

we've got you covered
**FROM DIY TO TOOLCRIB
TO PRODUCTION FLOOR**

Our bench wheels keep your tools sharp and productive. Reach tight spots with our mounted points, and produce sharp edges with our sharpening stones.



Never a Dull Moment

Our bench and pedestal wheel line answers all your metal removal, deburring, shaping and sharpening needs, for high-speed tool steels to non-ferrous metals.



An All-Points Bulletin

Rely on A-shaped mounted points for medium-to heavy-duty blending; B shapes for light deburring and blending; W shapes for offhand and precision medium- to heavy-duty grinding.



Sharpen Your Reputation

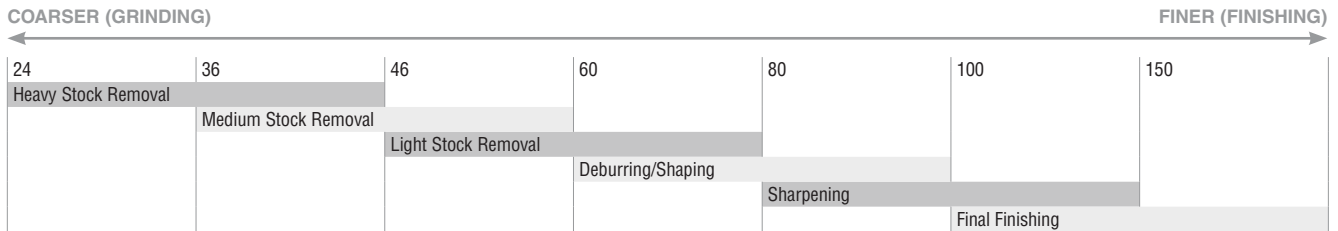
Whether you are filing, honing, sharpening or edge finishing... Norton benchstones, files, slips, and specialty stones will get the job done, fast.

The Norton bench and pedestal wheel line consists of numerous wheel diameters and arbor sizes, abrasive types and grit sizes. Our offering answers all metal removal, deburring, shaping and sharpening needs: white aluminum oxide for high-speed tool steels, brown aluminum oxide for carbon steel, and silicon carbide for non-ferrous metals and carbide tooling.

Applications: Offhand deburring and sharpening of parts and tools
 Size Range: 5" – 18"
 Grit Range: 24 – 150
 Abrasive Types: Aluminum Oxide (Alundum), Silicon Carbide (Crystolon)
 Bushings: Telescopic arbor bushings to fit all popular grinders are packaged with the wheel
 Machine Used:



APPLICATION/GRIT RECOMMENDATION GUIDE



PREMIUM WHITE ALUMINUM OXIDE

BETTER CHOICE FOR LIGHT METAL REMOVAL AND SHARPENING OF HIGH-SPEED TOOL STEELS (55 RC AND HIGHER)

FEATURES

- White aluminum oxide in a premium vitrified bond

BENEFITS

- Maximum cut rate and cool grinding action on hardened or high-speed tool steels

NORTON 57A ALUMINUM OXIDE & 39C SILICON CARBIDE

BETTER CHOICE FOR END USER THAT NEEDS SPECIFIC GRIT SIZE AND HARDNESS FOR ENGINEERED APPLICATIONS

FEATURES

- High quality aluminum oxide or silicon carbide abrasive in a premium vitrified bond system

BENEFITS

- Precision engineered grit size and hardness to maximize cut rate, finish and wheel life
- 57A for ferrous metals: 39C for nonferrous materials

NORTON GEMINI ALUMINUM OXIDE

GOOD CHOICE FOR ALL GENERAL-PURPOSE BENCH AND PEDESTAL APPLICATIONS

FEATURES

- Quality, brown aluminum oxide

BENEFITS

- Economical prices; ideal for small job shops and numerous general-purpose applications

NORTON GEMINI SILICON CARBIDE

GOOD CHOICE FOR ALL GENERAL-PURPOSE BENCH AND PEDESTAL APPLICATIONS ON NONFERROUS MATERIALS AND CARBIDE TOOLING

FEATURES

- Sharp, green silicon carbide

BENEFITS

- Economical prices; ideal for small job shops and numerous general-purpose applications



TIER: BETTER
BRAND: Norton
TRADENAME: PREMIUM ALUNDUM
ABRASIVE: White Aluminum Oxide



BETTER
Norton
57A
Brown Aluminum Oxide



GOOD
Norton
GEMINI ALUNDUM
Brown Aluminum Oxide

SIZE (D x T x H)	MAX. RPM	MIN./STD. PKG.	SPEC	PART #	MIN./STD. PKG.	SPEC	PART #	MIN./STD. PKG.	SPEC	PART #
5 x 1/2 x 1	4,965							1/5	Medium 60/80	07660788202
	4,965							1/5	Fine 100/120	07660788201
5 x 3/4 x 1	4,965							1/5	Coarse 36/46	07660788215
	4,965							1/5	Medium 60/80	07660788210
5 x 1 x 1	4,965							1/5	Fine 100/120	07660788205
	4,965							1/5	Coarse 36/46	07660788230
6 x 1/2 x 1	4,140							1/5	Medium 60/80	07660788225
	4,140							1/5	Coarse 36/46	66252836132
6 x 3/4 x 1	4,140							1/5	Medium 60/80	66252836131
	4,140	1/5	Medium 60	07660788246				1/5	Fine 100/120	66252836133
	4,140	1/5	Fine 100	07660788247				1/5	Coarse 36/46	07660788245
6 x 1 x 1	4,140	1/5	Very Fine 150	07660788248				1/5	Medium 60/80	07660788240
	4,140	1/5	Medium 60	07660788261				1/5	Fine 100/120	07660788235
	4,140	1/5	Fine 100	07660788262				1/5	Coarse 36/46	07660788260
7 x 1 x 1	4,140	1/5	Very Fine 150	07660788263				1/5	Medium 60/80	07660788255
	3,600							1/5	Fine 100/120	07660788250
	3,600							1/5	Coarse 36/46	07660788275
8 x 3/4 x 1	3,600							1/5	Medium 60/80	07660788270
	3,600							1/5	Fine 100/120	07660788265
	3,600							1/5	Coarse 36/46	07660788278
8 x 1 x 1	3,600							1/5	Medium 60/80	07660788277
	3,600	1/5	Medium 60	07660788281				1/5	Fine 100/120	66253042317
	3,600	1/5	Fine 100	07660788282				1/5	Very Coarse 24	66253044454
10 x 1 x 1-1/4	3,600	1/5	Very Fine 150	07660788283				1/5	Coarse 36/46	07660788286
	2,485							1/5	Medium 60/80	07660788285
	2,485							1/5	Fine 100/120	07660788280
10 x 1 x 1-1/4	2,485							1/2	Very Coarse 24	66253160788
	2,485				1/5	57A46-MVBE	66253116274	1/2	Coarse 36/46	07660788295
	2,485				1/5	57A60-MVBE	66253116273	1/2	Medium 60/80	07660788290
10 x 1-1/4 x 1-1/4	2,485							1/2	Fine 100/120	66253160350
	2,485							1/2	Coarse 36/46	66253161250
	2,485							1/2	Medium 60/80	66253161251
10 x 1-1/2 x 1-1/4	2,485							1/2	Coarse 36/46	66253161393
	2,485				1/5	57A46-MVBE	66253116280	1/2	Medium 60/80	66253161395
	2,485							1/2	Medium 60/80	66253161395
12 x 1 x 1-1/4	2,070						1/5	57A46-MVBE	66253220947	
12 x 1-1/2 x 1-1/2	2,070							1/2	Coarse 36/46	66253263052
	2,070							1/2	Medium 60/80	66253263053
12 x 2 x 1-1/2	2,070				1/4	57A30-MVBE	66253220951	1/2	Very Coarse 24	66253263054
	2,070				1/4	57A36-OVBE	66253220952	1/2	Coarse 36/46	66253263055
	2,070				1/4	57A46-MVBE	66253220953	1/2	Medium 60/80	66253263056
	2,070				1/4	57A60-MVBE	66253220955			
14 x 2 x 1-1/2	1,800				1/3	57A24-QVBE	66253319972			
	1,800				1/3	57A36-OVBE	66253319973			
	1,800				1/3	57A46-MVBE	66253319974			
14 x 2-1/2 x 1-1/2	1,800				1/2	57A24-QVBE	66253319976			
	1,800				1/2	57A46-MVBE	66253319975			
14 x 3 x 1-1/2	1,800				1/2	57A36-OVBE	66253319977			
18 x 3 x 1-1/2	1,275				1/2	57A24-QVBE	66253462610			



TIER: BETTER
BRAND: Norton
TRADENAME: 39C (GREEN) / 37C (GRAY)
ABRASIVE: Silicon Carbide



GOOD
BRAND: Norton
TRADENAME: GEMINI CRYSTOLON
ABRASIVE: Green Silicon Carbide

SIZE (D x T x H)	MAX. RPM	MIN./STD. PKG.	SPEC	PART #	MIN./STD. PKG.	SPEC	PART #
6 x 1/2 x 1	4,140				1/5	Medium 60	66252836571
	4,140				1/5	Fine 80	66252836572
	4,140				1/5	Extra Fine 120	66252836573
6 x 3/4 x 1	4,140				1/5	Medium 60	66252837190
	4,140				1/5	Fine 80	66252837191
	4,140				1/5	Extra Fine 120	66252837192
6 x 1 x 1	4,140				1/5	Medium 60	66252837187
	4,140				1/5	Fine 80	66252837193
	4,140				1/5	Extra Fine 120	66252837194
7 x 1 x 1	3,600				1/5	Medium 60	66252942300
	3,600				1/5	Fine 80	66252942301
	3,600				1/5	Extra Fine 120	66252942302
8 x 1 x 1	3,600				1/5	Medium 60	66253044087
	3,600				1/5	Fine 80	66253044534
	3,600				1/5	Extra Fine 120	66253044535
10 x 1 x 1-1/4	2,485	1/5	39C60-IVK	66253116262	1/2	Medium 60	66253144536
	2,485				1/2	Fine 80	66253160366
10 x 1-1/2 x 1-1/4	2,485	1/5	39C60-IVK	66253116265			
12 x 2 x 1-1/4	2,070				1/2	Medium 60	66253263359
	2,070				1/2	Fine 80	66253263360
12 x 2 x 1-1/2	2,070	1/4	39C60-KVK	66253220942			
14 x 2 x 1-1/2	1,800	1/3	37C24-RVK	66253319967			
	1,800	1/3	39C60-JVK	66253319968			

Bench and Pedestal Wheel Arbor Bushings

WHEEL DIAMETER	WHEEL CENTER HOLE	1/2"	5/8"	3/4"	7/8"	1"	1-1/4"
5", 6", 7"	1"	•	•	•	•		
8"	1"		•	•	•		
10"	1-1/4"			•	•	•	
12" x 2"	1-1/4"					•	
12" and 14"	1-1/2"					•	•

These size bushings shipped free of charge with your wheel order.

