

Put fun and pride into your lapidary hobby or profession— get the right tools for the job

YOU CAN CUT, shape and polish gemstones with speed and ease if you have the right tool for the job. Just as a hammer and saw are the basic tools of a carpenter, a grinding and polishing machine and rock saw are the basic tools of the lapidary.

OUR GEM-MAKERS GIVE YOU VALUE FOR YOUR MONEY. We have designed them to give you lasting service, convenience and best of all - top performance to put real pleasure into your lapidary hobby or profession.

We start with a top quality motor big enough for the job. We don't skimp on any of the parts, to give you the best quality for your money.

OUR GEM-MAKERS ARE TOP PERFORMERS due to our special design, top quality wheels and our unique Spra-Mist pump system. On the Pixie, Genie, Xpert and Titan machines, all of our basic recommended wheels are mounted at once, so you can easily proceed from one step to the next through the entire grinding and polishing process. This is an important time saver.

GALAXY METAL BOND DIAMOND WHEELS start with a steel rim mounted to a hard plastic center. The diamond is nickel plated to the ring creating a smooth, true-running surface. You will appreciate the fact that they never need dressing, are fast and run cool.

OUR NOVA RESIN-BOND diamond sanding and polishing wheels outperform any other method available.

Novas are permanently charged with diamond embedded in a tough, flexible plastic resin backed by a thick sponge rubber backing. This soft, flexible construction enables the surface of the Nova to conform to your stone, eliminating flat spots and scratches so difficult to remove with other methods of polishing. Nova wheels are durable and do the job fast and efficiently.

PROCEDURE IS SIMPLE. Grind your cabochon to shape on an 80 grit Galaxy metal-bond diamond grinding wheel. Proceed to a 220 grit Galaxy wheel to remove all deep scratches. Coarse sanding is done on the 280 grit Nova resin-bond diamond wheel. Spend enough time on this wheel to completely remove all scratches left by the grinding wheels and then proceed to the next three Nova wheels. Our standard machines come with two Galaxy wheels, 80 and 220 grits and four Nova wheels, 280, 600, 1200 and 3000 grits. We also include a 14,000 grit Diamond Nova Disc for polishing.

EQUALLY IMPORTANT to the performance of our Gem-Maker's is the Spra-Mist Coolant System. Our system uses an air pump that operates a geyser (sprayer) to supply a fine water spray to the underside of the wheels. Because the unit is pumping air, not water, it cannot become clogged. There is no plumbing required. Just pour a little water in the pan and you can go to work. Our grinding and polishing machines run clean, you use them in your kitchen or den without making a lot of mess

OUR GEM-MAKERS are all versatile and easy to use. These machines all come complete and ready to use, just add water to the tray and plug them in to a power outlet. You can grind and polish small flats on the Pixie, Genie, Xpert and Titan machines, eliminating the need for a special flat lap machine.

All four of these machines will accept a steel back-up plate attached to the right hand wheel adaptor. This allows Magnetic Novas to be quickly applied, used and removed as you proceed through the sanding and polishing sequence.

These machines all accept a 1/4"-20 thread bolt on the right side which, in addition to the Magnetic Nova back-up plate, allows you to use the "No-Hole" diamond laps.

All of our Gem-Makers will accept our Nova polishing discs, as well as our canvas, leather and felt discs.

Pixie, Genie have Trim-Saw attachments available. Buff kits for metal finishing are available for the Pixie, Genie and Titan machines.

All of our Gem-Makers come with a lamp. Additional lamps and magnifiers may be added.

NEED HELP MAKING A CHOICE between machines, just give our knowledgeable Customer Service department a call at 1(800)253-2954 or 1(760)255-1030 or email info@diamondpacific.com

GENIE—THE “MAGICAL” GEM-MAKER

The Genie is truly a “magic machine.”

NOT ONLY DOES IT MAKE SHORT WORK of grinding and polishing gemstones, but with a few accessories added, it becomes a trim saw, jewelers buffer, flat lap machine, and a way to easily miter perfect corners for gemstone boxes. Put a Genie in your workshop and you'll work wonders!

GENIE COMES COMPLETE: It's powered by a ½ HP heavy duty, industrially rated custom Baldor motor. Standard motor is 115 volt/60 HZ. Overseas model uses similar motor in 230 volt/50 HZ. Comes mounted on a 13 ½" x 29 ¾" wood base board. Genie includes two 6" x 1½" Galaxy diamond grinding wheels (80 and 220 grit), four 6" x 1½" Nova sanding and polishing wheels (280, 600, 1200 and 3,000 grits), one 20" lamp, with two mounting buttons (to allow you to move it from left to right or add a second lamp or magnifier—see page 10), Spra-Mist coolant system, cab rest, one 5 ½" 14,000 grit Diamond Nova Disc, sample bottle Water Aid, four splash guards, and a manual. We also include Safety Goggles WHICH MUST BE WORN WHEN OPERATING THIS MACHINE.

100-GD-100 Genie.....115 volts, 60Hz motor ...Shp. Wt. 73 lbs..2625.00
100-GD-100X Export Model ..230 volts, 50Hz motor ..Shp. Wt. 73 lbs..2750.00

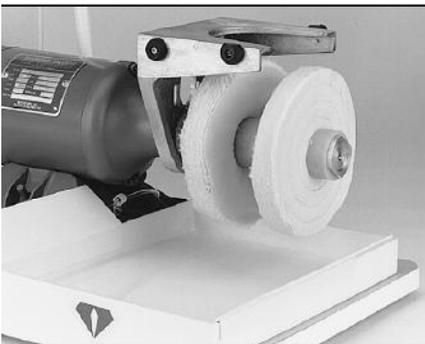
THE GENIE GIVES TOP PERFORMANCE. First and foremost, the Genie will do your grinding and polishing jobs in the fastest and most efficient manner available. And do it in style. Its unique combination of special diamond wheels all mounted together lets you proceed directly from one step to the next without any delay or a lot of bother. Turn out a 30 x 40 agate cab from preform to finished gem in a matter of minutes.

See page 1 for more information about this Gem-Maker's performance.

GENIE IS VERSATILE. You get more than just a grinding machine. The attachments and accessories described below let you perform a variety of functions. For more information, see the pages listed.

- Trim saw attachment with 8" blade lets you convert your Genie to a trim saw in a matter of minutes. Now you can even take a trim saw along when you travel. Page 3.

- Our magnetic Nova Discs make quick work of polishing flats. See page 13 to find out more on the Magnetic Novas. Standard Nova Discs, leather and canvas pads and other accessories with a ¼"-20 thread bolt fit the Genie. See page 14.



Jeweler's Buff Kit attaches to the right hand side of the Genie. Comes with buffs and rouge for polishing jewelry and other metal parts. See page 5.

TRIM SAW ATTACHMENT FOR THE GENIE

Turn your Genie into a handy 8" trim saw in a matter of minutes. Easy installation—uses no oil.

EASY TO INSTALL AND USE: The Genie trim saw attachment is easy to install; requires no tools. Simply spin off the adaptor with the three Nova wheels on the right hand side of the machine. Place the saw pan under the shaft. Mount the saw blade on the adapter and spin it onto the right hand shaft. Slip the saw table and hood into place, fill the pan with five pints of water, and you are ready to go.

CLEAN TO USE: Since the saw uses water as a coolant, there is no oily mess or dangerous fumes. You can use the trim saw wherever you use your Genie.

SPECIAL FEATURE GIVES A HEAD START ON GRINDING: The unique angle block included with the trim saw allows you to finish-trim the edges of your cabs at a ten degree angle, giving you a head start towards grinding the bezel of your cab. Saves you time, effort and your grinding wheels as well.



COMES COMPLETE WITH BLADE: Your trim saw comes complete with a sintered continuous thin rim blade, size 8" x .032 x 1" bore. This is a good, all-purpose cutting blade. **It is not recommended that blades that are much thicker or thinner than the .032 (rim thickness) blade supplied be used with this attachment.** Thicker blades do not cut well with water as a coolant. Thinner blades need a higher RPM to "stiffen" them, and are more hazardous to use.

TRIM SAW ATTACHMENT: Comes with molded, durable plastic hood and pan, sintered continuous thin rim blade, size 8" x .032 x 1" bore, shaft adapter, angle block, sample bottle of Water Aid, splash guard, and SAFETY GOGGLES THAT MUST BE WORN WHEN OPERATING THIS TRIM SAW.

100-TSG-105 Trim Saw.....	8lbs.....	418.00
100-TSB-106 Blade Only	2lbs.....	87.75
410-WA-108 Water Aid.....	8 oz.....	3.25
410-WA-116 Water Aid.....	16 oz.....	5.25

GENIE VIDEO GUIDE

For new owners of a Genie and old pros as well. This DVD contains a wealth of information about the use and care of the Genie Gem-Maker. Covers such subjects as machine setup, break-in and wheel replacement, pump trouble-shooting, maintenance, and the use of the Genie in the lapidary process. Professionally produced, informative and easy to follow. Contains over 80 minutes of useful technical information.

240-248Shp Wt. 1 lb..... 29.95

PIXIE – THE COMPLETE, PORTABLE GEM-MAKER



Just because the Pixie is compact and lightweight doesn't mean it can't do a great job. It's fast and efficient at polishing stones, and is the Gem-Maker preferred by those working opal.

THE PIXIE has the same six-wheel sequence of diamond grinding and polishing wheels as the larger Gem-Makers, and provides you with a fast, efficient way to shape and polish stones. The Pixie is a great favorite of those who specialize in cutting opal.

THE PIXIE IS COMPACT, LIGHTWEIGHT. The Pixie features a durable, molded housing that makes the machine the most lightweight, compact and efficient 4" wheel, grinding and polishing machine available. It weighs less than 30 lbs. including the lamp, and fits on a Formica baseboard that measures only 14½" x 18". It requires no special hook-ups or plumbing, so it can easily be used in your RV or wherever space is limited and a standard 115V outlet is available.

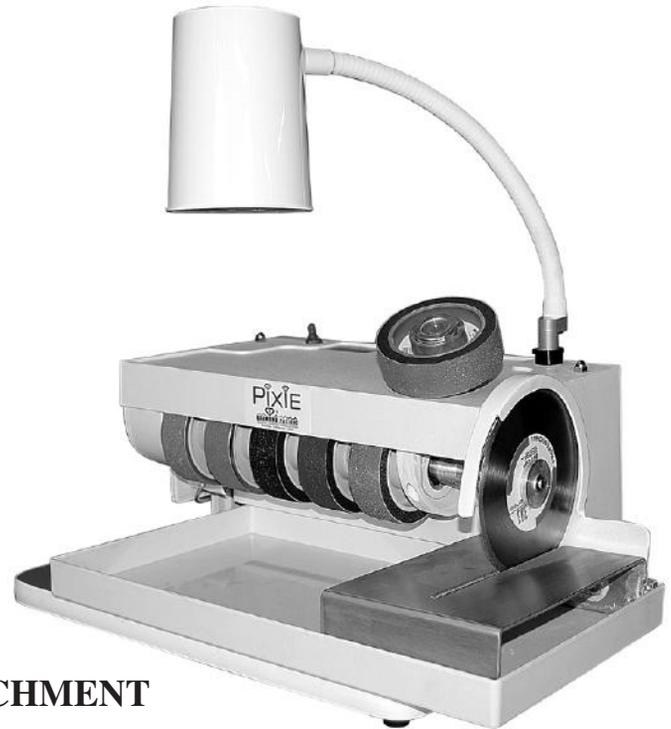
FOR DOING SMALL FLATS, you can use Lapcraft's 4" "No Hole" diamond discs which fit the right hand side. You can also use 4" Nova discs, 4" canvas or leather pads, or any other attachment with a ¼"-20 bolt and a diameter of 4" or less. You can turn your Pixie into a buffer for polishing metal with our jeweler's kit. See page 5.

THE PIXIE COMES COMPLETE: Includes one piece housing on a 14½" x 18" laminated baseboard, motor, Spra-Mist coolant system, one 80 grit and one 220 grit 4" x 1¼" Galaxy metal-bond diamond grinding wheel, four 4" x 1¼" Nova resin-bond diamond sanding and polishing wheels (one each 280, 600, 1200, and 3,000 grit), one 15" flex stem lamp, one 4" 14,000 grit Diamond Nova Disc, handy cab rest, base for geyser, sample bottle of Water Aid, set of two splash guards, and a manual. We also include Safety Goggles WHICH MUST BE WORN WHEN OPERATING THIS MACHINE

100-P-100 Pixie	115 volt, motor	Shp. Wt. 36 lbs.....	1750.00
100-P-100X Export Model	230 volt, motor	Shp. Wt. 36 lbs.....	1850.00

PIXIE TRIM SAW ATTACHMENT

Now you can trim small slabs on your Pixie Gem-Maker. You can cut up to a 5" square slab right in half. Easy to attach the trim saw parts by removing the right hand wheel adaptor, and then attaching the saw blade adaptor with blade. The saw table and blade guard are made of stainless steel for long life. Comes with a 6" sintered rim blade. You can use either a 1/2" or 5/8" arbor hole blade by turning over the blade flange. Comes with saw table, blade guard, 6" blade, adaptor, flanges, and instructions. We also include Safety Goggles WHICH MUST BE WORN WHEN OPERATING THIS MACHINE



100-PTS-105 4 lbs. 245.00

TRIM SAW ATTACHMENT

JEWELER'S BUFF KITS FOR GEM-MAKERS

You can buff and polish jewelry on your Titan and Pixie as well as on the Genie.

We've put together all the necessary adaptors, spacers, buffs and rouge you need to convert your Gem-Maker to a buffing machine without a lot of expense.

Each kit contains 1 muslin buff, 1 flannel buff, 1 bar of Tripoli, one bar of Red Jeweler's Rouge, and the spacers needed for mounting. The Genie and Pixie kits also contain a right hand adaptor for mounting on a shaft. Wheels are mounted directly onto the Titan shaft. The Genie Kit has 6" buffs, Titan 8" buffs, and the Pixie Kit has 4" buffs.



PIXIE BUFF KIT

Contains: 1- 4" muslin buff, 1- 4" flannel buff, 1 bar of Tripoli, 1 bar red jeweler's rouge, 1 R/H adaptor w/nut, one spacer.

100-JBK-P..... 3 lbs. 61.00



GENIE BUFF KIT

Contains: 1- 6" muslin buff, 1- 6" flannel buff, 1 bar of Tripoli, 1 bar red jeweler's rouge, 1 R/H adaptor w/nut, 6 spacers.

100-JBK-G..... 6 lbs. 125.00



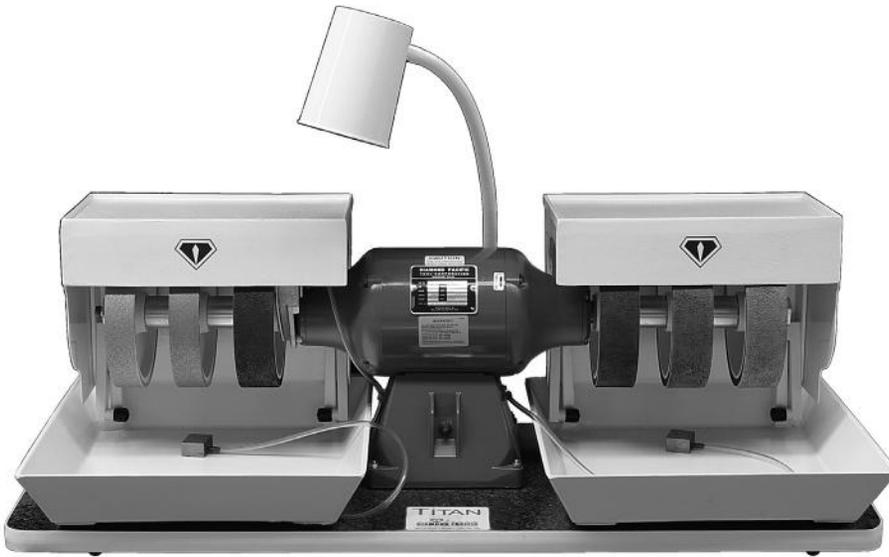
TITAN BUFF KIT

Contains: 1- 8" muslin buff, 1- 8" flannel buff, 1 bar of Tripoli, 1bar red jeweler's rouge, 4 spacers. Buffs and spacers fit directly on Titan shaft.

