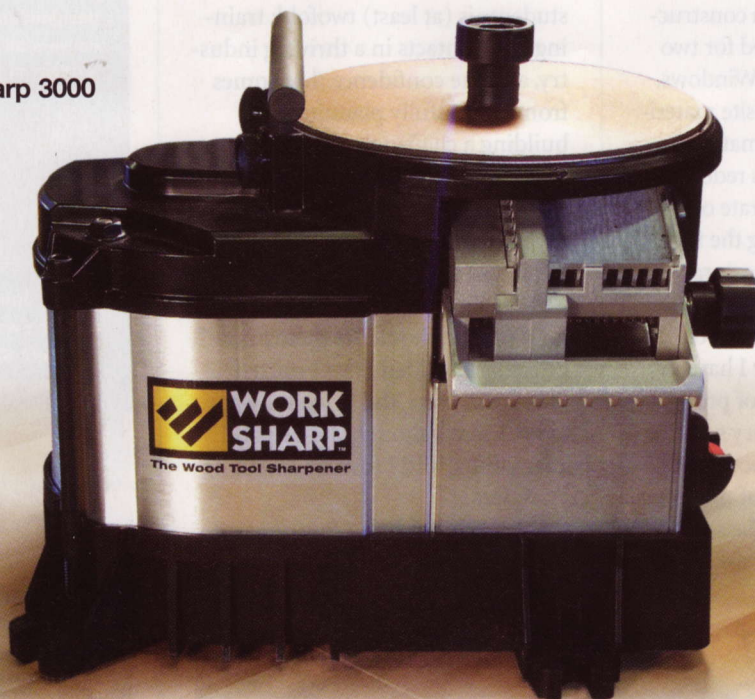


TRUE GRIT

Preset angles, easy grit changes and no mess – the Work Sharp 3000 makes edge maintenance almost as easy as sharpening a pencil.

BY RALPH BAGNALL

The Work Sharp 3000



USING A REALLY SHARP PLANE BLADE, CHISEL OR GOUGE is the best part of woodworking in my book. But for me, and I suspect many like me, sharpening hand tools is about as enjoyable as sanding. I hate it. However, like sanding, it is inescapable if you are going to get the results you want. Professional Tool Manufacturing, the folks that make the Drill Doctor, have taken a new look at this process and now offer Work Sharp, The Wood Tool Sharpener.

Work Sharp uses a spinning glass plate with abrasive paper bonded to it for the sharpening process. Spinning the disk at 580 rpm, and using an innovative air stream to cool the tool keeps heat down and allows for dry sharpening. Like the Drill Doctor, grind angles are preset, and the process is nothing more than sliding the tool into contact with the abrasive.

The system

The WS3000 system I tested comes complete with everything you need to get all your edge tools into prime shape. Two tempered glass wheels and a plastic slotted wheel are supplied with the machine as well as a pretty complete assortment of adhesives. For the glass wheels, you get two 120 grit, four 400 grit, and four 1000 grit self-adhesive disks, and a Micro Mesh 3600 grit padded honing disk. In addition, there are two 400 grit and two 1200 grit slotted disks for the slotted wheel. The kit also includes a crepe stick for cleaning the wheels and a tool rest for sharpening larger blades. A leather disk mounted on glass as a strop wheel is available as an accessory as is a honing disk for the slotted wheel.

The instruction book is complete and easy to read, and even features a "Quick Start Guide" for those of us who are too impatient to read all 15 pages!

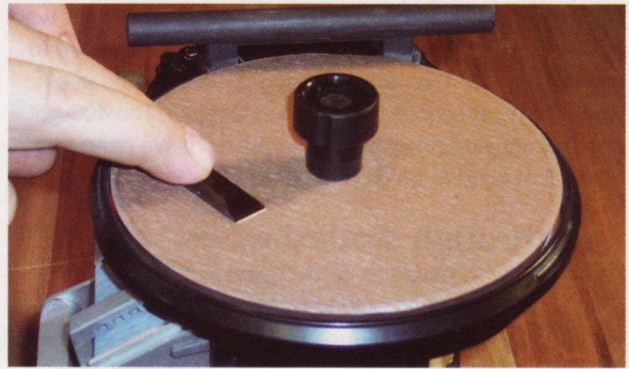
The only real assembly needed is to apply the adhesive disks to the glass wheels, add the tool rest, and mount the desired glass wheel. No tools required.