TECH TIP

- Unsecured machines can move, causing grinding breakage and injury. Fixed-based bench and pedestal grinders **MUST** be secured.
- Do not grind wood, plastic, or any other non-metallic material on a bench or pedestal grinder.
- All bench and pedestal wheels must be dressed to prevent loading. Loading can cause excessive heat, damage to the workpiece, and wheel breakage. Dressing exposes new cutting edges and provides chip clearance.
- Recommended starting dressing stick: 1 x 1 x 6 37C24-SVK Part # 61463610462.



It is the user's responsibility to refer to and comply with ANSI B7.1

Resin bond, vitrified bond, center lap, and cotton fiber mounted points are available in a wide range of shapes.

Industries: Aerospace
Tool and Die
Construction
Metal Fabrication
Automotive
Cutlery
Mold Shops
Stainless Steel Equipment
Foundries

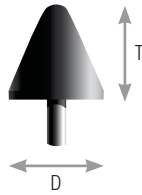
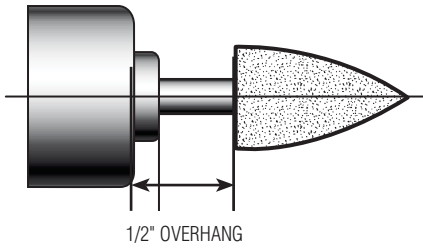
Abrasive Grain: Ceramic Alumina, Zirconia Alumina, Zirconia Alumina/Aluminum Oxide Blend, Aluminum Oxide

Shape Availability: A, B, and W

Machine Used:



MEASUREMENT GUIDE



Description of Overhang

Overhang is the distance between the grinder chuck and the abrasive on the spindle. The larger the overhang, the lower the maximum safe operating speed.

Size

Measured by diameter (D) x thickness (T)

FEATURED PRODUCTS



COTTON FIBER ALUMINUM OXIDE - RESIN BOND

GOOD FOR BLENDING AND POLISHING

FEATURES

- 80 grit
- 120 grit

BENEFITS

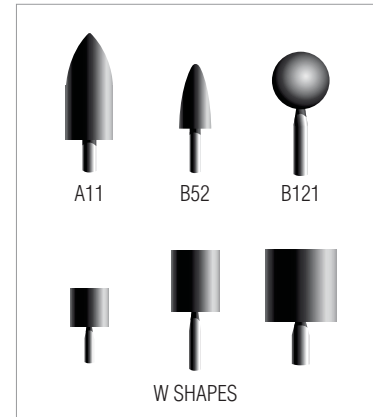
- For most materials
- For polishing and stainless steel applications

TIER: **GOOD**
BRAND: Norton
TRADENAME: **COTTON FIBER**
ABRASIVE: Aluminum Oxide

SHAPE	SIZE (D x T)	SPINDLE DIA. †	MAX. RPM*	MIN./STD. PKG.	SPEC	PART #
Cotton Fiber Mounted Points						
A11	7/8 x 2	1/4	19,860	5/25	A80-HBF3	61463622664
B52	3/8 x 3/4	1/8	45,370	5/25	A120-HBF3	61463620242
B121	1/2" Ball	1/8	45,370	5/25	A80-HBF3	61463622657
W163	1/4 x 1/2	1/8	60,000	5/25	A80-HBF3	61463622655
			60,000	5/25	A120-HBF3	61463622656
W176	3/8 x 1/2	1/8	45,370	5/25	A80-HBF3	61463622654
W185	1/2 x 1/2	1/8	34,500	5/25	A80-HBF3	61463622649
W187	1/2 x 1	1/8	20,620	5/25	A80-HBF3	61463622651
W220	1 x 1	1/4	25,500	5/25	A80-HBF3	61463622646

† Spindle length is 1-1/2"

* Maximum RPM valid to 1/2" overhang. See package insert for other overhangs.



CENTER LAP ALUMINUM OXIDE - VITRIFIED BOND

FOR EXCELL-O CENTER LAP AND SIMILAR MACHINES

FEATURES & BENEFITS

- Specially formulated wheel treatment (#5 wood resin) adds lubricity to the wheel, minimizing risk of metallurgical damage
- Larger diameter spindle for minimum deflection, rigid support
- Precise dimensional tolerances ensure accurate location of part centers

TECH TIP

Dress the center lap mounted points frequently to ensure accurate and smooth center holes.



It is the user's responsibility to refer to and comply with ANSI B7.1

TIER: **BETTER**
 BRAND: Norton
 TRADENAME: **CENTER LAP**
 ABRASIVE: Aluminum Oxide

SHAPE	SIZE (D x T)	SPINDLE DIA. †	MAX. RPM*	MIN./STD. PKG.	SPEC	PART #
Center Lap Mounted Points						
-	1/2 x 2**	1/2	65,000	5/25	A80-VVM	61463621421
-	1 x 2**	1/2	15,900	5/25	A80-VVM	61463622926

† Spindle length is 1-1/4"

* Maximum RPM valid to 1/2" overhang. See package insert for other overhangs.

** Pointed 60°

NORTON NORZON ZIRCONIA ALUMINA – RESIN BOND

BEST CHOICE FOR FAST STOCK REMOVAL

FEATURES & BENEFITS

- NZ (NorZon) zirconia alumina self-sharpening abrasive and durable organic bond provide 2X faster stock removal than competitive aluminum oxide products, while lasting 4X longer

NORTON CHARGER Z/A & A/O BLEND – RESIN BOND

BETTER CHOICE FOR FAST STOCK REMOVAL AND LONG LIFE

FEATURES & BENEFITS

- Zirconia alumina/aluminum oxide abrasive blend provides 35% faster cut rate than standard aluminum oxide mounted points
- An aggressive, free cut cleans more parts in less time to substantially increase productivity
- Specially formulated organic bond for 2X greater life than ordinary aluminum oxide mounted points, with reduced vibration and wheel chatter
- Charger mounted point pre-packed in small packages are ideal for vending machines, pegboards, small jobs, and carrying to job site

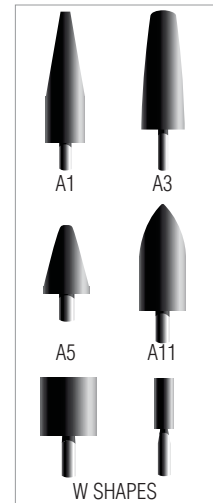
TIER: **BEST**
 BRAND: Norton
 TRADENAME: **NORZON**
 ABRASIVE: Zirconia Alumina

SHAPE	SIZE (D x T)	SPINDLE DIA. †	MAX. RPM*	MIN./STD. PKG.	SPEC	PART #	SPEC	PART #
Resin Bond Mounted Points								
A1	3/4 x 2-1/2	1/4	19,800	5/25	NZ24-UBXR1	61463616457	Charger	61463616458
A3	1 x 2-3/4	1/4	16,100	5/25	NZ24-UBXR1	61463616459	Charger	61463616460
			16,100	2 V			Charger	66253325924
A5	3/4 x 1-1/8	1/4	45,000	5/25			Charger	61463616462
			45,000	5 V			Charger	66253325926
A11	7/8 x 2	1/4	19,860	5/25	NZ24-UBXR1	61463616463	Charger	61463616464
W189	1/2 x 2	1/4	24,000	5/25	NZ24-UBXR1	61463616465	Charger	61463616466
			24,000	5 V			Charger	66253325928
W197	5/8 x 2	1/4	21,000	5/25	NZ24-UBXR1	61463616467		
W207	3/4 x 1-1/2	1/4	24,000	5/25			Charger	61463616470
W208	3/4 x 2	1/4	18,750	5/25	NZ24-UBXR1	61463616471	Charger	61463616472
W220	1 x 1	1/4	25,500	5/25	NZ24-UBXR1	61463617520	Charger	61463617521
			25,500	5 V			Charger	66253325930
W221	1 x 1-1/2	1/4	19,120	5/25	NZ24-UBXR1	61463616473	Charger	61463616474
W222	1 x 2	1/4	15,900	5/25	NZ24-UBXR1	61463616475	Charger	61463616476

† Spindle length is 1-1/2"

* Maximum RPM valid to 1/2" overhang. See package insert for other overhangs.

V = Vending package. Ideal for vending machines and small jobs. Min. Pkg. Qty = number of mounted points per vendible pack. Order in multiples of min qty.