100-JBK-T 4 lbs. 52.50

*** For replacement buffs and rouge see page 32-33 ***

TITAN – THE RUGGED, HEAVY DUTY GEM-MAKER



The Titan can take care of your grinding and polishing needs and do it fast and efficiently. It's the choice of dedicated hobbyists and professional cutters.

START WITH IT'S ALL-DIAMOND GRINDING AND POLISHING WHEELS. They are mounted together on the machine, allowing you to proceed from start to finish without wasting time changing wheels. The grit sequence is the best all-around choice for shaping and polishing most stones, and they'll make short work of the task. If you need special grits for your particular job, the wheels are easy to change.

On the right hand side use Lapcraft "No Hole" diamond discs, Nova discs, our Magnetic Novas, or similar accessories having a 1/4"-20 thread bolt for attachment. A special geyser for use with the flat laps is included with the Titan.

If you need to polish metal, we've made up a Jeweler's Buff Kit for the Titan. See page 9 for more information on the kit.

See page 1 for more information about this Gem-Maker.

THE TITAN COMES COMPLETE. Includes 3/4 HP, 115/230V industrially rated motor on 16" x 42" laminated baseboard, double pump Spra-Mist coolant system, cast aluminum quick-change hoods and pans, one 80 grit and one 220 grit 7 3/8" x 1 1/2" Galaxy metal-bond diamond grinding wheel, four 7 3/8" x 2" Nova resin-bond diamond sanding and polishing wheels (one each 280, 600, 1200 and 3,000 grit); one 24" flex stem lamp, one 5 1/2" 14,000 grit Diamond Nova Disc, special disc geyser for laps, cab rest, set of two splash guards, sample bottle Water Aid, and a manual. We also include **SAFETY GOGGLES WHICH MUST BE WORN WHEN OPERATING THIS MACHINE.** Note: Titan comes with two mounting buttons to allow you to move lamp from right to left or add a second lamp or magnifier—see page 10 to order.

100-T-100 Titan..... 115/230V, 60HzShp.Wt. 151 lbs. 4235.00
 100-T-100X Export Model.....230V, 50HzShp.Wt. 151 lbs. 4500.00

Shipped via UPS in 2 cartons. One weighs 94 lbs. and one weighs 57 lbs.



TITAN IS RUGGED. It features a big 3/4 HP, 1800 RPM, 115/230V industrially rated motor that is sealed against grit contamination and never needs oiling. (Export motor is 1500 RPM, 230V/50Hz) It has a 1" diameter shaft that is even heavier through the bearings which have a 30 mm bore.

Shown at left is Titan's double pump Spra-Mist system that provides plenty of water to the wheels while you work, keeping your stones cool and the rock dust down. The hoods and pans are rugged, solid cast aluminum, yet are easily removed.

EXTRA PIXIE RIGHT HAND ADAPTORS

Change the right hand wheel on your Pixie in just seconds by keeping an extra right hand adaptor in each extra wheel. Wheel and adaptor just spin off and replacement spins on.

101-ADP-PR....3 oz Pixie R/H Adaptor ... 41.50



SHAFT ADAPTORS FOR GEM-MAKERS

These adaptors fit over the shafts of the Genie, Pixie, Big-Foot and Xpert. The adaptors all have a 1" OD to fit our Galaxy and Nova wheels. Order extra right hand adaptors for specialty wheels for easy change out of wheels while working. R/H adaptors have hole for accepting a 1/4"x 20 bolt in pads. The L/H Genie adaptor comes with lap connector nut.

101-ADP-GR R/H Genie 8 oz.81.50
 101-ADP-GL L/H Genie 8 oz.92.50
 101-ADP-PR R/H Pixie 6 oz43.50
 501-ADP-BFR R/H BigFoot..... 6 oz.55.25
 501-ADP-XR R/H Xpert 8 oz.45.25

SPACERS FOR GEM MAKERS

101-PSP-1 Pixie Spacer. 1 oz. 6.00
 101-GSP-3/4..... Genie Spacer..... 1 oz 6.50
 101-GSP-1-3/8..... Genie Spacer..... 1 oz 7.50
 101-TSP-1-3/4..... Titan Spacer. 5 oz 13.00

CUSTOM SPACERS (Fit Genie, Titan, Xpert)

101-GSP-1..... 1" wide spacer 1 oz. 7.50
 101-GSP-5/8..... 5/8" wide spacer 1 oz 7.50
 101-GSP-1/2..... 1/2" wide spacer 1 oz. 7.50
 101-GSP-1/4..... 1/4" wide spacer 1 oz. 7.50

ADAPTOR FOR USING TAPERED SPINDLE ON GEM-MAKERS

This adaptor allows you to use a 3/8" R/H tapered spindle for attaching buffs to the right hand of the Genie, Pixie, BigFoot and Titan. You can then use buffs with standard pin hole centers on your Gem-Maker. (See page 39 for buffs.) The adaptor spins into the 1/4-20 adaptor hole on the right hand side of the machine to allow you to attach the spindle. Fits tapered spindle shown below.

101-ADP-3/8..... 8 oz. 11.25

TAPERED SPINDLE FOR GEM-MAKERS

Use with adaptor above to attach buffs with standard pin hole centers to your Gem-Maker.

154-TSR4..... Shp. Wt. 6 oz. 15.00

ADAPTOR TAPERED SPINDLE



Shown on Genie: adaptor, tapered spindle and buff.

GENIE WHEEL ADAPTOR KIT



Now you can enjoy the convenience of an extra adaptor for adding wheels to your Genie without having to figure out in advance which spacers you might need. This kit contains the extra Genie right hand adaptor and nut, plus seven extra spacers to accommodate any wheel combination. Contains the following spacers: two 1 3/8" wide, three 3/4" wide, one 5/8", wide, and one 1/4" wide.

101-ADP-GRK 2 lbs. 115.00

FLEX-STEM LAMPS FOR MACHINES, WORKSHOP, HOME, DISPLAYS

Moffatt Flex-Stem lamps adjust to any position. A quick-coupling base allows the lamp to be removed for storage or attachment to another area. Lamps come in several stem lengths, making them adaptable for use in many places about the shop and home. Flex-stem magnifiers below are interchangeable with lamps on our machines. Mounting base not included. See below to order. All take 100 watt bulb, maximum. Bulb not included. White shades only.

117-0624-T	24", fits Titan.....	3 lbs.	69.58
117-0618-G	18", fits Genie	3 lbs.	65.78
117-0615-P.....	15", fits Pixie.....	3 lbs.	61.04
117-0636	36", lamp.....	4 lbs.	83.04



FLEX-STEM LAMP

117-DMLM



MAGNIFIER-SHADE MOUNTED

Fits lamps above, giving you a handy way to get an illuminated look at what you're doing. (Only fits current toggle switch lamps.) Measures 4" x 2" and attaches to lamp shade. Swivels out of the way. Dust cover included. Black only.

117-DMLM.....	2X.....	8 oz.....	42.14
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FLEX-STEM MAGNIFIER

FLEX STEM MAGNIFIER

This handy, single lens, two power magnifier can be bent to any position, leaving hands free to examine work piece. Attach to any flat surface such as workbench, table, or separate base-board. Quick-coupling attachment enables magnifier to be detached from base. See below to order base.

117-MV15 Magnifier, 15" stem	2 lbs.	46.78
117-MV24 Magnifier, 24" stem	2 lbs.	52.64
117-RIM Magnifier Rim.....	4 oz.	9.94
117-RCS Connector latch	2 oz.	4.32

MOUNTING BASES

Fits flex-stem lamps & magnifiers listed above. Standard base attaches to almost any flat surface that will take screws. Order extra bases for mounting in different locations so lamp can be moved from one area to another.

Standard coupler base - fits all lamps and magnifiers.

117-MS2	3 oz.	5.25
Threaded Stem Coupler Base, 3/8-16 (fits Pixie or Xpert machines)		
117-MS1	3 oz.	5.25
Magnetic base - use on metal surface has 100 Lb. pull on solid steel surfaces.		
117-MB	3 oz.	17.24
C-Clamp base - has 2 1/2" deep throat.		
117-MLCC.....	1 lb.	34.20



117-MS2



117-MS1



117-MLCC



117-MB

LAMP SWITCHES

Lamp Switch, Toggle (fits current Moffatt lamps)

117-SKT.....	2 oz.....	9.34
Lamp Switch, Rotary (fits older Moffatt lamps)		
117-SKR	2 oz.....	13.68

SPARE PARTS FOR GEM-MAKERS

When ordering any of the items below, please state catalog number and year and model of your machine, or give a brief description of your machine so that we can send the proper part.

NOTE: There is a \$2.00 service fee for orders under \$20.00

ITEM	PIXIE			GENIE			TITAN		
	Order #	Price	Wt	Order #	Price	Wt	Order #	Price	Wt
Baseboard, Standard	101-PBB-126	43.60	6 lbs.						
Baseboard Plywood	101-PBB-130	67.20	5lbs.	101-GBB-130 101-GBB-137 (1-1-19)	70.90 97.50	7 lbs	101-TBB-126	183.75	17 lbs
Bearings	101-GBE-148	14.20	4 ozs.	101-GBE-148	14.20	4 ozs.	101-TBE-148	30.50	4 ozs.
Belt, plastic pumps	101-PPB-150	16.00	2 ozs.	101-GPB-150 101-GPB-236 (1-1-19)	16.00	2 ozs.	101-TPB-193	16.00	2 ozs.
Belt, motor	101-PPB-150	16.00	2 ozs.						
Cab Rest, Gem Makers	101-CRP	27.05	6 ozs	101-CRG	27.055	6 oz	101-CRT	35.20	2 lbs
Capacitor, 115V	101-PCA-65 Before 4/2003	15.75	5 ozs.	101-GCA-65 101-TCA-65 (1-1-19)	42.55 40.95	5 ozs.	101-TCA-65	40.95	5 ozs.
Capacitor 230V				101-GCA-75 101-TCA-65 (1-1-19)	42.55 40.95	5 ozs.	101-TCA-75	40.95	5 ozs.
Geysers for Gem-Makers	101-GSG-25	45.68	4 ozs.	101-GSG-25	45.68	4 ozs.	101-TSG-25	54.35	8 ozs.
Geyser Base/Disc Geyser	101-BASE	4.20	2 ozs.	101-BASE	4.20	2 ozs.	101-TDG-25	48.85	12 ozs.
Hood, RH or LH, state which	101-PHO	273.00	6 lbs.	101-GHO-128 (L/R) 101-GHO-125 (L/R (1-1-19)	92.40	2 lbs.	101-THO-128(R/L)	330.75	13 lbs.
Hood Bracket, RH or LH, state which				101-GHO-129 (L/R) 101-GHO-126L (L/R (1-1-19)	81.40	2 lbs			
Lap Connector				101-G-LAP	28.65	5 ozs.	101-T-LAP	45.75	4 ozs.
Leathers, pump set	101-GPL-145	5.75	1 oz.	101-GPL-145	5.75	1 oz.	101-TPL-245	11.30	1 oz.
Motor, 115V	101-PMO-125	500.00	6 lbs.	101-GMO-125 (1-1-19)	700.00	26 lbs	101-TMO-125	1,010.00	59 lbs.
Motor, 230V	101-PMO-125X	510.00	6 lbs.	101-GMO-125X (1-1-19)	750.00	26 lbs	101-TMO-125X	1,120.00	59 lbs.
Pan	101-PPA-130	46.20	2 lbs.	101-GPA-130	40.95	1 lb.	101-TPA-130	320.25	10 lb.
Pump replacement	101-P-PUMP	155.00	1 lb.	101-G-PUMP 101-G2-PUMP	155.00 165.00	1 lb.	101-T-PUMP-B	365.00	1 lb.
Pump spacer				101-GPS-150	8.00	2 oz.			
Riser Kit				101-GR-150	25.00	1 lb			
Splash Guards	101-PUO-105	13.65	5 ozs	101-GUO-105	28.65	8 oz	101-TUO-105	17.35	5 oz
Tubing, geyser, ft.	101-AHS-138	2.90	1 oz.	101-AHS-138	2.90	1 oz.	101-AHT-141	4.20	1 oz.

PUMP MAINTENANCE KITS

*Pump Maintenance Kits	101-PMK	45.00	6 ozs	101-GMK	39.00	6 ozs	101-TTK	62.00	6 ozs
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* Kits include pump leathers, gasket, tubing for geysers and pump belts - all that is needed for each particular pump.
Pixie kit and Titan Twin Pump kits have two belts. Genie kit one.

BigFoot Pump Maint Kit	501-BMK	45.00	6 ozs	Includes two belts					
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Belt, Titan Metal Pump	For Titan Single Metal Pump 1978-1992					101-PPB-150	16.00	2 ozs
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Leathers, Titan Metal Pump	For Titan Single Metal Pump 1978-1992					101-TPL-145	8.25	1 oz
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For parts to our Gem-Makers that are not listed please call our toll free number, 1-800-253-2954 and ask for technical assistance.
For International assistance please call 1-760-255-1030 or send an email to info@diamondpacific.com

GALAXY DIAMOND GRINDING WHEELS

Take the “grind” out of grinding stones.

OUR GALAXY DIAMOND GRINDING WHEELS give you the fast, cool cutting efficiency of diamonds, plus a smooth, true-running surface that never needs dressing.

Galaxy Wheels give you lasting service because of their quality construction. The diamonds are held on a heavy steel ring by an extremely hard, nickel alloy plating for durability. The ring is mounted on a tough glass-filled polyester core, making Galaxies a smooth, quiet running wheel.

GALAXY DIAMOND WHEELS are clean to use. Because the wheels themselves don't wear away as silicon carbide wheels do, you don't get all the mess. Galaxy Wheels must be used with water, but you only need a small amount to keep the wheels and stone wet and cool, and to keep down the rock dust.

Galaxy Wheels have 1" arbor holes. To use on other size arbors order bushings listed at right.

Both our standard and carving wheels give you a wide choice of grit and wheel sizes to fit your needs. The diamond shaped, interrupted pattern of the Hex Wheels (one shown above on the left) in 80, 60, and 30 grit sizes makes them the coarsest, fastest grinding wheels available.



