



CATALOG 200

# PROFESSIONAL SHARPENING PRODUCTS AND DRESSING STICKS



www.nortonstones.com

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## The Norton Pike Story

The birth of the sharpening stone industry in the United States dates back to 1823 in a small village of New Hampshire, when a farmer discovered that stones in his pasture were ideal for sharpening scythes and axes. This excellent deposit of mica schist became the foundation for the Pike Company – the first supplier of commercially available natural sharpening stones in North America.

Using the nearby Connecticut River for transportation, the Pike Company was able to distribute the product of its quarries to a broad regional, national, and eventually, world market. As time went on, the company expanded its original product offering to include over twenty varieties of natural stone, including the Arkansas line. Quarried from the novaculite deposits near Hot Springs, AR, these stones soon replaced mica schist as the quality standard in premium



natural sharpening stones. They remain so today - no other stone can approach their fine performance characteristics.

As Norton developed its position in synthetic abrasives, Pike Company complemented its natural stone line with the new aluminum oxide and silicon carbide bonded abrasives. This strengthened its position in that portion of the market requiring fast-cutting, heavy-stock-removing sharpening stones.

During this period, the Pike Company consolidated its operations in Littleton, New Hampshire. In 1932, after years of close association, Norton Company purchased the Pike Company. Norton Company was subsequently purchased by Saint-Gobain Abrasives, Inc. (the global leader in abrasive sales and technology). Norton continues to serve world markets with the broadest line of natural and synthetic sharpening stones available.

## How To Order Product

To enable your authorized Norton Distributor to fill your order quickly and accurately, please be sure to include your billing and shipping address, purchase order number, and the following product information:

- **UPC Number** – the 11 digit product code found in each product availability chart to the right of the product description.
- **Item Description** – identifies the type of product ordered, such as benchstone, file, rubbing brick, etc.
- **Size and Dimensions** – such as length x width x height (6 x 2 x 1) for a benchstone.
- **Product Specification** – example Medium Crystolon
- **Product Number** – such as MJB6 benchstone
- **Quantity Ordered** – the quantity of pieces ordered – not the number of cases (example: 5 benchstones, not 1 case). Quantities are listed in each product availability chart.

To determine the price of any item in this catalog, contact your Norton Distributor. For a listing of authorized Norton Distributors in your local trading area, call us at the Customer Service numbers below.

## Norton Sharpening Stones Marking System Guide

EXAMPLE: **MJF234** = MEDIUM CRYSTOLON FILE, ROUND, 3/8" x 4"

NOTE: This chart is intended as a reference guide only. Not all products will meet this convention.

**M J F 2 3 4**

ABRASIVE GRIT SIZE*	ABRASIVE TYPE	PRODUCT TYPE	SHAPE	THICK/WIDTH	LENGTH
C = coarse (A100, 37C100)	J = Crystolon (Silicon Carbide)	B = Benchstone	0 = Square	1 = 1/4"	2 = 2"
M = medium (A240, 37C150)	Blank = India (Aluminum Oxide)	E = Jointer Stone	1 = Triangle	2 = 5/16"	3 = 3"
F = fine (A320, 37C280)	Hard or Soft Arkansas is indicated in abrasive size position	F = File	2 = Round	3 = 3/8"	4 = 4"
S = Soft Arkansas (400-600)		M = Mounted Benchstone	3 = Half Round	4 = 1/2"	5 = 5"
H = Hard Translucent Arkansas (1500-2000)		P = Pocket Stone	4 = Silversmith	5 = 5/8"	6 = 6"
*Pike product is ungraded		S = Slip	5 = Tapered Triangle	6 = 3/4"	
			6 = Tapered Round	7 = 1"	
			7 = Other		

## Questions? Need help?

Can't find your specification in stock? Call for non-stock availability.

### Contact Sharpening Products Customer Service:

Stephenville, TX, USA:

Phone: 800-551-4413

Fax: 800-551-4416

Hamilton, Ontario, Canada:

Phone: 905-547-2551

Fax: 905-547-8157

## Abrasive Features and Applications

**Man-made/Synthetic Stones** are manufactured with abrasives graded to a consistent particle size, blended with selected bonding agents, molded to shape, and finished to exacting surface configurations.

- **Crystolon®** stones, manufactured with silicon carbide abrasives, are the best choice for quick sharpening where the speed in producing the edge is more important than the fineness of the cutting edge. Gray in color. Available in coarse, medium and fine grits.
- **India®** stones, manufactured with aluminum oxide abrasives, are preferred for imparting durable, smooth-cutting edges and for close tolerances. Orange/brown in color. Available in coarse, medium and fine grits.

**100% Natural Stones** are quarried from the finest Ozark novaculite (silicon quartz) deposits, precision sawn to size, and finished to exacting surface configurations. Although there are no industry established standards for classifying hardness, particle size, or color of natural stones, the standards established by Norton nearly 100 years ago are accepted by most knowledgeable sources as industry standards. However, all suppliers do not adhere to these standards; some choose to classify and label sharpening stones at their own discretion. This has resulted in much confusion for users, who experience widely varying performance levels between similarly

identified stones of different manufacturers. Norton guarantees a given product will duplicate performance stone after stone. For this reason, we have trademarked the Norton Arkansas Stones as a guarantee of Norton quality and performance. When sharpening, these Arkansas stones do not remove as much metal as man-made stones; hence tools and knives last significantly longer. Due to their unique crystalline structure, Arkansas stones polish as they sharpen, imparting a keen, smooth edge/surface.

- **Norton Soft Arkansas®** (extra fine) stones are the coarsest-grained and least dense of the natural stones. Used primarily to sharpen and upgrade tool and knife edges to an even, polished surface, frequently after sharpening with synthetic stones. Opaque milky-white in color.
- **Norton Hard Translucent Arkansas®** (ultra fine) stones are the finest-grained and most dense natural stone available. Used to produce the keenest, most precise finish possible. They impart polished, razor-like edges. Translucent white in its purest form, hard translucent Arkansas may contain shades of red, yellow and gray. Translucent stones are named for their ability to let light pass through.

Note: color variations in these stones are the result of geological events that have occurred over many millions of years and will not affect the performance of the stone.

## Application Guide and Page Index

### Benchstones – pages 6-10

APPLICATION	COARSE/MEDIUM SHARPENING	FINE STONING	FINISH HONING
Chip Breakers	-	Fine Crystolon Benchstone	-
Draw Knives	Coarse Crystolon Benchstone	Fine India Benchstone	Hard Arkansas Benchstone
Scrapers	Coarse Crystolon Benchstone	Fine India Benchstone	Hard Arkansas Benchstone
Chisels (Wood)	Coarse Crystolon Benchstone Waterstone	Fine India Benchstone Waterstone	Hard Arkansas Benchstone Waterstone
Plane Blades	Coarse Crystolon Benchstone Waterstone	Fine India Benchstone Waterstone	Hard Arkansas Benchstone Waterstone

### Slips – pages 19-22

APPLICATION	COARSE/MEDIUM SHARPENING	FINE STONING
Milling Cutter	Medium India Round Edge Slip	Fine India Round Edge Slip
Carbide Tools		Fine Crystolon Slip for Carbide Tools
Carving Tools	Medium India Carving Tools Slip	
Gouges (Wood)	-	Fine India Gouge Stone

### Abrasive Files – pages 14-18

APPLICATION	COARSE/MEDIUM SHARPENING	FINE STONING	FINISH HONING
Form Cutter	Coarse or Medium India Knife Blade	Fine India Knife Blade	-
Keyways	Coarse or Medium India Square File	Fine India Square File	-
Lathe Bits	Medium India Square File	Fine India Square File	-
Radius Tools	Medium India Round File	Fine India Round File	-
Reamers	Medium India Reamer Stone+	Fine India Reamer Stone+	-
Router Bits	-	Fine India Square File	-
Saws	Coarse India Triangular File	Fine India Tapered Triangular File	-
Center Punches	Medium India Triangular File	Fine India Triangular File	-
Magnetic Chucks	Medium Crystolon Round File	Fine India Round File	-
Molding Cutters*	Coarse or Medium India File	Fine India File	-
Countersinks	Coarse India Triangular File	Fine India Triangular File	Hard Arkansas Triangular File
Tap Threads	-	Fine India Triangular File	-

\* SELECT SHAPE TO FIT CONFIGURATION  
+ REAMER STONES ARE FOUND ON PAGE 23

### Rubbing Bricks – page 25

APPLICATION	RUBBING BRICK
Castings (scouring)	Crystolon Plain Rubbing Brick
Mold Marks (removing)	Crystolon Fluted Rubbing Brick

## Relative Sharpening Comparisons for Norton Stone Products

CRYSTOLON (SILICON CARBIDE) INDIA (ALUMINUM OXIDE)	ARKANSAS (SOFT, HARD TRANSLUCENT)	DIAMOND STONES	WATERSTONES		COATED ABRASIVES (WATERPROOF SANDPAPER)		DIAMOND COMPOUND MICRON SIZE
			JIS (JAPAN)	CAMI (USA)	FAPA (EUROPE)		
Coarse Crystolon		Diamond			P100	141	
					P120	127	
Coarse India					120	116	
					P150	97	
Medium Crystolon					150	93	
					180	78	
Medium India		Extra Coarse Diamond (220)	Norton 220		P220	65	
					220	60	
Medium Crystolon					P240	58	
					240	53.5	
Medium India					P280	52.5	
						50	
Fine Crystolon					P320	46	
						45	
Fine India		Coarse Diamond (325)			280	43	
					360	36	
Ex. Fine India	Soft Arkansas	Fine Diamond (600)	600		P360	40.5	
					360	35	
Ex. Fine India	Soft Arkansas	Fine Diamond (600)	600		P400	29	
					400	25.8	
Ex. Fine India	Soft Arkansas	Fine Diamond (600)	600		P600	23	
					600	20	
Ex. Fine India	Soft Arkansas	Fine Diamond (600)	600		P800	16	
					800	14	
Ex. Fine India	Soft Arkansas	Fine Diamond (600)	600		P1200	12.6	
					Norton 1000	11	
Ex. Fine India	Soft Arkansas	Fine Diamond (600)	600		P1500	10.3	
					800	9.2	
Ex. Fine India	Soft Arkansas	Fine Diamond (600)	600		P2000	9	
					1200	8.4	
Ex. Fine India	Soft Arkansas	Fine Diamond (600)	600		P2500	7.5	
					1500	6	
Ex. Fine India	Hard Translucent Arkansas	Extra Fine Diamond (1200)	1200		Norton 2000	6	
					Norton 4000	5	
Ex. Fine India	Hard Translucent Arkansas	Extra Fine Diamond (1200)	1200		Norton 8000	3	
					1500	1.2	
Ex. Fine India	Hard Translucent Arkansas	Extra Fine Diamond (1200)	1200		Norton 2000	1	
					1500	0.5	

## Stock and Non-Stock

If our comprehensive standard stock line does not provide a completely suitable product offering for individual needs, different grades, shapes and dimensional tolerances can be manufactured on special order. All non-stock requests should be referred to Customer Service Sharpening Stones.

## Product Warranty

WARRANTY – Norton warrants the products in this catalog to be free from defects in material or workmanship for a period of one year from the date of purchase. Norton's sole obligation under this warranty shall be to repair or replace, at Norton's option, any product which is non-conforming provided any such product failure was not caused by a subsequent modification of the product, misuse or a failure to follow any applicable instructions for the product.

EXCEPT FOR THE FOREGOING, NORTON EXPRESSLY DISCLAIMS ALL OTHER GUARANTIES AND/OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## Liability Limitation

NORTON'S LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF OR RESULTING FROM THE USE OF THE PRODUCT SHALL NOT EXCEED THE PURCHASE PRICE THEREOF, REGARDLESS OF WHETHER SUCH LIABILITY ARISES IN CONTRACT, TORT (INCLUDING WITHOUT LIMITATION NEGLIGENCE OR STRICT LIABILITY), OR OTHERWISE, AND IN NO EVENT SHALL NORTON BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND. NO REPRESENTATIVE OF NORTON, NOR ANY OF NORTON'S DISTRIBUTORS OR DEALERS, IS AUTHORIZED TO MODIFY THIS WARRANTY OR ISSUE ANY WARRANTY REGARDING THE PRODUCTS IN THIS CATALOG.

## Trademarks

The following names and designs are trademarks used by Saint-Gobain Abrasives.

ALUNDUM®  
CRYSTOLON®  
INDIA®

MULTI-OILSTONE®  
NORTON®  
NORTON HARD TRANSLUCENT ARKANSAS®

NORTON SOFT ARKANSAS®  
TUFBAK®  
AND OTHERS



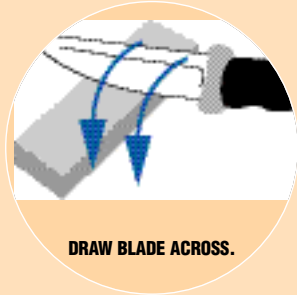
**A TOOL IS ONLY AS GOOD AS ITS EDGE™**

SAINT-GOBAIN

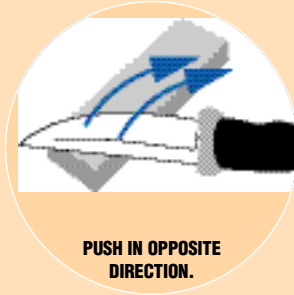
## Sharpening Basics

### Knives and Blades

Most manufacturers ship their cutting tools without keen edges to avoid damage in transit. The blades need a good sharpening to realize their full potential. Use the largest stone affordable for a straight edge as it allows use of full surface for wider tools.



DRAW BLADE ACROSS.



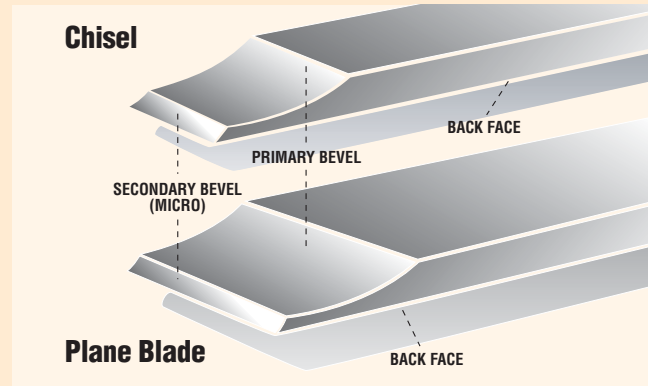
PUSH IN OPPOSITE DIRECTION.

1. Place the heel of the blade flat on the stone in a perpendicular or slightly angled position.
2. Tilt the back of the blade up to the desired angle (15° to 30° depending on the application: 15° for filet knives, 23° for kitchen or pocket knives, and 30° for cleavers).
3. Holding wrists rigid, draw the blade diagonally against the surface for the length of the stone – like you were trying to take a thin slice of the stone – beginning at the heel of the knife and ending at the top.
4. Flip the blade over and repeat from the opposite end. Continue this action until a wire edge appears.
5. Then move to the next finer stone and repeat until sufficiently sharp.

**NOTE: IT IS VERY IMPORTANT THAT THE ANGLE PRESENTED TO THE STONE AT THE BEGINNING OF THE PROCESS BE MAINTAINED THROUGHOUT THE SEQUENCE.**

### Woodworking Tools

The procedures and products used for sharpening straight-edged woodworking tools are widely debated by woodworking experts. Today there are many combinations of products that can provide the finish and sharpness for every level of woodworking project. Norton abrasives, alone, provide all the products for every method of choice. Outlined below are the basic procedures and product recommendations by steps.