NORTON QUANTUM CERAMIC ALUMINA – VITRIFIED BOND

BEST CHOICE FOR HIGH VOLUME OPERATIONS

FEATURES

- Unique, engineered ceramic grain shape and chemistry with proven bond technology
- Oil and Gas 36 grit mounted points

BENEFITS

- Ideal for high-volume foundry operations – grinding Inconel and similar alloy turbine blade components
- Minimal loading and heat build-up
- 33% + longer life versus competitive ceramic products
- 30% + higher metal removal rates
- Versatile, optimized for all low-, medium- and high-force applications
- Exceptional productivity and life
- Specifically engineered to efficiently grind the carbide matrix material of oil field drill heads

NORTON GEMINI ALUMINUM OXIDE– VITRIFIED BOND

GOOD VALUE FOR GENERAL PURPOSE, SMALL JOB SHOP APPLICATIONS

FEATURES

- 38A abrasive
- Diverse shapes and sizes

BENEFITS

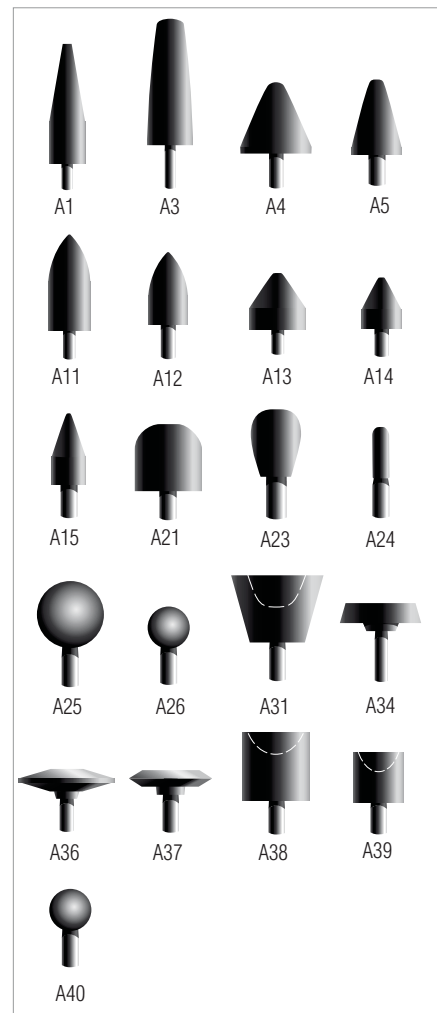
- Cool cutting, less burn
- Ideal when initial price is the main purchasing consideration

TIER:	BEST	GOOD
BRAND:	Norton	Norton
TRADENAME:	QUANTUM	GEMINI
ABRASIVE:	Ceramic Alumina	38A Aluminum Oxide

SHAPE	SIZE (D x T)	SPINDLE DIA. †	MAX. RPM*	MIN./STD. PKG.	SPEC	PART #	SPEC	PART #
Vitrified Bond Mounted Points – A Shapes								
A1	3/4 x 2-1/2	1/4	19,800	25/250	Oil & Gas 36	61463686139		
A1	3/4 x 2-1/2	1/4	19,800	5/25	3NQ80	69083149139	38A36-T	61463624374
A1	3/4 x 2-1/2	1/4	19,800	5/25			38A60-P	61463624375
A3	1 x 2-3/4	1/4	16,100	25/250	Oil & Gas 36	61463686138		
A3	1 x 2-3/4	1/4	16,100	5/25			38A36-T	61463624377
A3	1 x 2-3/4	1/4	16,100	5/25			38A60-P	61463624378
A4	1-1/4 x 1-1/4	1/4	30,560	5/25			38A60-P	61463624380
A5	3/4 x 1-1/8	1/4	45,000	5/25	3NQ80	69083149140	38A36-T	61463624381
A5	3/4 x 1-1/8	1/4	45,000	5/25			38A60-P	61463624382
A11	7/8 x 2	1/4	19,860	5/25	3NQ80	69083149141	38A36-T	61463624384
A11	7/8 x 2	1/4	19,860	5/25			38A60-P	61463624385
A12	11/16 x 1-1/4	1/4	48,000	5/25	3NQ60	61463677679	38A60-P	61463624388
A13	1-1/8 x 1-1/8	1/4	33,950	5/25			38A60-P	61463624389
A14	11/16 x 7/8	1/4	55,560	5/25			38A60-P	61463624390
A15	1/4 x 1-1/16	1/4	72,750	5/25			38A60-P	61463624391
A21	1 x 1	1/4	34,500	5/25	3NQ80	69083149144	38A60-P	61463624392
A23	3/4 x 1	1/4	39,370	5/25	3NQ80	69083149143	38A60-P	61463624394
A24	1/4 x 3/4	1/4	76,500	5/25			38A60-P	61463624395
A25	1" Ball	1/4	35,620	5/25	3NQ80	61463677680	38A60-P	61463624396
A26	5/8" Ball	1/4	61,120	5/25	3NQ80	69083149145	38A60-P	61463624397
A31	1-3/8 x 1	1/4	27,780	5/25			38A60-P	61463624399
A34	1-1/2 x 3/8	1/4	25,470	5/25			38A60-P	61463624402
A36	1-5/8 x 3/8	1/4	23,520	25/250	Oil & Gas 36	66253145562		
A36	1-5/8 x 3/8	1/4	23,520	5/25	3NQ80	69083149146	38A60-P	61463624404
A37	1-1/4 x 1/4	1/4	30,560	5/25			38A60-P	61463624405
A38	1 x 1	1/4	34,500	5/25	3NQ80	61463677682	38A60-P	61463624406
A39	3/4 x 3/4	1/4	47,250	5/25	3NQ80	69083149147	38A60-P	61463624407
A40	3/4" Ball	1/4	47,250	5/25			38A60-P	61463624408

† Standard spindle size is 1/4" x 1-1/2"

* Maximum RPM valid to 1/2" overhang. See package insert for other overhangs.

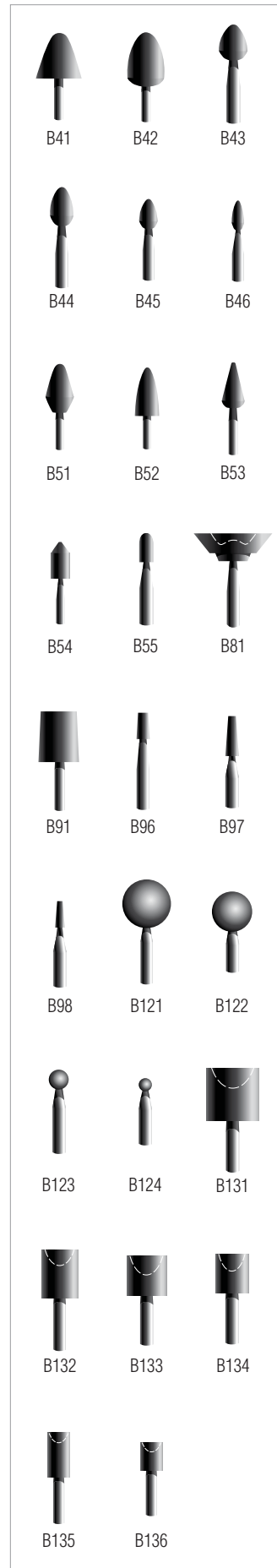


TIER:	BEST	GOOD
BRAND:	Norton	Norton
TRADENAME:	QUANTUM	GEMINI
ABRASIVE:	Ceramic Alumina	38A Aluminum Oxide

SHAPE	SIZE (D x T)	SPINDLE DIA. †	MAX. RPM*	MIN./STD. PKG.	SPEC	PART #	SPEC	PART #
Vitrified Bond Mounted Points – B Shapes								
B41	5/8 x 5/8	1/8	33,570	5/25			38A60-P	61463624410
B42	1/2 X 3/4	1/8	33,570	5/25	3NQ80	69083149045	38A60-P	61463624412
B43	1/4 x 5/16	1/8	81,370	5/25			38A60-P	61463624413
B44	7/32 x 3/8	1/8	68,400	5/25			38A60-P	61463624414
B45	3/16 x 5/16	1/8	104,250	5/25			38A60-P	61463624415
B46	1/8 x 5/16	1/8	105,000	5/25			38A60-P	61463624416
B51	7/16 x 3/4	1/8	45,370	5/25			38A60-P	61463624418
B52	3/8 x 3/4	1/8	45,370	5/25	3NQ80	69083149046	38A60-P	61463624420
B52	3/8 x 3/4	1/4	81,000	5/25			38A60-P	61463624419
B52	3/8 x 3/4	1/8	45,370	5/25			38A90-Q	61463624422
B53	5/16 x 5/8	1/8	60,000	5/25			38A60-P	61463624423
B54	1/4 x 1/2	1/8	60,000	5/25			38A60-P	61463624424
B55	1/8 x 1/4	1/8	105,000	5/25			38A60-P	61463624425
B81	3/4 x 3/16	1/8	50,930	5/25			38A60-P	61463624437
B91	1/2 x 5/8	1/8	34,500	5/25			38A60-P	61463624443
B96	1/8 x 1/4	1/8	105,000	5/25			38A60-P	61463624448
B96	1/8 x 1/4	1/8	105,000	5/25			38A90-Q	61463624449
B97	1/8 x 3/8	1/8	105,000	5/25	3NQ80	69083149048	38A60-P	61463624451
B98	3/32 x 1/4	1/8	105,000	5/25			38A60-P	61463624452
B121	1/2" Ball	1/8	45,370	5/25			38A60-P	61463624466
B122	3/8" Ball	1/8	61,650	5/25	3NQ80	69083149050	38A60-P	61463624470
B122	3/8" Ball	1/8	61,650	5/25			38A90-Q	61463624471
B123	3/16" Ball	1/8	104,250	5/25			38A60-P	61463624472
B124	1/8" Ball	1/8	105,000	5/25			38A90-Q	61463624474
B131	1/2 x 1/2	1/8	34,500	5/25	3NQ80	69083149049	38A60-P	61463624475
B132	3/8 x 1/2	1/8	45,370	5/25			38A60-P	61463624479
B133	3/8 x 3/8	1/8	54,000	5/25			38A60-P	61463624481
B134	5/16 x 3/8	1/8	61,650	5/25			38A60-P	61463624482
B135	1/4 x 1/2	1/8	60,000	5/25			38A60-P	61463624484
B136	1/4 x 5/16	1/8	77,250	5/25			38A60-P	61463624485

† Spindle size is 1/8" or 1/4" x 1-1/2"

* Maximum RPM valid to 1/2" overhang. See package insert for other overhangs.



TECH TIP

- For best mounted point performance, always run the mounted point at the maximum allowable speed according to ANSI B7.1. Refer to the speed chart included in each shipment for proper operating speeds.
- Use "A" shapes for medium- to heavy-duty blending.
- Use "B" shapes for light deburring and finishing/polishing.
- Use "W" shapes for offhand and precision grinding of medium to heavy stock.
- Use 36 grit and coarser for rough grinding.
- Use 60 and 90 grits for imparting fine finishes or when grinding on narrow surfaces.