BUSHINGS FOR WHEELS	
These bushings fit arbor sizes 1", ¾", ⅝", and ½". Come in two widths to fit the various Nova and Galaxy Wheels.	
TO ORDER FOR GALAXY WHEELS: The two, four, and six inch Galaxy Wheels take one 1" bushing. The 7⅝" Galaxy Wheels take two ¾" bushings.	
TO ORDER FOR NOVA WHEELS: The two and four inch diameter Nova Wheels take one 1" bushing. The six inch diameter Nova Wheels take two ¾" bushings, and the 7⅝" Nova Wheels take two 1" bushings.	
101-WB-34	¾" 2 oz3.25
101-WB-44	1" 2 oz3.25

PRICE LIST FOR STANDARD GALAXY WHEELS								
Grit Size	2⅜" x 1⅝"		4" x 1¼"		6" x 1½"		7⅝" x 1½"	
	Order#	Price	Order#	Price	Order#	Price	Order#	Price
Fine 600	100-M2-06F	99.00	100-M4-06F	126.50	100-M6-06F	165.00	100-M8-06F	209.00
Fine 360	100-M2-36	99.00	100-M4-36	126.50	100-M6-36	165.00	100-M8-36	209.00
Fine 220	100-M2-22	99.00	100-M4-22	126.50	100-M6-22	159.50	100-M8-22	209.00
Med Fine 180	100-M2-18	104.50	100-M4-18	137.50	100-M6-18	181.50	100-M8-18	231.00
Med Fine 120	100-M2-12	110.00	100-M4-12	148.50	100-M6-12	198.00	100-M8-12	253.00
Coarse 100	100-M2-10	115.50	100-M4-10	159.50	100-M6-10	214.50	100-M8-10	275.00
Coarse 80	100-M2-80	121.00	100-M4-80	176.00	100-M6-80	231.00	100-M8-80	302.50
Coarse 60	100-M2-60	126.50	100-M4-60	187.00	100-M6-60	247.50	100-M8-60	324.50
Rough 80 Hex	100-M2-80H	176.00	100-M4-80H	253.00	100-M6-80H	324.50	100-M8-80H	418.00
Rough 60 Hex	100-M2-60H	209.00	100-M4-60H	313.50	100-M6-60H	396.00	100-M8-60H	506.00
Rough 30 Hex	100-M2-30H	275.00	100-M4-30H	407.00	100-M6-30H	522.50	100-M8-30H	671.00
SHIPPING WEIGHTS FOR ALL GALAXY WHEELS								
1 Wheel	1 lb		2 lbs		3 lbs		5 lbs	

GALAXY WHEELS FOR CARVING

Our Galaxy carving wheels have special shapes and sizes for helping the sculptor grind those difficult grooves and curves in stone.



USE THESE ROUNDED-FACED CARVING WHEELS when doing carving, intarsia, channel work, stained glass and other applications that require curved edges. Use the 1/4" and 1/2" widths for narrow grooves and the 1" wide for larger ones. Four wheel diameters increase your choices.

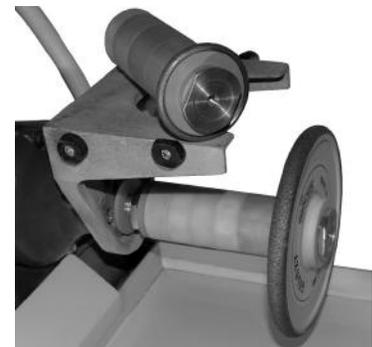
All Galaxy carving wheels can be used on the Titan. All but the 8" wheels can be used on the Genie. Only the two and four inch wheels can be used on the Pixie. These wheels can also be used on most other grinding machines that have standard arbors.

Galaxy Wheels have 1" arbor holes. To order bushings, see page 10. The four and six inch diameter wheels take one 1" bushing. The two inch wheel takes one 3/4" bushing and the 7 5/8" inch wheel takes two 3/4" bushings.

ORDERING EXTRA SPACERS FOR MOUNTING CARVERS. You may need to know hub widths to order extra spacers to mount your carvers. Hub width for all 2" dia. carvers is 3/4"; for 4" dia. is 1 1/4"; for 6" dia. is 1"; and for 8" dia. is 1 1/2". To order extra spacers, see page 7

 **Caution: Wear Safety Goggles when using any Galaxy Wheel.**

CONVEX CARVER WHEELS							
Grit Size	Wheel Dia.	1/4" Wide Wheel		1/2" Wide Wheel		1" Wide Wheel	
		Order#	Price	Order#	Price	Order#	Price
600	2"	100-MC2-46	93.50	100-MC2-26	99.00	N/A	-
360	2"	100-MC2-43	93.50	100-MC2-23	99.00	N/A	-
220	2"	100-MC2-42	93.50	100-MC2-22	99.00	N/A	-
100	2"	100-MC2-41	110.00	100-MC2-21	115.50	N/A	-
600	4"	100-MC4-46	121.00	100-MC4-26	126.50	100-MC4-16	137.50
360	4"	100-MC4-43	121.00	100-MC4-23	126.50	100-MC4-13	137.50
220	4"	100-MC4-42	121.00	100-MC4-22	126.50	100-MC4-12	137.50
100	4"	100-MC4-41	159.50	100-MC4-21	165.00	100-MC4-11	176.00
600	6"	100-MC6-46	159.50	100-MC6-26	165.00	100-MC6-16	176.00
360	6"	100-MC6-43	159.50	100-MC6-23	165.00	100-MC6-13	176.00
220	6"	100-MC6-42	159.50	100-MC6-22	165.00	100-MC6-12	176.00
100	6"	100-MC6-41	209.00	100-MC6-21	214.50	100-MC6-11	225.00
600	8"	100-MC8-46	203.50	100-MC8-26	209.00	100-MC8-16	220.00
360	8"	100-MC8-43	203.50	100-MC8-23	209.00	100-MC8-13	220.00
220	8"	100-MC8-42	203.50	100-MC8-22	209.00	100-MC8-12	220.00
100	8"	100-MC8-41	275.00	100-MC8-21	247.50	100-MC8-11	291.50



USE EXTRA ADAPTORS FOR MOUNTING CARVING WHEELS

Genie owners can obtain maximum convenience by mounting the special carving wheels on a separate right hand adaptor. This eliminates the need of taking the Nova Wheels off their right hand adaptor and putting on the carving wheels each time. Pixie owners can use an extra right hand adaptor (which holds the far right hand Nova Wheel) for the same purpose. Wheels on the Titan fit directly on the shaft. Call us to determine your particular need.

NOVA CARVING WHEELS

These wheels are 6" x 1/4" wide and come in our four most popular grit sizes. Excellent for finishing work after using the Galaxy carving wheels. Nova Carvers can be used on the Genie or Titan and most other grinding machines that have standard arbors. Nova Carvers have a 1" arbor hole. Hub width is 1/8". Extra spacers may be needed when mounting these wheels, see page 7 to order. Genie owners can obtain maximum convenience by mounting the Nova Carvers on a separate right hand adaptor. This eliminates the need to take the regular Nova Wheels off the adaptor each time you wish to use the Nova Carvers. (See page 7) Nova Carvers will fit directly onto the Titan shaft.



6" x 1/4" wide
NOVA CARVERS



Grit Size	Color	Order #	Shp Wt	Price
280	COARSE SANDING	BLACK	100-RC64-28	1 lb 143.00
600	FINE SANDING	BROWN	100-RC64-60	1 lb 143.00
1200	PRE-POLISH	GREY	100-RC64-12	1 lb 143.00
3000	PRE-POLISH	ROSE	100-RC64-30	1 lb 143.00

NOVA RESIN-BOND DIAMOND SANDING AND POLISHING WHEELS

Nova Wheels get results fast. The diamonds are embedded within a tough, flexible plastic resin and backed by soft, thick rubber. This soft, flexible construction enables the surface of the Nova Wheel to conform to your stones, eliminating flat spots and scratches.

We recommend that Novas be used in sets rather than in combination with other types of sanding and polishing wheels. Our all-purpose sequence is the 280, 600, 1200, and 3,000 grit wheels, followed by the use of a 14,000 Nova disc. This combination will put an excellent polish on most stones. Some hard-to-polish material may require more steps, such as additional grit Nova Wheels or discs.

Nova Wheels have a 1" arbor hole. To use on other size arbors order bushings shown on page 10.



NOVA WHEELS

NOVA WHEELS MUST BE USED WITH WATER AS A COOLANT.

STANDARD NOVA WHEELS

STANDARD NOVA WHEELS										
Grit Size		Wheel Color	2 ³ / ₈ " x 1 ¹ / ₈ " Wheel		4" x 1 ¹ / ₄ " Wheel		6" x 1 ¹ / ₂ " Wheel		7 ⁵ / ₈ " x 2" Wheel	
			Order #	Price	Order #	Price	Order #	Price	Order #	Price
60	COARSE SANDING	GREEN	100-RW2-70	71.50	100-RW4-70	104.50	100-RW6-70	154.00	100-RW8-70	247.50
140	MEDIUM SANDING	RUST	100-RW2-15	71.50	100-RW4-15	104.50	100-RW6-15	154.00	100-RW8-15	247.50
280	FINE SANDING	BLACK	100-RW2-28	71.50	100-RW4-28	104.50	100-RW6-28	154.00	100-RW8-28	247.50
600	FINE SANDING	BROWN	100-RW2-60	71.50	100-RW4-60	104.50	100-RW6-60	154.00	100-RW8-60	247.50
1200	PRE-POLISH	GREY	100-RW2-12	71.50	100-RW4-12	104.50	100-RW6-12	154.00	100-RW8-12	247.50
3000	PRE-POLISH	ROSE	100-RW2-30	71.50	100-RW4-30	104.50	100-RW6-30	154.00	100-RW8-30	247.50
8000	PRE-POLISH	TAN	100-RW2-80	71.50	100-RW4-80	104.50	100-RW6-80	154.00	100-RW8-80	247.50
14,000	POLISH	CREAM	100-RW2-14	71.50	100-RW4-14	104.50	100-RW6-14	154.00	100-RW8-14	247.50
50,000	POLISH	LT BLUE	100-RW2-50	71.50	100-RW4-50	104.50	100-RW6-50	154.00	100-RW8-50	247.50
Shp. wt. - 1 item			1 lb		1 lb		2 lbs.		2 lbs.	

CERIUM OXIDE POLISHING WHEELS

Use Cerium Oxide Polish in a much cleaner and neater way! This wheel eliminates the mess of loose powder. Use these polishing wheels to give your stones a super fine polish!

POLISHING WHEELS								
Type	2 ³ / ₈ " x 1 ¹ / ₈ " Wheel		4" x 1 ¹ / ₄ " Wheel		6" x 1 ¹ / ₂ " Wheel		7 ⁵ / ₈ " x 2" Wheel	
	Order #	Price	Order #	Price	Order #	Price	Order #	Price
Cerium	100-RW2-C	55.00	100-RW4-C	77.00	100-RW6-C	115.50	100-RW8-C	187.00
Shp Wt - 1 item			1 lb.		1 lb.		2 lbs.	

MAGNETIC NOVA LAPS FOR LAPPING

Our Magnetic Nova Laps give you the fast polishing performance of Novas combined with the convenience of an easy on-off magnetic lap. They attach right onto most flat laps and are easily removed.

Magnetic Nova Laps have a 1/16" thick backing of solid rubber containing magnetized iron particles so the laps will adhere to a cast iron, steel or nickel plated lap. The rubber is coated with a thick layer of our special Nova resin-bond diamond formula for fast action and lasting service. The surface of the Magnetic Nova is made with a grid pattern for better performance.

You can use the Magnetic Novas on your present flat lap set-up in most cases, but they will not work on aluminum or diamond coated discs. If your lap set-up will accommodate an attachment using a 1/4"-20 bolt (such as on the Genie, Titan and Pixie), then you can use one of the special back plates listed below on the right. These steel faced back plates along with the Magnetic Novas will give you a non-interrupted polishing surface for maximum efficiency.

Our recommended general purpose grit sequence for sanding and polishing most flats is to use Magnetic Nova Laps in 30, 60, 280, 600 and 1200 grits, followed by our Super Premium Cerium Oxide Polish on a felt pad. For deep saw marks you may add a coarse Diamond Plated Disc. Other sequences may be used with excellent results depending on the material to be polished.

Shown at right is a Genie with a 6" steel faced back plate attached to the right hand wheel adaptor of the machine. Magnetic Novas (6" size shown lying on machine pan) can be used on the steel-faced back plate, and are easily attached and removed from the plate.

(For larger size Nova laps see page 68).



SAFETY
FIRST
WEAR YOUR
GOGGLES



BACK PLATES FOR MAGNETIC LAPS

These back plates offer a full surface area without the usual center hole. They are similar to the "No-Hole" diamond laps with a 1/4"-20 thread bolt for attaching to the Pixie, Genie and Titan or other machines accepting that size bolt accessory.

Face or entire plate made of steel for use with 4", 6" and 8" Magnetic Novas (at left). Shown above is the back side of a back plate demonstrating the 1/4"-20 bolt attachment.

MAGNETIC NOVA LAPS		
Grit Size	4" Laps: 30.25 ea.	6" Laps: 60.50 ea.
	Order #	Order #
30	100-RM04-35	100-RM06-35
60	100-RM04-70	100-RM06-70
140	100-RM04-15	100-RM06-15
280	100-RM04-28	100-RM06-28
600	100-RM04-60	100-RM06-60
1200	100-RM04-12	100-RM06-12
3000	100-RM04-30	100-RM06-30
8000	100-RM04-80	100-RM06-80
14,000	100-RM04-14	100-RM06-14
50,000	100-RM04-50	100-RM06-50
Shp. wt.	1 lb.	1 lb.

Order #	Item	Shp. wt.	Price
101-14434	4" Back Plate	1 lb.	50.00
101-14432	6" Back Plate	2 lbs.	60.00

STANDARD NOVA RESIN-BOND DISCS



POLISHING PADS



Nova Discs are ideal for polishing backs of cabs, nodules, geode faces, and similar flats as well as for sanding and polishing cabs. They have a soft, rubber backing and are slightly convex (domed) so that under pressure of your stone, they provide an even polishing surface in the middle area often missed with other methods. A standard 1/4"-20 thread bolt is molded into their plastic back-up plate to fit our Gem-Makers and most other machines accepting that size bolt. See below right to order an adaptor to fit your machine if it is not one of our Gem-Makers.

The 4" Nova Disc is recommended for the BigFoot and Pixie, and the 5 1/2" is used on the Genie, Xpert and Titan.

Nova Discs must be used with water.

Pads below have a rigid plastic back plate with 1/4"-20 thread bolt that will fit the BigFoot and Pixie (4 inch), Genie, Xpert and Titan (5 1/2 inch), and other machines designed for such attachments. All pads have a 1/4" thick foam rubber backing so they will conform to the shape of your stone.

Canvas, leather and felt pads may be used with diamond compound, or other polishes (see page 61). Leather pads come either smooth or rough side up. When using diamond compound, use a silicone lubricant, such as our Gem-Lube (see page 47). Shipping Weight: 5 ozs.

STANDARD NOVA DISCS				
Grit Size	4" Disc		5 1/2" Disc	
	Order#	Price	Order#	Price
280	100-RD4-28	52.25	100-RD5-28	90.75
600	100-RD4-60	52.25	100-RD5-60	90.75
1200	100-RD4-12	52.25	100-RD5-12	90.75
3000	100-RD4-30	52.25	100-RD5-30	90.75
8000	100-RD4-80	52.25	100-RD5-80	90.75
14000	100-RD4-14	52.25	100-RD5-14	90.75
50,000	100-RD4-50	52.25	100-RD5-50	90.75
Shp. wt. - 1 item		1 lb.	1 lb.	

Type	4 Inch		5 1/2 Inch	
	Order #	Price	Order #	Price
Canvas	100-PAD-4CU	9.50	100-PAD-5CU	13.50
Leather, rough	100-PAD-4LR	11.00	100-PAD-5LR	18.15
Leather, smooth	100-PAD-4LS	11.00	100-PAD-5LS	18.15
Felt	100-PAD-4F	11.00	100-PAD-5F	18.15

FELT DISCS

These unbacked discs are 1/8" durable wool felt. Felt discs may be glued to back plates or used in other applications. Polishing compounds will adhere well to the surface of this product.

