle that hones quicker than regrinding the entire bevel) to the cutting edge; and can be replaced with an optional barrel-shape roller (\$22) if you want to camber a blade.

For one-third the price of the MkII, Stanley's Sharpening Kit/Honing Guide (\$20, Garrett Wade, 800-221-2942, garrettwade.com), *below*, presents a great value. It comes with a two-grit oilstone (and oil) that does a nice job honing straight edges. On occasion, though, we found that narrow blades shifted slightly during sharpening.

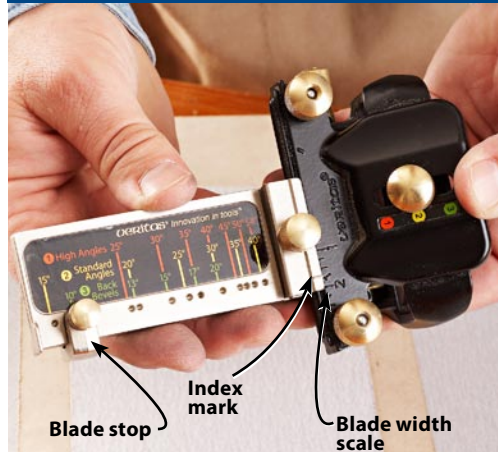


Learn to hone razor-sharp edges using sandpaper and a honing guide in a FREE video at: [woodmagazine.com/sharpeningvid](http://woodmagazine.com/sharpeningvid)

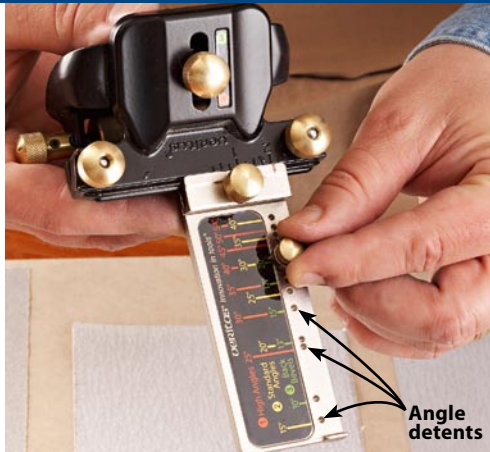


Extend Stanley's honing guide gauge to set blade projection, then flip it out of the way. Square the blade to the gauge by eyeballing.

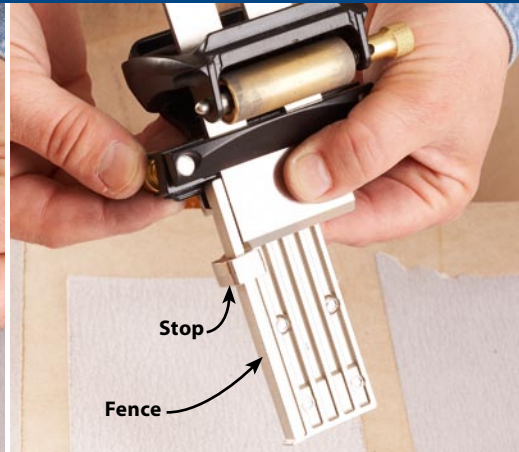
### THREE SIMPLE SETUP STEPS ENSURE MKII'S HONING ACCURACY



Slip Veritas' blade-setting gauge onto the guide, align its index mark with the blade width scale on the guide, and secure the gauge.



Next, lock the knurled brass blade stop into the bevel-angle detent that matches the angle you want to grind on your tool.



Flip the guide over, insert the blade against the fence and stop, and secure it. Remove the gauge and begin sharpening.

## Powered dry sharpeners have pluses and minuses

The fastest-growing category of sharpening systems, these powered units use self-adhesive sandpaper stuck to swappable spinning platters. By applying different grits to opposite sides of a platter, you can step up through the required three or four grits with only seconds between grits to flip or switch platters. Because of the coarse 60- to 80-grit abrasives available—and the ability to quickly flatten tool backs during sharpening—these systems excel at restoring a dull, abused, or misshapen cutter.