It is the user's responsibility to refer to and comply with ANSI B7.1

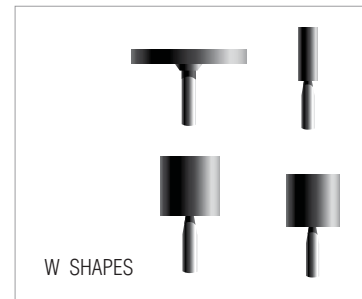


TIER:	BEST	GOOD
BRAND:	Norton	Norton
TRADENAME:	QUANTUM	GEMINI
ABRASIVE:	Ceramic Alumina	38A Aluminum Oxide

SHAPE	SIZE (D x T)	SPINDLE DIA. †	MAX. RPM*	MIN./STD. PKG.	SPEC	PART #	SPEC	PART #
Vitrified Bond Mounted Points – W Shapes								
W144	1/8 x 1/4	1/8	105,000	5/25			38A60-P	61463624488
W145	1/8 x 3/8	1/8	105,000	5/25			38A60-P	61463624489
W146	1/8 x 1/2	1/8	105,000	5/25			38A60-P	61463624491
W152	3/16 x 1/4	1/8	105,000	5/25			38A60-P	61463624495
W153	3/16 x 3/8	1/8	80,850	5/25			38A60-P	61463624496
W154	3/16 x 1/2	1/8	70,500	5/25	3NQ80	69083149133	38A60-P	61463624497
W160	1/4 x 1/4	1/8	81,370	5/25			38A60-P	61463624501
W162	1/4 x 3/8	1/8	64,800	5/25			38A60-P	61463624503
W163	1/4 x 1/2	1/8	60,000	5/25			38A60-P	61463624504
W164	1/4 x 3/4	1/8	45,900	5/25	3NQ80	69083149135	38A60-P	61463624505
W170	5/16 x 1/2	1/8	52,500	5/25			38A60-P	61463624511
W175	3/8 x 3/8	1/8	54,000	5/25			38A60-P	61463624516
W176	3/8 x 1/2	1/8	45,370	5/25			38A60-P	61463624517
W177	3/8 x 3/4	1/8	33,750	5/25			38A60-P	61463624518
W179	3/8 x 1-1/4	1/4	20,415	25/250	Oil & Gas 36	69083154055		
W185	1/2 x 1/2	1/8	34,500	5/25	3NQ80	69083149137	38A60-P	61463624525
W185	1/2 x 1/2	1/4	61,500	5/25			38A60-P	61463624526
W186	1/2 X 3/4	1/4	51,000	5/25			38A60-P	61463624528
W188	1/2 x 1-1/2	1/4	30,370	5/25			38A60-P	61463624530
W189	1/2 x 2	1/4	24,000	25/250	Oil & Gas 36	61463686137		
W189	1/2 x 2	1/4	24,000	5/25	3NQ80	61463677683	38A60-P	61463624531
W196	5/8 x 1	1/4	35,250	5/25			38A60-P	61463624539
W200	3/4 x 1/8	1/8	50,930	5/25			38A60-P	61463624543
W200	3/4 x 1/8	1/8	50,930	5/25			38A90-Q	61463624544
W204	3/4 x 3/4	1/4	42,750	5/25			38A60-P	61463624549
W205	3/4 x 1	1/4	34,500	5/25			38A60-P	61463624550
W208	3/4 x 2	1/4	18,750	5/25	3NQ80	61463677684	38A60-P	61463624553
W215	1 x 1/8	1/8	38,200	5/25	3NQ80	69083149138	38A60-P	61463624560
W216	1 x 1/4	1/4	38,200	5/25			38A60-P	61463624562
W218	1 x 1/2	1/4	38,200	25/250	Oil & Gas 36	69083154061		
W218	1 x 1/2	1/4	38,200	5/25			38A60-P	61463624564
W220	1 x 1	1/4	25,500	5/25	3NQ80	61463677685	38A60-P	61463624566
W221	1 x 1-1/2	1/4	19,120	5/25			38A60-P	61463624567
W222	1 x 2	1/4	15,900	5/25			38A60-P	61463624569
W230	1-1/4 x 1-1/4	1/4	20,400	5/25			38A60-P	61463624578
W235	1-1/2 x 1/4	1/4	25,470	5/25			38A60-P	61463624583
W236	1-1/2 x 1/2	1/4	25,470	5/25	3NQ80	61463677686	38A60-P	61463624585
W237	1-1/2 x 1	1/4	22,500	5/25			38A60-P	61463624587
W238	1-1/2 x 1-1/2	1/4	15,600	5/25			38A60-P	61463624588
W242	2 x 1	1/4	19,100	5/25	3NQ80	69083149148	38A60-P	61463624592

† Spindle size is 1/8" or 1/4" x 1-1/2"

* Maximum RPM valid to 1/2" overhang. See package insert for other overhangs.



50-Piece Mounted Point Kits

- Each kit contains 5 each of 10 of our best selling mounted point shapes and specifications
- The 1/4" spindle kits contain "A"-shaped points that are ideal for general maintenance and metalworking applications
- The 1/8" spindle kits contain "B"-shaped points for light deburring machine parts or finishing/polishing dies
- The "W"-shaped points in all of these kits work well for precision grinding of medium to heavy stock

TIER:	BEST	GOOD
BRAND:	Norton	Norton
TRADE NAME:	QUANTUM	GEMINI

SHAPE	SPINDLE DIA. †	MIN./STD. PKG.	PART #	PART #
Mounted Point Kits				
Assorted	1/4	1	50 piece Premium Norton Quantum 1/4" Spindle Mounted Point Kit contains 5 each of Norton Quantum A1, A5, A11, A21, A23, A26, A36, A39, W242, and A80-HBF3 W220	69083147810
Assorted	1/8	1	50 piece Premium Norton Quantum 1/8" Spindle Mounted Point Kit contains 5 each of Norton Quantum B42, B52, B97, B122, B131, W154, W164, W185, W215, and A80-HBF3 W163	69083147806
Assorted	1/4	1	50 piece Norton Gemini 1/4" Spindle Mounted Point Kit contains 5 each of 38A60-P A1, A5, A11, A21, A23, A26, A36, A39, W242, and A80-HBF3 W220	69083147789
Assorted	1/8	1	50 piece Norton Gemini 1/8" Spindle Mounted Point Kit contains 5 each of 38A60-P B42, B52, B97, B122, B131, W154, W164, W185, W215, and A80-HBF3 W163	69083147669

† Spindle size is 1/8" or 1/4" x 1-1/2"

Since 1823, Norton stones have lead the marketplace with conventional and diamond benchstones, waterstones, sharpening systems, files, slips and specialty stones for industrial, commercial and DIY sharpening applications. Our comprehensive line of sharpening and finishing products is the industry's broadest line with premier performance and quality.

Applications: Deburring, dimensioning, sharpening, honing
 Grit Range: Coarse, Medium, Fine, Extra Fine, Ultra Fine
 Abrasive Types: Aluminum Oxide (India), Silicon Carbide (Crystolon), Arkansas (Soft and Hard Translucent), and Diamond
 Machine Used:



APPLICATION-TO-PRODUCT RECOMMENDATION GUIDE

Benchstones

	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 1000 Waterstone	Fine India Benchstone 4000 Waterstone	Hard Arkansas Benchstone 8000 Waterstone
Plane Blades	Coarse Crystolon Benchstone 1000 Waterstone	Fine India Benchstone 4000 Waterstone	Hard Arkansas Benchstone 8000 Waterstone

Slips

	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

Abrasive Files

	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

Relative Sharpening Comparisons for Norton Products

Crystolon (Silicon Carbide); India (Aluminum Oxide)	Arkansas (Soft, Hard Translucent)	Diamond Stones	Waterstones		Coated Abrasives (Waterproof Sandpaper)		Diamond Compound
			JIS (Japan)	CAMI (USA)	FEP (Europe)	MICRON Size	
Coarse Crystolon					P100	141	
					P120	127	
Coarse India				120			116
					P150	97	
				150			93
Medium Crystolon				180	P180	78	
		Extra Coarse Diamond (220)	Norton 220		P220	65	
				220			60
					P240	58	
Medium India					240		53.5
						P280	52.5
							50
					P320	46	
Fine Crystolon							45
		Coarse Diamond (325)		280			43
					P360	40.5	
			360	320			36
Fine India					P400	35	
				360			29
					P600	25.8	
				400			23
	Soft Arkansas	Fine Diamond (600)	600		P800	22	
						20	
			800	600	P1200	16	
			Norton 1000	700			14
				800	P1500	12.6	
			1200				11
					P2000	10.3	
			1500	1000			9.2
							9
				1500	P2500	8.4	
							7.5
	Hard Translucent Arkansas		Norton 4000	2000			6
							5
			Norton 8000				3
							1.2
							1
			15000				0.5

Benchstones

PRECISION BENCHSTONES

BETTER CHOICE FOR SHARPENING TOOLS AND KNIVES

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.