PROCEDURE	OIL STONE SYSTEM	WATERSTONE SYSTEM	
<b>BACK FACE</b>			
Steps 1-4 are only needed on new tools or damaged tools. The flatter and more polished the back is, the sharper the cutting edge will be and the longer it will stay sharp.			
Step 1*	Heavy stock removal	Cryston – Coarse	220 grit
Step 2*	Light stock removal	India – Medium or Fine	1000 grit
Step 3	Final finishing and polishing	Norton Hard Translucent Arkansas	4000 grit
Step 4	Highly reflective polishing	1 Micron Diamond Compound ***	8000 grit
<b>PRIMARY BEVEL</b>			
Step 5 is done on new tools or whenever a tool is damaged. Otherwise, this step is done every 10-15 resharpenings of the secondary (micro) bevel.			
Step 5 (Option 1)	Creating a concave primary bevel – hollow grinding**	Bench wheel – 38A60-J	Bench wheel - 38A60-J
Step 5 (Option 2)*	Creating a flat primary bevel	India – Medium or Fine	1000 grit
<b>SECONDARY (MICRO) BEVEL</b>			
Steps 6-8 are done frequently to keep tools in excellent condition. Each step should be done until a burr or wire edge forms. This burr or wire edge is a signal that it is time to move to the next step. This wire edge must be removed and is done by alternately rubbing the back face and secondary angle of the tool on the finest stone until the wire edge falls off. If the wire edge does not fall off with this procedure, check the back of the tool for flatness.			
Step 6*	Initial sharpening or resharpening	India - Medium or Fine	1000 grit
Step 7	Final finishing & polishing	Norton Hard Translucent Arkansas	4000 grit
Step 8	Highly reflective polishing	1 Micron Diamond Compound***	8000 grit

\* OTHER ABRASIVE PRODUCTS SUCH AS DIAMOND BENCHSTONES, DIAMOND COMPOUND AND COATED ABRASIVES WILL PERFORM STEPS 1, 2, 5 & 6. SEE PAGES 28 AND 29.

\*\* HOLLOW GRINDING IS DONE ON A BENCH GRINDER: 6" WHEELS ARE RECOMMENDED FOR A SLIGHTLY LARGER CURVATURE.

\*\*\* DIAMOND COMPOUND MUST BE USED ON A VERY FLAT SURFACE TO ACHIEVE THE HIGHLY REFLECTIVE POLISH. (SEE PAGE 29)

### tip Sharpness Testing – Woodworking Tools

The first way to tell is visual; a sharp edge reflects no light. Once this is done, it is recommended that the tool be tested by slicing down on an end grain of soft pine. If the end grain is ragged, the tool is not sharp enough. If there are only scratches on the end grain, tiny fragments of the wire edge may be left and continued polishing is needed. A truly sharp blade will leave a cut on the end grain that looks almost burnished.

Norton offers a line of both synthetic (Crystolon and India) and Natural (Hard and Soft Arkansas) abrasive benchstones. Choose one stone or a sequence of stones to quickly restore the cutting edge on all straight-edge tools.

All oil stones are porous in nature. Oil is required to keep the pores open and working efficiently.

Typical applications include restoring the cutting edge on straight-edged tools such as chisels, plane blades, wood lathe cutters, draw knives, spoke shaves, knives, and precision tools and delicate instruments.



## SPECcheck

### Benchstone Troubleshooting Guide

PROBLEM	POSSIBLE CAUSE	CORRECTION
Clogging, glazing or loading of the stone surface	Insufficient lubrication to suspend residue	Saturate the stone surface with Norton oil
Excessive metal removal from tool edge	Stone is too coarse Stone is too soft	Use a finer grit Use a different abrasive type
Tool edge breaks down quickly	Poor quality steel Edge too thin	Use higher quality tool Correct edge angle to duplicate original edge angle (knives = 15° to 20°)
Tool edge not sharp enough	Stone is too coarse	Hone with finer grit or choose an India or Arkansas abrasive
Tool doesn't cut properly	Check for correct bevel angle Check for wire edge Edge out of true (rounded corners)	Change bevel angle to duplicate original edge angle Remove wire edge by running across a piece of hardwood once or twice Vertically pass tool over benchstone to square corners

### Choose one or a sequence of benchstones to restore a cutting edge

#### Use oil

- For best benchstone performance, to keep stones free cutting, with no loading or gumming, use stones with oil.
- If stones do gum-up or load, clean with kerosene or warm soapy water

#### Use of stones on flat tools

- Flat-bladed tools require flat stones. All benchstones (except diamond) can be flattened by rubbing on waterproof sandpaper against a flat surface.

#### Use of stones on round or shaped tool

- Shaped tools require shaped stones.
- Select an appropriately-shaped abrasive file or slip.

### Maintain correct tool edge bevel angle

- Many knives and tools have 2 bevels:
  - The blade bevel (the back of the edge), once correctly set, is seldom sharpened.
  - The edge bevel does the cutting – and requires sharpening to 15 to 20 degrees.
  - Too acute an edge bevel will weaken, dull quickly and breakdown.
  - Too obtuse an edge bevel will not cut properly.

### The final step

- Sharpening often leads to a minute burr (wire edge) on the tool.
- Remove this by "stropping" the tool on leather or hard wood for the best cutting edge.



While sharpening knives, blades and tools, be careful to keep fingers away from sharp edges.

## Single Grit Abrasive Benchstones

### Single Grit Abrasive Benchstones

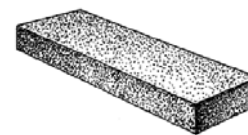
FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Crystolon – Premium silicon carbide abrasive</li> </ul>	<ul style="list-style-type: none"> <li>• Fast cutting stone; ideal for general sharpening of cutting tools</li> <li>• Fast stock removal for quick edge shaping with minimal loading</li> </ul>
<ul style="list-style-type: none"> <li>• India – Smooth cutting aluminum oxide abrasive, our patent for a fine finish</li> </ul>	<ul style="list-style-type: none"> <li>• Long lasting cutting edge</li> <li>• The choice of artisans, craftsmen and mechanics</li> <li>• Ideal for clean deburring, generating keen edges and quality finishes</li> </ul>
<ul style="list-style-type: none"> <li>• Arkansas – Natural premium Novaculite quarried in Arkansas and available in Soft and Hard Translucent</li> </ul>	<ul style="list-style-type: none"> <li>• Sharpest possible razor edges</li> <li>• Near mirror finishes</li> <li>• Use for finer honing after India stone</li> </ul>
<ul style="list-style-type: none"> <li>• Ohio Bluestone – Soft-graded natural stone quarried in Ohio</li> </ul>	<ul style="list-style-type: none"> <li>• Produces finely honed edges and excellent finishes</li> </ul>



**A TOOL IS ONLY AS GOOD AS ITS EDGE™**

# BENCHSTONES

SIZE L x W x H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>CRYSTOLON (SILICON CARBIDE) BENCHSTONES</b>					
<b>SINGLE GRIT</b>					
4 x 1 x 1/4	1	5	Coarse	CJB14	61463685470 0
4 x 1 x 1/4	1	5	Medium	MJB14	61463685465 6
4 x 1 x 1/4	1	5	Fine	FJB14	61463685460 1
4 x 1 x 1/2	1	5	Coarse	CJB24	61463685485 4
4 x 1 x 1/2	1	5	Medium	MJB24	61463685480 9
4 x 1 x 1/2	1	5	Fine	FJB24	61463685475 5
5 x 2 x 5/8	1	5	Medium	MJB35	61463685495 3
5 x 2 x 5/8	1	5	Fine	FJB35	61463685490 8
6 x 2 x 1	1	5	Coarse	CJB6	61463685510 3
6 x 2 x 1	1	5	Medium	MJB6	61463685505 9
6 x 2 x 1	1	5	Fine	FJB6	61463685500 4
8 x 2 x 1	1	5	Coarse	CJB8	61463685525 7
8 x 2 x 1	1	5	Medium	MJB8	61463685520 2
8 x 2 x 1	1	5	Fine	FJB8	61463685515 8
8 x 3 x 1/2	1	5	Coarse – Replacement Stone for IM83	CJB83	61463654459 5
8 x 3 x 1/2	1	5	Medium – Replacement Stone for IM83	MJB83	61463654458 8
8 x 3 x 1/2	1	5	Fine – Replacement Stone for IM83	FJB83	61463654457 1
11-1/2 x 2-1/2 x 1/2	1	2	Coarse – Replacement Stone for IM313	JM3	61463685980 4
11-1/2 x 2-1/2 x 1/2	1	2	Medium – Replacement Stone for IM313	JM6	61463685975 0
<b>INDIA (ALUMINUM OXIDE) BENCHSTONES</b>					
<b>SINGLE GRIT</b>					
4 x 1 x 1/4	1	5	Coarse	CB14	61463685580 6
4 x 1 x 1/4	1	5	Medium	MB14	61463685575 2
4 x 1 x 1/4	1	5	Fine	FB14	61463685570 7
4 x 1 x 1/2	1	5	Coarse	CB24	61463685595 0
4 x 1 x 1/2	1	5	Medium	MB24	61463685590 5
4 x 1 x 1/2	1	5	Fine	FB24	61463685585 1
5 x 2 x 5/8	1	5	Medium	MB35	61463685605 6
5 x 2 x 5/8	1	5	Fine	FB35	61463685600 1
6 x 2 x 1	1	5	Coarse	CB6	61463685620 9
6 x 2 x 1	1	5	Medium	MB6	61463685615 5
6 x 2 x 1	1	5	Fine	FB6	61463685610 0
8 x 2 x 1	1	5	Coarse	CB8	61463685635 3
8 x 2 x 1	1	5	Medium	MB8	61463685630 8
8 x 2 x 1	1	5	Fine	FB8	61463685625 4
8 x 3 x 1/2	1	5	Coarse – Replacement Stone for IM83	CB83	61463654462 5
8 x 3 x 1/2	1	5	Medium – Replacement Stone for IM83	MB83	61463654461 8
8 x 3 x 1/2	1	5	Fine – Replacement Stone for IM83	FB83	61463654460 1
11-1/2 x 2-1/2 x 1/2	1	2	Medium – Replacement Stone for IM313	IM6	61463654214 0
11-1/2 x 2-1/2 x 1/2	1	2	Fine – Replacement Stone for IM313	IM9	61463685970 5
<b>ARKANSAS BENCHSTONES</b>					
<b>SINGLE GRIT HARD TRANSLUCENT ARKANSAS</b>					
4 x 2 x 3/4-1	1	5	Ultra Fine	HB4	61463685655 1
6 x 2 x 3/4-1	1	5	Ultra Fine	HB6	61463685660 5
6 x 2 x 3/4-1	1	5	Ultra Fine w/ Wooden Box	HM6	61463685930 9
8 x 2 x 3/4-1	1	5	Ultra Fine	HB8	61463685665 0
8 x 2 x 3/4-1	1	2	Ultra Fine w/ Wooden Box	HM8	61463685935 4
8 x 3 x 1/2	1	5	Ultra Fine – Replacement Stone for IM83	HTB83	61463654464 9
11-1/2 x 2-1/2 x 1/2	1	1	Ultra Fine – Replacement Stone for IM313	HM11	61463685965 1
<b>SINGLE GRIT SOFT ARKANSAS</b>					
3 x 1 x 3/8	5	10	Extra Fine	SB13	61463687560 6
4 x 2 x 3/4-1	1	5	Extra Fine	SB4	61463685670 4
6 x 2 x 3/4-1	1	5	Extra Fine	SB6	61463685675 9
8 x 2 x 3/4-1	1	5	Extra Fine	SB8	61463685680 3
11-1/2 x 2-1/2 x 1/2	1	1	Extra Fine – Replacement Stone for IM313	SM11	61463653897 6
11-1/2 x 2-1/2 x 1	1	2	Extra Fine	SB11	61463653901 0
<b>ECONOMY BENCHSTONES - OHIO BLUESTONE</b>					
<b>SINGLE GRIT (BULK PACKED)</b>					
4 x 2 x 3/4-1	1	10	Medium	KB4	61463685720 6
6 x 2 x 3/4-1	1	10	Medium	KB6	61463685725 1
8 x 2 x 3/4-1	1	5	Medium	KB8	61463685730 5
<b>OIL STONE STARTER KIT</b>					
8 x 3 x 1/2	1	1	1 Medium, India, 1 Ultra Fine Hard Arkansas, 4.5 oz Oil and Instructional DVD		07660787942 4
<b>OIL STONE INSTRUCTIONAL DVD</b>					
N/A	1	1	Oil Stone DVD		07660787945 5



**tip** Use Norton oil to optimize the performance of Crystolon, India and Arkansas stones.

While sharpening knives, blades and tools, be careful to keep fingers away from sharp edges.

## Combination Grit Abrasive Benchstones

### Combination Grit Abrasive Benchstones

#### FEATURES AND APPLICATIONS

##### Crystolon Combination

Coarse and fine grit sharp-cutting silicon carbide abrasive surfaces for general sharpening (to moderate tolerances) when the speed of sharpening is more important than the fineness of the cutting edges. Gray in color.

##### India Combination

Coarse and fine grit aluminum oxide abrasive surfaces produce strong, keen, long-lasting edges on quality tools. Orange/brown in color.

##### Crystolon/India Combination

Fast-sharpening, medium grit silicon carbide (Crystolon) and fine aluminum oxide (India) abrasive surfaces for keen, long-lasting edges on quality tools. Crystolon side is dark gray in color, India side is orange.

##### India/Soft Arkansas Combination

Coarse grit aluminum oxide (India) and extra fine grit Soft Arkansas surfaces for start-to-finish sharpening and honing. Preferred by woodworkers for sharpening straight blades and gouges. India side is brown; Arkansas side off-white.

##### India/Hard Translucent Arkansas Combination

Fine India aluminum oxide and ultra fine Hard Translucent Arkansas surfaces produce the finest edges. Produces a highly polished finish. Orange/off-white in color.

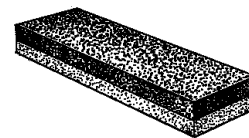
##### Soft/Hard Translucent Arkansas Combination

Extra fine grit Soft Arkansas surfaces and ultra fine grit Hard Translucent Arkansas surfaces for finest edges and tightest tolerances. Produces a highly polished finish. Off-white in color.

##### Giant Combination Stones

11-1/2" and 12" bench oil stones are used to sharpen large edge tools with long sweeping strokes.

SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>CRYSTOLON (SILICON CARBIDE) BENCHSTONES</b>					
<b>COMBINATION GRIT</b>					
4 x 1 Round	1	5	Coarse/Fine	JB64	61463685435 9
4 x 1-3/4 x 5/8	1	5	Coarse/Fine	JB134	61463685440 3
5 x 2 x 3/4	1	5	Coarse/Fine	JB45	61463685445 8
6 x 2 x 1	1	5	Coarse/Fine with Anniversary Box	JB6	61463685450 2
8 x 2 x 1	1	5	Coarse/Fine with Anniversary Box	JB8	61463685455 7
11-1/2 x 2-1/2 x 1	1	2	Coarse/Fine	JUM3	61463685840 1
12 x 2-1/2 x 1-1/2	1	2	Coarse/Fine	JUM4	61463685855 5
<b>INDIA (ALUMINUM OXIDE) BENCHSTONES</b>					
<b>COMBINATION GRIT</b>					
4 x 1 Round	1	5	Coarse/Fine	IB64	61463685545 5
4 x 1-3/4 x 5/8	1	5	Coarse/Fine	IB134	61463685550 9
5 x 2 x 3/4	1	5	Coarse/Fine	IB45	61463685555 4
6 x 2 x 1	1	5	Coarse/Fine with Anniversary Box	IB6	61463685560 8
8 x 2 x 1	1	5	Coarse/Fine with Anniversary Box	IB8	61463685565 3
11-1/2 x 2-1/2 x 1	1	2	Coarse/Fine	IM2	61463685851 7
<b>CRYSTOLON/INDIA BENCHSTONES</b>					
<b>COMBINATION GRIT</b>					
6 x 2 x 1	1	5	Medium/Fine	IC6	61463685643 8
11-1/2 x 2 x 1	1	2	Medium/Fine	IC11	61463687239 1
<b>INDIA/SOFT ARKANSAS BENCHSTONES</b>					
<b>COMBINATION GRIT</b>					
6 x 2 x 1	1	5	Coarse/Extra Fine	SIB6	61463685700 8
8 x 2 x 1	1	5	Coarse/Extra Fine	SIB8	61463653908 9
11-1/2 x 2-1/2 x 1	1	1	Coarse/Extra Fine	SIB11	61463653920 1
<b>INDIA/HARD TRANSLUCENT ARKANSAS BENCHSTONES</b>					
<b>COMBINATION GRIT</b>					
7 x 2 x 1	1	1	Fine/Ultra Fine with Wooden Box	HIB27	61463685865 4
<b>SOFT/HARD TRANSLUCENT ARKANSAS BENCHSTONES</b>					
<b>COMBINATION GRIT</b>					
8 x 2 x 1	1	5	Extra Fine/Ultra Fine	HSB8	61463653909 6
11-1/2 x 2-1/2 x 1	1	2	Extra Fine/Ultra Fine	HSB11	61463653921 8
<b>ECONOMY BENCHSTONES - ALUMINUM OXIDE</b>					
<b>COMBINATION GRIT (BULK PACKED)</b>					
8 x 2 x 1		5	Coarse/Fine	UPB8	61463685755 8







## Benchstone Performance Attributes

ABRASIVE	FAST CUT	SHARPENING	HONING	SHARPEST EDGE		
Grit Size	Coarse	Medium	Fine	Ultra Fine		
Product	Diamond	Crystolon	India	Soft Arkansas	Waterstone	Hard Arkansas
Color	Silver Metallic	Grey	Orange/ Brown	Milky White	Orange to White	Translucent

## Precision Benchstones

### Precision Benchstones

#### FEATURES AND APPLICATIONS

Jewelers' Benchstones – These stones are excellent for sharpening the fine, precision cutting tools used by jewelers, engravers and artisans.

Penknife Precision Benchstones – Ideal for sharpening cutting tools, laboratory blades, surgical instruments, engravers' and die makers' tools, and pocket knives to the keenest edge.

SIZE L x W x H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>JEWELERS' BENCHSTONES</b>					
4 x 2 x 3/8	1	5	Ultra Fine – Hard Translucent Arkansas	HB24	61463687525 5
6 x 2 x 3/8	1	5	Ultra Fine – Hard Translucent Arkansas	HB26	61463687530 9
<b>PENKNIFE PRECISION BENCHSTONES</b>					
3 x 1 x 3/8	5	10	Ultra Fine – Hard Translucent Arkansas	HB13	61463687550 7
4 x 1 x 3/8	5	10	Extra Fine – Soft Arkansas	SB14	61463687565 1
4 x 1 x 3/8	5	10	Ultra Fine – Hard Translucent Arkansas	HB14	61463687555 2



## Sharpening Stone Lubricants and Cases

### Norton Oil

#### FEATURES AND APPLICATIONS

Norton Oil is a highly refined lubricating oil specifically formulated for sharpening stone use, but equally ideal for all lubricating jobs. It will not load or "gum-up" sharpening stones. Meets U.S. Pharmacopoeia standards for mineral oil purity; it may be used around food preparation operations.



### Non-oil-based Sharpening Solutions new!

#### FEATURES AND APPLICATIONS

Initially designed for food service applications, these organic, biodegradable solutions provide lubrication essential to maintaining a good sharpening surface, and are also easy to clean off with just water – making them ideal for any application where cleanliness is key.



### Multi-functional Cases new!

#### FEATURES AND APPLICATIONS

These, rugged plastic cases are ideal for stone storage and protection, and their no-slip feet keep them in place during sharpening. Use different colors to help distinguish various grits.



SIZE	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>SHARPENING STONE OIL</b>					
4-1/2 oz.	1	20	Oil	XB1	61463687760 0
1 Pint	1	20	Oil	XB5	61463687770 9
1 Quart	1	5	Oil	XB2	61463687775 4
<b>SHARPENING NON-OIL SOLUTION</b>					
<span style="color: red; font-weight: bold;">new!</span> 8 oz.	1	12	Unscented		66253072273 1
<span style="color: red; font-weight: bold;">new!</span> 8 oz.	1	12	Citrus-scented		66253072278 6

SIZE	QTY. PKG.	QTY. CASE	SPECIFICATION	UPC NO.
<b>SHARPENING STONE CASES</b>				
Fits Stones 8 x 2 x 1	1	5	Black IM150 case	61463691259 2 <span style="color: red; font-weight: bold;">new!</span>
Fits Stones 8 x 3 x 1/2	1	5	Grey	69936688098 4 <span style="color: red; font-weight: bold;">new!</span>
Fits Stones 8 x 3 x 1/2	1	5	Blue	69936635427 0 <span style="color: red; font-weight: bold;">new!</span>
Fits Stones 8 x 3 x 1/2	1	5	Orange	69936688095 3 <span style="color: red; font-weight: bold;">new!</span>
Fits Stones 8 x 3 x 1/2	1	5	Black	66253084636 9 <span style="color: red; font-weight: bold;">new!</span>
Fits Stones 11-1/2 x 2-1/2 x 1	1	5	Black	66253062898 9 <span style="color: red; font-weight: bold;">new!</span>

# WATERSTONES

Waterstones are synthetic stones designed to be softer than oil stones. These softer grade stones are used with water as the lubricant (versus oil) to develop a fast cutting slurry. The Norton Waterstone system was designed in a carefully planned sequence to create sharpening efficiency. You get the level of abrasiveness you need at each stage, without wasting time trying to sharpen your tools on a grit that is too fine, too soon.



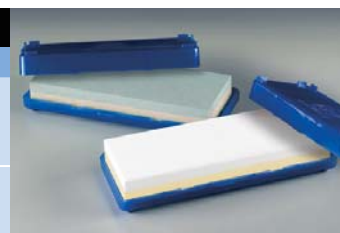
## Waterstones – Produce superior edges for planes and straight chisels

### FEATURES

- System of four synthetic “Japanese-type” stones designed to work together, with water
- Softer than traditional oilstones – providing lapping action

### BENEFITS

- Fast sharpening, fine finish
- Superb results with low pressure



## Prep Stone

### FEATURES

- This synthetic stone raises the slurry

### BENEFITS

- Speeds up the slurry-making process needed to cut and polish with waterstones

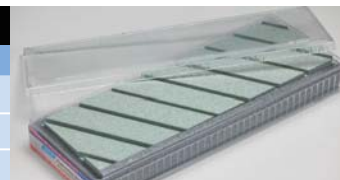
## Flattening Stone

### FEATURES

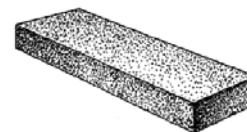
- Coarse grit silicon carbide stone
- Diagonal grooves
- Superbly flat with hard bond

### BENEFITS

- Promotes maximum cutting for all grit sizes of waterstones
- Provide swarf removal
- Produces extremely flat results on all waterstones



SIZE L X W X H	QTY. PKG.	QTY. CASE	GRIT/ABRASIVE	UPC NO.
<b>WATERSTONES</b>				
<b>SINGLE GRIT (BULK-PACKED)</b>				
8 x 3 x 1	1	5	220	61463689505 5
8 x 3 x 1	1	5	1000	61463689506 2
8 x 3 x 1	1	5	4000	61463689507 9
8 x 3 x 1	1	5	8000	61463689508 6
8 x 3 x 1 Set	1	1	4 Stones: 220, 1000, 4000, 8000 Grit	61463624334 4
<b>COMBINATION GRIT (BULK-PACKED)</b>				
8 x 3 x 1	1	5	220 / 1000	61463624335 1
8 x 3 x 1	1	5	1000 / 4000	61463624450 1
8 x 3 x 1	1	5	1000 / 8000	69936655039 9
8 x 3 x 1	1	5	4000 / 8000	61463624336 8
<b>PREP STONE</b>				
20mm x 20mm x 3"	1	5	Aluminum Oxide	66243439361 7
<b>FLATTENING STONE WITH DIAGONAL GROOVES</b>				
9 x 3 x 3/4	1	5	Silicon Carbide	69936687444 0
<b>WATERSTONE STARTER KIT</b>				
8 x 3 x 1	1	1	1 -220/1000, 1- 4000/8000, 1 Flattening Stone, and Instructional DVD	07660787943 1
<b>WATERSTONE INSTRUCTIONAL DVD</b>				
N/A	1	1	Waterstone DVD	07660787944 8



## Maximizing Waterstone Performance

- Wet waterstone
- Rub evenly with the prep stone to create slurry
- Evening off the high spots will make for less-frequent flattening of the waterstones
- Waterstones wear concave with use; periodically flatten with flattening stone

tips



**A TOOL IS ONLY AS GOOD AS ITS EDGE™**

# SHARPENING SYSTEMS

Norton manufactures three types of sharpening systems to provide complete sharpening solutions: dual-stone sharpening kits, single-stone sharpening stations, and tri-stone rotating base systems. All offer a range of replacement stones, including some specifications beyond those supplied with the original purchase. This permits the user not only to replace worn or damaged stones, but to also substitute different specifications to tailor the unit to best suit his own requirement.



## Dual-Stone Sharpening Starter Kits

### Waterstone Starter Kit – For the new tool sharpener

**new!**

#### FEATURES AND BENEFITS

The two combination stones in this kit offer a complete grit range from 220 for major edge repair, to 8000 for producing a mirror finish. The coarse grit, silicon carbide flattening stone allows the user to quickly and easily maintain the waterstones. An instructional DVD, hosted by tool expert Joel Moskowitz, offers a step-by-step, freehand method for sharpening many woodworking tools.



### Oil Stone Starter Kit – For the new woodworker

**new!**

#### FEATURES AND BENEFITS

This kit provides new woodworkers with the best stone/oil assortment to get started. The medium aluminum oxide (India) stone is ideal for imparting a durable, smooth cutting surface, while the ultra fine Hard Translucent Arkansas stone produces a polished, razor-like edge. The lubricating oil provided is specifically formulated for optimal lubricity. Woodworking expert, Maurice Fraser, offers his simple freehand sharpening method on the included instructional DVD.



SIZE L X W X H	QTY. PKG.	QTY. CASE	KIT INCLUDES	PRODUCT NO.	UPC NO.
<b>WATERSTONE STARTER KIT</b>					
<b>new!</b> 8 x 3 x 1	1	1	1 220/1000, 1 4000/8000, 1 Flattening Stone, and Instructional DVD		07660787943 1
<b>OIL STONE STARTER KIT</b>					
<b>new!</b> 8 x 3 x 1/2	1	1	1 Medium. India, 1 Ultra Fine Hard Arkansas, 4.5 oz Oil and Instructional DVD		07660787942 4

## Single-Stone Sharpening Stations

### IM50 Single-stone Workbench Stations

#### FEATURES AND BENEFITS

This durable ABS plastic case has non-slip rubber feet. The case acts as a small oil reservoir while sharpening, and also provides clean storage when not in use. Fits all 8 x 2 and 6 x 2 bench stones (see pages 6-8).

All IM50 stations include 1 sharpening stone, 4-1/2 oz oil, plastic angle guide and a storage case.

- IM50 Coarse/Fine Crystolon Combination stone – for sharpening and finishing
- IM50-C Coarse Crystolon stone – for rapid stock removal
- IM50-I Medium India stone – for light stock removal and initial sharpening



SIZE L X W X H	QTY. PKG.	QTY. CASE	KIT INCLUDES	PRODUCT NO.	UPC NO.
<b>IM50 SINGLE-STONE STATIONS</b>					
8 x 2 x 1	1	1	1 Coarse/Fine Crystolon Combination, 4-1/2 oz Oil, Angle Guide, Storage Case	IM50	61463653907 2†
8 x 2 x 1	1	1	1 Coarse Crystolon, 4-1/2 oz. Oil, Angle Guide, Storage Case	IM50-C	61463654860 9*
8 x 2 x 1	1	1	1 Medium India, 4-1/2 oz. Oil, Angle Guide, Storage Case	IM50-I	61463654861 6*
<b>IM50 REPLACEMENT CASE</b>					
8 x 2 x 1	1	5	IM50 Case, Black		61463691259 2

NOTE: SEE BENCHSTONE LISTINGS ON PAGE 6 – 8 FOR ALL 8 X 2 REPLACEMENT STONES.

† NON-STOCK; 2 WEEK LEAD-TIME \* NON-STOCK; 3 WEEK LEAD-TIME

## Tri-Stone Rotating Base Sharpening Systems

### IM83 Portable Sharpening Stone Systems

**new!**



#### FEATURES AND BENEFITS

These unique "tool-box" portable systems allow you to sharpen tools wherever needed. Sturdy metal latches secure the cover and storage case – where small tools can be housed. The IM83 is designed like all our other sharpening systems; the stones can be replaced to customize the unit to individual requirements. These systems are ideal for industrial toolrooms, restaurants, knife manufacturers as well as home DIYers and sportsmen.

All IM83 systems include 3 sharpening stones, an instructional DVD in the base, and a reservoir carrying case. The oil stone systems also include 4-1/2 oz. oil.

#### IM83-W Portable Waterstone System – Tool Repair to Fine Finishes

This portable sharpening system is equipped with a carefully engineered sequence of waterstones for clean, efficient sharpening. The waterstones can easily be maintained with the flattening stone provided.

#### IM83-O Portable Oil Stone System – Straight-Edged Tool Sharpening

The coarse silicon carbide (Crystolon) stone in this system repairs damaged edges quickly; the medium aluminum oxide (India) stone imparts a durable, smooth cutting edge; and the fine aluminum oxide (India) stone provides the final sharpening and polishing stage.

#### IM83-A Portable Oil Stone System – Complete Woodworking Tool Maintenance

This system contains oilstones with a grit sequence specially designed for woodworking tools. The coarse silicon carbide (Crystolon) stone removes heavy stock; the medium aluminum oxide (India) is ideal for initial sharpening of new tools; and the ultra fine Hard Translucent Arkansas stone produces the most precise edge possible.



