trend®
tool technology

DIAMOND SHARPENING SOLUTIONS

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High Performance Diamond Sharpening

Quick & Easy Set Up

98% **Works Up To 98% Faster Than Traditional Stones**

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OVERVIEW

Keeping your edge tools sharp and ready for use is a fundamental part of woodworking, ensuring consistent, superior finishes on the workpiece, faster material removal and increased productivity.

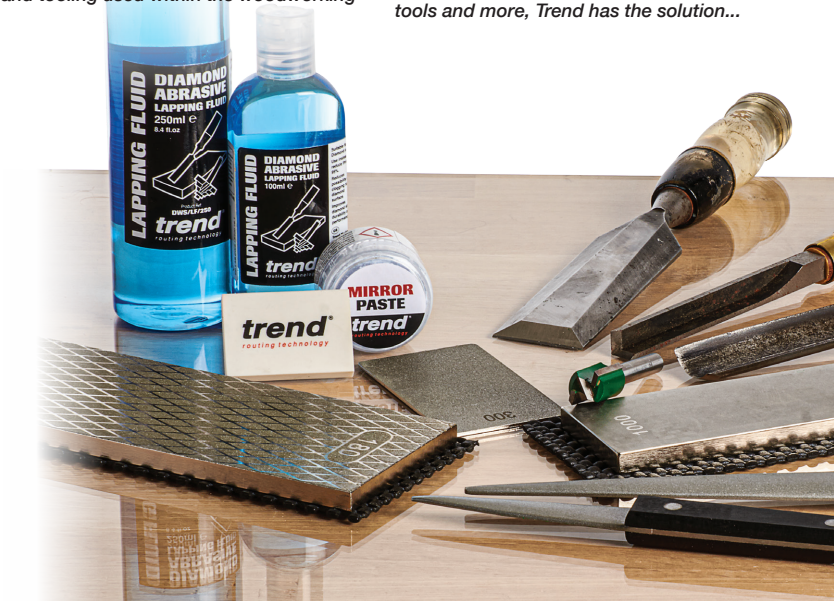
A sharp tool is also a safer tool, with most accidents occurring when a blunt tool is used.

Being able to keep all of your edge tools well maintained and in premium condition is essential; as is the ability to do so quickly, easily and consistently.

With such a diverse range of tools and tooling used within the woodworking arena, finding suitable honing options to cover different applications can be a minefield, with complicated and messy options to cover what is essentially a very simple task.

The Trend Professional range of Diamond Stones are designed to cover all uses, with profiled stones complimenting the traditional flat bench stones, giving the end user the complete sharpening solution for edge tools and tooling, from initial preparation through to the ultimate edge.

Choosing diamond as the abrasive, harder metals and alloys can be easily worked; something other types of sharpening medium cannot achieve, so whether it's carbide tips on router cutters, high speed steels for woodturning, high carbon tool steel for chisels and plane irons, through to knives, scissors, garden tools and more, Trend has the solution...



WHY DIAMOND?

As the hardest known substance on Earth, diamonds are the perfect choice for use with hard steels and alloys, offering very fast removal and consistent results across the board.

Diamond honing is also ultra-efficient and clean; speeding up the process of maintaining and attaining premium edges ten-fold and requiring minimal pressure to get results.

A Trend Diamond Stone will allow you to achieve fantastic results in seconds rather than the minutes required with traditional stones or other alternatives.

DIFFERENCES IN DIAMONDS AND STONE MANUFACTURING

While 'Diamond Stone' sounds impressive, not all stones are created equal.

Trend use superior industrial monocrystalline diamonds in all their stones.

Inferior diamond stones will often use polycrystalline diamonds that whilst seemingly offer the same initial performance, don't work in the same way.

Polycrystalline works in the same way as abrasive papers, that when fresh and new, are very efficient.

Abrasive paper performance is maintained for a while by the grit fracturing in use, exposing further sharp facets on the abrasive grit to continue cutting, but after a while this grit gets lower and lower in the backing paper and bonding material as it fractures away and eventually becomes too low and flat to cut any further.

Polycrystalline diamonds work in the same way, fracturing in use to expose fresh cutting edges, but becoming lower and lower within the substrate, eventually losing the ability to abrade and becoming weaker and less efficient.

Monocrystalline diamonds do not fracture, so they retain the same cutting performance throughout their lifespan so you can be assured of premium, reliable performance at every stage.

