

OUR GUIDE TO YOUR COMPLETE DIAMOND SHARPENING KIT LIMITED EDITION



COMPLETE DIAMOND SHARPENING KIT

DOUBLE-SIDED
1000/300 GRIT
600/180 GRIT

Ultimate workshop
sharpening kit with two
8" x 3" double sided
diamond stones.

- ◆ To maintain, sharpening and polish tools.
- ◆ For chisels, plane blades, pocket and kitchen knives, Carbide & HSS inserts and flattening of oil and water stones.
- ◆ Monocrystalline diamond.
- ◆ Supplied in aluminium storage case.

INCLUDES

- 2 x 8" x 3" Bench stones
- 1 x Honing compound bar*
- 1 x Lapping fluid
- 1 x Honing strip
- 2 x Storage pouch
- 1 x Cleaning block
- 2 x Non-slip mat
- 1 x James Barry Sharpening Booklet

- ◆ EX-FINE
- ◆ COARSE
- ◆ FINE
- ◆ EX-COARSE

COMBINED FEATURES
1000/300 GRIT
600/180 GRIT

DIAMOND SHARPENER
AFILADOR DE DIAMANTE
AIGISEUR DIAMANT

DIAMOND
SHARPENING
SOLUTIONS

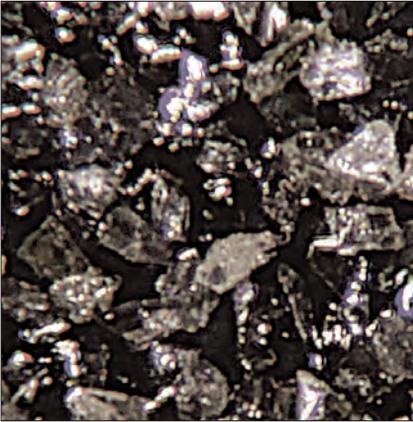
SHARPENING
MADE EASY
BY
JAMES BARRY
trend
ROUTING TECHNOLOGY

trend[®]
routing technology

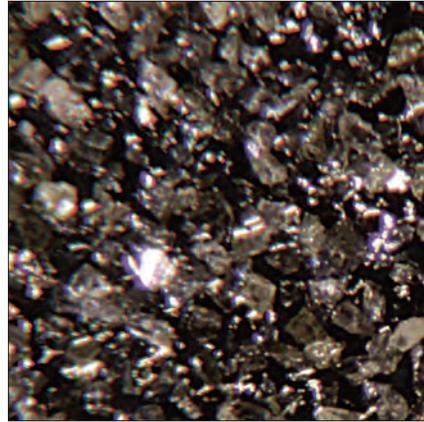
COMPLETE DIAMOND SHARPENING KIT

The Trend complete diamond sharpening kit Ref. u*DWS/KIT/E is designed to offer the user every grit needed in diamond stones (180, 300, 600, 1000) in order to flatten, re-shoulder and hone the majority of the tools in the workshop, on the job site and in the kitchen. We have added a

leather strop, honing compound bar, lapping fluid and a cleaning block. When following our simple instructions, the Trend Complete Sharpening Kit will offer years of service in the maintenance, honing and polishing of a wide variety of your cutting tools and knives.



180 Grit - Extra coarse



300 Grit - Medium coarse



600 Grit - Medium fine



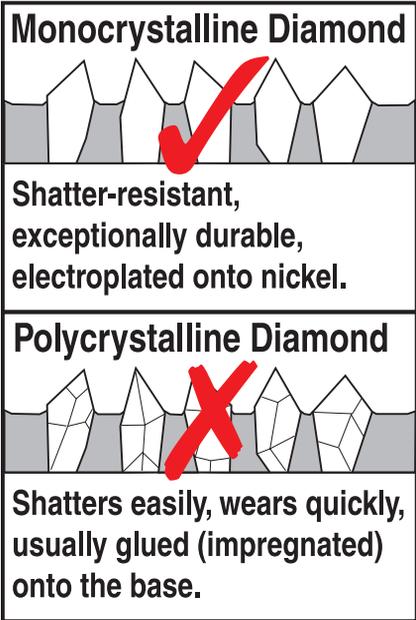
1000 Grit - Extra fine

UNDERSTANDING YOUR TREND DIAMOND STONES

Trend flattens a heavy-duty mild steel base substrate to a flatness of +/- 0.0005 of an inch. The flattened plates are then individually lowered into a vat of nickel that has been preheated to a crucial temperature and an electric current is passed through it. The nickel and diamond are then attracted through electrolysis into the surface. The process is complete after enough nickel has been attracted to embed or cover the diamond by two-thirds, leaving one-third exposed.

A surface of 1000 grit (15 micron) has a designed sharpening abrasion of 5 micron. Due to the variation in the size of the diamond (all graded micronized diamond has a variation of +/- 10%), a stone with a pre-ground substrate of 0.0005" may well actually be 0.001" flat.