The finest abrasive grits (down to 4-micron or smaller, depending on the system) deliver a near-mirror finish on the bevel, but they wear faster than sharpening stones and require frequent replacement. Some manufacturers, such as Work Sharp, sell refill abrasives only in packs with a range of grits, so you may wind up buying coarser grits you don't need to get the finer grits you do.

The platters on these dry sharpeners deftly walk the line between turning fast enough to remove material quickly and slow enough not to overheat the tool steel. But they sling abrasive grit and steel filings over a surprisingly large area, so keep the unit isolated from the rest of your shop as much as possible.

### What to look for

Again, unless you're adept at freehand sharpening, look for a tool holder that maintains the blade's bevel angle and a square edge. And the ability to add a microbevel will help your finest abrasive grits last longer. A powerful motor allows you to bear down hard on the tool for aggressive sharpening without stalling.

*If you're a weekend warrior who just wants to keep his chisels keen, the Work Sharp 3000 does a great job at a low price.*

### Best buys

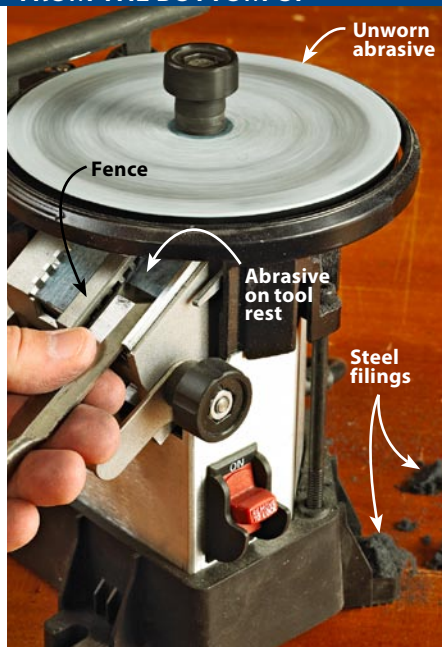
That all depends on your skill level and budget. If you're a weekend warrior who just wants to keep your chisels keen, the Work Sharp 3000 (\$200, 800-597-6170, worksharptools.com) does a great job at a low price. It's foolproof to sharpen tools up to 2" wide using the grinding port beneath the wheel. But you can't

slide the tool side-to-side during sharpening, so the abrasive wears all in one spot—a third or more of the abrasive is never used, as shown *bottom left*, unless you freehand sharpen.

If you sharpen frequently, or want to hone a variety of hand tools, the Veritas MkII Power Sharpening System, *bottom center*, (\$390, Lee Valley, 800-871-8158, leevalley.com) works with wider tools—2½" plane blades, for example. And the thinner platter used with the finest grits automatically creates a microbevel on your tool. The MkII also proved more aggressive than any other dry sharpener, thanks to its powerful motor and durable 3M micromesh abrasives.

Finally, lovers of freehand sharpening will embrace LapSharp's LS-200 (\$595, 707-473-0593, lapsharp.com). It has a foot-operated power switch (shown *below*), enabling you to keep both hands on the blade when turning the machine on or off. LapSharp provides the finest grits (down to 1-micron "polishing paper") and the longest-lasting abrasives. With a tool rest available as an option (\$80), this machine is not for the beginner (or faint of budget), but we found ourselves going back to it whenever sharpening our better tools.