Cheaper stones may also rely on impregnation to secure the diamonds to the base substrate.

This means a layer of glue is applied and the diamonds pressed in to secure them, making them very cheap to produce, but they are only as good as the adhesive used and can have an exceptionally short lifespan.

Other alternatives can involve the use of a thin polka dot mesh diamond plate to reduce the amount of diamonds used and therefore reduce costs. This plate can often be bonded to a plastic base that can distort in use, affecting the performance and therefore the end results.

The professional and high quality production method employed by Trend is to secure the diamonds in nickel by electroplating it onto a steel substrate.

With the nickel forming around each diamond, it locks around each one to leave 1/3rd projecting, for a solid secure bond that prevents the diamonds from dislodging in use.

5 YEARS WARRANTY *Using this method of construction, along with premium monocrystalline diamonds and used with Trend Lapping Fluid, the stones have a 5 year warranty and if used professionally on a daily basis, could last for at least 10 years.*

TIP: *Buy once, buy well. It's always worth paying extra for a product that delivers each and every time.*

STONE MAINTENANCE

Trend Diamond Stones are very clean and efficient in use, requiring just a light lubricant to wash away the swarf and maintain the cutting performance.

The Trend Lapping Fluid is the recommended solution to keep all Trend stones at their best, and with a 5 year warranty on Trend Stones, the use of Trend Lapping Fluid forms a key part of that warranty.

Heavier oils and fluids are too thick to achieve the correct cutting action, resulting in the tool floating over the top of the diamonds.

Water and water-based fluids are not recommended as nickel is porous and any moisture left on any Trend stone can set up rust which will lift the nickel and invalidate the warranty.

Trend Lapping Fluid is petroleum based with additional rust inhibitors to removes any threat of rust and is thin enough to sit between the diamonds allowing the stone to work to maximum effect.

Any fluid left on the stone will eventually evaporate without any damage to the stone.

Over the course of time the stone will eventually pick up particles of residue which can easily be removed using the Trend Cleaning Block.

Simply rubbing into the surface of a dry stone quickly lifts the dirt and residue away to leave a pristine surface ready to go back to work.

WHY DIAMOND BENCH STONES OVER OTHER OPTIONS?

• *Trend Diamond Stones use premium materials to ensure guaranteed flatness, consistency and ease of use.*
• *Trend Diamond Stones never hollow so tools stay flat and true.*
• *Achieves superior cutting edges with minimal pressure.*
• *Minimal time and effort is needed for first class results every time.*
• *Easily portable for site and workshop use.*
• *One stone is all that is needed for razor sharp edges and fast cutting performance.*

OILSTONES

• *Traditional oilstones are prone to clogging and hollowing over time which has a detrimental effect on the tools as the backs will follow the stone profile and lose their flatness.*
• *Clogged stones lead to extra pressure to try and get the stone to cut which can lead to slips and accidents.*
• *Oil is messy and can contaminate the workpiece after the blade has been honed.*

WATERSTONES

• *Waterstones are very soft and need to flattened regularly.*
• *Waterstones have to be soaked prior to, and in use, requiring suitable containers to soak each stone in.*
• *Waterstone honing is expensive, requiring multiple stones that wear quickly.*
• *Waterstones are very messy to use and not practical for use away from the workshop.*
• *Using water as a honing fluid can result in tools rusting.*

CERAMIC STONES

• *Ceramic stones can be used dry or with water but are prone to glazing and inconsistent results.*
• *Ceramic stones don't have the 'bite' of other stones resulting in excessive pressure to try and achieve results.*
• *Ceramic stones are not always flat when new so they don't work correctly.*

SCARY SHARP (SILICON CARBIDE PAPERS)

• *Scary sharp honing requires a flat substrate such as plate glass for the abrasives to be stuck to.*
• *Requires water for use making it messy.*
• *Multiple grits needed making it impractical for site use.*
• *Cannot be used for freehand honing as the tools need to be pulled through the abrasives.*

PRECISION BENCH STONES

The 'go to' stone for traditional woodworking tools such as plane irons and chisels, the bench stone is a workshop and on-site staple and is also perfect for knives, replaceable carbide tips, HSS spindle moulder knives and other flat backed tools and tooling.

Trend Bench Stones are made to engineering tolerances with an 8mm thick steel plate precision ground to a flatness of +/- 0.0005" that never hollows or distorts, to achieve superior flatness on flat backed tools for increased accuracy in use and longer lifespan.