TIER: **BETTER**

SIZE (L x W x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Precision Benchstones – Jewelers'				
4 x 2 x 3/8	5	Ultra Fine – Hard Translucent Arkansas	HB24	61463687525
6 x 2 x 3/8	5	Ultra Fine – Hard Translucent Arkansas	HB26	61463687530
<i>Jewelers' stones are packed in individual boxes within a case. Order in multiples of stones/case.</i>				
Precision Benchstones – Penknife				
3 x 1 x 3/8	5	Extra Fine – Soft Arkansas	SB13	61463687560
		Ultra Fine – Hard Translucent Arkansas	HB13	61463687550
4 x 1 x 3/8	5	Extra Fine – Soft Arkansas	SB14	61463687565
		Ultra Fine – Hard Translucent Arkansas	HB14	61463687555

Benchstones *continued*

SINGLE GRIT ABRASIVE BENCHSTONES

BETTER CHOICE FOR EDGE SHAPING AND HONING

VENDIBLE

FEATURES

- Crystolon – Premium silicon carbide abrasive
- India – Smooth cutting aluminum oxide abrasive; our best product for a fine finish
- Arkansas – Natural premium Novaculite quarried in Arkansas and available in Soft or Hard Translucent

BENEFITS

- Fast cutting stone; ideal for general sharpening of cutting tools
- Fast stock removal for quick edge shaping with minimal loading
- Long lasting cutting edge
- The choice of artisans, craftsmen and mechanics
- Ideal for clean deburring, generating keen edges and quality finishes
- Sharpest possible razor edges
- Near mirror finishes
- Use for finer honing after India stone



TIER: BETTER				
SIZE (L x W x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Single Grit Benchstones – Crystolon (Silicon Carbide)				
4 x 1 x 1/4	5	Coarse	CJB14	61463685470
	5	Medium	MJB14	61463685465
	5	Fine	FJB14	61463685460
	5 V	Fine	FJB14-V	66253325915+
4 x 1 x 1/2	5	Coarse	CJB24	61463685485
	5	Medium	MJB24	61463685480
	5	Fine	FJB24	61463685475
5 x 2 x 5/8	5	Medium	MJB35	61463685495
	5	Fine	FJB35	61463685490
6 x 2 x 1	5	Coarse	CJB6	61463685510
	5	Medium	MJB6	61463685505
	5	Fine	FJB6	61463685500
8 x 2 x 1	5	Coarse	CJB8	61463685525
	5	Medium	MJB8	61463685520
	5	Fine	FJB8	61463685515
8 x 3 x 1/2	5	Coarse	CJB83	61463654459*
	5	Medium	MJB83	61463654458*
	5	Fine	FJB83	61463654457*
11-1/2 x 2-1/2 x 1/2	1	Coarse	JM3	61463685980#
	1	Medium	JM6	61463685975#
Single Grit Benchstones – Soft Arkansas				
4 x 2 x 3/4-1	5	Extra Fine	SB4	61463685670
6 x 2 x 3/4-1	5	Extra Fine	SB6	61463685675
8 x 2 x 3/4-1	5	Extra Fine	SB8	61463685680

V = Vendible Package. Ideal for vending machines, small jobs, and carrying to job site. Pre-packed in sturdy boxes of 5 per pack. Order by total number of stones needed in multiples of 5.

* May be used as replacement stone for IM-83 Sharpening System.

May be used as replacement stone for IM-313 Sharpening Stone System.

These benchstones (except for 8 x 3 x 1/2 and vendibles) are packed in individual boxes within a case. Order in multiples of stones/case.

TIER: BETTER				
SIZE (L x W x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Single Grit Benchstones – India (Aluminum Oxide)				
4 x 1 x 1/4	5	Coarse	CB14	61463685580
	5	Medium	MB14	61463685575
	5	Fine	FB14	61463685570
	5 V	Fine	FB14-V	66253325919
4 x 1 x 1/2	5	Coarse	CB24	61463685595
	5	Medium	MB24	61463685590
	5	Fine	FB24	61463685585
5 x 2 x 5/8	5	Medium	MB35	61463685605
	5	Fine	FB35	61463685600
6 x 2 x 1	5	Coarse	CB6	61463685620
	5	Medium	MB6	61463685615
	5	Fine	FB6	61463685610
8 x 2 x 1	5	Coarse	CB8	61463685635
	5	Medium	MB8	61463685630
	5	Fine	FB8	61463685625
8 x 3 x 1/2	5	Coarse	CB83	61463654462*
	5	Medium	MB83	61463654461*
	5	Fine	FB83	61463654460*
11-1/2 x 2-1/2 x 1/2	1	Medium	IM6	61463654214#
	1	Fine	IM9	61463685970#
Single Grit Benchstones – Hard Translucent Arkansas				
4 x 2 x 3/4-1	5	Ultra Fine	HB4	61463685655
6 x 2 x 3/4-1	5	Ultra Fine	HB6	61463685660
8 x 2 x 3/4-1	5	Ultra Fine	HB8	61463685665
8 x 3 x 1/2	5	Ultra Fine	HTB83	61463654464*
11-1/2 x 2-1/2 x 1/2	1	Ultra Fine	HM11	61463685965#

Benchstones *continued*

COMBINATION GRIT ABRASIVE BENCHSTONES

BETTER CHOICE FOR ECONOMICAL SOLUTION FOR GENERAL SHARPENING AND FINISHING WITH ONE STONE

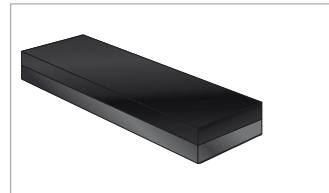
FEATURES AND APPLICATIONS

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



TIER: **BETTER**

SIZE (L x W x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Combination Grit Benchstones – Crystolon (Silicon Carbide)				
4 x 1 Round	5	Coarse/Fine	JB64	61463685435
4 x 1-3/4 x 5/8	5	Coarse/Fine	JB134	61463685440
5 x 2 x 3/4	5	Coarse/Fine	JB45	61463685445
6 x 2 x 1	5	Coarse/Fine with Anniversary Box	JB6	61463685450
8 x 2 x 1	5	Coarse/Fine with Anniversary Box	JB8	61463685455
11-1/2 x 2-1/2 x 1	2	Coarse/Fine	JUM3	61463685840
12 x 2-1/2 x 1-1/2	2	Coarse/Fine	JUM4	61463685855
Combination Grit Benchstones – India (Aluminum Oxide)				
4 x 1 Round	5	Coarse/Fine	IB64	61463685545
4 x 1-3/4 x 5/8	5	Coarse/Fine	IB134	61463685550
5 x 2 x 3/4	5	Coarse/Fine	IB45	61463685555
6 x 2 x 1	5	Coarse/Fine with Anniversary Box	IB6	61463685560
8 x 2 x 1	5	Coarse/Fine with Anniversary Box	IB8	61463685565
11-1/2 x 2-1/2 x 1	2	Coarse/Fine	IM2	61463685851
Combination Grit Benchstones – Crystolon/India				
6 x 2 x 1	5	Medium/Fine	IC6	61463685643
11-1/2 x 2 x 1	2	Medium/Fine	IC11	61463687239
Oil Stone Instructional DVD				
N/A	1	Oil Stone DVD		07660787945



These benchstones are packed in individual boxes within a case. Order in multiples of stones/case.

APPLICATION-TO-PRODUCT RECOMMENDATION GUIDE

	FAST CUT STOCK REMOVAL	INITIAL SHARPENING	FINAL SHARPENING	HONING	SHARPEST EDGE
Grit Size	Coarse	Medium	Fine	Extra Fine	Ultra Fine
Abrasive	Crystolon	Crystolon	India	Soft Arkansas	Hard Arkansas
Product/Color	Grey	Grey	Orange	Milky White	Translucent



Instructional DVD Offering

Waterstone:	07660787944
Oil Stone:	07660787945

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.

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

BETTER CHOICE FOR PRODUCING SUPERIOR EDGES ON 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
- Color-coded by grit

BENEFITS

- Fast sharpening, fine finish
- Superb results with low pressure
- Easy to differentiate grit size

PREP STONE

BETTER CHOICE FOR RAISING SLURRY

FEATURES

- This synthetic stone raises the slurry

BENEFITS

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

FLATTENING STONE

BETTER CHOICE FOR PRODUCING FLAT SURFACES ON WATERSTONES

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./CASE	SPEC.	TIER: BETTER	PART #
Waterstones – Single Grit				
8 x 3 x 1	5	220		61463689505
	5	1000		61463689506
	5	4000		61463689507
	5	8000		61463689508
Set	1	4 Stones: 220, 1000, 4000, 8000 Grit		61463624334
Waterstones – Combination Grit				
8 x 3 x 1	5	220 / 1000		61463624335
	5	1000 / 4000		61463624450
	5	1000 / 8000		69936655039
	5	4000 / 8000		61463624336
Prep Stone				
20mm x 20mm x 3"	5	Aluminum Oxide		66243439361
Flattening Stone				
9 x 3 x 3/4	5	Silicon Carbide		69936687444
Waterstone Kit				
N/A	1	Kit includes: 1-220/1000 and 1-4000/8000 waterstone, 1 flattening stone and 1 instructional DVD		07660787943
Waterstone Instructional DVD				
N/A	1	Waterstone DVD		07660787944

Waterstones are packed in individual boxes within a case. Order in multiples of stones/case.

TECH TIP

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

Diamond Benchstones

Made in the USA, these benchstones have unique stackable non-skid rubber feet designed to keep the diamond plate steady while you sharpen, and efficiently stacked for space-saving storage when not in use. Our simple grit-size color-coding makes them easy to differentiate.

STACKABLE DIAMOND BENCHSTONES

BETTER CHOICE FOR PRODUCING SUPERIOR EDGES ON PLANES AND STRAIGHT CHISELS



FEATURES

- Made in the USA
- Flat, diamond surface plated onto a nickel-coated steel bar precision ground to a tolerance of .001"
- Even diamond distribution; continuous diamond sharpening surface
- Available in 3 grit sizes: 220 (red), 325 (blue), 600 (green), and 2 sizes: 6" and 8"
- Color-coded tabs on stones and packaging
- Stackable; the stones firmly stack on top of each other
- Non-skid rubber base

BENEFITS

- Quality industrial diamonds and workmanship
- Fast, even blade and tool edge sharpening
- Easily lubricated with water, but oil may be used
- Excellent sharpening performance across entire surface of stone
- Quicker sharpening than conventional interrupted-surface diamond stones
- Pointed tools will not snag, as on interrupted-surface diamond stones
- Ideal for all your large and small tool sharpening and finishing needs
- Easy identification of grit sizes for use and displaying
- Easy, small-profile storage
- Stays in place while sharpening for smoother, efficient sharpening

TIER: BETTER			
SIZE WITH RUBBER FEET (L x W x H)	QTY./CASE	SPEC.	PART #
Stackable Diamond Benchstones			
6 x 2 x 1/4*	5	D220	66253268082
6 x 2 x 1/4*	5	D325	66253268081
6 x 2 x 1/4*	5	D600	66253268080
8 x 2 x 1/4	5	D220	66253268087
8 x 2 x 1/4	5	D325	66253268086
8 x 2 x 1/4	5	D600	66253268083

Diamond benchstones are packed in individual boxes within a case. Order in multiples of stones/case.