#### WORK SHARP HONES FROM THE BOTTOM UP



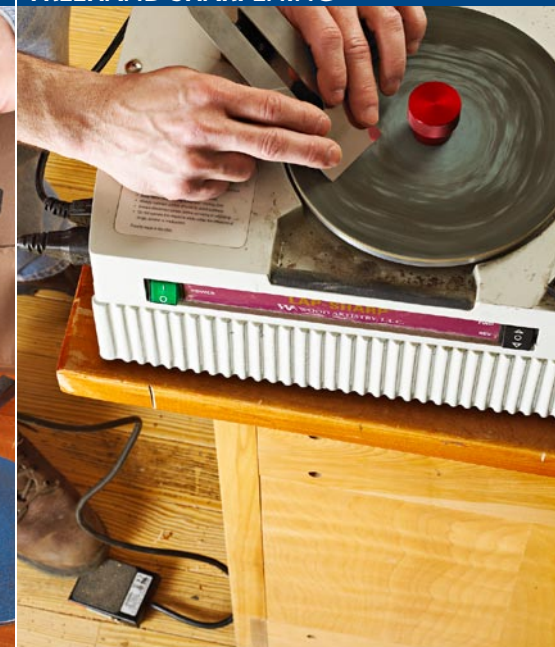
The abrasive tool rest on the Work Sharp removes the burr created when grinding the bevel on the bottom of the disc.

#### SPINNING PLATTERS SHARPEN ON PULL OR PUSH



Moving the blade to the outside of the abrasive platter speeds sharpening; moving it toward the center gives you better control.

#### HANDS-FREE START FOR FREEHAND SHARPENING



The foot switch on the LapSharp allows the user to hold the tool with both hands while starting and stopping the spinning wheel.

## Wet sharpeners: Go vertical for the best results

With this style of sharpener, the spinning stone runs under a drip or in a bath of water that washes away the swarf (metal filings) and cools the tool, helping make these sharpeners aggressive. If the stone lies horizontally on the machine, you sharpen tools on the flat face of the wheel, much like the platter on a dry sharpener; on a vertical-wheel machine, you use the edge of the wheel, creating a gently curved bevel called a “hollow grind.” Some woodworkers argue that hollow grinding produces a weaker cutting edge than the flat grinding produced by other sharpening methods. But we’ll gladly make that minor trade-off for the ability to sharpen a larger variety of cutters (scissors, turning tools, scrapers, etc., using optional tool holders) than possible on a horizontal wheel.

*Although wet sharpeners have a reputation for being messy, we found them much tidier than dry sharpeners.*

To step up in grits with one of these units, you use a special double-sided stone called a “stone grader.” Simply hold the rough side of the stone grader against the wheel to make the wheel more aggressive, then hold the smooth face of the grader against the wheel to refine it for sharpening. For final honing, vertical sharpeners also include a leather stropping wheel, charged with an abrasive compound, to take the bevel to a mirror finish.

Although wet sharpeners have a reputation for being messy, we found them much tidier than dry sharpeners, and the few drips and drops can be easily contained by placing the sharpener on an old TV-tray top. One small caveat: You can’t store one of these systems in a shop where the temperature might dip below 32°F—the wheel absorbs water and will crack if it freezes.

With a vertical-wheel wet sharpener, you sharpen tools first on the water-cooled stone, then regrade the stone to a finer grit and sharpen again. A final pass on the leather stropping wheel adds a mirror finish.

### What to look for

Power in spades. If the motor stalls while you’re pressing down hard on a tool, you’ll lose the aggressive benefit of a water-cooled system. A rigid tool rest ensures precise bevels, and tool holders should slide easily on the tool rest while holding the tools securely and square to the stone. Also, a diamond truing tool (for flattening the face of the stone) and stone grader should be included in the purchase price, because you’ll need those nearly every time you sharpen.

### Best buy

Price often indicates quality, and we certainly found that to be true in wet

sharpeners. Tormek’s heavy-duty T-7 (\$590, 800-586-7635, [tormek.com](http://tormek.com)) proved impossible to stall, no matter how hard we pressed on the tool during sharpening; none of the lower-priced units even came close. Its tool-holding system (tool rest and holders) fit together like hand in glove and gave us dead-on bevels and square ends with little fuss. And the stone wore much slower than less-expensive models we tried. If you sharpen hand tools or knives at least once a week, the versatile T-7 is the sharpener for your shop. 🌲

Written by **Dave Campbell** with **John Olson**

### TWO WHEELS, THREE GRITS, LOADS OF ACCESSORIES