Trend Precision Bench Stones are double sided with a coarse 300 grit (50 micron) and extra fine 1000 grit (15 micron) side on the DWS/W6/FC and DWS/CP8/FC, covering fast stock removal for preparation work, re-shaping damaged or very dull edges and fine honing for keen edges.

The DWS/CP8/FX stone has an extra-coarse 180 grit (70 micron) and 600 grit fine (25 micron) for reconstituting damaged edges, extra-fast preparation and stock removal and general purpose sharpening work.

Unique diamond pattern clearance channels on the DWS/CP8/FC and DWS/CP8/FX aid removal of residue when heavy stock removal is required, keeping the diamonds free of swarf build up for increased efficiency and speed of cut.

Continuous diamonds on the fine side maximises efficiency for razor sharp edges in seconds and also prevents snagging when sharpening narrow or pointed tools.

Each stone has the grit size lasered into the surface for fast identification.

3 different stone sizes are available to suit all needs:
Ref. DWS/W6/FC 6" x 2"
Ref. DWS/CP8/FC 8" x 3"
Ref. DWS/CP8/FX 8" x 3"

HONING

The main principle of honing chisels and plane irons is to raise a wire edge, and then remove it.

It is the fundamental part of the process and if the wire edge is not removed, the blade is not sharp.

Raise a wire edge by placing the blade on the stone, lifting until the bevel sits flat to the stone.

Raise the blade slightly from this position to lift it a few degrees and then make long, controlled strokes backwards and forwards along the stone using light finger pressure to control the action.

The wire edge can then be felt by dragging a finger across the back of the blade.

Turn the blade over to the flat side and make a few light strokes on the stone to push the wire edge back to the bevel side.

Flip back to the bevel side and make further light strokes to work the wire further, and repeat the action on the back.

This may need to be done 3, 4 or 5 times to weaken the wire edge enough so that it wears or falls away, leaving a razor sharp edge.

HONING GUIDE

For true consistency the Trend Honing Guide allows fast, repeatable angles and razor edges and is very easy to set up.

The blade guide has a wide brass roller to register across the stone without rocking and clamps the blade centrally for easier control.

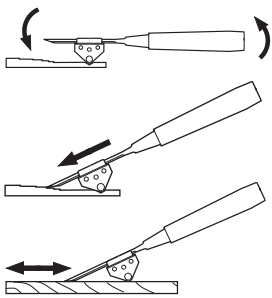
Blades are clamped from the sides to keep the edge square to the stone for increased accuracy.

The wedge plate has stepped indexes for common angles of 25, 30, 35 and 40 degrees.

Placing the roller into the groove on the plate, the blade is moved through the jig until it sits against the index required and then secured with the clamping knob.

On the stone, the guide is simply moved backwards and forwards with light finger pressure until the wire edge is gained. The same principle as freehand honing is employed so the blade is flipped to the back, and repeated 3-5 times until the wire edge is removed.

Used on the coarse side of the stone, the honing guide can also be used to bring a primary bevel back to shape by setting to the correct angle and working steadily along the length of stone.



ROUTER BIT SHARPENING

Despite the multitude of profiles available, router cutters are very easy to keep in good condition with a diamond stone.

The cutters should only ever be sharpened on the flat face of the profile, never the shaped edge so that they are not compromised and altered.

Carbide is a very hard microscopic crystalline composition and is best sharpened on a 600 grit stone to maintain a durable edge.

The Trend Double Sided Credit Card Stones are ideal for router cutters, with the 300/600 grit DWS/CC/FC or the 600/1000 grit DWS/CS/FF the ideal options.

SHARPENING A ROUTER CUTTER

The cutter is positioned with the flat face on the credit card stone, and moved backwards and forwards along the stone keeping using light pressure and keeping the cutter flat.

Count the number of strokes before flipping and repeating the process on the opposing cutter face using the same number of strokes.

Sharpening cutters regularly before they get too dull is beneficial, requiring just a few strokes, 4–6 per side to keep them in top condition.

For cutters with bearing guides, the bearings need to be removed first to allow the stone to get fully into the gullet.

Sharpening HSS cutters is exactly the same, but with HSS able to take a much keener edge than carbide, the 1000 grit stone is the ideal choice.

