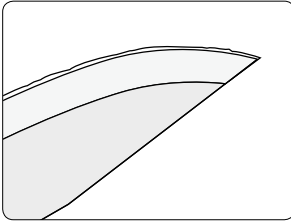


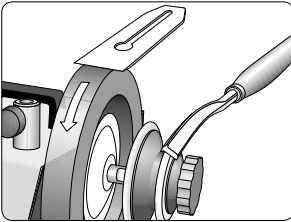
Honing and Polishing



The burr on a knife.

Burr

When a tool is being ground, a burr develops on the upper side of the edge. This is a confirmation that you have ground fully out to the tip of the edge. When grinding the other side (if both sides are ground) the burr still remains but will now be bent to the other side of the edge. This burr must be honed off in a gentle way to achieve a really sharp and durable edge. It must not be broken off, otherwise micro damage will be left on the edge.



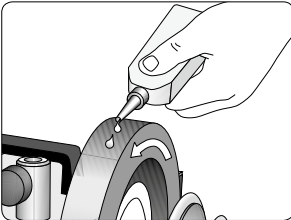
The profiled honing wheel is an accessory mounted outside the standard honing wheel.

Honing wheels

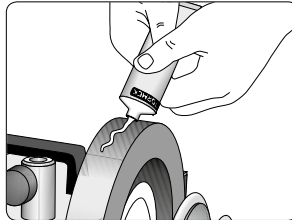
You hone away the burr on the Tormek honing wheels, which are made of special leather and then impregnated with the Tormek honing compound. The leather removes the burr gently like the barber's leather strop, giving you a razor sharpness and a bevel polished to a mirror finish.

There is a large, flat honing wheel fitted as standard and as an accessory you can fit a profiled wheel for the inside honing of gouges and V-tools.

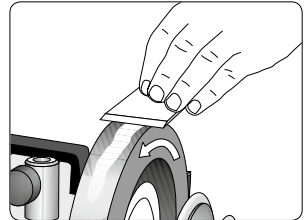
Preparation of the honing wheel



When new, impregnate the leather with light machine oil. This will soften the leather and cause the honing compound to penetrate the leather.



Apply a thin string of the compound before starting the machine. Rotate the wheel by hand.



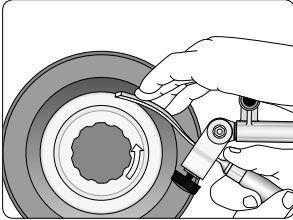
Start the machine and distribute the compound by pressing a tool gently against the wheel. Let the compound penetrate the leather.

One application lasts for 5–10 tools. Then re-impregnate the honing wheel with a few drops of oil and apply fresh honing compound. Work the honing compound into the leather. Do not let the compound dry, apply more oil if necessary.

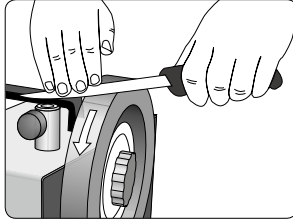
Honing

You can hone either *free-hand* or let the tool *remain in the jig* after the grinding. Set the jig so that the honing is carried out at exactly the same angle as the previous grinding. This is especially advantageous when honing the bevel on gouges where with free-hand honing it is difficult to exactly follow the shape. The inside is honed free-hand. Honing must always be carried out *away from the edge*.

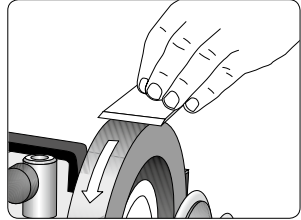
Honing free-hand



The inside on gouges and V-tools are honed on the profiled wheel.

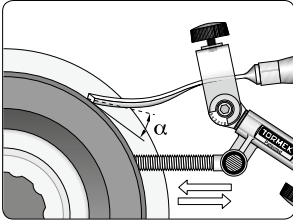


Honing a long knife. Hold the blade diagonally to clear the grindstone.

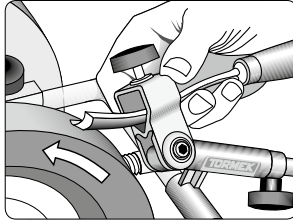


Honing the back on a plane iron.

Honing with jigs

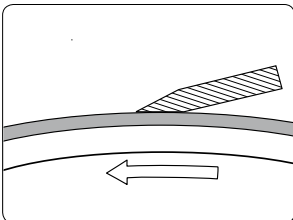


Honing a curved gouge in the SVD-185 jig. Set the Universal Support so that you have the same honing angle as the grinding angle.

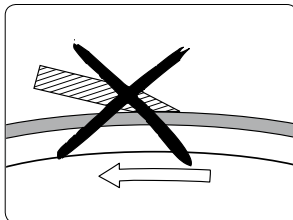


Honing a plane iron in the SVH-60 jig.

Honing direction



Always hone away from the edge!



If you hone towards the edge, it cuts into the wheel!

Note: The leather honing wheel is made with a strip of leather glued onto a plastic rim. This strip has a glued joint, which is sanded down at the factory to the surface of the leather. After a period of use, when the leather has become depressed, the glued joint can remain above the leather surface. You can easily sand away this thin layer of glue by carefully using sanding paper mounted on a wooden piece.

Benefits of proper honing

All edge tools should be honed properly to work to the maximum efficiency. The only exception is scissors. As well as removing the burr, the two surfaces forming the edge should be honed so you get as fine a surface as is practically possible. An edge with finer surfaces on the bevels is not only sharper and cuts more easily, it also makes the sharpness more durable. Furthermore a smooth and shiny surface has less friction against the wood which makes it easier to work with the tool.

Honing of turning tools

The advantages of honing the bevels to a finer surface are well known and used for plane-irons, wood-chisels, knives and woodcarving tools. These advantages are equally valid for woodturning tools but some turners do not pay the same attention to the honing as cabinet makers and woodcarvers do.

The reason is that the grinding and sharpening of, for example, a fingernail shaped bowl gouge or a curved skew chisel is quite a difficult task with the conventional free-hand grinding method on a bench grinder followed by repeated honings with honing stones and slip stones. Even if you are experienced and skilled, it is difficult to avoid faceting on the bevel and the honing takes time from the turning. Therefore most turners accept an “almost” sharp edge without honing and instead frequently resharpen on the benchgrinder.

With the Tormek method (water cooled grinding/sharpening and honing with jigs) the sharpening is fully controlled as well as the honing. You only need a fine touch up of the edge since you always sharpen and hone exactly to the same shape and at exactly the same edge angle.

The whole operation – setting, sharpening and honing – takes only a few minutes and is therefore time well invested. The tool cuts more easily, causes less friction against the wood, gives the wood a finer surface and the edge stays sharp much longer. You also save time, as you do not need to sharpen so often and your tools last longer.

Polishing

The Tormek leather honing wheel and honing compound increase the versatility of your grinder – it will also work as a polishing machine. You can also polish chrome-plated surfaces, as well as brass, copper, silver and aluminium to the highest lustre.