Sharpening process

Using the machine is simplicity itself. With the grit you want facing up, the back of the tool is flattened on the disk. Start with a coarser disk and work through the finer grades. Changing disks takes about 15 seconds. Once the back is flat set the grind angle (20°, 25°, 30°, or 35°) move the fence to guide the tool, then a simple push/pull motion gets the job done. The tool lies on the tool rest face up, and is pushed up to contact the bottom of the wheel for one or two seconds, then slide it back down the tool rest to remove the burr and allow the edge to cool. I was able to sharpen one of my bench chisels, regrinding the entire face in about five minutes, working my way from 400 grit down through the Micro Mesh. Once the face was polished, I reset the angle from 25° to 30° and added a micro bevel with just a few push/pull strokes. An angle gauge just above the power switch verifies the grind angle.

There are two aspects to sharpening tools. The first is getting a proper edge to begin with, and the second is refreshing the edge during use as it dulls. I've always kept a flat plate with abrasive on it near my work area to keep my tools honed during use. With Work Sharp this touch-up takes just a few seconds, and since the grind angles are all preset on the machine, the results are consistent and accurate.

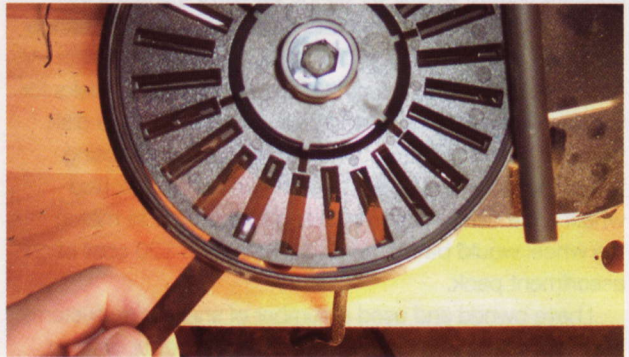
The undermount tool rest handles flat tools up to 2" wide. For wider tools or skew grinds, set the desired grit facing up, and use the upper tool rest like a more conventional grinding system. Gently touching the tool down and lifting back up keeps heat build-up low, preventing burned steel. My one real criticism of this



THE FIRST STEP TO A SHARP CHISEL is to flatten the back side. Lay the tool flat on a course grit disk and work your way up to a high polish through finer and finer grits.



GETTING THE CORRECT ANGLE is foolproof: Set the guide to 20°, 25°, 30° or 35° and push the tool into the abrasive disk.



HONING CARVING AND TURNING GOUGES is a freehand process, but made easy with a see-through slotted abrasive wheel.

machine is the lack of precision using the upper tool rest. Some sort of clamp to hold the tool so that the edge comes down square and in the same spot would be a big help.

With few exceptions, any chisel, gouge or plane you buy is going to need to be honed. Most manufacturers don't go to the trouble of final honing. It is expensive and likely to be damaged in shipping. And if you pick up tools at yard sales, antique stores and the like, you may be facing a full edge

restoration. I was surprised at how quickly Work Sharp was able to restore the edge on several old tools I borrowed to test the system. The 120-grit disk only needs to be used when the most serious damage needs repair. The 400-grit wheel works amazingly fast and does not leave deep tool marks that need to be ground out later.