If you work HSS and carbide tipped cutters regularly and have a good sharpening regime the 600/1000 grit stone is ideal.

If you work predominantly with carbide and occasionally let the edge get too dull, the 300/600 grit stone allows a faster reworking of the tips.

TURNING TOOLS

Wood turners favour diamond stones for fast touching up of the tool edges while still working, keeping downtime to a minimum and spending more time being creative.

Using a diamond stone on turning tool won't replace a grinder, but acts in conjunction with one; allowing an edge to be refreshed easily at the lathe before eventually returning to the grinder to re-grind as required.

Credit card stones are ideal for turning tools especially If you use carbide insets as well as traditional turning chisels as it covers both types well.

SHARPENING TURNING TOOLS

Hold the chisel in one hand and use the stone in a light circular motion keeping the hone in contact with the edge at all times to keep the edge uniform.

Holding a gouge vertically lets you see the edge easier to maintain full contact on the bevel. Tilting the stone a couple of degrees and working in the same circular motion forms a micro bevel on the final pass.

Skew chisels, whether straight or curved can be easily honed in the same way, using light circular strokes with the credit card stone, working from both sides to maintain the edge.

For more control the Trend Taper Files are a good choice for traditional turning tools with three different sizes available;
Ref. DWS/TF3M/F 3" Mini Taper File
Ref. DWS/TF3/F 3" Taper File
Ref. DWS/TF6/F 6" Taper File

With a flat side and a rounded side, spindle, fingernail and rouging gouges can have the internal round profiles lightly dressed to remove any burrs from initial honing action on the bevel.

The handle allows the index finger to extend over the back of the file to control the cut and helps eliminate any rocking that can round the cutting bevels.

For ease of use and easy accessibility, the credit card stone or either of the small taper files can be in a pocket for use at the lathe to touch up the cutting edges as you work.

KNIVES

Sharpening a knife is simple to do, and can be done on a range of Trend Diamond products that suit indoor or outdoor needs.

Bench stones are excellent if you are constantly sharpening kitchen knives, and are equally adept at any other type, including pocket and hunting knives.

For outdoor pursuits the taper files are a more practical solution as they can be slipping into a pocket or backpack.

Knife edges can be easily set up to perform different tasks.

For finer edges for filleting type knives a lower angle is needed on the stone. Raising the angle will give a more durable robust edge.

SHARPENING A KNIFE (TAPER STONE)

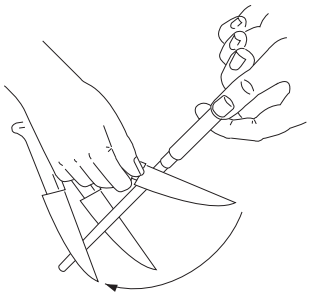
With the file in one hand and knife in the other there are different options that can be employed.

The blade can be moved over the file in an 'over/under' movement using both sides of the stone as a butcher would sharpen on a steel.

Alternatively the knife can be pulled towards and away from the hand on the flat face of the file, replicating the method used on the bench stone.

A further method is to move the file across the blade, keeping the blade static.

If you struggle to keep the blade angle constant moving the blade over the file, this method works well as the index finger can be used to support and guide the file over the blade.



SHARPENING A KNIFE (BENCH STONE)

Place the knife flat to the stone, then tilt the blade slightly to gain a honing angle. The flatter the angle the finer the edge.

Stroke the blade through the stone by pulling it towards you from top to bottom in a wiping action keeping light pressure on top of the blade with one hand, the other hand on the knife handle to guide the stroke.

If the blade has a radiused tip, lift the handle slightly as you reach the radius to roll the tip and maintain the same bevel.

Flip the blade and repeat the action , this time pushing the blade away from you from bottom to top, maintaining the angle with light finger pressure on the blade.

Alternate each side a stroke at a time to achieve a razor edge.

Maintain the edge by returning to the stone before the knife gets too dull to prevent the need for unnecessary work to return to a keen edge.

If the edge is really dull the blade can be worked by using the coarse side of the stone and taking multiple strokes on one edge to raise a wire edge before returning to alternate strokes on the fine side.

Single bevel blades are worked in the same way, but working the bevel from one side and laying the back of the blade flat to the stone to back it off using the same alternating stroke method.

Serrated knives can look tricky to deal with but are usually serrated from one side only and can be honed in the same way as router cutters, replaceable tips and spindle knives by laying the blade flat on the stone and moving it over the surface with light finger pressure.