Diameter	Unbacked		
	Order #	Price	Shp Wt
4"	100-PAD-U-04F	3.10	1 oz.
6"	100-PAD-U-06F	7.25	2 oz.
8"	100-PAD-U-08F	10.00	4 oz.

DIAMOND COMPOUND

Our diamond compound is composed of top quality, closely graded diamond particles suspended in a water-based carrier.

Use on pads, discs, or buffs. Color coded for easy identification when using. Packaged in convenient, disposable, plastic syringes. Use with Gem Lube or Microsol lubricant. (see page 47) Weight: 2 oz per syringe



DIAMOND POLISHING COMPOUND					
Size		2 Gram Syringe		5 Gram Syringe	
Mesh	Micron	Order #	Price	Order #	Price
100,000	0-1/2	340-C100-2	5.00	340-C100-5	10.00
50,000	0-1	340-C500-2	5.00	340-C500-5	10.00
14,000	0-2	340-C140-2	5.00	340-C140-5	10.00
8,000	2-4	340-C800-2	5.00	340-C800-5	10.00
3,000	4-8	340-C300-2	5.00	340-C300-5	10.00
1,200	10-20	340-C120-2	5.00	340-C120-5	10.00
600	20-40	340-C600-2	5.00	340-C600-5	10.00
325	54-80	340-C325-2	5.00	340-C325-5	10.00
260	80-100	340-C260-2	5.00	340-C260-5	10.00

DIAMOND SPRAY

Lapcraft diamond spray comes in a convenient non-aerosol pump spray bottle. The diamond is suspended in a high-tech vehicle packed with 2 full carats of precisely graded diamond powder. This packaging produces the uniformity of particle dispersion needed to make diamond abrasives most effective without a limited shelf life. Shipping weight: 3 oz.

photo
to
come

DIAMOND SPRAY			
Mesh	Micron	Order #	Price
100,000	0-1/2	101-6050	15.00
50,000	0-1	101-6051	15.00
14,000	0-2	101-6052	15.00
8,000	2-4	101-6053	15.00
3,000	4-8	101-6054	15.00
1,200	10-20	101-6056	15.00
600	20-40	101-6057	15.00
325	54-80	101-6049	15.00

DIAMOND POWDER

This fine quality micron diamond powder has been carefully graded to give you blocky crystals. Use for charging laps, polishing pads—wherever you need a high quality diamond abrasive for polishing stones. Weight: vial: 2 oz

DIAMOND POWDER					
Size		5 Carat Vials		25 Carat vials	
Mesh	Micron	Order #	Price	Order #	Price
100,000	0-1/2	340-P10-05	7.50	340-P10-25	25.00
50,000	0-1	340-P50-05	7.50	340-P50-25	25.00
14,000	0-2	340-P14-05	7.50	340-P14-25	25.00
8,000	2-4	340-P80-05	7.50	340-P80-25	25.00
3,000	4-8	340-P30-05	7.50	340-P30-25	25.00
1,200	10-20	340-P12-05	7.50	340-P12-25	25.00
600	20-40	340-P60-05	7.50	340-P60-25	25.00
325	54-80	340-P32-05	7.50	340-P32-25	25.00
260	80-100	340-P26-05	7.50	340-P26-25	25.00
180	NA	340-P18-05	7.50	340-P18-25	25.00
100	NA	340-P00-05	7.50	340-P00-25	25.00
80	NA	340-P08-05	7.50	340-P08-25	25.00
60	NA	340-P06-05	7.50	340-P06-25	25.00

ALCOHOL LAMP For heating wax carvers and spatulas and melting various waxes. Has $\frac{3}{16}$ " wick and burns denatured alcohol. Faceted body sets at convenient angles for dopping. Wick adjusts with thumb wheel.

150-LMP-422.00... Lamp 9 oz.....6.95
 150-LMP-422.10... Wick 1 oz..... 1.00



DOP POT

ALCOHOL LAMP

DOP POT Features a thermostatically controlled pot for melting waxes used for dopping stones. Features a custom-calibrated ceramic element designed to heat green and black wax fast and then hold it at the proper working temperature. Made of durable plastic, the Dop Pot has a lighted on/off switch, convenient tool storage area, and a flat rim for warming stones prior to dopping.

142-450110 115V US plug 1.2 lbs..... 34.95

WOODEN DOP STICKS. Easy to use, inexpensive. You can dop many stones at one time. Assorted diameters from $\frac{1}{4}$ " to $\frac{5}{8}$ ". About 4" long. Pkg. of ten.

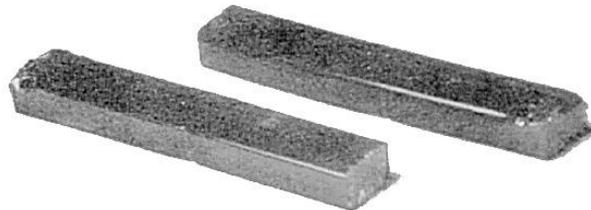
721-70-1001 6 oz.....5.00



MEASURING CUPS Use these disposable plastic cups for mixing epoxy and resin. Graduated 1 oz. cup makes mixing easy. Translucent, flexible polypropylene. Cups come in packages of 10.

200-MC-610..... 10/pkg..... 1 oz.75

DOP WAX



BLACK DOP WAX. Use with hot dops above. Softens at 170°. Gives excellent adhesion for faceter. Stick $\frac{5}{8}$ " x 10" $\frac{1}{4}$ lb. Four sticks per 1 lb pkg.

200-DOP-BL..... 1½ lb..... 15.65

GREEN DOP WAX. The standard utility wax for general lapidary work. Provides good adhesion. Use with hot dops above. Softens at 150°. Stick $\frac{5}{8}$ " x 10" $\frac{1}{4}$ lb. Four sticks per 1 lb pkg.

200-DOP-GR 1½ lb.. 15.50



DOP MASTER

DOP MASTER Our dopping system features a comfortable, $\frac{1}{2}$ " diameter x 4- $\frac{1}{2}$ " long aluminum handle. It comes with 16 dopping sticks (screws). Use either standard dop wax or cyanoacrylate glue (see below) to attach stone to dopping stick. Includes handy plastic stone holder with 16 holes for storing mounted stones so you can dop multiple stones at one time. This system makes it easy to change from one stone to the next when grinding or polishing, simply use the enclosed hex key to loosen the set screw, drop in a new dop stick (screw), tighten the set screw in the handle and you are ready to work. (Tip: To remove dop wax reheat the stone. When using cyanoacrylate you may need to use accelerator. To remove cyanoacrylate use Super Solvent.)

721-70-1002..... 9 oz 24.95

**WARNING:
GLUES CONTAIN TOXIC
MATERIALS. READ DIRECTIONS
ON LABELS BEFORE USING AND
FOLLOW ALL INSTRUCTIONS.**

SHIPPING NOTICE
All items on this page can only be shipped via UPS Ground Service within the Continental States. No air or overseas shipments due to Federal regulations. Sorry.

INSTANT CYANOACRYLATE GLUES
Select the cyanoacrylate glue that fits your needs. All are "instant" bonding, dry clear and can be buffed to a high polish, have incredible bonding strength and can be used on almost any type of material. Keep unopened bottles in freezer at 32° or below for extended life. Store used bottles at room temperature.



SUPER SOLVENT For cyanoacrylate glues. Use to clean up excess glue or break an existing bond. Can normally be used on hands, most fabrics and surfaces, but solvent should be tested on a small area first. Should not be used on lacquer, butyrate or nitrate based finishes.
129-US-1 2 oz. 8.95

NEW NCF AEROSOL ACCELERATOR
Use with cyanoacrylate glues to speed curing time on difficult-to-bond materials or under adverse conditions. Contains special ingredients which clean bonding surfaces and start curing at even lower temperatures. CONTAINS NO CHLOROFLUOROCARBONS.
129-NCF-A 6 oz. 12.95

"HOT STUFF" (Red Label). Normally sets in 3-10 seconds. Thin like water for exact fit or deep penetration.
129-HS-RD 1 oz. 5.95



OPTICON Seals and cements fractures in flat or curved, polished or unpolished stone. Eliminates fracture reflection and structural weakness and in addition accomplishes the filling of pits. Opticon 224 resin is amber clear and when heated to a low viscosity has the property of high penetration of fractures, much like glycerin or oil. 9 oz. Shipped via UPS ground only in USA.
133-224 1 lb. 22.50

"SUPER T" (Yellow Label) Sets in 10-25 seconds. Thick like syrup to fill small gaps between parts that don't fit perfectly.
129-HS-YL 1 oz. 5.95



3M FEATHERING DISC ADHESIVES
Use to bond sanding and buffing discs to back plates. Bonds instantly but allows discs to be peeled off backing after use. Works on rubber, plastic, metal backup pads. Comes in 5 oz. tube.
140-08051 Tube 5 oz. 29.60

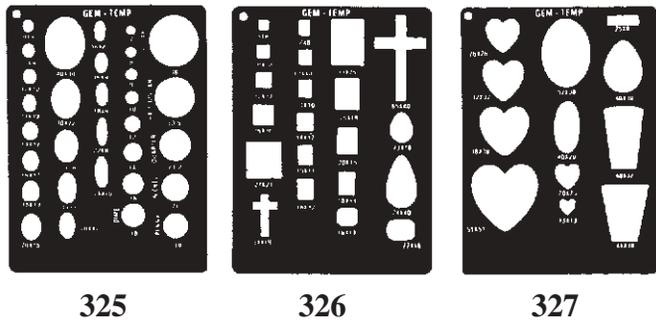


"SPECIAL" T (Green Label) Sets in 20-50 seconds depending on material. Thicker consistency and greatest gap filling ability.
129-HS-GR 1 oz. 6.95

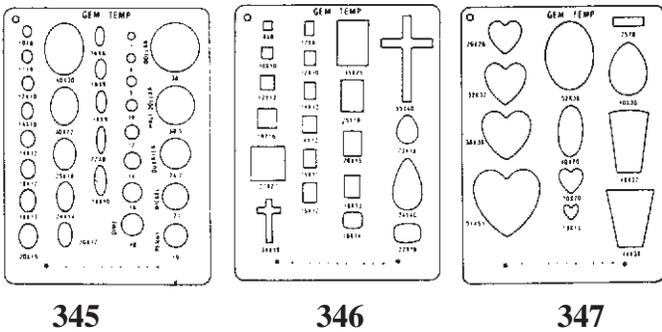


330 EPOXY is water clear. Most popular epoxy. Good for same uses as 220 above. Fast setting time, cures in 1 hour at room temperature. Ideal where clarity is important. Especially good when you need an invisible bond on glass, china, ceramics, stone or metals and other nonporous materials.
133-330 2 oz. 4.50

GEM-TEMP TEMPLATES



GEM-TEMP PLASTIC TEMPLATES



GEM-TEMP TEMPLATES are anodized aluminum, color coded for quick identification. Precision stamped markings are permanent. Precision cut designs stay accurate and resist wear, last for years. Double GEM-TEMP templates enable you to see and scribe both sides of slab while it is held firmly in place.

SINGLE OVALS AND CIRCLES (blue)

130-325 1 oz. 7.75

DOUBLE OVALS AND CIRCLES (blue)

130-325D 3 oz. 16.95

SINGLE SQUARES AND RECTANGLES (gold)

130-326 1 oz. 7.75

DOUBLE SQUARES AND RECTANGLES (gold)

130-326D 3 oz. 16.95

SINGLE MISC. SHAPES (red)

130-327 1 oz. 7.75

DOUBLE MISC. SHAPES (red)

130-327D 3 oz. 16.95

SET OF THREE, one each color, with scribe.

130-GT3 5 oz. 22.95

GEM-TEMP PLASTIC TEMPLATES are made of heavy duty plastic. Won't corrode or bend out of shape. Precision cut. Set includes 1 of each style, plus scribe.

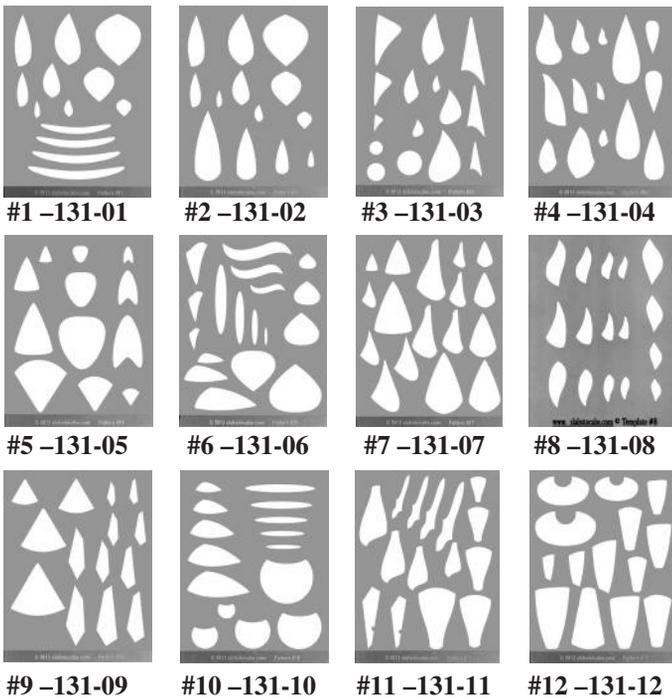
130-345 1 oz. 4.90

130-346 1 oz. 4.90

130-347 1 oz. 4.90

130-349 set of 3 3 ozs. 14.76

TEMPLATES FOR DESIGNER GEMSTONES!



Let the cabs begin!
Be as creative as you want to be with these eye pleasing shapes. Templates come in easy to use transparent 8½ x 11 plastic.

There are now 12 sets for all to enjoy!

131-01 2 oz. 8.00

131-02 2 oz. 8.00

131-03 2 oz. 8.00

131-04 2 oz. 8.00

131-05 2 oz. 8.00

131-06 2 oz. 8.00

131-07 2 oz. 8.00

131-08 2 oz. 8.00

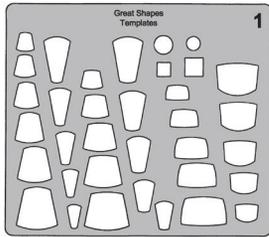
131-09 2 oz. 8.00

131-10 2 oz. 8.00

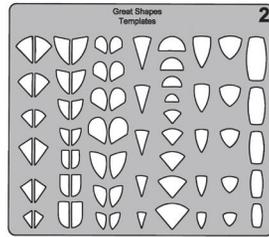
131-11 2 oz. 8.00

131-12 2 oz. 8.00

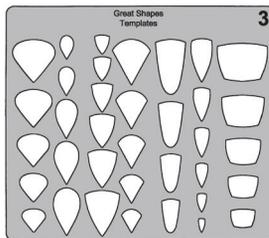
Background: *John F. Heusler G. G. designed these templates based on his artistic taste. He is an award winning jewelry designer and has been cutting gems for over 44 years. His articles in Lapidary Journal/Jewelry Artist Magazine the past few years showcase many of these cuts.*



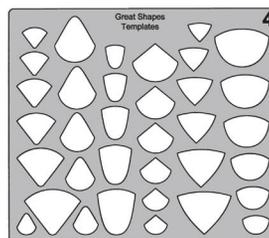
132-201



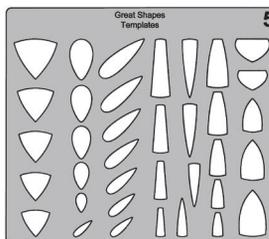
132-202



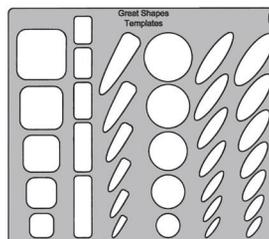
132-203



132-204



132-205



132-206

Photos to come



SCRIBING PENCILS



DIAMOND TIPPED SCRIBE



CARBIDE SCRIBE

Introducing “Great Shapes Templates” by Donald K Olson

GREAT SHAPES TEMPLATES The Great Shapes Templates are manufactured by Donald K. Olson and Associates.