When striving for precision flatness measuring the substrate BEFORE plating NOT after is the only accurate method of gauging flatness. Further, it is **vitaly important** that the diamond is electroplated onto the mild steel base surface **not** electroplated onto a thin metal sheet then adhered to a plastic or metal base substrate.



Trend utilizes premium monocrystalline diamond, which is electroplated through high grade nickel. Since nickel is porous, Trend recommends that you utilize Trend diamond abrasive lapping fluid with your diamond stones.

We do **NOT** recommend the use of water on the stone as water can seep through the nickel and rust the substrate, nor do we recommend utilizing the stone without lubrication (dry) as the stone will quickly clog up. In the case your diamond stone gets wet, dry it completely with a soft rag. If you do utilize the stone dry, know that it will clog quickly and it should be cleaned as quickly as possible with the cleaning block that accompanies your stone.

The four main reasons for using the Trend lapping fluid are:

- It is the ideal consistency to remove swarf efficiently (utilized in the diamond abrasive industry to remove material).
- It greatly reduces the likelihood of rusting.
- Keeps a consistency between the tool and the stone.
- Offers the user a five-year warranty.

Through collaborative research and development with James Barry Sharpening Solutions,

Trend's 8" double sided diamond bench stones offer a unique combination of "clearance channels" on the coarse side of the stone, for quick and efficient residue removal. On the fine side, Trend utilizes continual diamond for the ultimate sharpening before stropping.

The three main rules for utilizing your Trend diamond stone are:

- Use Trend lapping fluid.
- Don't use pressure! Let the diamond do the work.
- Clean your stone when build up occurs.

Follow these steps and you will receive an unprecedented five year warranty and years of sharpening pleasure with your Trend diamond stones.



BREAKING IN YOUR TREND DIAMOND BENCH STONE

New Trend diamond bench stones are “crisp”. There is a breaking in period necessary to remove excess diamond particulates that have accumulated from the electroplating process. Do NOT attempt to hone a fine plane iron, chisel or knife before the stone is prepared for proper honing.

Pour a small amount of Trend lapping fluid on the stone and spread evenly across the stone. Take an old plane iron or chisel

and gently (without pressure) work the backside of the tool across the entire surface of the diamond stone. After a few minutes, you will notice a “smoothing out of the stone”. Your diamond stone has started the breaking in process and you will notice an increased smoothness over time.

NOTE: The breaking in process is most important on the fine side of the diamond stone.



THE ROLE OF THE GRINDER WHEN UTILIZING DIAMOND STONES

The main advantages of Trend diamond sharpening stones are: they are flat and stay flat; cut rapidly and efficiently; they don't need to be plugged in, they are portable, simple to use, last for years with proper maintenance and are easy to maintain.

For many, the diamond stone will be THE "go to" tool in your shop. However; there are places for other sharpening mediums such as grinders and it is our

philosophy that there is a synergy between the grinder and the diamond stone. The grinder is ideal when a tool needs to be reshaped whilst the diamond stone is ideal for honing and the quick flattening/removal of imperfections.

Reshaping and honing with the diamond stone will offer a better edge and will remove less material which will give your tool a longer life.



Example of a tool that should be reshaped with the grinder.

TYPICAL USES FOR THE DIFFERENT GRITS IN THE COMPLETE SHARPENING KIT

■ 180 Grit (70 Micron) – Extra coarse, we refer to the Trend 180 grit as “The Grinder that you don’t have to plug in”. The 180 grit is ideal for flattening water stones, flattening the backs of plane blades and chisels, re-shouldering knives, raising a “coarse sharp edge” on a variety of tools and taking nicks out of imperfect surfaces.

■ 300 Grit (40 Micron) – Medium coarse, the 300 grit does all that the 180 grit does but less aggressively. When a tool needs a quick flattening, re-shouldering or has a minor nick, the 300 grit is the way to go. Ideal for quick honing of HSS insert tools.

■ 600 Grit (25 Micron) – Medium fine, the 600 grit is ideal for taking scratches out of or for obtaining quick fine edges on plane blades, chisels and knives. Ideal for contractors that do not want too fine of an edge on their tools. The 600 grit is also perfect for the sharpening of Carbide inserts – not only in woodturning tools but it is ideal for cabinet makers who employ a multitude of cutters on the helical heads of their planers.

■ 1000 Grit (15 Micron) – Extra fine, the 1000 grit functions are to offer the final stage of flattening plane blades and chisels and to create extra sharp edges on all tools being sharpened – this is the last phase in the honing process before we turn to leather and paste for the polishing of the tool.



SHARPENING KITCHEN AND HUNTING KNIVES WITH DIAMOND STONES

Inspect the shoulder of your knife. If it is pronounced and consistent, lay the knife on the 1000 grit side of the diamond stone and visualize the arc that you will need to follow so that you can hone the entire edge of your knife with a soft and consistent pass (larger knives will need a larger arc).