CARBIDE INSERTS AND SPINDLE MOULDER KNIVES

Sharpening replaceable inserts or spindle moulder knives is done in the same way as router cutters, working the flat back of the tooling, never the bevel or profiles edges.

Flat stones such as the bench stones or credit card stones are ideal for working inserts and spindle knives, working them on the stones in either long strokes or in a circular motion, making sure you keep them flat with light finger pressure.

SCISSORS AND SHEARS

Scissors and shears should only be honed on the bevels of the blades, never the flat internal faces as the opposing blade edges have to contact each other as they close over the material being cut.

Taper files are ideal for scissors and shears.

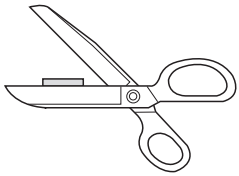
SHARPENING SCISSORS OR SHEARS

Place the blade on a work surface and tilt until the bevel sits horizontally to make it easier to run the stone across the bevel accurately.

Three or four light strokes should be enough to sharpen the blade before spinning to repeat the process on the opposite blade.

There may be a very light burr that forms on the flat side that can be taken off with a light stroke of the stone but care is needed not to make a micro bevel that will prevent the tool from cutting correctly.

The better option is to operate the tool a couple of times without cutting anything which will remove any light burrs as the blades pass over each other.



CARVING TOOLS (INCLUDING LEATHER STROP/STROPPING COMPOUND/MIRROR PASTE)

Carving tools are similar to turning tools with a range of profiles including skews, gouges and veining "V" profiles.

Carving tools need to be razor sharp at all times and work best with a combination of a 1000 grit stone and a leather strop and honing compound.

The credit card carvers stone Ref. DWS/CS/FF is used in the same way as turning tools with small circular motions across the bevels, making sure any round bevel profiles are maintained to allow the tool to be rolled into the work.

Once an edge is achieved it is maintained using a strop and honing compound, with the bevels polished on the leather for minimal friction and further control in the cut.

As the edge begins to dull in use it can be easily regained by further work on the strop.

For the ultimate edge that carvers seek, Trend Mirror Paste Ref. DWS/MP/40 is the next step up from honing compound.

Used on a leather strop it achieves a mirror polish on all steels and alloys and can also be used to strop the tools during use to maintain the edge until there's a need to return to the stone to reconstitute the edge.

The strop, compound and mirror paste can be used on other edge tools as well including chisels, plane irons and knives to increase the edge further for surgical keenness.

SAWBLADES

Dull saw blades are honed by working the flat faces of each tooth using a stone that can get in between each gullet.

Credit card stones can be used but can be hard to control on a small surface area like a saw tooth tip so the taper files are better as they can be controlled using two hands.

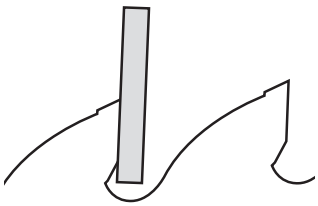
Blades can be resharpened up to 3 or 4 times before they need to reground professionally.

SAWBLADE SHARPENING

Clamp the blade securely in a vice or if it's a table saw it can be left in the machine.

Make a mark to indicate the first tooth to be worked and take 2 or 3 light strokes across the face of the tooth, moving on to the next tooth and repeating with the same amount of strokes.

Rotate the blade to keep the teeth in the best position for easiest access and control and continue around the blade until the start point is reached.



FORSTNERS

Forstners are either continuous rim or saw tooth but work in the same way with the outer rim scoring to a finished diameter with the internal cutting face lifting the waste away in a peeling action as the cutter rotates.

The outer rims or teeth need to be kept sharp as well as the internal cutting face.

The smallest taper file is suitable for keeping forstners in tip top condition.

SHARPENING A FORSTNER

Continuous rim forstners need the internal bevel inside the cutting rim maintained using the rounded side of the file to work the rim in small circular motions to keep the edge sharp.

The flat cutting face is worked using the flat face of the file taking 2 or 3 light strokes to keep the face sharp.

A light stroke on the underside of the cutting face keeps the cutting edge keen.

Sawtooth rims are sharpened using the small file to dress the face and tops of each tooth to keep the profiles sharp as well as running the inside of the rim in the same manner as a continuous rim.

The cutting face is also maintained in the same way.

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