SIZE L X W X H	QTY. PKG.	QTY. CASE	KIT INCLUDES	PRODUCT NO.	UPC NO.
<b>IM83 PORTABLE SYSTEMS</b>					
<b>new!</b> 8 x 3 x 1	1	1	1 ea of 1000, 4000, 8000 Grit Waterstones, 1 Flattening Stone Instructional DVD in Base, Reservoir Carrying Case	IM83-W	66243582825 5
<b>new!</b> 8 x 3 x 1/2	1	1	1 Coarse Crystolon, 1 Medium India, 1 Fine India, 4-1/2 oz Oil, Instructional DVD in Base, Reservoir Carrying Case	IM83-O	66243582823 1
<b>new!</b> 8 x 3 x 1/2	1	1	1 Coarse Crystolon, 1 Medium India, 1 Ultra Fine Hard Arkansas, 4-1/2 oz Oil, Instructional DVD in Base, Reservoir Carrying Case	IM83-A	66243582824 8*
<b>IM83 REPLACEMENT STONES</b>					
8 x 3 x 1/2	1	5	Coarse Crystolon	CJB83	61463654459 5
8 x 3 x 1/2	1	5	Medium Crystolon	MJB83	61463654458 8
8 x 3 x 1/2	1	5	Fine Crystolon	FJB83	61463654457 1
8 x 3 x 1/2	1	5	Coarse India	CB83	61463654462 5
8 x 3 x 1/2	1	5	Medium India	MB83	61463654461 8
8 x 3 x 1/2	1	5	Fine India	FB83	61463654460 1
8 x 3 x 1/2	1	5	Ultra Fine Hard Arkansas	HTB83	61463654464 9
8 x 3 x 1	1	5	1000 Grit Waterstone		61463689506 2
8 x 3 x 1	1	5	4000 Grit Waterstone		61463689507 9
8 x 3 x 1	1	5	8000 Grit Waterstone		61463689508 6

\* NON-STOCK; 3 WEEK LEAD-TIME

- The base of the tri-stone system acts as an oil reservoir permitting continuous submersion of the unused stones, keeping them clean and saturated, ready for immediate use and years of utility.

**tip**

- Rotating the handle brings the desired stone into position for sharpening.
- All offer a range of replacement stones to: replace worn or damaged stones, or substitute different specifications to customize the system.

### IM100 3-in-1 Tool and Knife Sharpening Systems – Small straight-edged tool sharpening

#### FEATURES AND BENEFITS

The smallest system, designed for general sharpening, the IM100 is an affordable choice for small knives, cutlery, and woodworking tools. 4-1/2 oz. of lubricating oil and a reservoir unit complete both IM100 and IM101 systems.

**IM100** - For general sharpening – coarse Crystolon quickly restores worn edges; medium Crystolon produces the average edge needed for most tools; and fine India stone hones for a sharper edge.

**IM101** - For sharpest edges – fine India, extra fine Soft Arkansas and ultra fine Hard Translucent Arkansas stones are the choice for honing and fine finishing.



SIZE L X W X H	QTY. PKG.	QTY. CASE	KIT INCLUDES	PRODUCT NO.	UPC NO.
<b>IM100 SYSTEMS</b>					
6 x 2 x 1/2	1	5	1 Coarse Crystolon, 1 Medium Crystolon, 1 Fine India, 4-1/2 oz Oil, Reservoir Unit	IM100	61463685356 7
6 x 2 x 1/2	1	5	1 Fine India, 1 Extra Fine Soft Arkansas, 1 Ultra Fine Hard Arkansas, 4-1/2 oz Oil, Reservoir Unit	IM101	61463685357 4*
<b>IM100 REPLACEMENT STONES</b>					
6 x 2 x 1/2	1	5	Coarse Crystolon	JM31	61463685352 9
6 x 2 x 1/2	1	5	Medium Crystolon	JM61	61463685350 5
6 x 2 x 1/2	1	5	Fine India	IM91	61463685348 2

NOTE: SEE BENCHSTONE LISTINGS ON PAGE 6 – 8 FOR ALL 6 X 2 REPLACEMENT STONES.

\* NON-STOCK; 3 WEEK LEAD-TIME

# SHARPENING SYSTEMS

## IM313 Multi-Oilstone Sharpening Systems - Large straight-edged tool sharpening

### FEATURES AND BENEFITS

Considered by many to be the ultimate sharpening systems, IM313 Multi-Oilstone systems contain three oil stones. The 11-1/2" stone length permits long, sweeping strokes for faster and more precise sharpening and honing of all large, wider straight-edged tools. The heavy base has a non-skid bottom.

A pint of Norton oil, plastic angle guide, and reservoir unit are included with each IM313 system.

**IM313** – For general sharpening – coarse Crystolon quickly restores worn edges; medium Crystolon produces the average edge needed for most tools; and fine India stone hones for a sharper edge.

**IM313-CIH** – For sharpening and finishing – coarse Crystolon for heavy stock removal; medium India for initial sharpening or resharpening and ultra fine Hard Translucent Arkansas for honing and final finishing.

**IM313-CSH** – For sharpest edges – medium Crystolon produces the average edge needed for most tools; extra fine Soft Arkansas for honing and ultra fine Hard Translucent Arkansas for final finishing.



SIZE L X W X H	QTY. PKG.	QTY. CASE	KIT INCLUDES	PRODUCT NO.	UPC NO.
<b>IM313 SYSTEMS</b>					
11-1/2 x 2-1/2 x 1/2	1	1	1 Coarse Crystolon, 1 Medium Crystolon, 1 Fine India, 1 Pint Oil, Angle Guide, Reservoir Unit	IM313	61463685960 6
11-1/2 x 2-1/2 x 1/2	1	1	1 Coarse Crystolon, 1 Medium India, 1 Ultra Fine Hard Arkansas, 1 Pint Oil, Angle Guide, Reservoir Unit	IM313-CIH	61463654212 6
11-1/2 x 2-1/2 x 1/2	1	1	1 Medium Crystolon, 1 Extra Fine Soft Arkansas, 1 Ultra Fine Hard Arkansas, 1 Pint Oil, Angle Guide, Reservoir Unit	IM313-CSH	61463653904 †

### IM-313 REPLACEMENT PARTS

11-1/2 x 2-1/2 x 1/2	1	2	Coarse Crystolon Stone	JM3	61463685980 4
11-1/2 x 2-1/2 x 1/2	1	2	Medium Crystolon Stone	JM6	61463685975 0
11-1/2 x 2-1/2 x 1/2	1	2	Medium India Stone	IM6	61463654214 0
11-1/2 x 2-1/2 x 1/2	1	2	Fine India Stone	IM9	61463685970 5
11-1/2 x 2-1/2 x 1/2	1	2	Extra Fine Soft Arkansas Stone	SM11	61463653897 6
11-1/2 x 2-1/2 x 1/2	1	2	Ultra Fine Hard Arkansas Stone	HM11	61463685965 1
11-1/2 x 2-1/2 x 3/8	1	5	Diamond 220 Grit Stone		61463690640 9
11-1/2 x 2-1/2 x 3/8	1	5	Diamond 325 Grit Stone		61463690641 6
11-1/2 x 2-1/2 x 3/8	1	5	Diamond 600 Grit Stone		61463690642 3
11-1/2 x 2-1/2 x 3/8	1	5	Diamond 1200 Grit Stone		61463690643 0
IM-313 Feet	1	5	IM-313 Feet		61463624194 4
IM-313 Cover	1	5	IM-313 Cover		61463685985 9
IM-313 Stone Holder	1	5	IM-313 Stone Holder		61463685990 3
IM-313 Base	1	5	IM-313 Base		61463686000 8

† NON-STOCK; 2 WEEK LEAD-TIME

## IM200 Professional Sharpening Systems – Versatile, multi-size tool and knife sharpener

### FEATURES AND BENEFITS

The smaller 8" stone IM200 systems provide the same quality sharpening features as the IM313 – making them the perfect choice for small restaurants and home DIYers.

They all contain 4-1/2 oz of lubricating oil, plastic angle guide, and the reservoir unit.

**IM200** – For general sharpening – coarse Crystolon quickly restores worn edges; medium Crystolon produces the average edge needed for most tools; and fine India stone hones for a sharper edge.

**IM200N** – For sharpest edges – medium India for the initial sharpening or resharpening; extra fine Soft Arkansas for honing and ultra fine Hard Translucent Arkansas for final finishing .



SIZE L X W X H	QTY. PKG.	QTY. CASE	KIT INCLUDES	PRODUCT NO.	UPC NO.
<b>IM200 SYSTEMS</b>					
8 x 2 x 3/8	1	1	1 Coarse Crystolon, 1 Medium Crystolon, 1 Fine India, 4-1/2 oz Oil, Angle Guide, Reservoir Unit	IM200	61463691260 8
8 x 2 x 3/8	1	1	1 Medium India, 1 Extra Fine Soft Arkansas, 1 Ultra Fine Hard Arkansas, 4-1/2 oz Oil, Angle Guide, Reservoir Unit	IM200N	61463652510 5*

### IM200 REPLACEMENT STONES

8 x 2 x 3/8	1	5	Medium Crystolon		66253054576 7
8 x 2 x 3/8	1	5	Coarse India		66253054571 2
8 x 2 x 3/8	1	5	Fine India		66253054572 9

NOTE: SEE BENCHSTONE LISTINGS ON PAGE 6 – 8 FOR ALL 8 X 2 AND 6 X 2 REPLACEMENT STONES.

\* NON-STOCK; 3 WEEK LEAD-TIME

new!

### Instructional DVD Offering

Ideal for sales training and end-user self-study. Learn to efficiently use these sharpening products to maintain tools at peak performance and prolong their life – to make all your sharpening, honing, etc applications easier.

Waterstone 07660787944 8

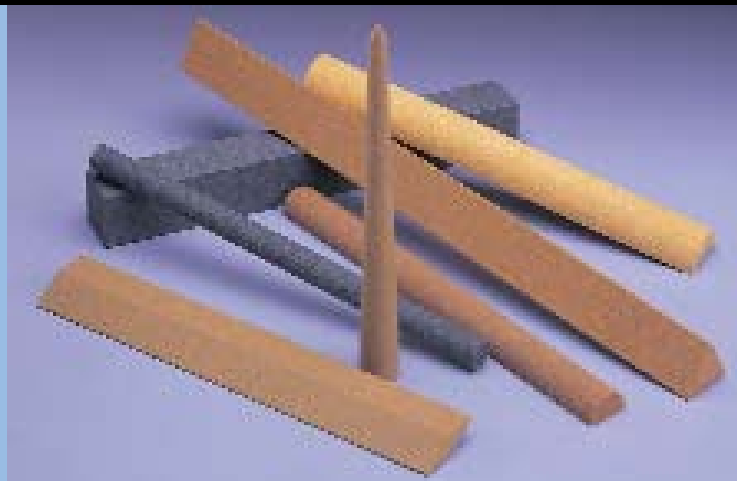
Oil Stone 07660787945 5

Cutlery 66253029073 5

tip

# ABRASIVE FILES

Norton abrasive files hold their shape while imparting the finest, most uniform finish on precision machine parts and in tool and die making. Abrasive files are ideal for any deburring, chamfering or radiusing job, or for filing delicate parts. Select the file shape that matches the contour of the surface being stoned.



## Abrasive Files

### FEATURES AND APPLICATIONS

**Crystolon Files** – Fast-acting silicon carbide products, Crystolon files are designed for use where moderate tolerances are acceptable.

**India Files** – India files are ideal when a close tolerance is more important than the speed of cut.

**Hard Translucent Arkansas Files** – Hard Arkansas has an ultra fine grit that produces the finest edge possible while maintaining tolerances unequalled by any other abrasive file. It will also produce a highly polished finish.

## Stone Roll Kits

### General Purpose Stone Roll Kit

#### FEATURES AND APPLICATIONS

Thirty-five (35) stones in a variety of abrasives, grits, shapes and sizes. Housed in a durable vinyl roll that offers protection, easy portability, and full stone display. The stones are fastened by an elastic strap which permits easy removal and replacement of all items.



CONTENTS	QTY/ PKG	PKG/ CASE	UPC NO.
<b>GENERAL PURPOSE STONE ROLL KIT</b>			
35 Stones (See Below)	1	1	61463686841 7

TYPE	SIZE	SPECIFICATION	PROD. NO.
Auger Bit Stone	4 Long	India, Medium	MT10
Benchstone, Single Grit	4x1x1/4	Crystolon, Coarse	CJB14
Benchstone, Combination Grit	4x1-3/4x5/8	Crystolon, Combination	JB134
Benchstone, Combination Grit	4x1-3/4x3/8	India, Combination	IB134
Bevel File	3x3/8x1/8	Hard Translucent, UF	HF833
Diamond-shaped File	4x9/16x3/16	India, Medium	MT134
Diamond-shaped File	3x1/2x3/16	Hard Translucent, UF	HF843
Flat File	3x3/8x1/8	Hard Translucent, UF	HF823
Half Round File	4x3/8	India, Medium	MF334
Knife Blade	4x1x1/8 Back	India, Medium	MF724
Knife Blade	3x3/4x1/8 Back	Hard Translucent, UF	HF873
Oval File	3x1/2x3/16	Hard Translucent, UF	HF853
Penknife Benchstone	4x1x3/8	Soft Arkansas, Extra fine	SB14
Round Pointed File	3x5/16 Base	India, Medium	MF723
Round Pointed File	3x1/4 Base	Hard Translucent, UF	HF863
Reamer Stone	3-1/2x3/4x3/16	India, Medium	MT123
Round Edge Slip	4x1x7/16x3/16	India, Fine	FS14
Round Edge Slip	4x1-3/4x3/8x1/8	Hard Translucent, UF	HS4

CONTINUED

TYPE	SIZE	SPECIFICATION	PROD. NO.
Round File	4x3/8	Crystolon, Fine	FJF234
Round File	4x1/4	India, Fine	FF214
Round File	3x1/4	Hard Translucent, UF	HF813
Round Tapered File	4x1/2x1/4	India, Medium	MF644
Silversmith File	4x5/16x3/16x5/16x1/16	India, Medium	MF414
Silversmith File	4x3/8x3/16x1/8x1/16	India, Medium	MF424
Silversmith File	3-1/2x7/16x3/16	India, Medium	MF433
Silversmith File	4x7/16x3/16x1/8	India, Medium	MF434
Silversmith File	4x1/2x1/16	India, Medium	MF444
Silversmith File	4x1/2x3/16x3/16x1/16	India, Medium	MF454
Silversmith File	4x1/2x1/4x5/16x1/8	India, Medium	MF464
Silversmith File	4x1/2x1/4x5/16x1/8	India, Medium	MF474
Square File,	4x3/8	India, Coarse	CF34
Square File	3x1/4	Hard Translucent, UF	HF13
Tri. Tapered File	4x1/2x1/4	India, Medium	MF544
Triangular File	4x3/8	Crystolon, Medium	MJF134
Triangular File	3x1/4	Hard Translucent, UF	HF113



**A TOOL IS ONLY AS GOOD AS ITS EDGE™**

# ABRASIVE FILES

## Woodworking Stone Roll Kit

### FEATURES AND APPLICATIONS

Housed in a durable vinyl roll are twenty-seven (27) stones custom designed to provide the experienced woodworker, wood turner and wood carver with a comprehensive assortment of shapes, sizes and grit combinations for sharpening woodworking tools.