6" stones come retail packaged

Sharpening Stone Oil

SHARPENING STONE OIL

BETTER CHOICE FOR IMPROVING SHARPENING STONE PERFORMANCE



FEATURES

- Norton oil is a highly refined lubricating oil
- Meets U.S. Pharmacopoeia standards for mineral oil purity

BENEFITS

- Specifically formulated for sharpening stone use
- Equally ideal for all lubricating jobs
- It will not load or "gum-up" sharpening stones
- May be used around food preparation operations

TIER: BETTER				
SIZE	QTY./CASE	SPEC.	PRODUCT #	PART #
Sharpening Stone Oil				
4-1/2 oz.	20	Oil	XB1	61463687760
1 Pint	20	Oil	XB5	61463687770
1 Quart	5	Oil	XB2	61463687775

TECH TIP

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

Sharpening Systems

Tri-Stone Systems

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. 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.

IM313 MULTI-OILSTONE SHARPENING SYSTEM

BETTER CHOICE FOR LARGE, STRAIGHT-EDGED TOOL SHARPENING

FEATURES AND BENEFITS

- Considered by many to be the ultimate sharpening system, the IM313 contains 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. For general sharpening – coarse Crystolon stone quickly restores worn edges; medium Crystolon stone produces the average edge needed for most tools; and fine India stone hones for a sharper edge.

IM200 PROFESSIONAL SHARPENING SYSTEM

BETTER CHOICE FOR A VERSATILE, MULTI-SIZE TOOL AND KNIFE SHARPENER

FEATURES AND BENEFITS

- The smaller 8" stone IM200 system provides the same quality sharpening features as the IM313 – making it the perfect choice for small restaurants and home DIYers.
- The system contains 4-1/2 oz. of lubricating oil, plastic angle guide, and the reservoir unit. For general sharpening – coarse Crystolon stone quickly restores worn edges; medium Crystolon stone produces the average edge needed for most tools; and fine India stone hones for a sharper edge.

IM100 3-IN-1 TOOL AND KNIFE SHARPENING SYSTEM

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

Portable Sharpening Systems

IM83 PORTABLE SHARPENING STONE SYSTEM

BETTER CHOICE FOR ALL SHARPENING ENTHUSIASTS WHO CARRY THEIR SYSTEM WITH THEM

FEATURES AND BENEFITS

- Sturdy metal latches secure the cover and storage case – where small tools can be housed. The IM83 system is designed like all our other sharpening systems; the stones can be replaced to customize the unit to individual requirements.
- Ideal for industrial toolrooms, restaurants, knife manufacturers, DIYers, and sportsmen.
- Both IM83 systems include 3 sharpening stones, an instructional DVD in the base, and a reservoir carrying case. The oil stone system also includes 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.

Sharpening Systems *continued*

			TIER: BETTER	
SIZE	QTY./CASE	SPEC.	PRODUCT #	PART #
IM313 Multi-Oilstone Sharpening System				
11-1/2 x 2-1/2 x 1/2	1	1 Coarse Crystolon, 1 Medium Crystolon, and 1 Fine India Stone, 1 Pint Oil, Angle Guide, Reservoir Unit	IM313	61463685960
IM200 Professional Sharpening System				
8 x 2 x 3/8	1	1 Coarse Crystolon, 1 Medium Crystolon, and 1 Fine India Stone, 4-1/2 oz. Oil, Angle Guide, Reservoir Unit	IM200	61463691260
IM100 3-in-1 Tool and Knife Sharpening System				
6 x 2 x 1/2	1	1 Coarse Crystolon, 1 Medium Crystolon, and 1 Fine India Stone, 4-1/2 oz. Oil, Reservoir Unit	IM100	61463685356
IM83 Portable Systems				
8 x 3 x 1/2	1	Oilstones: 1 Coarse Crystolon, 1 Medium India, 1 Fine India, 4-1/2 oz. Oil, Instructional DVD in Base, Reservoir Carrying Case	IM83-O	66243582823
8 x 3 x 1	1	Waterstones: 1 ea. of 1000, 4000, 8000 Grit, 1 Flattening Stone, Instructional DVD in Base, Reservoir Carrying Case	IM83-W	66243582825

For sharpening system replacement stones: see *Single Grit Benchstone charts*, or your Norton representative for replacement stones and parts which may be used as replacements or to customize your system.

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. They 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

BETTER CHOICE FOR ANY DEBURRING, CHAMFERING OR RADIUSING JOB, OR FOR FILING DELICATE PARTS

FEATURES AND APPLICATIONS

- Crystolon Files – Fast-acting silicon carbide products, Crystolon files are designed for use where moderate tolerances are acceptable, and speed of sharpening is more important than fineness.
- India Files – India files are ideal when close tolerance, and strong, keen, long-lasting edges are needed.
- 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.



Square Abrasive Files

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.



TIER: BETTER				
SIZE (L x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Square Abrasive Files – Crystolon (Silicon Carbide)				
4 x 3/8	5	Fine	FJF34	61463686030
4 x 1/2	5	Medium	MJF44	61463686045
	5	Fine	FJF44	61463686040
Square Abrasive Files – Hard Translucent Arkansas				
3 x 1/4	5	Ultra Fine	HF13	61463686590
3 x 3/8	5	Ultra Fine	HF33	61463686595
3 x 1/2	5	Ultra Fine	HF43	61463686600

All square files are bulk packed

TIER: **BETTER**

SIZE (L x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Square Abrasive Files – India (Aluminum Oxide)				
4 x 1/4	5	Coarse	CF14	61463686075
	5	Medium	MF14	61463686070
	5	Fine	FF14	61463686065
4 x 3/8	5	Coarse	CF34	61463686090
	5	Medium	MF34	61463686085
	5	Fine	FF34	61463686080
4 x 1/2	5	Coarse	CF44	61463686105
	5	Medium	MF44	61463686100
	5 V	Medium	MF44-V	66253325913
	5	Fine	FF44	61463686095
6 x 1/2	5	Coarse	CF46	61463686120
	5	Medium	MF46	61463686115
	5	Fine	FF46	61463686110
6 x 5/8	5	Medium	MF56	61463686130
	5	Fine	FF56	61463686125
6 x 3/4	5	Coarse	CF66	61463686150
	5	Medium	MF66	61463686145
	5	Fine	FF66	61463686140
6 x 1	5	Coarse	CF76	61463686165
	5	Medium	MF76	61463686160
	5	Fine	FF76	61463686155

V = Vendible Package. Ideal for vending machines, small jobs, and carrying to job site. Pre-packed in sturdy boxes of 5 per pack. Order by total number of stones needed in multiples of 5.

Abrasive Files *continued*

Triangular Abrasive Files

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.



TIER: **BETTER**

SIZE (L x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Triangular Abrasive Files – Crystolon (Silicon Carbide)				
4 x 1/4	5	Fine	FJF114	61463686185
4 x 1/2	5	Fine	FJF144	61463686205
Triangular Abrasive Files – Hard Translucent Arkansas				
3 x 1/4	5	Ultra Fine	HF113	61463686620
3 x 3/8	5	Ultra Fine	HF133	61463686625
3 x 1/2	5	Ultra Fine	HF143	61463686630

All Triangular files are bulk packed

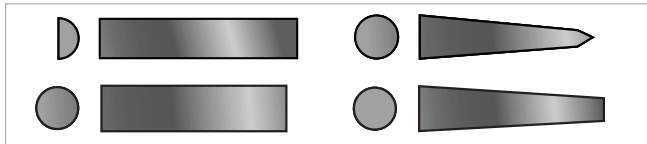
Round Abrasive Files

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

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

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

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



TIER: **BETTER**

SIZE (L x D)	QTY./CASE	SPEC.	PRODUCT #	PART #
Half Round Abrasive Files – India (Aluminum Oxide)				
4 x 1/4	5	Medium	MF314	61463686355
	5	Fine	FF314	61463686350
4 x 3/8	5	Medium	MF334	61463686385
	5	Fine	FF334	61463686380
4 x 1/2	5	Coarse	CF344	61463686405
	5	Medium	MF344	61463686400
	5	Fine	FF344	61463686395

All Half-Round and Round files are bulk packed

TIER: **BETTER**

SIZE (L x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Triangular Abrasive Files – India (Aluminum Oxide)				
4 x 1/4	5	Coarse	CF114	61463686240
	5	Medium	MF114	61463686235
	5	Fine	FF114	61463686230
4 x 3/8	5	Coarse	CF134	61463686250
	5	Medium	MF134	61463686250
	5	Fine	FF134	61463686245
4 x 1/2	5	Coarse	CF144	61463686270
	5	Medium	MF144	61463686265
	5	Fine	FF144	61463686260
6 x 1/2	5	Coarse	CF146	61463686285
	5	Medium	MF146	61463686280
	5	Fine	FF146	61463686275
6 x 5/8	5	Medium	MF156	61463686295
	5	Fine	FF156	61463686290
6 x 3/4	5	Medium	MF166	61463686310
	5	Fine	FF166	61463686305
6 x 1	5	Medium	MF176	61463686325
	5	Fine	FF176	61463686320
Triangular Tapered Abrasive Files – India (Aluminum Oxide)				
4 x 1/2 x 1/4	5	Medium	MF544	61463686685
	5	Fine	FF544	61463686680

TIER: **BETTER**

SIZE (L x D)	QTY./CASE	SPEC.	PRODUCT #	PART #
Round Abrasive Files – Crystolon (Silicon Carbide)				
4 x 1/4	5	Medium	MJF214	61463686430
	5	Fine	FJF214	61463686425
4 x 3/8	5	Medium	MJF234	61463686440
Round Abrasive Files – India (Aluminum Oxide)				
4 x 1/4	5	Coarse	CF214	61463686480
	5	Medium	MF214	61463686475
	5	Fine	FF214	61463686470
4 x 3/8	5	Coarse	CF234	61463686495
	5	Medium	MF234	61463686490
	5	Fine	FF234	61463686485
4 x 1/2	5	Coarse	CF244	61463686510
	5	Medium	MF244	61463686505
	5	Fine	FF244	61463686500
6 x 1/2	5	Coarse	CF246	61463686525
	5	Medium	MF246	61463686520
	5	Fine	FF246	61463686515
6 x 5/8	5	Medium	MF256	61463686535
6 x 3/4	5	Medium	MF266	61463686550
6 x 1	5	Medium	MF276	61463686565
Round Abrasive Files – Hard Translucent Arkansas				
3 x 1/4	5	Ultra Fine	HF813	61463686800
Round Pointed Abrasive Files – India (Aluminum Oxide)				
3 x 5/16 Base	5	Coarse	CF723	61463686750
	5	Medium	MF723	61463686745
	5	Fine	FF723	61463686740
Round Pointed Abrasive Files – Hard Translucent Arkansas				
3 x 1/4 Base	5	Ultra Fine	HF863	61463686825
Round Tapered Abrasive Files – India (Aluminum Oxide)				
4 x 1/2 x 1/4	5	Coarse	CF644	61463686660
	5	Medium	MF644	61463686655
	5	Fine	FF644	61463686650