Don and Gloria have been in the gemstones and mineral business for 45 years. During that time they have developed a collection of hundreds of shapes for their cabochons. They have now selected their favorites for this set of templates. They anticipate adding more to the selection. Templates are made of light-weight, transparent plastic that are perfect for lapidary, jewelry designing, and other art and craft projects.

132-201	2 oz.	8.00
132-202	2 oz.	8.00
132-203	2 oz.	8.00
132-204	2 oz.	8.00
132-205	2 oz.	8.00
132-206	2 oz.	8.00
132-207	2 oz.	8.00
132-208	2 oz.	8.00

SCRIBING PENCILS. The basic tool for making the outline of cabochon shapes on slabs. The pencils, one aluminum and the other brass, come as a set. The scribes are easy to see and will not wash off during sawing or grinding. Sharpen pencils on any grinding wheel.

130-14-115 Set.....	3 oz.	6.00
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DIAMOND TIPPED SCRIBE Light weight and slips in your pocket. Scribe plastic, glass, stone and metals.

150-SCB-432	2 oz.	8.95
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CARBIDE SCRIBE. Our carbide pocket scribe with clip is always where you want it — in your pocket. Hardened carbide tip ensures extended life.

150-SCB-435	2 oz.	6.95
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HUSKY 8" ARBOR SYSTEM



For the shop that needs an extra arbor for those many special jobs, this versatile series can fill the bill.

The complete units are ideal for use in industrial shop set ups and for community center and club workshops. Excellent for multiple stations.

You can mount a wheel or expanding drum on each end of the shaft. Both ends have a 1/2" step for mounting laps. The right hand will also accept 1/4" - 20 screw back discs. You can set up the unit as either a stone or metal finishing unit. Attach our special Galaxy Carving Wheels and you have a machine for carving stone.

You can use expanding drums with belts, a variety of grinding and polishing wheels such as our diamond Galaxy and Nova Wheels, and various buffing wheels.

The 8" arbor is heavy duty, cast aluminum with a split housing so just the removal of four screws allows you to change the belt or remove the shaft for bearing replacement. Arbor shaft is 3/4" stainless steel with overall length of 18". Cushion mounted bearings and 3-step pulley.

630-28-2100.....Shp Wt. 16 lbs..... 435.00

AD-A-UNIT/HUSKY ARBOR PARTS

AD-A-UNIT SHAFT	
690-28-2103.....	Shp Wt. 3 lbs 155.00
BEARINGS. Need two per arbor.	
690-90-16204.....	Each..... 4 oz. 21.00
RUBBER BEARING MOUNT	
690-90-0002.....	Shp Wt. 6 ozs..... 7.25
BELT FOR MB MODEL	
690-91-4310.....	Each..... 10 oz. 11.75



These Ad-A-Unit machines are quite versatile. For the wheels, any buffs shown, use listings below.

Galaxy Grinding Wheels.....	10 - 11
Nova Sanding and Polishing Wheels	12
Polishing Buffs.....	5,32

FOREDOM® HAND POWER TOOLS

RELIABLE – ECONOMICAL – VERSATILE – REVERSIBLE

FOREDOM K2230 JEWELERS KIT

- Features 1/6 HP hang up style motor
- Ball bearing, fan cooled, variable speed
- 66% more power than older CC machine
- 33% more power than old S machines
- Speed up to 18,000 RPM, 39" flex shaft
- Fits most quick disconnect handpieces
- Good for right or left hand users
- Reversible feature helps keep dust away for right hand users
- Alternating motor direction helps extend life of certain abrasives
- Available in 115 volt and 230 volt models. 230 volt is CE approved



Kit 2230

Kit comes with: motor; #30 geared chuck handpiece, 0-5/32 capacity; FCT-1 solid state speed control with wide footprint, plastic housing; chuck key with easy grip handle; flex shaft grease; 60 piece jewelers accessory kit; handy rotating tool holder. FULL 2 YEAR WARRANTY FROM FOREDOM ELECTRIC

FOR USE INSIDE THE USA	FOR USE OUTSIDE THE USA
Kit 2230 - 1/6 HP motor, UL and CSA listed	Kit 2230-2CE - 1/6 HP motor, CE approved with Continental European required plug end.
103-K2230 115V 15 lbs.....298.80	103-K2230-2CE230V 18 lbs329.75

FOREDOM MOTOR HANGERS

Motor Hangers conveniently and securely suspend hang-up style motors and other power tools above the work bench for ready access to your work. Foredom Motor Hangers feature a 3-piece hexagonal support rod and top safety hook rod for holding one or two motors. The MAMH-1 comes with a clamp mount for attaching to the top of your bench. May be easily removed or relocated. The MAMH-2 comes with a base mount, which allows you to screw it to the top or side of your bench. Both models include a Handpiece Rest and two Spring Safety Clips. Assembly of the hanger is simple with the supplied couplings and set screws.



MAMH-1

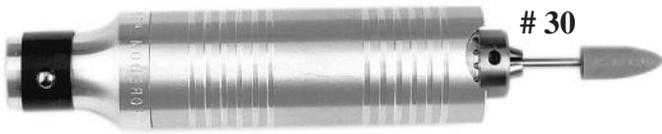


MAMH-2

DOUBLE MOTOR HANGER WITH BENCH CLAMP	
103-MAMH-1	3 ½ lbs 43.32
DOUBLE MOTOR HANGER WITH BASE MOUNT	
103-MAMH-2	3 ½ lbs 61.00

FOREDOM® INTERCHANGEABLE HANDPIECES

General purpose handpieces # 30, 44T, 28 and 20 have Foredom's Quick Disconnect feature that makes it fast and easy to interchange handpieces or to attach and remove them. Handpieces # 20 features Foredom's Quick Change Bur Release that allows you to insert and remove burs without the use of a chuck key or pin and wrench. All handpieces have pre-lubricated ball bearings that require no additional lubrication and are suitable for continuous use. **NOTE: Burs shown are not included.**



30 Foredom's most popular handpiece features a geared 3-jaw #0 chuck that takes any size shank accessory shank or drill bit up to 5/32" (4mm). Comes with 103-CKH-1 chuck key with molded plastic handle. Various bench top tools are available to work with the versatile # 30, including Foredom's drill press and handpiece holder (page 23). 5 3/16" long, 1" dia, weight, 5.85 oz.
103-HP30Shp Wt 10 oz..... 61.88



44T Collet-type chuck handpiece accommodates accessories with shank sizes up to 1/4" in diameter. Comes with three collets: 3/32" (2.35mm), 1/8"(3.18mm) and 1/4" (6.4mm), and pin and chuck wrench. Other fractional and metric collets are available in Collet Set 440 (page 23). Can also be used in Foredom's handpiece holder and drill presses. (page 23). 5 5/8" long, 1" dia. (center) 3/4" dia, (taper), weight 5.85 oz.
103-HP44Shp wt 9 oz..... 58.35



28 Collet-type chuck handpiece with a slender, comfortable design and tapered grip. Comes with 3/32" (2.35mm) and 1/8"(3.18mm) collets, and pin and chuck wrench. Other fractional and metric collets are available in collet set 600 (page 23). 5 1/4" long, 3/4" dia. (center) 1/2" dia. (taper), weight 3 oz.
103-HP28Shp wt 5 oz..... 58.35



20 Has molded plastic front grip with tapered sides for easy and close handling. Comes with Lever Action for quick and easy insertion and change of accessories. Accommodates 3/32" Shank only. To insert an accessory, rotate lever 90° away from handpiece body, insert accessory, and move lever forward or back 90° into locked position. 5 5/8" long, 1 1/8" dia. (center) 3/8" dia. (front taper), weight 4 oz.
103-HP20Shp wt 5 oz..... 81.33



SPEED CONTROLS FOR 1/2 HP SERIES SR MOTORS



FCT-1
The reliable FCT is Foredom's most popular foot operated speed control. It features solid state circuitry in a heavy duty plastic housing with an extra wide footprint, low profile, and non-skid pads on the bottom for ease of use. It provides smooth control throughout the entire speed range. CSA listed. 7" long, 4 1/2" wide, 2 5/8" high.
103-FCT-1 (115V) Shp Wt 2 lbs 32.71
103-FCT-2CE (230V) Shp Wt 2 lbs. 63.65



SCT-1
The SCT offers the same electronics and smooth control as the FCT but in a much heavier, cast iron housing. The bottom surface of the SCT is covered with non-skid material. The added weight of the metal housing eliminates any unexpected movement of the control along the floor. CSA listed. 6 3/4" long, 4" wide, 2 5/8" high. Not available for use with SR CE machines.
103-SCT-1 (115V)Shp Wt 6 lbs. 63.65



BASE AND YOKES ASSEMBLY

Turn your hang-up style motor into a bench top model with the cast iron base and yoke assembly. It includes all mounting screws. Fits series R, S, and SR motors.
103-UA10451..... 7 lbs. 61.88

DRILL PRESS STAND

Use your Handpiece in this drill press and convert your flexible shaft machine into a drill press for drilling straight, accurate holes in gemstones, metal, wood, plastic and glass. It's a rugged, precision tool made with machined cast iron base, table and housing for stability and accuracy. Sturdy locking nut presets stroke depth from 0 to 1 1/4". Use with #30, 30H, 44, 44T and 44HT Handpiece. Handpiece in photo not included.



Stroke Length: 1 1/4"
Throat: 2"
Post Diameter: 3/4"
Height: 14 1/4"
Adjustable Table:
3 5/16" x 3 5/16"
Base Plate: 3 3/4" x 3 1/2"

103-DP-30..... 9 lbs..... 149.40

ROTATING UNIVERSAL BUR HOLDER

This handy, rotating bur holder accommodates all size accessory shanks. Store and organize up to 126 burs and have them all easily accessible. Takes 1/16", 3/32", 1/8" and 1/4" shanks. It measures 7" wide by 4" high, and holds 69-3/32" or 1/8" burs, 12-1/4" burs, and 45-1/16" burs.



103-10080 1 lb..... 15.47

BUR HOLDER

Small square bur holder will hold a total of 52 burs (34 3/32" and 18 1/8"). Measures 2-1/2" square x 2-1/4" high. Holds burs up to 2" long. Includes clear plastic cover.

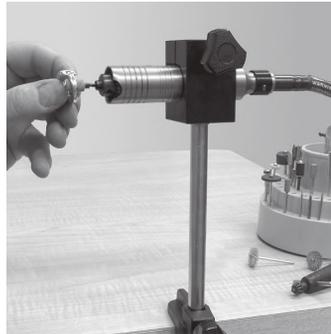


This one and one at left do not include burs.

103-10089. 6 oz.....3.98

HANDPIECE HOLDER

Holds handpiece in position for use as a high speed lathe for grinding, carving, etc. while controlling work piece with both hands. Adjustable height up to 10" above work surface. Rotates 360°. Comes with BC-1 bench clamp. For #30, 30H, 30SJ, 44, 44T & 44HT Handpieces.



103-HH-302 lbs.....36.25

MAINTENANCE SUPPLIES

Maintenance kits



Maintenance Kits for flex shaft motors contain a shaft, a pair of motor brushes, grease and operating manual. Kits are suitable for 115 and 230 volt motors, except where noted.

- 103-MK-10 Maintenance kit for all new 1/2 HP series SR, SRM, and SRB motors 15.90
- 103-MK-8 Maintenance kit for 1/8 HP series SR, SRM, SRB, S, SM, and SB motors..... 15.90
- 103-MK-9 Maintenance kit for 1/10 HP series CC, MM, and DD 115 volt motors only 15.90
- 103-MK-9A Maintenance kit for 230 volt CC motors 19.45

Motor Brushes

Priced per pair. Suitable for 115 & 230V units except where noted.

- 103-132P Pair of brushes for all new 1/2 HP series SR, SRM, and SRB motors7.46
- 103-2019P Pair of motor brushes for 1/8 HP series SR, SRM, SRB,S,SM,and SB motors, H, HM, HB, and series K motors7.96
- 103-119P Pair of brushes for CC, MM, and DD 115 volt only7.96
- 103-117P Pair of brushes for CC 230 volt and R, RB, EE, MMG, and GG motors9.75

Replacement Shafts and Sheaths

- 103-93S Inner shaft for series TX, SR, (1/2 and 1/8 HP), I, PG, S, CC, R and K motors9.75
- 103-77S Standard material outer sheath that comes equipped on all motors except series L, PG, EE, and F13.26
- 103-77N Neoprene material outer sheath that comes equipped on series L motors and is optional for all other motors except series EE and F.....24.75

Lubrication supplies

- 103-10005 Foredom Motor and Handpiece Oil in hypodermic dispenser 3.98
- 103-10006 Foredom Flexible Shaft Grease in 1 oz. container 3.10



#440



#600



103-CKH-1

COLLET SETS FOR HANDPIECES

- No. 440 set for handpieces 44 and 44T Seven collets: 1/16", 3/32", 3mm, 1/8", 5/32", 6mm, 1/4".
103-4404 oz..... 53.04
- No. 600 set for handpiece 28, 8, 8D, Set of four collets 1/32", 1/16", 3/32" and 1/8"
103-600 4 oz..... 30.94

CHUCK KEY

- Fits Handpiece 30, 30H, 30SJ and 25C. Has comfortable plastic handle making accessory change easier, and key more difficult to misplace.
103-CKH-14 oz..... 5.31

THE CARVER'S CHOICE

Now you can carve the fixed-point method, or with a flexible-shaft—either way with the same unit. Plus, you have a unique coolant/shield set-up that protects you from any coolant splash, but with no shields to interfere with a clear line of sight to the work piece as you carve.

The design of our unique shield and coolant system makes this possible. Your line of sight passes over one adjustable clear plastic shield and under the other, leaving you with an unobstructed view as you work, yet protected from any splash and splatter. You control the coolant flow as well, allowing you to adjust the drip to an efficient minimum.