CONTENTS	QTY/ PKG	PKG/ CASE	UPC NO.
<b>WOODWORKING STONE ROLL KIT</b>			
27 Stones (See Below)	1	1	61463654521 9

TYPE	SIZE	SPECIFICATION	PROD. NO.
Auger Bit Stone	4 Long	India, Medium	MT10
Carving Tool Slip	2-1/4x7/8x3/16	India, Medium	MS12
Carving Tool Slip	2-1/4x7/8x3/16	Hard Translucent, UF	AS12
Carving Tool Slip	2-1/4x7/8x3/16	India, Medium	MS22
Carving Tool Slip	2-1/4x7/8x3/16	Hard Translucent, UF	AS22
Carving Tool Slip	2-1/4x7/8x3/16	India, Medium	MS42
Carving Tool Slip	2-1/4x7/8x3/16	Hard Translucent, UF	AS42
Diamond-shaped File	4x9/16x3/16	India, Medium	MT134
Diamond-shaped File	3x1/2x3/16	Hard Translucent, UF	HF843
Gouge Stone	6x2x1x1/2x3/8	India, Fine	FS76
Knife Blade	4x1x1/8 Back	India, Medium	MF724
Knife Blade	3x3/4x1/8 Back	Hard Translucent, UF	HF873
Round Edge Slip	4-1/2x1-3/4x1/4x3/32	India, Medium	MS24
Round Edge Slip	4-1/2x1-3/4x1/4x3/32	India, Fine	FS24
Round Edge Slip	3 x 1-3/4x1/4x1/16	Hard Translucent, UF	HS3
Round Edge Slip	4-1/2x1-3/4x3/8x1/8	India, Medium	MS34
Round Edge Slip	4-1/2x1-3/4x3/8x1/8	India, Fine	FS34
Round Edge Slip	4x1-3/4x3/8x1/8	Hard Translucent, UF	HS4

CONTINUED

TYPE	SIZE	SPECIFICATION	PROD. NO.
Round File	3x1/4	Hard Translucent, UF	HF813
Round Tapered File	4x1/2x1/4	India, Medium	MF644
Square File	4x3/8	India, Medium	MF34
Square File	3x3/8	Hard Translucent, UF	HF33
Taper-shaped Stone	4x3/8x3/16x1/8x1/16	India, Medium	MF424
Taper-shaped Stone	4x1/2x1/4x5/16x1/8	India, Medium	MF464
Triangular Tapered File	4x1/2x1/4	India, Medium	MF544
Triangular File	4x3/8	India, Medium	MF134
Triangular File	3x1/4	Hard Translucent, UF	HF113

## Abrasive Files

### Square Abrasive Files

#### FEATURES AND APPLICATIONS

Square File applications range from dimensioning keyways to maintain fit, stoning faces on router bits, touching-up edges of reamer teeth, and lapping/honing to close tolerances to produce the finest edge on precision instruments, die work and delicate tools.



SIZE L X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>SQUARE ABRASIVE FILES (BULK-PACKED)</b>					
<b>CRYSTOLON (SILICON CARBIDE)</b>					
4 x 3/8	5	20	Fine	FJF34	61463686030 5
4 x 1/2	5	20	Medium	MJF44	61463686045 9
4 x 1/2	5	20	Fine	FJF44	61463686040 4
6 x 1	5	20	Medium	MJF76	61463625039 7
<b>HARD TRANSLUCENT ARKANSAS</b>					
3 x 1/4	5	10	Ultra Fine	HF13	61463686590 4
3 x 3/8	5	10	Ultra Fine	HF33	61463686595 9
3 x 1/2	5	10	Ultra Fine	HF43	61463686600 0

SIZE L X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>SQUARE ABRASIVE FILES (BULK-PACKED)</b>					
<b>INDIA (ALUMINUM OXIDE)</b>					
4 x 1/4	5	20	Coarse	CF14	61463686075 6
4 x 1/4	5	20	Medium	MF14	61463686070 1
4 x 1/4	5	20	Fine	FF14	61463686065 7
4 x 3/8	5	20	Coarse	CF34	61463686090 9
4 x 3/8	5	20	Medium	MF34	61463686085 9
4 x 3/8	5	20	Fine	FF34	61463686080 0
4 x 1/2	5	20	Coarse	CF44	61463686105 0
4 x 1/2	5	20	Medium	MF44	61463686100 5
4 x 1/2	5	20	Fine	FF44	61463686095 4
6 x 1/2	5	20	Coarse	CF46	61463686120 3
6 x 1/2	5	20	Medium	MF46	61463686115 9
6 x 1/2	5	20	Fine	FF46	61463686110 4
6 x 5/8	5	20	Medium	MF56	61463686130 2
6 x 5/8	5	20	Fine	FF56	61463686125 8
6 x 3/4	5	20	Coarse	CF66	61463686150 0
6 x 3/4	5	20	Medium	MF66	61463686145 6
6 x 3/4	5	20	Fine	FF66	61463686140 1
6 x 1	5	20	Coarse	CF76	61463686165 4
6 x 1	5	20	Medium	MF76	61463686160 9
6 x 1	5	20	Fine	FF76	61463686155 5

## Abrasive Files

### Triangular Abrasive Files

#### FEATURES AND APPLICATIONS

Triangular Files are used for a variety of deburring, chamfering and radiusing applications including cleaning tap threads, stoning cutting surfaces of milling cutters, lapping honing tools, dies and molds, and putting precision points on center punches.

The India line also offers Tapered Triangles...used by mechanics and tool and die makers to impart the correct edge in the least time.



### Round Abrasive Files

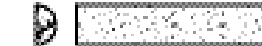
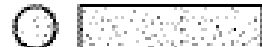
#### FEATURES AND APPLICATIONS

Round Files are ideal for deburring, chamfering, radiusing, lapping, honing, for cleaning radius tools to a burr-free edge, and for dimensioning compound curves on templates.

Round Tapered Files are used by craftsmen, woodworkers, and die makers as the unique shape for imparting the correct edge quickly.

Round Pointed Abrasive Files are ideally suited for engravers and die sinkers for stoning difficult recesses on instruments and die tools.

Half Round Files offer both a round and a flat surface for imparting a fine finish on precision machine parts, tools and dies.



SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
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#### TRIANGULAR ABRASIVE FILES (BULK-PACKED)

##### CRYSTOLON (SILICON CARBIDE)

4 x 1/4	5	20	Fine	FJF114	61463686185 2
4 x 1/2	5	20	Fine	FJF144	61463686205 7

##### INDIA (ALUMINUM OXIDE)

4 x 1/4	5	20	Coarse	CF114	61463686240 8
4 x 1/4	5	20	Medium	MF114	61463686235 4
4 x 1/4	5	20	Fine	FF114	61463686230 9
4 x 3/8	5	20	Coarse	CF134	61463686255 2
4 x 3/8	5	20	Medium	MF134	61463686250 7
4 x 3/8	5	20	Fine	FF134	61463686245 3
4 x 1/2	5	20	Coarse	CF144	61463686270 5
4 x 1/2	5	20	Medium	MF144	61463686265 1
4 x 1/2	5	20	Fine	FF144	61463686260 6
6 x 1/2	5	20	Coarse	CF146	61463686285 9
6 x 1/2	5	20	Medium	MF146	61463686280 4
6 x 1/2	5	20	Fine	FF146	61463686275 0
6 x 5/8	5	20	Medium	MF156	61463686295 8
6 x 5/8	5	20	Fine	FF156	61463686290 3
6 x 3/4	5	20	Medium	MF166	61463686310 8
6 x 3/4	5	20	Fine	FF166	61463686305 4
6 x 1	5	20	Medium	MF176	61463686325 2
6 x 1	5	20	Fine	FF176	61463686320 7

##### HARD TRANSLUCENT ARKANSAS

3 x 1/4	5	10	Ultra Fine	HF113	61463686620 8
3 x 3/8	5	10	Ultra Fine	HF133	61463686625 3
3 x 1/2	5	10	Ultra Fine	HF143	61463686630 7

#### TRIANGULAR TAPERED ABRASIVE FILES (BULK-PACKED)

##### INDIA (ALUMINUM OXIDE)

4 x 1/2 x 1/4	5	20	Medium	MF544	61463686685 7
4 x 1/2 x 1/4	5	20	Fine	FF544	61463686680 2

##### HALF ROUND ABRASIVE FILES (BULK-PACKED)

##### INDIA (ALUMINUM OXIDE)

4 x 1/4	5	20	Medium	MF314	61463686355 9
4 x 1/4	5	20	Fine	FF314	61463686350 4
4 x 3/8	5	20	Medium	MF334	61463686385 6
4 x 3/8	5	20	Fine	FF334	61463686380 1
4 x 1/2	5	20	Coarse	CF344	61463686405 1
4 x 1/2	5	20	Medium	MF344	61463686400 6
4 x 1/2	5	20	Fine	FF344	61463686395 5

SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
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#### ROUND ABRASIVE FILES (BULK-PACKED)

##### CRYSTOLON (SILICON CARBIDE)

4 x 1/4	5	20	Medium	MJF214	61463686430 3
4 x 1/4	5	20	Fine	FJF214	61463686425 9
4 x 3/8	5	20	Medium	MJF234	61463686440 2

##### INDIA (ALUMINUM OXIDE)

4 x 1/4	5	20	Coarse	CF214	61463686480 8
4 x 1/4	5	20	Medium	MF214	61463686475 4
4 x 1/4	5	20	Fine	FF214	61463686470 9
4 x 3/8	5	20	Coarse	CF234	61463686495 2
4 x 3/8	5	20	Medium	MF234	61463686490 7
4 x 3/8	5	20	Fine	FF234	61463686485 3
4 x 1/2	5	20	Coarse	CF244	61463686510 2
4 x 1/2	5	20	Medium	MF244	61463686505 8
4 x 1/2	5	20	Fine	FF244	61463686500 3
6 x 1/2	5	20	Coarse	CF246	61463686525 6
6 x 1/2	5	20	Medium	MF246	61463686520 1
6 x 1/2	5	20	Fine	FF246	61463686515 7
6 x 5/8	5	20	Medium	MF256	61463686535 5
6 x 3/4	5	20	Medium	MF266	61463686550 8
6 x 1	5	20	Medium	MF276	61463686565 2

##### HARD TRANSLUCENT ARKANSAS

3 x 1/4	5	10	Ultra Fine	HF813	61463686800 4
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#### ROUND POINTED ABRASIVE FILES (BULK-PACKED)

##### INDIA (ALUMINUM OXIDE)

3 x 5/16 Base	5	20	Coarse	CF723	61463686750 2
3 x 5/16 Base	5	20	Medium	MF723	61463686745 8
3 x 5/16 Base	5	20	Fine	FF723	61463686740 3

##### HARD TRANSLUCENT ARKANSAS

3 x 1/4 Base	5	10	Ultra Fine	HF863	61463686825 7
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#### ROUND TAPERED ABRASIVE FILES (BULK-PACKED)

##### INDIA (ALUMINUM OXIDE)

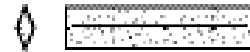
4 x 1/2 x 1/4	5	20	Coarse	CF644	61463686660 4
4 x 1/2 x 1/4	5	20	Medium	MF644	61463686655 0
4 x 1/2 x 1/4	5	20	Fine	FF644	61463686650 5



## Diamond-shaped Abrasive Files

### FEATURES AND APPLICATIONS

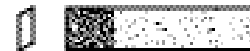
Diamond-shaped Files are precision sharpening favorites for cleaning acute angles in dies and molds, and for stoning geometric chasers and sewing machine feeds.



## Beveled Abrasive File

### FEATURES AND APPLICATIONS

Beveled Files are preferred by exacting artisans, jewelers, mechanics, and watchmakers for honing the finest of finishes. These extremely hard files provide years of service.



## Flat Abrasive File

### FEATURES AND APPLICATIONS

The Flat File is the choice of mechanics, artisans and jewelers. This long lasting file produces the finest finishes.



## Oval Abrasive File

### FEATURES AND APPLICATIONS

The Oval File's shape makes it ideal for finishing and honing recesses or curved edges of precision instruments.



## Knife Blade Files

### FEATURES AND APPLICATIONS

Knife Blade Files are used by clock and watch makers to quickly sharpen, hone and maintain the edges and points of cutting tools.



## Abrasive File Sets

### FEATURES AND APPLICATIONS

#### Hard Translucent Arkansas File Kit

This kit provides a selection of our most popular square, triangular, round and knife blade files in ultra fine Hard Translucent Arkansas for honing and polishing a wide range of configurations.

#### Hard Translucent Arkansas-India File Kit

This kit contains an assortment of files for finishing, honing and polishing applications. It contains a selection of the most popular file shapes/sizes in both fine grit India and ultra fine grit Hard Translucent Arkansas.



SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>DIAMOND-SHAPED ABRASIVE FILES (BULK-PACKED)</b>					
<b>INDIA (ALUMINUM OXIDE)</b>					
4 x 9/16 x 3/16	5	20	Coarse	CT134	61463686720 5
4 x 9/16 x 3/16	5	20	Medium	MT134	61463686715 1
4 x 9/16 x 3/16	5	20	Fine	FT134	61463686710 6
<b>HARD TRANSLUCENT ARKANSAS</b>					
3 x 1/2 x 3/16	5	10	Ultra Fine	HF843	61463686815 8
<b>BEVELED ABRASIVE FILE (BULK-PACKED)</b>					
<b>HARD TRANSLUCENT ARKANSAS</b>					
3 x 3/8 x 1/8	5	10	Ultra Fine	HF833	61463686810 3
<b>FLAT ABRASIVE FILE (BULK-PACKED)</b>					
<b>HARD TRANSLUCENT ARKANSAS</b>					
3 x 3/8 x 1/8	5	10	Ultra Fine	HF823	61463686805 9
<b>OVAL ABRASIVE FILE (BULK-PACKED)</b>					
<b>HARD TRANSLUCENT ARKANSAS</b>					
3 x 1/2 x 3/16	5	10	Ultra Fine	HF853	61463686820 2

SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>KNIFE BLADE FILES (BULK-PACKED)</b>					
<b>INDIA (ALUMINUM OXIDE)</b>					
4 x 1 x 1/8 Back	5	20	Coarse	CF724	61463686780 9
4 x 1 x 1/8 Back	5	20	Medium	MF724	61463686775 5
4 x 1 x 1/8 Back	5	20	Fine	FF724	61463686770 0
<b>HARD TRANSLUCENT ARKANSAS</b>					
3 x 3/4 x 1/8	5	10	Ultra Fine	HF873	61463686830 1
<b>ABRASIVE FILE SETS</b>					
<b>HARD TRANSLUCENT ARKANSAS FILE SET</b>					
	1	5			61463686839 4
1 Each of Ultra Fine Hard Arkansas HF13, HF113, HF813, and HF873					
<b>HARD TRANSLUCENT ARKANSAS AND INDIA FILE SET</b>					
	1	5			61463686840 0
1 Each of Ultra Fine Hard Arkansas HF13, HF43, HF113, HF813, HF873, and Fine India FF14, FF44, FF114, FF214, FF724					

## Abrasive Files

### Engravers' Chuck & Points

#### FEATURES AND APPLICATIONS

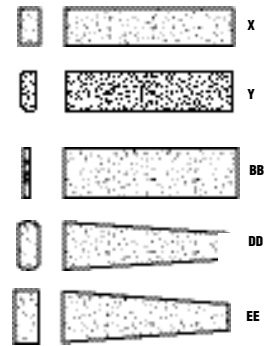
Engravers' Points are the choice of professional die-makers for cleaning tight corners and recesses where close tolerances and accuracy are a must. The Engravers' Chuck is a knurled nickel-plated tool designed to hold the Engravers' Point.



### Silversmith Precision Files

#### FEATURES AND APPLICATIONS

These aluminum oxide precision-shaped stones are designed for use by silversmiths and mechanics for close tolerance lapping, touching-up instruments, and for cleaning tools and dies.