Abrasive Files *continued*

Diamond-shaped Abrasive Files

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



TIER: **BETTER**

SIZE (L x W x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Diamond-Shaped Abrasive Files – India (Aluminum Oxide)				
4 x 9/16 x 3/16	5	Coarse	CT134	61463686720
	5	Medium	MT134	61463686715
	5	Fine	FT134	61463686710
Diamond-Shaped Abrasive File – Hard Translucent Arkansas				
3 x 1/2 x 3/16	5	Ultra Fine	HF843	61463686815

All Diamond-shaped files are bulk packed

Knife Blade Abrasive Files

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



TIER: **BETTER**

SIZE (L x W x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Knife Blade Abrasive Files – India (Aluminum Oxide)				
4 x 1 x 1/8 Back	5	Coarse	CF724	61463686780
	5	Medium	MF724	61463686775
	5	Fine	FF724	61463686770
Knife Blade Abrasive File – Hard Translucent Arkansas				
3 x 3/4 x 1/8	5	Ultra Fine	HF873	61463686830

All Knife Blade files are bulk packed

Beveled Abrasive Files

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.



TIER: **BETTER**

SIZE (L x W x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Beveled Abrasive File – Hard Translucent Arkansas				
3 x 3/8 x 1/8	5	Ultra Fine	HF833	61463686810

All Beveled files are bulk packed

Abrasive File Sets

Hard Translucent Arkansas File Set

This set 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 Set

This set contains an assortment of files for finishing, honing and polishing applications. It contains a selection of the most popular square, triangular, round and knife blade files in both fine grit India and ultra fine grit Hard Translucent Arkansas.



TIER: **BETTER**

SIZE (L x W x H)	QTY./CASE	PRODUCT #	PART #
File Set – Hard Translucent Arkansas			
	1		61463686839
1 Each of Ultra Fine Hard Arkansas HF13, HF113, HF813, and HF873			
File Set – Hard Translucent Arkansas and India (Aluminum Oxide)			
	1		61463686840
1 Each of Ultra Fine Hard Arkansas HF13, HF43, HF113, HF813, HF873, and Fine India FF14, FF44, FF114, FF214, FF724			

Flat Abrasive Files

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



TIER: **BETTER**

SIZE (L x W x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Flat Abrasive File – Hard Translucent Arkansas				
3 x 3/8 x 1/8	5	Ultra Fine	HF823	61463686805

All Flat files are bulk packed

Oval Abrasive Files

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



TIER: **BETTER**

SIZE (L x W x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Oval Abrasive File – Hard Translucent Arkansas				
3 x 1/2 x 3/16	5	Ultra Fine	HF853	61463686820

All Oval files are bulk packed

See the “Norton Professional Sharpening Products and Dressing Sticks Catalog #200” on www.nortonabrasives.com to view the complete list and descriptions of our many sharpening products.

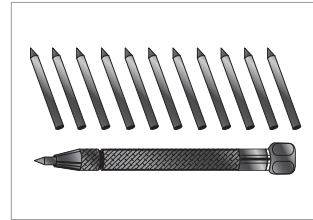
Abrasive Files *continued*

Engravers' Chuck & Points

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.

TIER: BETTER				
SIZE (L x POINT)	QTY./CASE	SPEC.	PRODUCT #	PART #
Engravers' Chuck				
Engravers' Chuck	5		XT1	61463687485
Engravers' Point – India (Aluminum Oxide)				
1 x 1/8 Point	5	Fine	FT11	61463687495
Engravers' Point – Soft Arkansas				
1 x 1/8 Point	5	Extra Fine	AT11	61463687490

All Engravers' Chucks and Points are bulk packed.

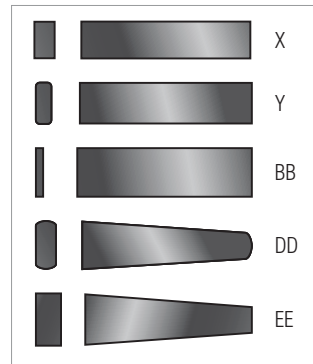


Silversmith Precision Files

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.

TIER: BETTER				
SIZE	QTY./CASE	SPEC.	PRODUCT #	PART #
Silversmith Precision Files – India (Aluminum Oxide)				
4 x 5/16 x 3/16 x 5/16 x 1/16 - X	5	Medium	MF414	61463686855
	5	Fine	FF414	61463686850
4 x 3/8 x 3/16 x 1/8 x 1/16 - Y	5	Fine	FF424	61463686910
4 x 7/16 x 3/16 x 1/8 - BB	5	Fine	FF434	61463686940
4 x 1/2 x 1/16 - BB	5	Coarse	CF444	61463686965
	5	Medium	MF444	61463686960
	5	Fine	FF444	61463686955
4 x 1/2 x 1/4 x 5/16 x 1/8 - DD	5	Fine	FF464	61463686985
4 x 1/2 x 1/4 x 5/16 x 1/8 - EE	5	Medium	MF474	61463687005
	5	Fine	FF474	61463687000

All Silversmith Precision Files are bulk packed.



Pocket Stones

POCKET STONES

BETTER CHOICE FOR OUTDOOR ENTHUSIASTS

FEATURES AND BENEFITS

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



TIER: BETTER				
SIZE (L x W x H)	QTY./CASE	SPEC.	PRODUCT #	PART #
Sportsman Pocket Stone – India (Aluminum Oxide)				
3 x 1-1/2 x 1/2	50	Coarse/Fine	IBP4	61463690705
Pocket Stone – India (Aluminum Oxide)				
4 x 3/4 x 1/4	25	Fine	IBP4	61463624153
Pocket Stone with Case – India (Aluminum Oxide)				
3 x 7/8 x 3/8 with case	50	Fine	FBP3	61463691122
Pocket Stone with Case – Crystolon (Silicon Carbide)				
3 x 7/8 x 3/8 with case	50	Fine	JP14	61463690703
Pocket Stone with Case – Soft Arkansas				
4 x 1 x 3/4 with case; in retail package	5	Extra Fine		66253142544
Fish Hook Stone With Pouch – Crystolon Half-Round (Silicon Carbide)				
3 x 1/2 with pouch	50	Fine		61463624072

All Pocket Stones except 66253142544 are bulk packed.

Abrasive Slips

ABRASIVE SLIPS

BETTER CHOICE FOR IMPARTING FINE, UNIFORM FINISHES

FEATURES AND BENEFITS

- Norton abrasive slips impart the finest, most uniform finishes on curved knives and tools, molders' knives, wood gouges, bead planers, 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 stones are the choice for achieving the finest finish possible.

Carbide Tool Slips

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

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



TIER: **BETTER**

SIZE	QTY./CASE	SPEC.	PRODUCT #	PART #
Carbide Tool Slips – Crystolon (Silicon Carbide)				
3-1/2 x 3/4 x 1/2	5	Coarse	CJT63	61463687295
	5	Medium	MJT63	61463687290
	5	Fine	FJT63	61463687285
Set of Three Above	5	Coarse, Medium & Fine	J63	61463687300
Carbide Tool Slips – India (Aluminum Oxide)				
2-1/4 x 7/8 x 3/16	5	Medium	MS12	61463687215
Round Edge Slips – Crystolon (Silicon Carbide)				
4-1/2 x 1-3/4 x 1/4 x 1/16	5	Medium	MJS24	61463687080
	5	Fine	FJS24	61463687075
4-1/2 x 1-3/4 x 1/2 x 3/16	5	Coarse	CJS44	61463687100
	5	Medium	MJS44	61463687095
	5	Fine	FJS44	61463687090
6 x 2-1/4 x 3/4 x 3/8	5	Medium	MJS66	61463687110
	5	Fine	FJS66	61463687105
Round Edge Slips – India (Aluminum Oxide)				
4 x 1 x 7/16 x 3/16	5	Medium	MS14	61463687140
	5	Fine	FS14	61463687135
4-1/2 x 1-3/4 x 1/4 x 3/32	5	Coarse	CS24	61463687155
	5	Medium	MS24	61463687150
	5	Fine	FS24	61463687145
4-1/2 x 1-3/4 x 3/8 x 1/8	5	Coarse	CS34	61463687170
	5	Medium	MS34	61463687165
	5	Fine	FS34	61463687160
4-1/2 x 1-3/4 x 1/2 x 3/16	5	Coarse	CS44	61463687185
	5	Medium	MS44	61463687180
	5	Fine	FS44	61463687175
5 x 1 x 5/16 x 3/32	5	Medium	MS15	61463687195
	5	Fine	FS15	61463687190
Round Edge Slips – Soft Arkansas				
4 x 1-3/4 x 3/8 x 1/8	5	Extra Fine	SS4	61463687055
Round Edge Slips – Hard Translucent Arkansas				
3 x 1-3/4 x 1/4 x 1/16	5	Ultra Fine	HS3	61463687040
4 x 1-1/4 x 1/4 x 1/8	5	Ultra Fine	HS14	61463687050
4 x 1-3/4 x 3/8 x 1/8	5	Ultra Fine	HS4	61463687045

All Slips are bulk packed.

Specialty Stones

SPECIALTY STONES

BETTER CHOICE FOR SPECIFIC SHARPENING OR DEBURRING APPLICATIONS

FEATURES AND BENEFITS

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

Specialty Stones for Machine Tools

Gouge Sharpening Stone

This stone has a unique shape for sharpening and lapping inside and outside curved surfaces on gouges and other cutting tools.