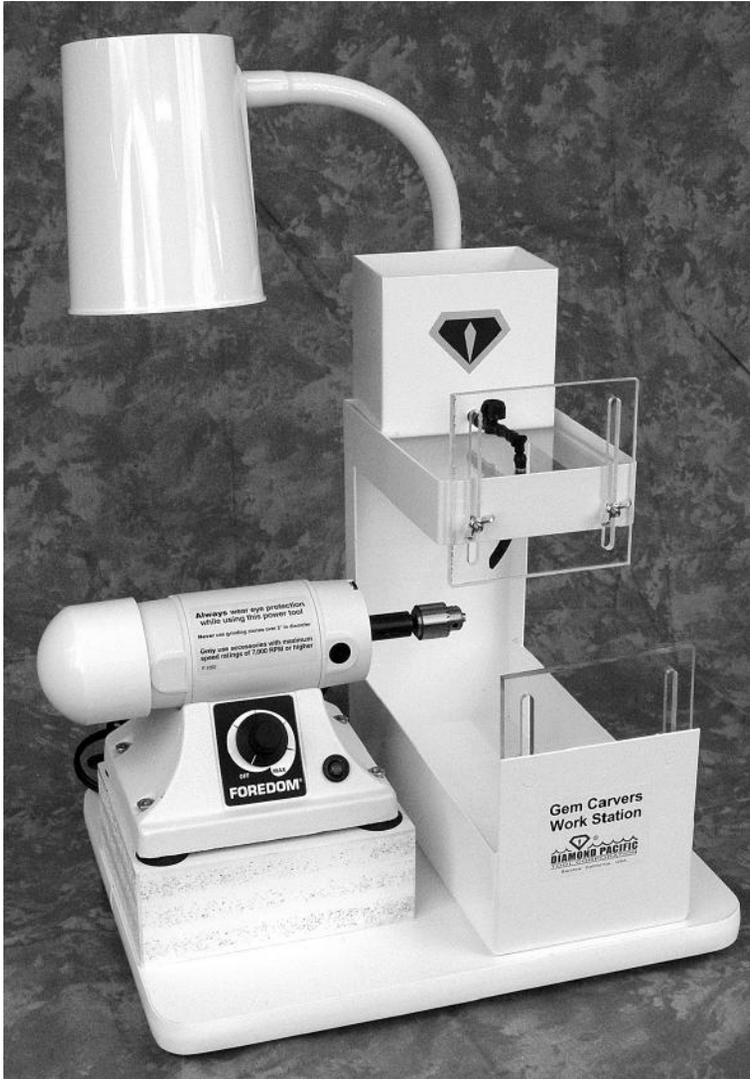
Not only that, you have plenty of room to maneuver your work piece around the fixed-point arbor. The chuck accommodates accessory shanks from 0-5/32". The motor is 1/8 HP with adjustable speeds from 500-7000 RPM and comes in either 115 Volt or in 230 Volt for use outside the USA.

The Carver's Choice easily converts to allow flexible-shaft carving. Just remove the arbor chuck (included with the unit) and attach a flexible-shaft which must have a 5/16" coupling. The Flexade® sold below allows you to use almost any of Foredoms's handpieces (sold on page 27). We do not include a flexible-shaft with the unit.

When you convert to the flexible-shaft method, you can move the Work Station unit out away from the motor, giving you plenty of room for movement of the flexible-shaft. The Work Station is completely self-contained, and can be used elsewhere in your shop.

Work Station comes with handy flex-lamp, and coolant tank with adjustable valve.

The Carver's Choice unit is the suggestion of master carver Dick Friesen, so it works.



THE CARVER'S CHOICE includes motor, Foredom bench lathe mounted on 11½" x 14" baseboard, 0-5/32" chuck for fixed point carving, complete Carver's Work Station (including lamp). NOTE: Flex shaft is NOT included.

660-CC.....	115 Volt	Shp wt 27 lbs.....	470.00
660-CC-X....	230 Volt	Shp wt 27 lbs.....	495.00

FLEXADE® FLEX-SHAFT

Convert your lathe, drill press or electric drill into a flex-shaft machine. For best performance, motor speed should operate at 3500 RPM or higher, and ONLY in a forward direction. Any Foredom Quick Change Handpiece can be attached. The 30" Flexade® comes with motor coupling. For current models of Foredom's M.BL Lathe and other motors with 5/16" diameter shafts.

103-BO-155/16" shaft. Shp wt. 1 lb.....48.00

For Multi-Flex Flex Shaft Carver, older Foredom lathes and other motors with 1/4" motor shafts.

103-BO-141/4" shaft. Shp wt. 1 lb.....48.00



HANDPIECE AND LATHE SHOWN NOT INCLUDED.

SELECTING SMALL TOOLS FOR CARVING

You will find almost as many methods for carving as you will choice in tools to do the job, from hammer and chisel to create life size statues, to a variety of motorized tools and diamond points for intricate carving of agate and similar hard stones. The wide choice in small burrs, buffs and wheels can be particularly confusing to the beginner.

The information below is intended as a beginner's basic guide to the selection and use of small tools for the shaping through polishing process using The Carver's Choice fixed point unit. The tools work as well with our Multi-flex Unit, or with any flexible-shaft set-up. Our selection is based on suggestions by a master carver, but is meant to be a beginner's start-up kit. The tools are by no means the only ones you will need or want.

Page numbers listed with the tool descriptions and order numbers below refer to pages in this catalog.

STEP 1. SHAPING YOUR Work piece. The process for carving stone follows the basic steps in finishing gemstones of any kind: the work piece must be cut or ground to shape, then finished through steps of sanding and polishing. To start, the more matrix you can remove from your stone by trim sawing or rough grinding, the easier time you will have actually carving. Saves your small tools as well.

Diamond burrs are used for shaping your work piece. These come in a variety of shapes and sizes. They are designed to be used wet. V-shaped or knife edged burrs are used to outline and form deep valleys. Straight wheels are used to shape convex areas and pointed burrs are used to form concave areas. You will find a large selection of types and shapes on pages 26 - 29.

The inexpensive plated burrs or points on page 27 and the bottom of page 29 are good for beginners. Once you have determined the best shapes for your use you can upgrade to the sintered points on page 26.

STEP 2. THE SANDING PROCESS. In sanding, you are trying to remove all scratches left by the shaping process, and to prepare the surface of the stone for polishing. You will generally spend time going through several sanding steps.

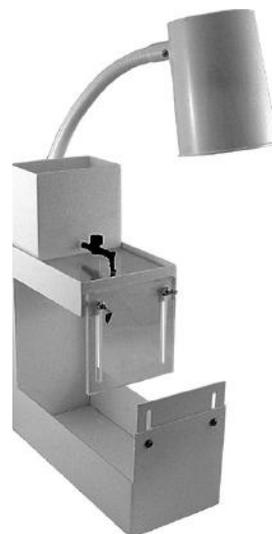
Our Nova Miniature sanding points are used for the sanding process. These points must be used wet. Nova points come in 9 grits and are color coded for easy identification. Use the Nova points at approximately 2000 to 4000 RPM. The coarser points 60, 140 or 280 grits, are used following the metal bonded diamond burrs. The medium grits, 600, 1200 and 3000 are for finer sanding. See page 29 to order. You may also want to try out the Mini-Nova wheels, also listed on page 29. These come in single or multiple layers for different needs. Great for getting into hard to reach areas.

STEP 3. FINE SANDING AND POLISHING. Depending on how well the surface of your stone is prepared to this point, you need to proceed with more steps in the polishing process. For this you may use Nova points in 8000, 14000 or 50000 grits. You may also use Phenol points (see page 28) with diamond compound (page 15) or felt wheels with diamond compound. Remember Nova products must be used with water. Points charged with diamond compound must be used with a lubricant like our lubricant (see page 42). To use felt wheels spread a small amount of diamond compound on the felt then add a spray of lubricant. The carving arbor should be run at about 1500 RPM (approximately the 10 o'clock position on the bench lathe dial. If you are throwing compound the speed is too high.

When using diamond compound, your work piece and your hands should be cleaned with soap and water between each step to prevent contamination by the coarser compound grits.

CARVER'S WORK STATION

Stop the splash and mess when you carve with this handy shield developed by master carver, Dick Friesen. The unique arrangement of double, adjustable shields prevents water splashing towards you as you carve, either with a Freedom Flex-shaft unit, or the fixed-shaft Multi-Flex. The Work Station also incorporates a water tank with adjustable valve to control amount of water to your work piece. A flex-stem lamp easily puts light right to where you work. Made of powder coated metal with clear shields that protect you from splash without obstructing your view as you work.



**Work
Station**

660-WS Shp. Wt. 8 lbs.225.00

SINTERED DIAMOND CARVING BURS

Sintered carving burs from Inland are professional grade tools. The diamond is all the way through the head, so it will last five to ten times longer than plated diamond tools. All point shapes come in grit sizes: 100, 220, 325 and 600. Shanks are $\frac{3}{32}$ " diameter. Shown approximate shape and size. Suitable for shaping and carving all kinds of minerals. Must be used with water. Shp. Wt. 1 oz. Please specify catalog number.

All grits \$17.95								
Order # 100 grit	174-470152	174-470172	174-470232	174-470252	174-470272	174-470332	174-470352	174-470372
Order # 220 grit	174-470154	174-470174	174-470234	174-470254	174-470274	174-470334	174-470354	174-470374
Order # 325 grit	174-470156	174-470176	174-470236	174-470256	174-470276	174-470336	174-470356	174-470376
Order # 600 grit	174-470158	174-470178	174-470238	174-470258	174-470278	174-470338	174-470358	174-470378
Head Size	6mm x 13mm	8mm x 13mm	4mm x 10mm	6mm x 13mm	8mm x 13mm	4mm x 12mm	6mm x 13mm	8mm x 13mm

All grits \$17.95								
Order # 100 grit	174-470442	174-470452	174-470632	174-470652	174-470672	174-470732	174-470752	174-470762
Order # 220 grit	174-470444	174-470454	174-470634	174-470654	174-470674	174-470734	174-470754	174-470764
Order # 325 grit	174-470446	174-470456	174-470636	174-470656	174-470676	174-470736	174-470756	174-470766
Order # 600 grit	174-470448	174-470458	174-470638	174-470658	174-470678	174-470738	174-470758	174-470768
Head Size	5mm x 5mm	6mm x 6mm	4mm x 12mm	6mm x 13mm	8mm x 13mm	4mm x 12mm	6mm x 13mm	7mm x 13mm

All grits \$17.95								
Order # 100 grit	174-471052	174-471072	174-471092	174-471152	174-471172	174-471192	174-471232	174-471252
Order # 220 grit	174-471054	174-471074	174-471094	174-471154	174-471174	174-471194	174-471234	174-471254
Order # 325 grit	174-471056	174-471076	174-471096	174-471156	174-471176	174-471196	174-471236	174-471256
Order # 600 grit	174-471058	174-471078	174-471098	174-471158	174-471178	174-471198	174-471238	174-471258
Head Size	6mm x 2mm	8mm x 3mm	10mm x 3mm	6mm x 2mm	8mm x 3mm	10mm x 3.5mm	4mm x 11mm	6mm x 13mm

All grits \$17.95								
Order # 100 grit	174-471272	174-471342	174-471352	174-471432	174-471452	174-471472	174-471652	174-471662
Order # 220 grit	174-471274	174-471344	174-471354	174-471434	174-471454	174-471474	174-471654	174-471664
Order # 325 grit	174-471276	174-471346	174-471356	174-471436	174-471456	174-471476	174-471656	174-471666
Order # 600 grit	174-471278	174-471348	174-471358	174-471438	174-471458	174-471478	174-471658	174-471668
Head Size	8mm x 13mm	5mm x 13mm	6mm x 13mm	4mm x 12mm	6mm x 13mm	8mm x 13mm	5mm x 12mm	7mm x 13mm

LASCO DIAMOND CARVING BURS

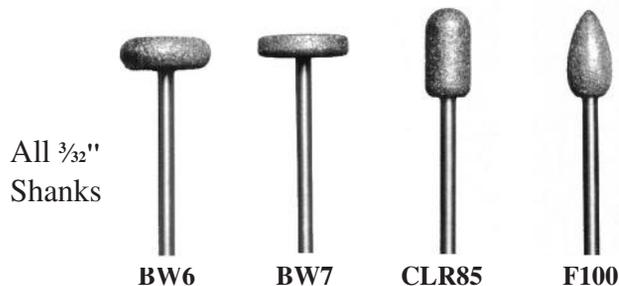
Lasco's diamond tools give you a choice in grit sizes, from 40 grit for roughing out to 600 grit for pre-polish finish. The Lasco-bond process assures a uniform diamond surface that won't peel or pull out. The Lasco tools hold a cutting area without skipping, binding or jumping. You'll enjoy fast, vibration free, self cleaning reduction. Made in USA. Shown approx. size. Ship wt. 2 oz. Order from charts below.



All 1/8" Shanks

CL95 CLR95 B60 B100

Price	\$9.00 ea.	\$9.00 ea.	\$8.00 ea.	\$10.00 ea.
40 Grit	173-CL95-040	173-CLR95-040	173-B60-040	173-B100-040
80 Grit	173-CL95-080	173-CLR95-080	173-B60-080	173-B100-080
150 Grit	173-CL95-150	173-CLR95-150	173-B60-150	173-B100-150
200 Grit	173-CL95-200	173-CLR95-200	173-B60-200	173-B100-200
400 Grit	173-CL95-400	173-CLR95-400	173-B60-400	173-B100-400
600 Grit	173-CL95-600	173-CLR95-600	173-B60-600	173-B100-600



All 3/32" Shanks

BW6 BW7 CLR85 F100

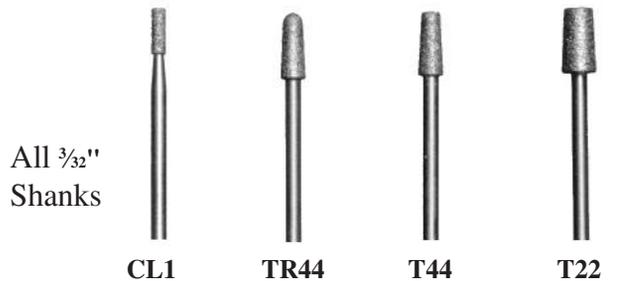
Price	\$9.50 ea.	\$8.50 ea.	\$8.00 ea.	\$9.50 ea.
40 Grit	173-BW6-040	173-BW7-040	173-CLR85-040	173-F100-040
80 Grit	173-BW6-080	173-BW7-080	173-CLR85-080	173-F100-080
200 Grit	173-BW6-200	173-BW7-200	173-CLR85-200	173-F100-200
600 Grit	173-BW6-600	173-BW7-600	173-CLR85-600	173-F100-600



All 3/32" Shanks

K2 W22 BW4 BW1

Price	\$6.25 ea.	\$6.25 ea.	\$7.00 ea.	\$6.25 ea.
80 Grit	173-K2-080	173-W22-080	173-BW4-080	173-BW1-080
200 Grit	173-K2-200	173-W22-200	173-BW4-200	173-BW1-200
600 Grit	173-K2-600	173-W22-600	173-BW4-600	173-BW1-600



All 3/32" Shanks

CL1 TR44 T44 T22

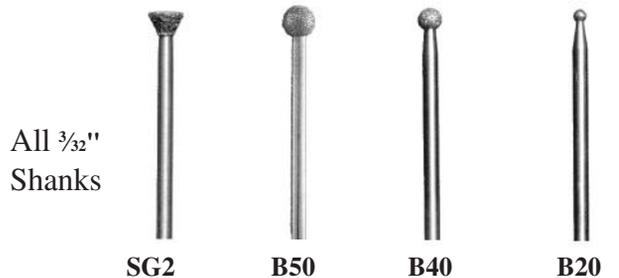
Price	\$6.25 ea.	\$6.25 ea.	\$6.25 ea.	\$6.25 ea.
80 Grit	173-CL1-080	173-TR44-080	173-T44-080	173-T22-080
200 Grit	173-CL1-200	173-TR44-200	173-T44-200	173-T22-200
600 Grit	173-CL1-600	173-TR44-600	173-T44-600	173-T22-600



All 3/32" Shanks

EL44 CC22 P22 CLR1

Price	\$6.25 ea.	\$6.25 ea.	\$6.25 ea.	\$6.25 ea.
80 Grit	173-EL44-080	173-CC22-080	173-P22-080	173-CLR1-080
200 Grit	173-EL44-200	173-CC22-200	173-P22-200	173-CLR1-200
600 Grit	173-EL44-600	173-CC22-600	173-P22-600	173-CLR1-600