After spreading a few drops of lapping fluid on the diamond stone, raise the knife slightly so that you can feel the intersection between the cutting edge of the knife and the diamond stone.

This will be the ideal angle for standard honing. With a fluid and relaxed motion, gently follow the full contour of the knife's cutting edge and make a full pass across the stone.

Turn the knife over and follow the same procedure on the other side of the knife. After three or four passes on each side, inspect the knife to see if you have achieved a razor sharp edge. If the edge is satisfactory, continue on to the polishing of your knife with leather and paste.



NOTE: For a sharper “filleting edge”, slightly decrease the cutting angle. For a “boning edge” slightly increase the angle. As a rule, High Carbon Steel knives will hone with a few passes. HSS knives and other hard steels will typically take a few extra passes. Always relax, take your time and let the diamond do the work!

FLATTENING WATER AND OIL STONES

One of the serious drawbacks of water and oil stones is that they do not stay true. For stones that are seriously “cupped”, utilize the 180 grit. For slightly cupped stones utilize the 300 grit.

Draw multiple diagonal pencil lines on cutting side of the stone. Place diamond stone on non-slip mat and apply a generous amount of Trend lapping fluid to it. Move the water or oil stone back and forth on diamond with **minimal pressure**.

After a few moments, lift the stone and inspect the surface. If the

pencil marks are all gone, the flattening process is complete. If bottom is not yet flat, repeat the process. Stones should flatten in less than a minute, and you can ensure this by flattening these mediums frequently.

To clean the diamond stone after the flattening process, apply more lapping fluid and wipe off with a soft cotton rag. Then aggressively apply the cleaning block and watch the diamonds shine once again, as it lifts the waste material away.

NOTE: In humid environments, it is advisable to apply a thin layer of lapping fluid to the stone before storage.



FLATTENING, HONING AND POLISHING OF PLANE BLADES AND CHISELS

A quality edge starts with the perfect union of two planes. In order to achieve a proper sharpening, the backside of a chisel or plane must be flat! No blade is true when brand new. The first step is to achieve flatness on the back side of your chisel or plane blade.

The flattening of blades can be a quick exercise or it can require a great deal of work. Typically, new plane blades will require a quick flattening on the 1000 grit. Stones that are in need of serious flattening need to go to the 180 grit whilst stones that are almost there but need a bit of work can be flattened on the 300 grit.

Regardless of which grit you are employing, **do not use pressure, let the diamond do the work and use an adequate amount of lapping fluid.** The backside of the blade is ready when there is a consistent shine on the very edge of the surface. It is now ready for front side sharpening:

NOTE: Only use the pressure of holding the honing guide on the diamond stone!
Do not press down!

This can be achieved through free hand or by utilizing a honing guide. If free hand, take short controlled strokes so that the chisel or plane blade does not roll or dip.

When utilizing a honing guide, it is important to employ one like the Trend Ref. u*DWS/HG/SET. It features horizontal clamping and a wide roller base that keeps the tool square to the sharpening surface and keeps it from rocking.



Dry the plane blade or chisel on a soft cotton cloth then apply honing compound bar* to the rough side of leather strop. Lay the blade flat on its backside against the honing compound and with blade edge away from you pull the blade towards you

(do not cut into the leather). Take 7-10 strokes then turn the leather over onto the smooth side. Follow same procedure as compound side. Analyze blade. If you do not see a semi-mirror finish, continue procedure on strop until desired results are achieved.



HONING CARBIDE INSERTS

HONING HSS INSERTS

Place lapping fluid on the 600 grit. Lay Carbide inserts flat and only with the pressure of holding the insert flush, do 5-7 figure eights on the stone. Your Carbide insert will be ready to cut at peak performance!

Same process as the Carbide inserts, except lay inserts flat on the 300 grit.

* outside of North America a blue colour bar is used.

CONCLUSION

Your Trend diamond sharpening kit was designed to give you the capacity to flatten, sharpen, and polish kitchen, garden and woodworking tools for years. Whilst the Trend sharpening stones can replace the grinder in the honing process, grinders are ideal for heavy stock removal in the shop.

Keep your new kit in the shop or pack it up in its sturdy carrying case and take it on the job site or out in the woods. Wherever you sharpen on your Trend bench stones, please do take your time and utilize the lapping fluid. Don't use pressure and always let the diamond do the work!

MIRROR PASTE

A micro ultra fine abrasive compound for a mirror finish on chisels and planer irons when used with a leather strop.

- Refines, hones and polishes.
- Mirror finish on cutting edge to give clean cut.
- Contents 40 gm/1.4 oz.
- 2 - 3 micron (8000 - 10000 grit).
- Supplied in screw top jar.
- Apply paste to strop, rub to absorb and then stroke edge until polished finish.
- Can be used on a buffing wheel.

Ref. u*DWS/MP/40



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