DIMENSIONS AND SHAPE	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>ENGRAVERS' CHUCK AND POINTS (BULK-PACKED)</b>					
Engravers' Chuck	5	10		XT1	61463687485 2
<b>INDIA (ALUMINUM OXIDE)</b>					
1 x 1/8 Point	5	20	Fine	FT11	61463687495 1
<b>SOFT ARKANSAS</b>					
1 x 1/8 Point	5	20	Extra Fine	AT11	61463687490 6
<b>SILVERSMITH PRECISION FILES (BULK-PACKED)</b>					
<b>INDIA (ALUMINUM OXIDE)</b>					
4 x 5/16 x 3/16 x 5/16 x 1/16 - X	5	20	Medium	MF414	61463686855 4
4 x 5/16 x 3/16 x 5/16 x 1/16 - X	5	20	Fine	FF414	61463686850 9
4 x 3/8 x 3/16 x 1/8 x 1/16 - Y	5	20	Medium	MF424	61463686915 5
4 x 3/8 x 3/16 x 1/8 x 1/16 - Y	5	20	Fine	FF424	61463686910 0
4 x 7/16 x 3/16 x 1/8	5	20	Fine	FF434	61463686940 7
4 x 1/2 x 1/16 - BB	5	20	Coarse	CF444	61463686965 0
4 x 1/2 x 1/16 - BB	5	20	Medium	MF444	61463686960 5
4 x 1/2 x 1/16 - BB	5	20	Fine	FF444	61463686955 1
4 x 1/2 x 1/4 x 5/16 x 1/8 - DD	5	20	Fine	FF464	61463686985 8
4 x 1/2 x 1/4 x 5/16 x 1/8 - EE	5	20	Medium	MF474	61463687005 2
4 x 1/2 x 1/4 x 5/16 x 1/8 - EE	5	20	Fine	FF474	61463687000 7

# ABRASIVE SLIPS

Norton abrasive slips impart the finest, most uniform finish on curved knives and tools, molders' knives, wood gouges, bead planers, carving tools and carbide-tipped tools. These fast-acting slips hold their shape and are long lasting.

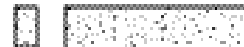
The Crystolon and India stones are designed for preliminary sharpening and the Norton Hard Translucent Arkansas is the product of choice for achieving the finest finish possible.



## Carbide Tool Slips

### FEATURES AND APPLICATIONS

Crystolon (silicon carbide) Slips are used to maintain the edge of carbide tools – keeping regrinding costs and time to an absolute minimum. Not oil-filled.



## Round Edge Slips

### FEATURES AND APPLICATIONS

Round Edge Slips are ideal for precision sharpening and honing of bead planers, curved knives and tools, molders' knives and wood gouges.



SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>CARBIDE TOOL SLIPS</b>					
<b>CRYSTOLON (SILICON CARBIDE)</b>					
<b>new!</b> 3-1/2 x 3/4 x 1/2	5	20	Coarse	CJT63	61463687295 7
<b>new!</b> 3-1/2 x 3/4 x 1/2	5	20	Medium	MJT63	61463687290 2
3-1/2 x 3/4 x 1/2	5	20	Fine	FJT63	61463687285 8
Set of Three Above <b>new!</b>	5	10	Coarse, Medium & Fine	J63	61463687300 8
<b>ROUND EDGE SLIPS</b>					
<b>CRYSTOLON (SILICON CARBIDE)</b>					
4-1/2 x 1-3/4 x 1/4 x 3/32	5	10	Medium	MJS24	61463687080 9
4-1/2 x 1-3/4 x 1/4 x 3/32	5	10	Fine	FJS24	61463687075 5
4-1/2 x 1-3/4 x 1/2 x 3/16	5	10	Coarse	CJS44	61463687100 4
4-1/2 x 1-3/4 x 1/2 x 3/16	5	10	Medium	MJS44	61463687095 3
4-1/2 x 1-3/4 x 1/2 x 3/16	5	10	Fine	FJS44	61463687090 8
6 x 2-1/4 x 3/4 x 3/8	5	10	Medium	MJS66	61463687110 3
6 x 2-1/4 x 3/4 x 3/8	5	10	Fine	FJS66	61463687105 9
<b>INDIA (ALUMINUM OXIDE)</b>					
4 x 1 x 7/16 x 3/16	5	10	Medium	MS14	61463687140 0
4 x 1 x 7/16 x 3/16	5	10	Fine	FS14	61463687135 6
4 x 1-3/4 x 3/8 x 1/8 x 5/16 x 3/32	5	10	Fine	FS15	61463687190 5
4-1/2 x 1-3/4 x 1/4 x 3/32	5	10	Coarse	CS24	61463687155 4
4-1/2 x 1-3/4 x 1/4 x 3/32	5	10	Medium	MS24	61463687150 9
4-1/2 x 1-3/4 x 1/4 x 3/32	5	10	Fine	FS24	61463687145 5
4-1/2 x 1-3/4 x 3/8 x 1/8	5	10	Coarse	CS34	61463687170 7
4-1/2 x 1-3/4 x 3/8 x 1/8	5	10	Medium	MS34	61463687165 3
4-1/2 x 1-3/4 x 3/8 x 1/8	5	10	Fine	FS34	61463687160 8
4-1/2 x 1-3/4 x 1/2 x 3/16	5	10	Coarse	CS44	61463687185 1
4-1/2 x 1-3/4 x 1/2 x 3/16	5	10	Medium	MS44	61463687180 6
4-1/2 x 1-3/4 x 1/2 x 3/16	5	10	Fine	FS44	61463687175 2
5 x 1 x 5/16 x 3/32	5	10	Medium	MS15	61463687195 0
5 x 1 x 5/16 x 3/32	5	10	Fine	FS15	61463687190 5
<b>HARD TRANSLUCENT ARKANSAS</b>					
3 x 1-3/4 x 1/4 x 1/16	5	10	Ultra Fine	HS3	61463687040 3
4 x 1-1/4 x 1/4 x 1/8	5	10	Ultra Fine	HS14	61463687050 2
4 x 1-3/4 x 3/8 x 1/8	5	10	Ultra Fine	HS4	61463687045 8
<b>SOFT ARKANSAS</b>					
4 x 1-3/4 x 3/8 x 1/8 x 5/16 x 3/32	5	10	Extra Fine	SS4	61463687055 7

## Abrasive Slips for Woodworking

### Multiform Super Slip

**new!**

#### FEATURES AND APPLICATIONS

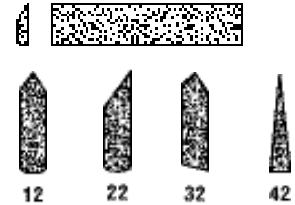
Multiform Super Slips are designed to fit gouges and V-parting tools. The two different edge shapes make them universal sharpeners. One edge is tapered from 1/2" to 1/8" diameter to handle various curves on tools. The other has a straight, angled taper which forms a knife edge for honing small and large V-parting tools. Use Norton India for initial sharpening and Norton Hard Translucent Arkansas for finishing and polishing.



### Carving Tool Slips

#### FEATURES AND APPLICATIONS

Carving Tool Slips are ideal for sharpening, final finishing and maintaining the edge required on the special gouges, knives and deep-grooved tools used in carving wood.



SIZE L x W x H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>MULTIFORM SUPER SLIPS</b>					
<b>INDIA (ALUMINUM OXIDE)</b>					
<b>new!</b> 4-1/2 x 1-3/4 x 1/2 x 3/8	5	10	Medium	MSSP-44	69936613416 2
<b>new!</b> 4-1/2 x 1-3/4 x 1/2 x 3/8	5	10	Fine	FSSP-44	69936613411 7
<b>HARD TRANSLUCENT ARKANSAS</b>					
<b>new!</b> 4-1/2 x 1-7/8 x 1/2 x 3/8	5	10	Ultra Fine	HTSSP-44	69936613425 4
<b>CARVING TOOL SLIPS</b>					
<b>INDIA (ALUMINUM OXIDE)</b>					
<b>new!</b> 2-1/4 x 7/8 x 3/16	5	20	Medium	MS12	61463687215 5
2-1/4 x 7/8 x 3/16	5	20	Medium	MS22	61463687220 9
<b>new!</b> 2-1/4 x 7/8 x 3/16	5	20	Medium	MS32	61463687225 4
<b>new!</b> 2-1/4 x 7/8 x 3/16	5	20	Medium	MS42	61463687230 8
<b>HARD TRANSLUCENT ARKANSAS</b>					
<b>new!</b> 2-1/4 x 7/8 x 3/16	5	20	Ultra Fine	AS12	61463687250 6
<b>new!</b> 2-1/4 x 7/8 x 3/16	5	20	Ultra Fine	AS22	61463687255 1
<b>new!</b> 2-1/4 x 7/8 x 3/16	5	20	Ultra Fine	AS32	61463687260 5



## Chris Pye's Signature Series Woodcarvers' Sharpening Stone Kits – For Woodcarving Gouges

### FEATURES AND APPLICATIONS

Chris Pye, professional Master Woodcarver, along with Norton abrasive engineers, have developed the first slip stones exclusively for sharpening woodcarvers', woodworkers' and hobbyists' gouges.

The dimensions and specifications of the stones in each kit correspond perfectly to a specific size of wood carving gouges and V-Tools. The 4-sided slip stones have a different profile for each side, ranging from very flat to semicircular with incremental curves in between. One edge of these unique stones fits the sweep of the gouge to efficiently create an inside bevel or remove any burrs.

All kits are housed in durable plastic storage cases. 3 kits have 1 India (aluminum oxide) and 1 ultra fine Hard Translucent Arkansas slip stone to sharpen and polish. The Benchstone Kits produce the smoothest cutting edges.

**new!**



SIZE L x W x H	QTY. PKG.	QTY. CASE	KIT INCLUDES	PRODUCT NO.	UPC NO.
<b>CHRIS PYE'S SIGNATURE SERIES WOODCARVERS' SHARPENING STONE KITS</b>					
<b>SCULPTURE SLIP STONE KIT</b>					
<b>new!</b> 3" x 3" x 18mm (.709")	1	2	1 each: Coarse India, Ultra Fine Hard Arkansas		66253064728 7
<b>STANDARD #1 SLIP STONE KIT</b>					
<b>new!</b> 3" x 3" x 12mm (.472")	1	2	1 each: Coarse India, Ultra Fine Hard Arkansas		66253064732 4
<b>STANDARD #2 SLIP STONE KIT</b>					
<b>new!</b> 3" x 3" x 6mm (.236")	1	2	1 each: Medium India, Ultra Fine Hard Arkansas		66253064730 0
<b>DETAIL SLIP STONE KIT</b>					
<b>new!</b> Various	1	4	one 3" x 3" x 3mm (.118") Medium India, three 2" x 1" x 3mm (.118") Ultra Fine Hard Arkansas		66253064726 3
<b>V-STONE KIT</b>					
<b>new!</b> 2- 1/2" x 2-1/2" x 10mm (.254")	1	4	1 Ultra Fine Hard Arkansas V-Stone		66253064727 0
<b>INDIA BENCHSTONE KIT</b>					
<b>new!</b> 8 x 2 x 1	1	1	1 Coarse/Fine India Combination Stone, Plastic Storage Case and 4-1/2 oz. Oil	IM50	61463655188 3
<b>HARD TRANSLUCENT ARKANSAS BENCHSTONE KIT</b>					
<b>new!</b> 8 x 2 x 1	1	1	1 UF Hard Arkansas Stone, Plastic Storage Case and 4-1/2 oz. Oil	IM50-H	61463654862 3*

\* NON-STOCK; 3 WEEK LEAD-TIME



*Chris Pye*

# SPECIALTY STONES

Norton continues to offer specialty stones with optimum specifications and unique shapes that conform to, and quickly sharpen, specific tools.

The offering includes stones for sharpening and honing woodworking and craftsmen's tools, machine tools, large specialty stones for gardening tools, and pocket stones for sportsmen and outdoor enthusiasts.



## Specialty Stones for Woodworking

### Specialty Stones for Woodworking

#### FEATURES AND APPLICATIONS

##### Gouge Sharpening Stone

India (aluminum oxide) Gouge Sharpening Stones have a unique shape for sharpening and lapping inside and outside curved surfaces on gouges and other cutting tools. An indispensable tool for woodworkers, mechanics, artisans and craftsmen.

##### Jointer Stones

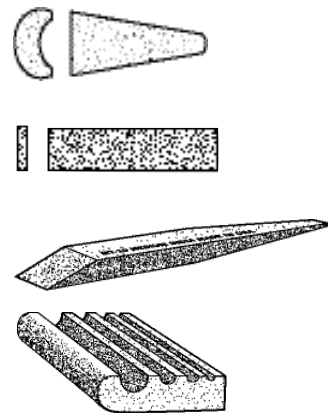
Jointer Stones provide a fast method of restoring and maintaining the cutting edges of mechanical jointing devices on automatic planers.

##### Auger Bit Stone

Designed specially for sharpening drill bits used in wood and metal drilling. They are frequently preferred over metal files because of their unique shape.

##### Grooved Carver's Stone

Designed for honing rounded tips.



SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>GOUGE SHARPENING STONE</b>					
<b>INDIA (ALUMINUM OXIDE)</b>					
6 x 2 x 1 x 1/2 x 3/8	5	10	Fine	FS76	61463687305 3
<b>JOINTER STONES</b>					
<b>CRYSTOLON (SILICON CARBIDE)</b>					
4 x 3/4 x 3/8	5	10	Medium	JE74	61463687335 0
4 x 3/4 x 1/2	5	10	Medium	JE84	61463687340 4
<b>INDIA (ALUMINUM OXIDE)</b>					
4 x 3/4 x 5/16	5	10	Coarse	IE64	61463687370 1
4 x 3/4 x 3/8	5	10	Coarse	IE74	61463687375 6
4 x 3/4 x 1/2	5	10	Coarse	IE84	61463687380 0
<b>AUGER BIT STONE</b>					
<b>INDIA (ALUMINUM OXIDE)</b>					
4" Long	5	10	Medium	MT10	61463687470 8
<b>GROOVED CARVER'S STONE</b>					
<b>HARD TRANSLUCENT ARKANSAS</b>					
4 x 1-1/2 x 1/2	1	5	Ultra Fine	HG4	61463685915 6



**A TOOL IS ONLY AS GOOD AS ITS EDGE™**

## Specialty Stones for Machine Tools

### Specialty Stones for Machine Tools

#### FEATURES AND APPLICATIONS

##### Machine Knife Stone

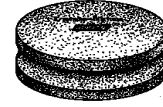
Crystolon (silicon carbide) Machine Knife Stones offer both coarse and fine sides for sharpening and honing paper and cloth-cutting knives and planer knives on the machine. The groove around the middle of the stone protects fingers and provides a secure hold.

##### Reamer Stones

India (aluminum oxide) Reamer Stones are durable, fast-cutting stones designed for imparting a professional edge on reamers, taps and rough rounders on shoe machine tools.

##### Boat Stones

Boat Stones are medium grit, medium grade stones that are easy to hold and use. Excellent for deburring and breaking sharp edges on dies, fixtures and machined parts, and for deburring grinder magnetic chucks.