Jointer Stones

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

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

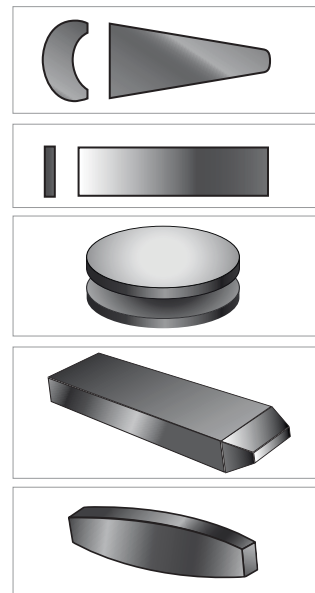
Durable, fast-cutting stones designed for imparting a professional edge on reamers, taps, and rough rounders on shoe machine tools.

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.

TIER: BETTER				
SIZE	QTY./CASE	SPEC.	PRODUCT #	PART #
Gouge Sharpening Stone – India (Aluminum Oxide)				
6 x 2 x 1 x 1/2 x 3/8	5	Fine	FS76	61463687305
Jointer Stones				
4 x 3/4 x 3/8 – Crystolon (Silicon Carbide)	5	Medium	JE74	61463687335
4 x 3/4 x 3/8 – India (Aluminum Oxide)	5	Coarse	IE74	61463687375
4 x 3/4 x 1/2 – Crystolon (Silicon Carbide)	5	Medium	JE84	61463687340
Machine Knife Stone – Crystolon (Silicon Carbide)				
4" Diam. x 1-1/2" Thick	5	Coarse/Fine	JB74	61463687570
Reamer Stones – India (Aluminum Oxide)				
4-1/2 x 1 x 5/16	10	Medium	MT124	61463687420
	10	Fine	FT124	61463687415
5 x 1 x 3/16	10	Medium	MT125	61463687430
	10	Fine	FT125	61463687425
6 x 1 x 1/4	10	Medium	MT126	61463687440
	10	Fine	FT126	61463687435
Boat Stone – Crystolon (Silicon Carbide)				
9 x 2-1/2 x 1-1/2	10	37C80-HV		61463610369
Boat Stone – India (Aluminum Oxide)				
9 x 2-1/2 x 1-1/2	10	38A60-IVBE		61463610503

Boat and Reamer Stones are bulk packed. All these other Specialty Stones are packed in individual boxes within a case.



Large Specialty Stones

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 and JT930 have wooden handles.

Sickle and Scythe Stones

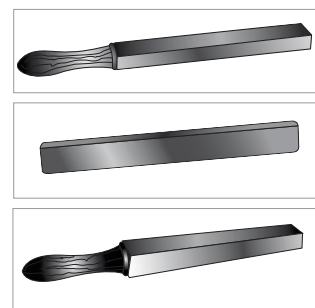
These silicon carbide stones quickly produce a fast-cutting edge on sickles, scythes, and brush hooks. These stones are most frequently chosen where the speed of sharpening is the primary consideration.

Utility File

A long wedge-shaped 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.

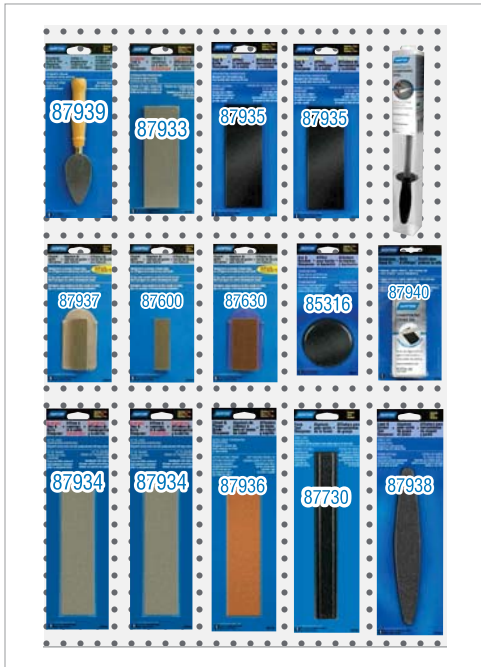
TIER: BETTER				
SIZE	QTY./CASE	SPEC.	PRODUCT #	PART #
Tradesmen's Utility Stones – Crystolon (Silicon Carbide)				
10 x 1-1/4 x 3/4	10	Medium	JT910	61463687665
14-3/4 Overall (with Handle)	10	Coarse/Fine	JT930	61463687675
	10	Medium	JT920	61463687670
Sycle and Scythe Stones				
10 x 1-1/4 x 3/4 Crystolon (Silicon Carbide)	10	Coarse	TJ3	61463687731
10 x 1-5/16 x 3/4 India (Aluminum Oxide)	10	Coarse	TD1	61463687715
Utility File – Crystolon (Silicon Carbide)				
14 Overall (w/ Handle)	10	Coarse	JD2	61463687750

All Large Specialty Stones are bulk packed.



Retail Packaged Sharpening Products

Our retail-packaged line brings Norton quality to your distributor showroom, vending machine, tool crib, and your tool box. Each stone is specifically designed for a popular sharpening application and packaged to sell or carry to the job site.



SIZE (L x W x H)	SPEC.	TIER: BETTER	
		QTY./CASE	PART #
Axe and Hatchet Sharpener			
3 x 5/8 round	Coarse/Fine Crystolon (Silicon Carbide)	10	07660785316
Pocket Knife Sharpener			
3 x 7/8 x 3/8	Fine Crystolon (Silicon Carbide)	5	07660787600
3 x 7/8 x 3/8 with case	Medium India (Aluminum Oxide)	5	07660787937
3 x 1-1/2 x 1/2 with case	Coarse/Fine India (Aluminum Oxide)	5	07660787630
Economy Tool & Knife Benchstone			
6 x 2 x 3/4	Coarse/Fine Crystolon (Silicon Carbide)	5	07660787933
8 x 2 x 3/4	Coarse/Fine India (Aluminum Oxide)	10	07660787934
8 x 2 x 1	Coarse/Fine India (Aluminum Oxide)	10	61463685755
High Quality Tool & Knife Benchstone			
6 x 2 x 3/4	Coarse/Fine Crystolon (Silicon Carbide)	5	07660787935
Chisel & Planer Blade Sharpener			
8 x 2 x 3/4	Coarse/Fine India (Aluminum Oxide)	10	07660787936
Household Knife & Tool Sharpener			
7-1/2	Fine Crystolon (Silicon Carbide)	5	07660787939
Farm Tool Sharpener			
10 x 1-1/4 x 3/4	Coarse Crystolon (Silicon Carbide)	10	07660787730
Lawn & Garden Tool Sharpener			
9-1/2 x 1-3/8 x 1/2	Medium Crystolon (Silicon Carbide)	10	07660787938
Sharpening Stone Oil			
4-1/2 oz.	Oil	5	07660787940
Sharpening Steel			
1/2 x 10	Round file with rubber handle	8	66253240433
Vitrified Dressing Stick			
1 x 1 x 6	Medium Silicon Carbide	5	07660710466

Knife and Scissor Sharpener

The knife and scissor mechanical sharpener is a quick and portable tool for hundreds of sharpening applications.



SPECIFICATION	QTY./CASE	PART #
Knife and Scissor Sharpener		
Carbide	6	07660787520

Norton Professional Sharpening Products and Dressing Sticks

See the "Norton Professional Sharpening Products and Dressing Sticks Catalog #200" on www.nortonabrasives.com to view the complete list and descriptions of our many sharpening products.

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

Applications:

Floor Rubbing Bricks – are used to rub down concrete and remove mold marks. These are designed to fit the chucks of common concrete floor grinding equipment. Reusable wooden wedges anchor the bricks to the equipment chucks.

Plain Hand Rubbing Bricks – are the choice of mechanics and foundry workers for dressing grinding wheels and cleaning or scouring castings.

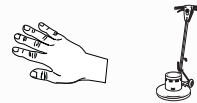
Fluted Hand Rubbing Bricks – are used by masons and stone workers for rubbing down concrete and removing mold marks. The diagonal flutes provide sharp edges, a clean shearing action, and carry away debris.

Fluted Hand Rubbing 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.

Griddle Bricks – quickly clean away carbon build-up and other residue on your grill without leaving fibers, which grill brushes often do.

Grit Range:
Abrasive Type:
Machine Used:

6 – 120
Silicon Carbide



SIZE (L x W x H)	QTY./ CASE	SPEC.	ABRASIVE	PART #
Plain Floor Rubbing Bricks with Wooden Wedges				
4 x 2 x 2	6	C6-R	Silicon Carbide	61463653292
	6	C10-R	Silicon Carbide	61463653293
	6	C24-R	Silicon Carbide	61463653294
	6	C80-R	Silicon Carbide	61463653295



SIZE (L x W x H)	QTY./ CASE	SPEC.	ABRASIVE	PART #
Floor Rubbing Brick with Center Score				
8 x 2 x 2	6	C120-R*	Silicon Carbide	61463685296*

*8" brick has a center score to facilitate dividing the brick in half – an economical alternative to buying two 4" bricks.



SIZE (L x W x H)	QTY./ CASE	PART #
Wooden Wedges		
	6	61463685297



SIZE (L x W x H)	QTY./ CASE	SPEC.	ABRASIVE	PRODUCT #	PART #
Plain Hand Rubbing Bricks					
8 x 2 x 2	5	C24	Silicon Carbide	BP28	61463687830



SIZE (L x W x H)	QTY./ CASE	SPEC.	ABRASIVE	PRODUCT #	PART #
Fluted Hand Rubbing Bricks					
6 x 2 x 2	5	C20	Silicon Carbide	BF26	61463687840
8 x 2 x 2	5	C20	Silicon Carbide	BF28	61463687845



SIZE (L x W x H)	QTY./ CASE	SPEC.	ABRASIVE	PRODUCT #	PART #
Fluted Hand Rubbing Bricks with Handle					
6 x 3 x 1	5	C20	Silicon Carbide	BFH6	61463687800
8 x 3-1/2 x 1-1/2	5	C20	Silicon Carbide	235	61463687795

All Bricks and Wedges are bulk packed.



SIZE (L x W x H)	QTY./ CASE	SPEC.	ABRASIVE	PART #
Griddle Brick				
4-1/2 x 3 x 2	5	Medium	Alundum	61463687870