All 3/32" Shanks

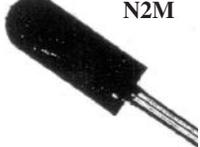
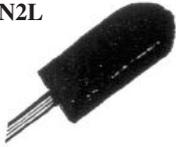
SG2 B50 B40 B20

Price	\$6.25 ea.	\$7.00 ea.	\$6.25 ea.	\$6.25 ea.
80 Grit	173-SG2-080	173-B50-080	173-B40-080	173-B20-080
200 Grit	173-SG2-200	173-B50-200	173-B40-200	173-B20-200
600 Grit	173-SG2-600	173-B50-600	173-B40-600	173-B20-600

NOVA MINIATURE SANDING AND POLISHING POINTS

Carvers find these miniature Nova sanding and polishing points answer many of their carving problems. You get the speed and high performance of our Nova resin-bond diamond formulas in shapes and sizes for use on your carvings in

the sanding and polishing processes. Mandrel size is 3/32" which fits most Foredom and Dremel power tools. Illustrations show approximate shape and size. Weight each or set: 2 oz. **Nova points must be used with water.**

										
		Grit Size	Color	Order #	Price	Order #	Price	Order #	Price	Order #
60	GREEN	100-N1M-70	9.35	100-N1L-70	9.90	100-N2M-70	9.35	100-N2L-70	9.90	
140	RUST	100-N1M-15	9.35	100-N1L-15	9.90	100-N2M-15	9.35	100-N2L-15	9.90	
280	BLACK	100-N1M-28	9.35	100-N1L-28	9.90	100-N2M-28	9.35	100-N2L-28	9.90	
600	BROWN	100-N1M-60	9.35	100-N1L-60	9.90	100-N2M-60	9.35	100-N2L-60	9.90	
1200	GREY	100-N1M-12	9.35	100-N1L-12	9.90	100-N2M-12	9.35	100-N2L-12	9.90	
3000	ROSE	100-N1M-30	9.35	100-N1L-30	9.90	100-N2M-30	9.35	100-N2L-30	9.90	
8000	TAN	100-N1M-80	9.35	100-N1L-80	9.90	100-N2M-80	9.35	100-N2L-80	9.90	
14000	CREAM	100-N1M-14	9.35	100-N1L-14	9.90	100-N2M-14	9.35	100-N2L-14	9.90	
50,000	LT BLUE	100-N1M-50	9.35	100-N1L-50	9.90	100-N2M-50	9.35	100-N2L-50	9.90	
Set of four 280, 600,1200,3000		100-N1M-S	33.66	100-N1L-S	35.64	100-N2M-S	33.66	100-N2L-S	35.64	

MINI-NOVAS FOR SANDING AND POLISHING

MINI-NOVAS FOR SANDING AND POLISHING THOSE "HARD-TO-GET-AT" PLACES.



Use with power hand tools. Flexible, resin-bond diamond sanding and polishing wheels that come in three thicknesses, three diameters, and four grit sizes. The most flexible wheels have diamond on one side of a single layer of canvas. The thickest wheels (about 1/8") are made of two layers of canvas with diamond between them

and on each side. All wheels have a 1/16" arbor hole. Use with mandrels M1 or M6 (see page 30), to mount in your Dremel or Foredom type tool. Mini-Novas should be used with water.

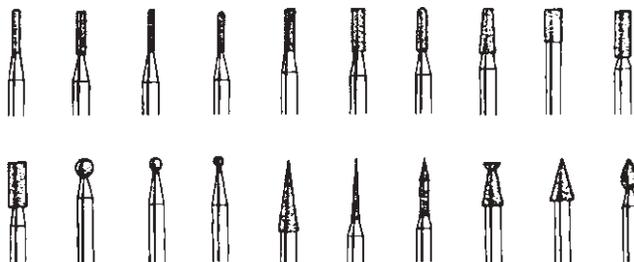
Sets contain one 280, 600, 1200 and 3,000 grit wheels. Wt. 2 oz set.

Wheel Size		Set of four 280, 600,1200,3000	
Diameter	No. of Layers	Order #	Price
1/2"	1	100-2Q1-S	6.16
1/2"	2	100-2Q2-S	9.90
1/2"	3	100-2Q3-S	14.57
3/4"	1	100-3Q1-S	12.32
3/4"	2	100-3Q2-S	19.80
3/4"	3	100-3Q3-S	29.15
1"	1	100-4Q1-S	18.09
1"	2	100-4Q2-S	29.15
1"	3	100-4Q3-S	43.72

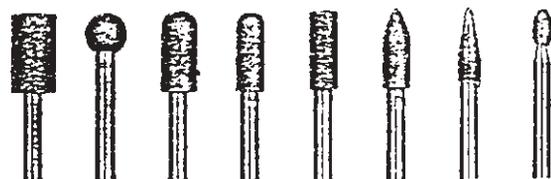
DIAMOND CARVING POINTS

Now you can have a wide variety of diamond points at a reasonable price. With proper care they will give lasting service. Twenty piece set contains one each of point types shown. Shank size 3/32". Show approx. size. Use with water. Imported.

170-24-08093A 20 piece set 10 oz 8.50



JUMBO HEAD DIAMOND POINT SET

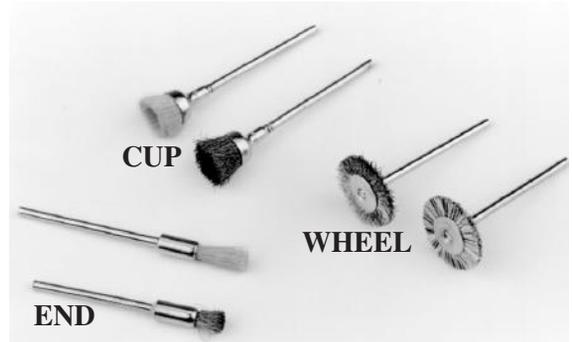


Use these jumbo sized diamond points on stone, ceramics, carbides & wood. Points shown approximate shape and size. Shank size is 3/32". Set contains one each of the above eight shapes. Use with water. Imported. Standard 150 grit.

170-24-08094 8 piece set 6 oz 10.25

METAL AND BRISTLE BRUSHES

Steel, brass and bristle brushes come in three popular shapes. Use metal bristles for a brushed finish on metal. Use steel on white metals and brass on yellow metals. Bristle brushes are used for finishing metal in delicate or pattern areas. Also good for cleaning. Mounted on 3/32" shanks. Come three brushes of one kind per package. Ship Wt. 6 oz. pkg. Maximum Speed Rating: 25,000 RPM.



Material	Wheel		Cup		End	
	Order #	Pkg	Order #	Pkg	Order #	Pkg
Steel					200-BR-114	1.80
Soft Bristle	200-BR-106	1.40				
Hard Bristle	200-BR-110	1.40	200-BR-111	1.25	200-BR-120	1.05

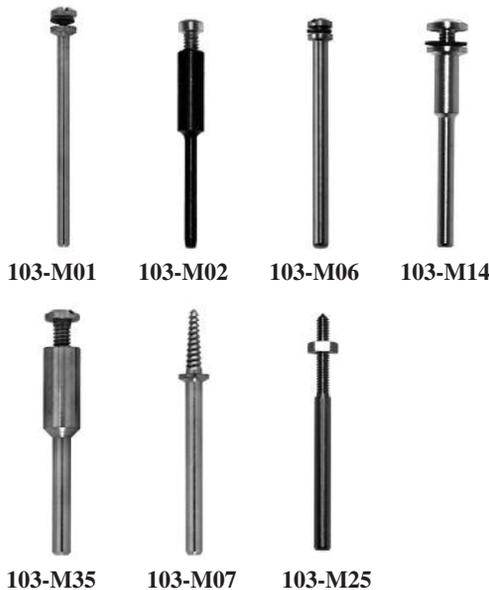
MINIATURE MANDRELS

Use these miniature mandrels with wheels, points and cones. Made of high quality steel for precision work.

SMALL WHEEL MANDRELS

Mandrels M01 and M06 are for standard wheels. M02 and M35 have reinforced shoulders. M35 comes with extra long screw for mounting thicker wheels or ganging bristle discs or sanding discs.

M14 has enlarged head for support of disc or blade type tools.



MANDRELS			
Wt. 1 oz. ea.			
Order #	Price	Shank Size	Arbor Hole
103-M01	1.15	3/32"	1/16"
103-M02	2.75	3/32"	1/8"
103-M06	1.70	1/8"	1/16"
103-M07	1.70	1/8"	1/8"
103-M14	1.80	1/8"	1/8"
103-M25	1.40	1/8"	1/16"
103-M35	1.80	1/8"	1/8"

POINT AND CONE MANDRELS

Mandrels M07 and M25 are standard mandrels.

Maximum safe speed is 25,000 RPM.

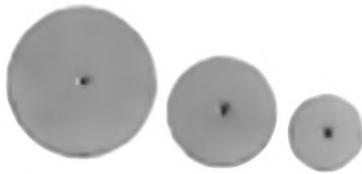
CAUTION: Wear Safety Goggles when using these tools. See page 77.



E-Z COOL WATER COOLANT SYSTEM This independent water pump system operates in any tray with a minimum 1" of water. The built in flow control of the pump provides just the right amount of water, and the flex line adjusts to put it exactly where you want it! (line may also be shortened by removing segments).

660-70-8000..... 115 volt Shp. Wt 2 lbs..... 37.50
 660-70-8000X... 230 volt. Shp. Wt 2 lbs..... 42.50

SOLID FELT WHEELS



MUSLIN BUFFS

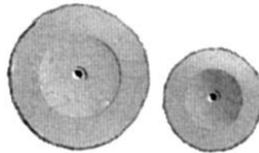


SOLID FELT WHEELS Good for polishing or lapping metal and stones. Made of highest grade wool felt compressed for uniform texture, hardness and shape. Comes in package of 10. Use M01 or M06 mandrel.

Order #	Dia.	Thickness	Hardness	Price/pkg
160-BF-985	1"	1/8"	Hard	2.80
160-BF-980	5/8"	1/8"	Hard	2.25
160-BF-975	1/2"	1/8"	Hard	2.15

KNIFE EDGE WHEELS

For use in crevices and other hard-to-reach places. Un-mounted. 3 per package.



Order #	Dia.	Hardness	Use Mandrel	Price/pkg
160-BF-1001	1/2"	H	M01	2.75
160-BF-815	1"	H	M06	4.75

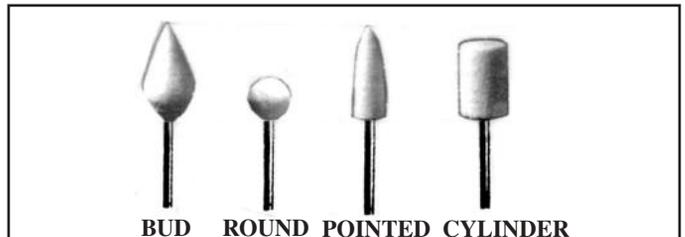
16 PIECE ASSORTED FELT BOBS Molded felt bobs in shapes similar to those shown. Shapes come in different sizes, and in medium and hard. For use on hard and soft metals and stone. Use with polishing compounds. Mounted on 1/8" shanks.

103-FK3 Shp. Wt 1 lb..... 35.30

MINIATURE BUFF WHEELS

MUSLIN BUFFS These miniature buffs are used for final buffing and polishing on soft and precious metals. 160-BF-1030 buffs are chemically treated to hold polishing compound better. Use 103-M01 or 103-M06 mandrel. Package of 3.

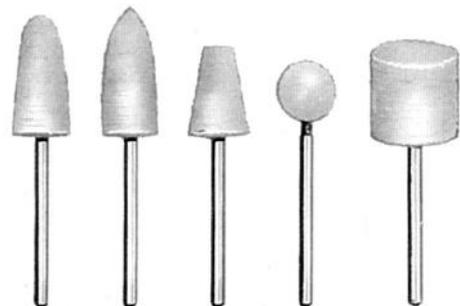
Order #	Dia.	Stitching	Ply	Treated	Price/pkg
200-MGTI-OW	1"	2 Rows	16	No	4.50
160-BF-1030	1"	2 Rows	10	Yes	4.25



BUD ROUND POINTED CYLINDER

FORMED FELT BOBS Made of high quality felt. These formed bobs come in a variety of shapes for difficult polishing jobs. Mounted. Mandrel shank is 3/32". 12 per package.

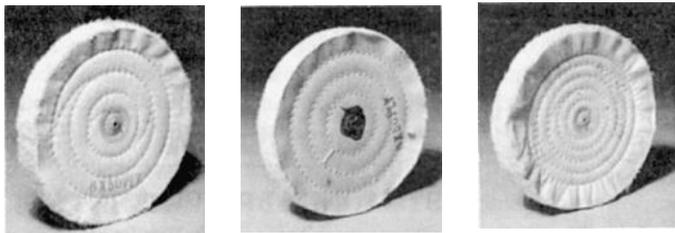
Order #	Shape	Hardness	Mounted	Price/pkg
160-BF-1070	Bud	H	Yes	20.00
160-BF-1075	Round	H	Yes	18.40
160-BF-1080	Pointed	H	Yes	18.20
160-BF-1090	Cylinder	H	Yes	20.30



DIAMOND "SUPER POLISH"

Super Polish is an extremely concentrated diamond compound, a little bit goes a long way. You can use it on all stones and most metals, especially high karat gold alloys. Very good on Jade or Opal. Can be applied directly to work piece or to felt, leather, wood, cork, canvas pads, or a brush. No coolant required. Clean up with soap and water. Comes in 3 gram vial. Shp. Wt. each 8 oz.

DIAMOND SUPER POLISH			
Grit	Color	Order #	Price
1200	Blue	400-SP-012	25.00
2000	Green	400-SP-020	25.00
14000	Yellow	400-SP-140	25.00



1. 2. 3.



4. 5. 6.

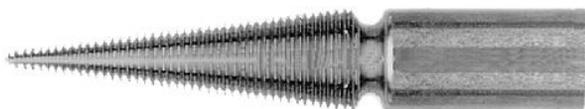
5. RAZOR EDGE - Muslin 86/80, yellow treated, leather center. For use with abrasive or rouge in hard-to reach areas.

Order #	Dia.	Stitching	Ply	Shp. Wt.	Price
200-RE4X12	4"	4 Rows	12	2 oz.	4.25
200-RE6X12	6"	8 Rows	12	3 oz.	6.05

6. MUSLIN AND FLANNEL BUFFS for Gem Makers. All six have 1" arbor holes.

Order #	Fits Machine	Type	Dia.	Stitching	Ply	Shp.Wt.	Price
100-JPK3	Pixie	Muslin	4"	2 Rows	40	2 oz.	4.90
100-JPK4	Pixie	Flannel	4"	2 Rows	30	2 oz.	7.00
100-JPK1	Genie	Muslin	6"	3 Rows	60	5 oz.	11.10
100-JPK2	Genie	Flannel	6"	3 Rows	30	5 oz.	9.75
100-JPK5	Titan	Muslin	8"	4 Rows	55	10 oz.	17.50
100-JPK6	Titan	Flannel	8"	3 Rows	30	10 oz.	13.25

TAPERED SPINDLES



WHEEL BUFFS

These buffing wheels come in a variety of materials for different applications.

Bufs come with standard pin hole type center to fit tapered spindles. For bufes with 1" arbor hole to fit Gem-Makers, see #6 below left..