SIZE L x W x H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>MACHINE KNIFE STONE</b>					
<b>CRYSTOLON (SILICON CARBIDE)</b>					
4" Diam. x 1-1/2 Thick	1	5	Coarse/Fine	JB74	61463687570 5
<b>REAMER STONES</b>					
<b>INDIA (ALUMINUM OXIDE)</b>					
4-1/2 x 1 x 5/16	5	10	Medium	MT124	61463687420 3
4-1/2 x 1 x 5/16	5	10	Fine	FT124	61463687415 9
5 x 1 x 3/16	5	10	Medium	MT125	61463687430 2
5 x 1 x 3/16	5	10	Fine	FT125	61463687425 8
6 x 1 x 1/4	5	10	Medium	MT126	61463687440 1
6 x 1 x 1/4	5	10	Fine	FT126	61463687435 7
<b>BOAT STONES (BULK PACKED)</b>					
<b>CRYSTOLON (SILICON CARBIDE)</b>					
9 x 2-1/2 x 1-1/2	10	50	37C80-HV		61463610369 3
<b>INDIA (ALUMINUM OXIDE)</b>					
9 x 2-1/2 x 1-1/2	10	50	38A60-IVBE		61463610503 1

## Large Specialty Stones

### Large Specialty Stones

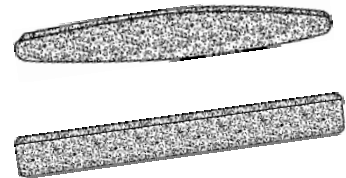
#### FEATURES AND APPLICATIONS

##### Lawn and Garden Tool Stone

Used by gardeners and homeowners, the elliptical shape makes the stone conformable to all flat and curved cutting edges.

##### Sickle & Scythe Stones

Produce a fast-cutting edge on sickles, scythes and brush hooks. These stones are the most frequently chosen where the speed of sharpening is the primary consideration.



SIZE L x W x H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>LAWN AND GARDEN TOOL STONE (RETAIL-PACKED)</b>					
<b>CRYSTOLON (SILICON CARBIDE)</b>					
9-1/2 x 1-3/8 x 1/2	1	10	Medium	JT911	07660787938 7
<b>SICKLE AND SCYTHE STONES (BULK-PACKED)</b>					
<b>CRYSTOLON (SILICON CARBIDE)</b>					
10 x 1-1/4 x 3/4	5	10	Coarse	TJ3	61463687731 0
<b>INDIA (ALUMINUM OXIDE)</b>					
10 x 1-5/16 x 3/4	5	10	Coarse	TD1	61463687715 0

## Large Specialty Stones continued

### Large Specialty Stones

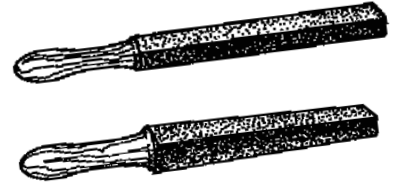
#### FEATURES AND APPLICATIONS

##### Tradesmen's Utility Stones

Used for sharpening trimming knives and as an abrasive file in many different industries. The JT910 does not have a handle, while the JT920 & JT930 have wooden handles.

##### Utility File

A long wedge shape stone with four flat sides designed for sharpening coarse cutting edges on cutting implements and edged garden tools. Wooden handles make them easy to use. They will outlast and out-sharpen metal files.



SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>TRADESMEN'S UTILITY STONES</b>					
<b>CRYSTOLON (SILICON CARBIDE)</b>					
10 x 1-1/4 x 3/4 (Bulk-Packed)	5	10	Medium	JT910	61463687665 8
14-3/4 Overall (w/ Handle)	5	10	Coarse/Fine	JT930	61463687675 8
14-3/4 Overall (w/ Handle)	5	10	Medium	JT920	61463687670 2
<b>UTILITY FILE (BULK-PACKED)</b>					
<b>CRYSTOLON (SILICON CARBIDE)</b>					
14 Overall (w/ Handle)	5	10	Coarse	JD2	61463687750 1

## Pocket Stones

### Pocket Stones

#### FEATURES AND APPLICATIONS

##### Pocket Stones

Convenient and easily transported. Ideal for outdoor enthusiasts to sharpen scissors, knives, axes, etc. Available in a protective case.



SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>POCKET STONES</b>					
<b>INDIA SPORTSMAN POCKET STONE</b>					
3 x 1-1/2 x 1/2	1	50	Coarse/Fine	IBP34	61463690705 5
<b>INDIA POCKET STONE</b>					
4 x 3/4 x 1/4	1	25	Fine	IBP4	61463624153 1
<b>CRYSTOLON POCKET STONE W/ CASE</b>					
3 x 7/8 x 3/8 w/ Case		50	Fine	JP14	61463690703 1
<b>CRYSTOLON HALF-ROUND FISH HOOK STONE W/ POUCH</b>					
3" x 1/2" w/ Pouch		50	Fine		61463624072 5



# RUBBING BRICKS

Hard crystolon rubbing bricks are used for heavy-duty applications such as rubbing floors, cleaning and scouring castings, rubbing down concrete and removing mold marks.



## Floor Rubbing Bricks

### FEATURES AND APPLICATIONS

Crystolon floor rubbing bricks are designed to fit the chucks of common concrete floor grinding equipment - to rub down the concrete and remove mold marks. The 8" brick has a center score that facilitates dividing the brick in half ...an economical alternative to buying two 4" bricks. Reusable wooden wedges anchor the bricks to the equipment chucks.

## Hand Rubbing Bricks

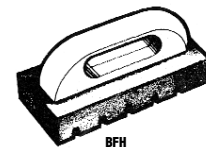
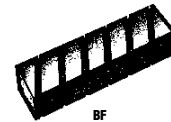
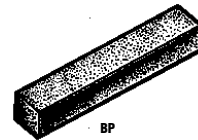
### FEATURES AND APPLICATIONS

Hand Rubbing Bricks, manufactured with extra coarse silicon carbide abrasive, are available in three types...plain, fluted and fluted with handle.

Plain Bricks are the choice of mechanics and foundrymen for dressing grinding wheels and cleaning or scouring castings.

Fluted Bricks are used by masons and stone workers for rubbing down concrete and removing mold marks. The diagonal flutes provide sharp edges, a clean shearing action, and carry away debris.

Fluted Bricks with Handle make quick work of removing mold marks and rubbing down concrete. The firmly attached handle reduces fatigue and facilitates overhead, wall and floor work.



SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>RUBBING BRICKS (BULK-PACKED) – CRYSTOLON</b>					
<b>PLAIN FLOOR RUBBING BRICKS W/ WOODEN WEDGES</b>					
4 x 2 x 2	1	6	C6-R		61463653292 9
4 x 2 x 2	1	6	C10-R		61463653293 6
4 x 2 x 2	1	6	C24-R		61463653294 3
4 x 2 x 2	1	6	C80-R		61463653295 0
<b>FLOOR RUBBING BRICK W/ CENTER SCORE</b>					
8 x 2 x 2	1	5	C120-R		61463685296 6
<b>PLAIN HAND RUBBING BRICKS</b>					
8 x 2 x 2	1	5	C24	BP28	61463687830 0
<b>FLUTED HAND RUBBING BRICKS</b>					
6 x 2 x 2	1	5	C20	BF26	61463687840 9
8 x 2 x 2	1	5	C20	BF28	61463687845 4
<b>FLUTED HAND RUBBING BRICKS W/ HANDLE</b>					
6 x 3 x 1	1	5	C20	BFH6	61463687800 3
8 x 3-1/2 x 1-1/2	1	5	C20	235	61463687795 2
<b>WOODEN WEDGES</b>					
	6	6			61463685297 3

# RETAIL-PACKAGED PRODUCTS – DO-IT-YOURSELF (D-I-Y)

Our retail-packaged line brings Norton quality to the DIY market. Each stone is specifically designed for a popular sharpening application and packaged to sell.

Diamond stones provide the optimum in performance and life.

The Knife & Scissor Sharpener is the entry level design that provides a quick and portable tool for hundreds of sharpening applications.

Abrasive Sharpening Stones are designed for lower costs, lower usage sharpening applications.

The compact, handheld Rolling Wheel Knife Sharpener has two slots, to sharpen each side of the blade. It has a built-in proper angle for sharpening. No lubricant needed.



SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>DIAMOND STONES</b>					
<b>POCKET STONE</b>					
4 x 1 x 3/16	1	6	Coarse		07660787500 6
<b>COMBINATION POCKET STONE W/ /HANDLE</b>					
9-1/4 x 1-3/8 x 1/2	1	4	Coarse/Fine		07660787505 1
<b>BENCHSTONE</b>					
6 x 2-1/2 x 1/4	1	2	Fine		07660787510 5
6 x 2-1/2 x 1/4	1	2	Coarse		07660787515 0
<b>KNIFE AND SCISSORS MECHANICAL SHARPENER</b>					
6 x 2 x 5/8	1	6	Carbide		07660787520 4
<b>ABRASIVE SHARPENING STONES</b>					
<b>AXE &amp; HATCHET SHARPENER</b>					
3 x 5/8 round	1	10	Coarse/Fine Crystolon	JT3	07660785316 5
<b>POCKET KNIFE SHARPENER</b>					
3 x 7/8 x 3/8	1	5	Fine Crystolon	JP13	07660787600 3
3 x 7/8 x 3/8 w/ Case	1	5	Medium Aluminum Oxide	EZP13	07660787937 0
3 x 1-1/2 x 1/2 w/ Case	1	5	Coarse/Fine Aluminum Oxide		07660787630 0
<b>ECONOMY TOOL &amp; KNIFE SHARPENER</b>					
6 x 2 x 3/4	1	5	Coarse/Fine Aluminum Oxide		07660787933 2
8 x 2 x 3/4	1	10	Coarse/Fine Aluminum Oxide		07660787934 9
8 x 2 x 1	1	10	Coarse/Fine Aluminum Oxide		61463685755 8
<b>HIGH QUALITY TOOL &amp; KNIFE SHARPENER</b>					
6 x 2 x 3/4	1	5	Coarse/Fine Crystolon		07660787935 6
<b>CHISEL &amp; PLANER BLADE SHARPENER</b>					
8 x 2 x 3/4	1	10	Coarse/Fine India		07660787936 3
<b>HOUSEHOLD KNIFE &amp; TOOL SHARPENER</b>					
7-1/2	1	5	Fine Crystolon		07660787939 4
<b>FARM TOOL SHARPENER</b>					
10 x 1-1/4 x 3/4	1	10	Coarse Crystolon		07660787730 7
<b>LAWN &amp; GARDEN TOOL SHARPENER</b>					
9-1/2 x 1-3/8 x 1/2	1	10	Medium Crystolon		07660787938 7
<b>GRIDDLE BRICK</b>					
4-1/2 x 3 x 2	1	5	Medium Aluminum Oxide		61463687870 6
<b>SHARPENING STONE OIL</b>					
4-1/2 oz.	1	5			07660787940 0
<b>ROLLING-WHEEL KNIFE SHARPENER</b>					
	12	12	Slotted, Handheld		66253092616 0



**tip** Most manufacturer's ship their cutting tools without keen edges to avoid damage in transit. The blade tool/blade will need a good sharpening to realize its full potential.



**A Tool Is Only As Good As Its Edge™**

# RETAIL-PACKAGED PRODUCTS – CUTLERY/FOOD SERVICE

Norton sharpening systems and stones provide chefs with a complete range of sharpening products. Designed for today's modern kitchen and durable enough for years of dependable use.



SIZE L X W X H	QTY. PKG.	QTY. CASE	PACKAGE INCLUDES	PRODUCT NO.	UPC NO.
<b>IM50 SINGLE-STONE SHARPENING STATIONS</b>					
8 x 2 x 1	1	5	1 Coarse/Fine India Combination Stone, 4.5 oz Pharmacopoeia Grade Mineral Oil, Angle Guide, BLACK Base and Cover		69936642504 8
8 x 2 x 1	1	5	1 Coarse/Fine India Combination Stone, 4.5 oz Pharmacopoeia Grade Mineral Oil, Angle Guide, WHITE Base and Cover		66243580109 8
8 x 2 x 1	1	5	1 Soft Arkansas/Medium India Combination Stone, 4.5 oz Pharmacopoeia Grade Mineral Oil, Angle Guide, BLACK Base and Cover		69936643993 9
8 x 2 x 1	1	5	1 Soft Arkansas/Medium India Combination Stone, 4.5 oz Pharmacopoeia Grade Mineral Oil, Angle Guide, WHITE Base and Cover		66243580110 4
<b>IM50 STATION REPLACEMENT CASES</b>					
fits 8 x 2 x 1 stones	1	5	IM50 Case, Black		69936612790 4
fits 8 x 2 x 1 stones	1	5	IM50 Case, White		69936612799 7
<b>IM200 TRI-STONE SHARPENING SYSTEM</b>					
8 x 2 x 1	1	5	1 Coarse Crystolon, 1 Medium Crystolon and 1 Fine India Stone, 4.5 oz Pharmacopoeia Grade Mineral Oil, Angle Guide, and 1 BLACK Reservoir Unit		61463691265 3
8 x 2 x 1	1	5	1 Coarse Crystolon, 1 Medium Crystolon, 1 Fine India Stone, 4.5 oz Pharmacopoeia Grade Mineral Oil, Angle Guide, and 1 WHITE Reservoir Unit		61463691266 0
<b>RETAIL ASSORTMENT</b>					
	1	1	3 IM200 Units with Black Case, 1 IM200 Unit with White Case, 2 IM50 Units with Black Case, 1 IM50 Unit with White Case, 5 Instructional Booklet/Wedge Packages, 2 Packages of Oil in Decorative Boxes, and Copies of a Promotional Tri-fold in an Acrylic Holder		66253025026 5
<b>COMBINATION BENCHSTONES (AND REPLACEMENT STONES FOR ABOVE SYSTEMS)</b>					
8 x 2 x 3/4	1	5	Coarse/Fine Crystolon Combination Stone	CCS8	66243592750 7
8 x 2 x 3/4	1	5	Coarse/Fine India Combination Stone	ICS8	66243592751 4
8 x 2 x 3/4	1	5	Medium India/Soft Arkansas Combination Stone	SIMCS8	66243592753 8
8 x 2 x 3/4	1	5	Soft Arkansas/Hard Arkansas Combination Stone	HSCS8	66243592755 2
<b>SHARPENING INSTRUCTIONS</b>					
N/A	1	5	Cutlery Instructional DVD		66253029073 5
N/A	1	5	Instructional Booklet and Plastic Angle Wedge		69936612802 4
<b>SHARPENING LUBRICANT</b>					
4-1/2 oz	1	5	Pharmacopoeia Grade Oil – Individually-boxed		66243592747 7
4-1/2 oz	1	20	Pharmacopoeia Grade Oil – Bulk-packed		61463687760 0
8 oz	1	12	Sharpening Stone Solution – Non-oil-based, Citrus Scent		66253072278 6
8 oz.	1	12	Sharpening Stone Solution – Non-oil-based, Unscented		66253072273 1

For a complete description of the items in these Retail Packages, please see appropriate previous sections of this catalog

# DIAMOND BENCHSTONES

Diamonds are the hardest known sharpening material.

Typical Applications

- Initial sharpening procedures
- Rapid stock removal
- Sharpening any hard material - including carbide
- Tool and knife repair
- Deburring, filing and abrading



## Diamond Benchstones – The fastest cutting stone

### FEATURES

- Single, solid, monocrystalline diamonds (use with water)
- Diamond abrasive with a nickel bond on a core of solid steel

### BENEFITS

- Fastest cut
- Longest life
- Wear resistant, unbreakable
- Will not groove, cup, or hollow
- Holds tolerance of  $\pm .002$ "

SIZE L X H	QTY. PKG.	QTY. CASE	SPECIFICATION	UPC NO.
<b>DIAMOND BENCHSTONES</b>				
<b>SINGLE GRIT</b>				
3-1/3 x 7/8 x 3/16	1	10	220	61463690624 9
3-1/3 x 7/8 x 3/16	1	10	325	61463690625 6
3-1/3 x 7/8 x 3/16	1	10	600	61463690626 3
3-1/3 x 7/8 x 3/16	1	10	1200	61463690627 0
6 x 2 x 1/4	1	5	325	61463690633 1
6 x 2 x 1/4	1	5	600	61463690634 8
<b>new!</b> 8 x 2 x 1/4	1	5	220	61463690636 2
<b>new!</b> 8 x 2 x 1/4	1	5	600	61463690638 6
<b>new!</b> 8 x 2 x 1/4	1	5	1200	61463690639 3
11-1/2 x 2-1/2 x 3/8	1	5	220	61463690640 9
11-1/2 x 2-1/2 x 3/8	1	5	325	61463690641 6
11-1/2 x 2-1/2 x 3/8	1	5	600	61463690642 3
11-1/2 x 2-1/2 x 3/8	1	5	1200	61463690643 0



The recommended lubricant for diamond benchstones is water, although oil may be used

# DIAMOND LAPPING COMPOUND

Engineered to meet all OSHA and EPA safety requirements, these oil-soluble diamond lapping compounds produce high finishes and tight final tolerances.