See-through slotted wheel

I'd be happy to have the Work Sharp in my shop even if flat tools were all it could keep sharp, but that's only half the story here. My carving and turning gouges are always a challenge to grind and hone. Until now, you had to blindly work the tool on the grinding wheel and frequently check your results. The process took some skill to get good results. Work Sharp changes all this with the slotted wheel. Mount the slotted wheel with the abrasive facing down, and bring your curved tool up into the abrasive while looking down through the wheel. The slots allow you to see the whole process at the point of contact. There are still no guides, but being able to see the edge as you sharpen it makes all the difference. Mark the edge with a magic marker, and you can clearly see exactly what is happening as you sharpen your tool. I was able to hone six carving gouges in about 10 minutes with excellent results.

Final notes

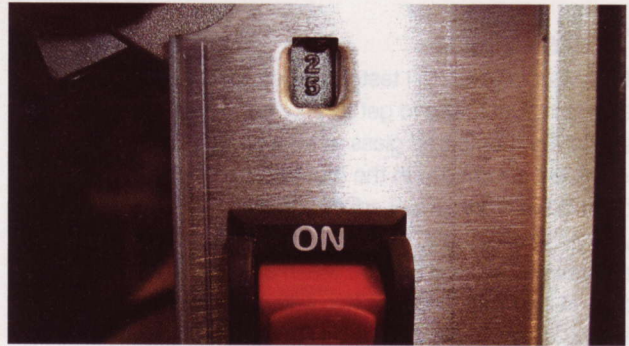
Although the system comes very complete and ready to use, I would recommend buying an extra glass and an extra slotted wheel. Since the abrasive disks are self adhesive, once you remove one from the wheel to change grits, you cannot reuse it. The good news about the abrasives is that you are not forced to buy special disks for the glass wheels. Any good quality 6" self-adhesive disk will work, and the instruction book discusses choosing the proper abrasive type. The abrasives for the slotted wheel are a different story. Cutting all the slots to match the wheel would be far more effort than the \$20 cost of an assortment pack.

I have owned and used a number of sharpening systems, from a simple glass plate with wet/dry sandpaper on it, to high-tech machines that cost over \$1,000. The Work Sharp is the first that works the way I want it to.

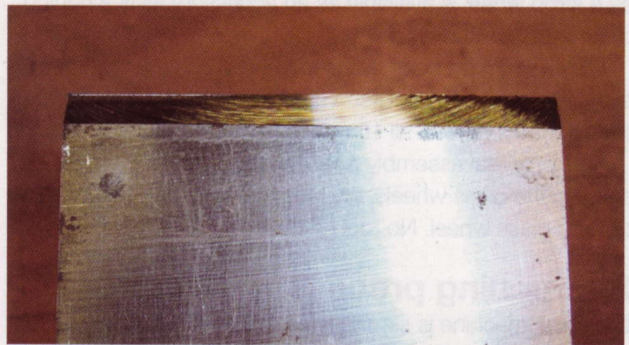
Very little set up, quick, consistent results, and right back to work.

I'll keep my glass plates for the soles of my planes, but sharpening has become a lot less of a chore in my shop.

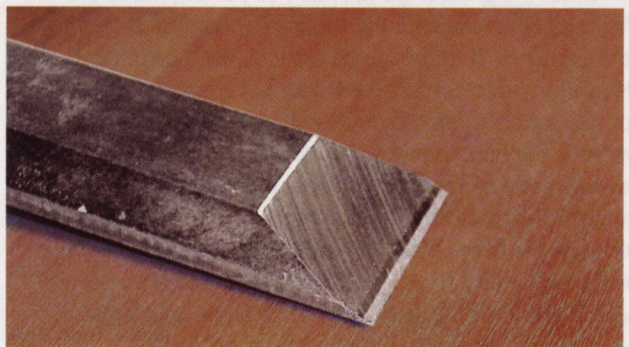
—Ralph Bagnall is a contributing editor to Woodcraft Magazine.



EASY-TO-READ ANGLE INDICATOR is located just above the on/off switch.



FLEA MARKET FINDS and garage sale bargains can be reshaped to their original, proper bevel quickly with a coarse-grit disk. The Work Sharp handles blades up to 2" wide.



MICRO BEVELS ARE EASY to achieve: after grinding with your finest disk, just adjust the tool rest to the next angle and gently touch your tool to the disk.