Used after a sharpening sequence, diamond compound contains diamond particles suspended in oil to provide a highly polished and reflective finish on the backface of tools. Use on a cast iron plate, hard maple board, MDF board or leather strop.

## Typical Applications

- Polishing for final dimensions of molds and dies
- Charging lapping plates and discs
- Tool polishing
- Honing fine edges of high-end woodworking tools
- Lapping seals
- Turbo charger for benchstones to speed up the cut rate and improve the finish



DIAMOND LAPPING COMPOUND

## Diamond Sharpening Stones – The fastest cutting stone

### FEATURES

- Micrograded synthetic diamond powders uniformly sized and distributed in a liquid vehicle
- Pre-engineered diamond concentrations, color-coded to industry standards
- Easy to use 5 or 18 gram plastic syringes

### BENEFITS

- Work well with metals and ceramics
- Easily identify application – from preparatory lapping to finest finishing
- Quick dispensing and clean up

## Polishing Kit

### FEATURES AND APPLICATIONS

For the complete sharpening system, this polishing kit provides a sequence of grade 30 (medium cut), grade 15 (light cut), grade 6 (highly polished) and grade 3 (fine finish) diamond lapping compounds along with four MDF blocks and lubricant.



SIZE	QTY/ PKG	PKG/ CASE	COLOR	APPLICATION	GRADE	MICRON SIZE	UPC NO.
<b>DIAMOND LAPPING COMPOUND</b>							
<b>OIL SOLUBLE</b>							
5 Gram Syringe	1	5	Grey	High Mirror Finish	Grade 1/4	0-1/2 Micron	61463691123 6
5 Gram Syringe	1	5	Ivory	Very Fine Finish	Grade 1	0-2 Micron	61463691133 5
18 Gram Syringe	1	5	Ivory	Very Fine Finish	Grade 1	0-2 Micron	61463691134 2
5 Gram Syringe	1	5	Yellow	Fine Finish	Grade 3	2-4 Micron	61463691138 0
18 Gram Syringe	1	5	Yellow	Fine Finish	Grade 3	2-4 Micron	61463691139 7
5 Gram Syringe	1	5	Orange	Highly Polished	Grade 6	4-8 Micron	61463691143 4
5 Gram Syringe	1	5	Green	Polished	Grade 9	8-12 Micron	61463691148 9
18 Gram Syringe	1	5	Green	Polished	Grade 9	8-12 Micron	61463691149 6
5 Gram Syringe	1	5	Blue	Light Cut	Grade 15	12-22 Micron	61463691153 3
18 Gram Syringe	1	5	Blue	Light Cut	Grade 15	12-22 Micron	61463691154 0
5 Gram Syringe	1	5	Red	Medium Cut	Grade 30	22-36 Micron	61463691158 8
5 Gram Syringe	1	5	Brown	Fast Cut	Grade 45	35-54 Micron	61463691163 2
18 Gram Syringe	1	5	Brown	Fast Cut	Grade 45	35-54 Micron	61463691164 9
<b>POLISHING KIT</b>							
<b>HANDY PACK KIT INCLUDES:</b>							
5 Gram Syringes	1	1	4 Diamond Paste Syringes: 3u, 6u, 15u, 30u, 4 MDF Blocks and 1 Bottle of Lubricant				07660702462 6



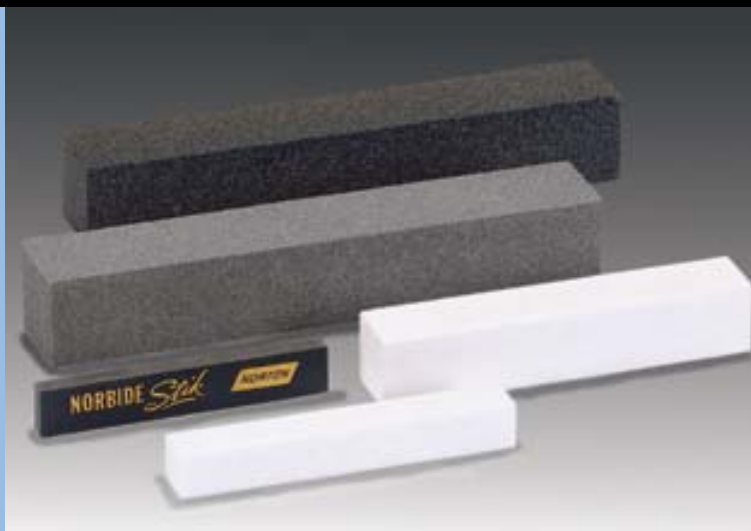
Diamond lapping compound can be used to “turbo charge” oil stones. Use a Grade 9 with medium India stones and Grade 3 with Norton Hard Translucent Arkansas stones to improve the cut rate and finish on tough/hard steel. Grade 1 used on a piece of hard maple or MDF will provide a highly polished finish.

# DRESSING STICKS

Regular use of properly selected dressing sticks will help you achieve maximum performance from your grinding wheels.

## Typical Applications

- Truing, cleaning and dressing diamond, CBN and conventional abrasive wheels



## Norbide High Performance Sticks

### FEATURES AND BENEFITS

For offhand truing and dressing of medium grit, soft and medium-grade vitrified grinding wheels. Norbide and Boron Carbide are the hardest sticks you can buy. Made from boron nitride, they are well suited for dressing toolroom and cutter wheels 10" and smaller, especially cup and saucer shapes.

## Vitrified Dressing Sticks

### FEATURES AND BENEFITS

#### Aluminum Oxide (White)

For dressing and cleaning CBN wheels; these sticks also work well for diamond wheels.

#### Silicon Carbide (Black)

Coarse grit (24) and hard-grade (R and harder) sticks are used for dressing conventional vitrified wheels. Finer grit and softer grades are used for dressing diamond wheels.

SIZE L x W x H	QTY. PKG.	QTY. CASE	SPECIFICATION	UPC NO.
<b>NORBIDE HIGH PERFORMANCE STICKS</b>				
3 x 7/16 x 3/16	5	5	Boron Carbide	61463629472 8
3 x 1/2 x 3/16	5	5	Norbide	61463610148 4
<b>VITRIFIED DRESSING STICKS</b>				
<b>ALUMINUM OXIDE</b>				
4 x 1/2 x 1/2	5	5	38A220-HVBE	61463610555 0
6 x 1/2 x 1/2	5	5	38A150-IVBE	61463610303 7
6 x 1/2 x 1/2	5	5	38A220-HVBE	61463610103 3
4 x 3/4 x 1/2	5	5	38A60-LVBE	61463610415 7
4 x 3/4 x 3/4	5	5	38A60-LVBE	61463610440 9
4 x 3/4 x 3/4	5	5	38A80-MVBE	61463610362 4
4 x 3/4 x 3/4	5	5	38A150-HVBE	61463610291 7
4 x 3/4 x 3/4	5	5	38A150-IVBE	61463610368 6
4 x 3/4 x 3/4	5	5	38A220-HVBE	61463610290 0
8 x 3/4 x 3/4	5	5	38A220-HVBE	61463610280 1
6 x 1 x 1	5	5	38A150-HVBE	61463610405 8
6 x 1 x 1	5	5	38A150-IVBE	61463610453 9
6 x 1 x 1	5	5	38A220-HVBE	61463610406 5
8 x 1 x 1	5	5	38A120-IVBE	61463610390 7
8 x 1 x 1	5	5	38A150-IVBE	61463610455 3

SIZE L x W x H	QTY. PKG.	QTY. CASE	SPECIFICATION	UPC NO.
<b>VITRIFIED DRESSING STICKS</b>				
<b>SILICON CARBIDE</b>				
6 x 1/2 x 1/2	5	5	37C100-LV	61463610201 6
6 x 1/2 x 1/2	5	5	37C150-KV	61463610205 4
6 x 1/2 x 1/2	5	5	37C150-LV	61463610206 1
6 x 1/2 x 1/2	5	5	37C150-MV	61463610207 8
6 x 1/2 x 1/2	5	5	37C220-KV	61463610214 6
6 x 3/4 x 3/4	5	5	37C150-LV	61463610375 4
6 x 1 x 1	5	5	37C20-SVK	61463610459 1
6 x 1 x 1	5	5	37C24-SVK	61463610462 1
6 x 1 x 1	5	5	37C24-TVK	61463610354 9
6 x 1 x 1	5	5	37C46-RVK	61463610466 9
6 x 1 x 1	5	5	37C80-NV	61463610393 8
6 x 1 x 1	5	5	37C150-KV	61463610438 6
6 x 1 x 1	5	5	37C220-KV	61463610398 3
6 x 1 x 1 Retail Carded	5	5	Medium	07660710466 3
8 x 1 x 1	5	5	37C20-SVK	61463610469 0
8 x 1 x 1	5	5	37C24-SVK	61463610471 3
8 x 2 x 1	5	5	37C16-TVK	61463610482 9
8 x 2 x 1	5	5	37C24-TVK	61463610485 0
8 x 2 x 2	5	5	37C24-SVK	61463610490 4
<b>VITRIFIED ROUND DRESSING STICKS</b>				
<b>SILICON CARBIDE</b>				
6 x 1/2 (L x D)	5	5	37C24-SVK	61463610371 6
6 x 1	5	5	VERY COARSE S/C	61463687905 5

## Vitrified Superfine Dressing Sticks

### FEATURES AND BENEFITS

Super fine grit aluminum oxide and silicon carbide vitrified abrasive sticks for dressing superabrasive wheels.

SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	UPC NO.
<b>VITRIFIED SUPERFINE DRESSING STICKS</b>				
<b>SILICON CARBIDE</b>				
6 x 1/2 x 1/2	5	5	NMVC320-J5VCA	61463615599 9
6 x 1/2 x 1/2	5	5	NMVC400-J5VCA	61463650324 0
6 x 1 x 1	5	5	NMVC320-J5VCA	61463610605 2
6 x 1 x 1	5	5	NMVC400-J5VCA	61463650450 6
<b>ALUMINUM OXIDE</b>				
8 x 1 x 1	5	5	NSA320-H8V	61463610597 0

## Multi-Point Diamond Dressing Tool with Handle

**new!**

### FEATURES AND BENEFITS

Screwdriver-handled multi-point dressing tool. Using the standard Norton 1A diamond section designed for most toolroom bench grinding wheels, this tool makes truing and dressing safe and simple. Simply align the long surface of the tool flat with the pedestal support on the bench grinder, then press into the wheel slightly. Move the tool slightly right then left, without going off the wheel and dressing is complete.

QTY. PKG.	QTY. CASE	SPECIFICATION	PRODUCT NO.	UPC NO.
<b>MULTI-POINT DIAMOND DRESSING TOOL</b>				
1	5	T-Handle Hand Dresser	IA6HD	66260148820 7

## Offhand Dressing Stick and Holder

### FEATURES AND BENEFITS

This convenient metal holder and round stick are widely used by mechanics and foundrymen for truing, dressing and changing the face of the wheel. The JT246 dressing stick – a very coarse grit silicon carbide for dressing conventional vitrified wheels – is firmly held and adjusted by the knurled control.



SIZE L X D	QTY. PKG.	QTY. CASE	DESCRIPTION	PRODUCT NO.	UPC NO.
<b>OFFHAND DRESSING STICK AND HOLDER</b>					
<b>SILICON CARBIDE</b>					
10" Overall	5	10	Dressing Stick and Holder	H6	61463687895 9
6 x 1/2 Round	5	10	Replacement Dressing Stick - Very Coarse	JT246	61463687900 0

## SPECcheck



Selecting the appropriate dressing stick for each application depends on the wheel size, type, speed, specification and grit size, as well as the workpiece material. Initial starting specifications are listed below. We recommend testing several sticks to find the best one for your application.

### Dressing Stick Starting Recommendations

VITRIFIED DRESSING STICKS		
	PRODUCT	SPECIFICATION
<b>SUPERABRASIVE WHEELS – RESIN AND VITRIFIED BOND</b>		
- 80, 100 and 120 Grits	Dressing Stick	38A150-HVBE
- 150, 180 and 220 Grits	Dressing Stick	38A220-HVBE
- 320 and Finer Grits	Superfine Stick	NMVC400-J5VCA
<b>SUPERABRASIVE WHEELS – METAL BOND</b>		
- 80, 100 and 120 Grits	Dressing Stick	37C80-NV
- 150, 180 and 220 Grits	Dressing Stick	37C150-KV
- 240 and Finer Grits	Dressing Stick	37C220-KV
<b>CONVENTIONAL VITRIFIED WHEELS – VITRIFIED BOND</b>		
- 46 Grit and Finer and M Grade and Softer	High Performance Dressing Stick	Norbide
	Conventional Dressing Stick	37C24-SVK

## tips

### Dressing Diamond and CBN Wheels

- Resin and Vitrified Bond, Diamond and CBN Wheels: Choose a dressing stick one or two grit sizes finer than the abrasive in the wheel – in a soft grade (H or I).

- Metal Bond, Diamond and CBN Wheels

Choose a stick the same grit size or one grit size coarser than the abrasive in the wheel – in a medium grade (K–M).



While sharpening knives, blades and tools, be careful to keep fingers away from sharp edges.

# DRESSING STICKS

## Rubber Finishing Sticks

### FEATURES AND BENEFITS

These sticks are used for manual, or mechanical honing on machines where they are mounted in holders or fixtures. Intended for use where precision dimensional limits and grade controls are required, such as die polishing.

SIZE L X W X H	QTY. PKG.	QTY. CASE	SPECIFICATION	UPC NO.
<b>RUBBER FINISHING STICKS</b>				
<b>ALUMINUM OXIDE</b>				
6 x 1/2 x 1/2	5	20	57A120-B2RR	61463610608 3
6 x 1 x 1/2	5	20	57A120-B2RR	61463610609 0

## FastTrack Made-To-Order Microabrasive Sticks

Superfinishing blank stock encompasses a wide range of different specifications. These blanks can be finished to your dimensional requirements within two weeks from the date that the order is received at Norton. Small lots, for test purposes, can be express shipped.

APPLICATIONS	ABRASIVE TYPE BOND	GRIT	TREATMENT TYPE
Superfinishing, Finishing and Dressing	NLA - V NMVC - VCA NSA - V	240 - 1200	Sulfur, Wax
Honing	SG - VS SGG - VS1	54 - 220	Sulfur, Wax



**A TOOL IS ONLY AS GOOD AS ITS EDGE™**

*THE NORTON NAME IS YOUR ASSURANCE OF THE FINEST SHARPENING PRODUCT AVAILABLE.*

[www.nortonstones.com](http://www.nortonstones.com)



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