1. COARSE MUSLIN - Shellac centers, use with adhesive compounds such as Tripoli for removing scratches.

Order #	Dia.	Stitching	Ply	Shp. Wt.	Price
200-CM4X42	4"	3 Rows	40	2 oz.	3.20
200-CM6X50	6"	4 Rows	50	5 oz.	6.95

2. FINE MUSLIN - Premium White. 80/80. Leather centers, use with any rouge compound for a bright finish.

Order #	Dia.	Stitching	Ply	Shp. Wt.	Price
200-FM4X50	4"	3 Rows	50	2 oz.	4.10
200-FM6X60	6"	4 Rows	60	6 oz.	8.75
200-FM8X50	8"	4 Rows	55	10 oz.	13.55

3. MUSLIN, YELLOW TREATED - Premium 86/80. Chemically treated for use with abrasive compounds for cut down. 4" shellac center. Buff 200-YL6X20 has leather center. Buff 200-YL6X50 has shellac center.

Order #	Dia.	Stitching	Ply	Shp. Wt.	Price
200-YL4X40	4"	3 Rows	40	2 oz.	4.75
200-YL6X20	6"	4 Rows	20	4 oz.	5.10
200-YL6X50	6"	4 Rows	50	6 oz.	12.45

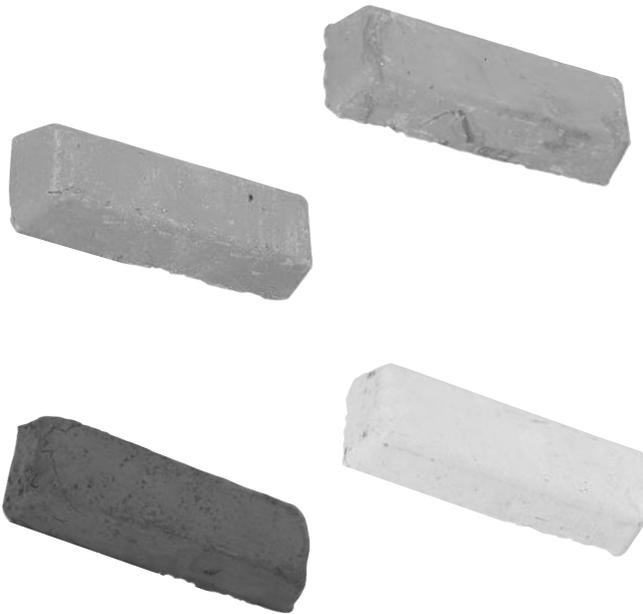
4. CANTON COTTON FLANNEL - Soft 8 oz. flannel with shellac centers, use with rouge for final polish.

Order #	Dia.	Stitching	Ply	Shp. Wt.	Price
200-FL4X30	4"	3 Rows	30	2 oz.	4.90
200-FL6X30	6"	4 Rows	30	5 oz.	7.20
200-FL8X30	8"	4 Rows	30	10 oz.	10.30

For straight shaft motors. Steel with threads cut deep to provide firm grip on bufes, wheels, etc. Held to shaft by 1 set screw. Length 3" to 4". Choose right or left hand threads. Ship wt 6 ozs.

For Shaft Diameter	L/H Thread	R/H Thread	Price
1/4"	154-TSL1	154-TSR2	15.00
5/16"	154-TSL7	154-TSR8	15.00
3/8"	154-TSL3	154-TSR4	15.00
1/2"	154-TSL5	154-TSR6	15.00
5/8"	154-TSL9	154-TSR10	15.00

METAL POLISHES



RED ROUGE – The standard compound for a final coloring and a high polish on precious metals such as gold and silver. Not for burnished surfaces. Bar weight 16 ozs.

400-50Shp wt. 1 lb 4 oz..... 7.15

TRIPOLI (Brown) –The most popular general compound for cutting down and buffing base metals. Gives a smooth, satin finish to copper, aluminum, pewter, gold and even hard plastic surfaces. Also ideal for preliminary coloring operations. Bar weight 9 ozs.

400-20Shp wt. 1 lb.3.70

GREEN ROUGE – Produces a super bright finish on most white metals. This rouge has some cutting action and should not be used on plated articles. Works like ZAM on stones. Bar weight 6 ozs.

400-30Shp wt. 8 oz.6.30

WHITE ROUGE – Fast cutting, produces high gloss finish on white metal such as stainless and chrome. Bar weight 12 ozs.

400-40Shp wt. 1 lb.4.00



WORKING HANDS

This hand cream really works, just like you. O'Keefe's products are Odorless, Hypo allergenic, and Non-greasy. This non-oil based formula pulls water in rather than repel it like other products on the market. Helps chapped hands get the moisture and hydration they need to heal. Guaranteed Relief in Days. Made in USA.

165-WH34 Hands..... 3.4 oz jar ... Shp wt. 4 oz. ...7.30

POLISHING CLOTHS



DELUXE ROUGE CLOTH

Individually packaged, these cloths are actually a double cloth, one impregnated with rouge, the other without rouge to keep hands clean. Use for final polishing. Size 10" x 10½".

150-POL-169 2 oz. 6.95

BRILLIANT POLISHING CLOTH

This polishing cloth is treated with a specially developed chemical agent which cuts through tarnish better than other cloths. No residue is left behind to dull shine. You get your brass, chrome, copper, silver and gold brilliant without getting any messy rouge on your hands. Size: 12" by 8".

150-POL-705 2 oz.4.87

DOUBLE BRILLIANT POLISHING CLOTH

This double cloth is chemically treated for a super shine on one side and natural on the other for final polishing. Cleans and polishes all precious metals with little effort for a brilliant and lasting shine. 100% cotton. Size: 7.5" by 12".

150-POL-170 2 oz.6.55

The Gryphon Zephyr+ Diamond Ring Saw lets you cut in any direction, and operation is very smooth and quiet. It's large work surface is free of obstructions, and the overhead blade support is slender, allowing you to have a very clear view of the material as it is cut. In addition, the Zephyr+ has a deeper throat and more clearance than other consumer glass saws.

- The saw is designed for quiet operation and for low maintenance. The critical moving parts are shielded to minimize breathing the glass or rock dust that is generated when cutting. The highest quality bearings and wheels are used to extend the life of these critical parts.
- The motor/blade assembly is a separate unit that can be removed from the base and used as a hand-held saw for cutting items that cannot easily be brought to the table. A small water reservoir is built into the blade assembly housing and will hold enough water for a few minutes of hand-held cutting. When the saw is used in the normal configuration (installed in the base), the base will hold enough water for several hours of cutting.
- The Gryphon Zephyr+ will cut glass, tile, rock and all other similar hard materials. A choice of blades lets you select the one that is best suited to your application. We even offer a Separating Blade that will allow you to make inside cuts without requiring a lead-in slot.

GRYPHON DIAMOND ZEPHYR+ RING SAW



Above:
Motor/blade assembly combined with tank and large 17.5" X 17.5" table.



Right:
Saw assembly removed from tank for use as a separate saw.

Order #	Description	Shp. Wt	Price
725-60-4000	ZEPHYR+ DIAMOND RING SAW. comes with 1/3 HP direct drive 115 V motor, 2 Standard 7" diameter diamond blades, face shield, and Maintenance Kit. Limited 3 year warranty by manufacturer.	19 lbs.	3.65.00
726-60-4001	Standard 7" Diamond Blade	2 ozs.	61.50
726-60-4002	Separating 7" Diamond Blade	2 ozs.	61.50
726-60-4003	Dichoric Glass Ring Blade, 7", fine grit	2 ozs.	61.50
726-60-4010	Drive Belt, 48" circumference	6 ozs.	26.95
726-60-4011	Purple Idler Wheel, complete	2 ozs.	20.65
726-60-4012	Gold Guide Wheel, complete with bearing and rubber	2 ozs.	27.00
726-60-4013	Rubber Inserts for Gold Drive Wheel, set of 3	2 ozs.	13.50
726-60-4015	Plastic Face Shield, replacement	2 ozs.	9.00
726-60-4016	Work Surface, replacement	1.5 lbs.	36.00

THE WIZARD-4G 6" TRIM SAW

Our Wizard-4G Trim Saw. You can't buy a better trim saw anywhere.

NOTE: The blade is not included with the saw so that you can choose your own blade. Uses 5/8" or 1/2" arbor hole. To order a blade, see page 56-57 and choose from a number of blade types and thicknesses.

The Wizard-4G measures approximately 12" from front to rear, and 13" from left to right.

WIZARD-4G TRIM SAW

THE WIZARD-4G comes with a sample bottle of Water Aid, angle block and safety goggles.

Shipping Weight 22 lbs.

500-WL-100.....115V Model..... 795.00

500-WL-100X.....230V Model..... 875.00

IMPORTANT SAFETY NOTE

The Wizard-4G is a trim saw and not designed for slabbing rock. Wear Safety Goggles when using saw.

- The Wizard-4G makes a full 6" cut—more than some larger saws. Fairly large slabs can be trimmed simply by turning them to cut from opposite directions.
- The Wizard-4G uses water as a coolant and this benefit alone makes the Wizard-4G a pleasure to use. Water is cheap, non-toxic and easy to clean up, unlike every other coolant you can use, especially oils.
- When it comes to cleanup, you can detach the pans from the rest of the saw with the turn of a single thumb screw. Take the pan and the saw table to the sink for cleaning and leave the saw on the work bench. No other saw of any size or description is this easy to clean.
- The Wizard-4G saw housing is stainless steel powder coated for good looks and long life. The saw pan and table are molded from sturdy ABS plastic that's easy to clean and gives years of service.
- The high torque motor has plenty of power for trimming any hardness of rock. Motor has Ground Fault Circuit Interrupter to protect against electrical shock.
- The unique angle block included with the trim saw allows you to finish-trim the edges of your cabs at a ten degree angle, giving you a head start towards grinding the bezel of your cab.

Shown at right is the Wizard-4G with the rip fence attachment and blade, both sold separately. Choose your blade from those on pages 56-57.

RIP FENCE ATTACHMENT: Lets you cut uniform strips. Comes with bracket for attaching to front of saw pan, and adjustable guide bar. Can be used on either side of blade.. Stainless steel, approximately 11" long.

NOTE: The Rip Fence only fits Wizards manufactured after April 2007. Not for older model saws.

500-WL-200.....Shp. Wt. 2 lb. 87.00



MODEL 10TS-B TRIM/SLAB SAW comes with vise, splashguard and 1/3 HP 115V/60Hz motor.
600-10-1219.....Shp Wt. 68 lbs.....1475.00

EXPORT MODEL 10TS-BX same as above except with 220V 50 Hz motor.
600-10-1219X.....Shp. Wt. 68 lbs.....1575.00

NOTE: This saw does not come with a blade. To order a 10" blade, see pages 45-46.

See page 43 for spare parts.

MODEL 10TS-B

You'll get years of service from this 10" trim/slab saw.

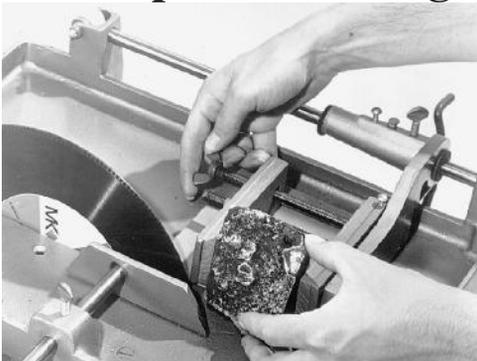
First, it has all the features needed to make it a versatile trim and slab saw. Easy to use as a trim saw because the vise rotates off to one side to free the table for trimming. With the vise in place, you can slab rocks up to 3 1/2" in diameter. Table measures 12" W x 17" L. Overall size approx. 29 1/2" L x 18" W.

Second, it's built solid and rugged with cast aluminum construction with a durable, impact-resistant finish. Arbor shaft is 5/8" steel with lubricated, factory sealed ball bearings, and an extra neoprene oil seal on the tank side.

This saw must be used with oil as a coolant. We recommend Roc-Oil, for fast cutting without the usual disadvantages of oil. (See page 47.) Takes approx. 1/2 gal. coolant

Vise jaws are steel plate with hardwood facings. Designed for a time-tested, economical gravity feed system, the vise has 1 1/2" lateral movement for cross-feeding and adjustable stop guide for constant thickness cuts.

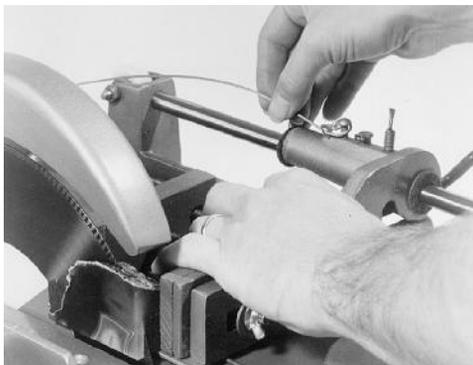
Tips for slabbing with gravity feed trim/slab saws



1. Object to be slabbed is clamped in vise. The cut is started by hand pressure.



2. A bucket of sand is attached to the gravity feed cable to maintain an even pressure throughout.



3. Gravity feed and vise are removed. Once this is done, slabs can be held by hand to be trimmed to desired shape.

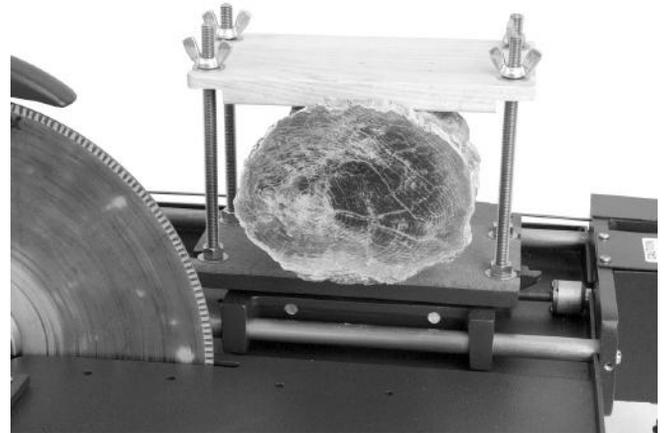


4. All cuts must be made in a straight line. Be careful not to put side pressure on the blade. Successive straight cuts approximate curved lines that will be finished on a grinding wheel. Make all trim saw cuts outside the template mark.

MODEL TC-14 SLAB/TRIM SAW



Rock ready for slabbing

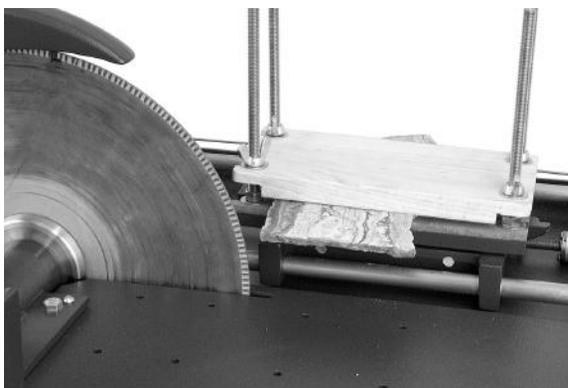


The TC-14 is a convenient size slab/trim saw that will serve the needs of most rockhounds.

The Model TC-14 comes set up to use as a slab saw. The removable table vise easily holds a 5" by 7" rock for slabbing. Larger rocks can be cut depending on their configuration and how they fit into the vise, blade and saw box space.

The vise has over 3" cross feed adjustment, and moves on strong, stainless steel glides. The power feed motor is geared for continuous operation with a slip clutch and safety shut off switch. Once the cut is made, it is easy to pull the vise back to the starting position for the next cut.

Hood is powder coated steel. Includes acrylic window for viewing



Large slice ready to trim

Check these features

- Power feed motor is geared for continuous operation.
- Removable table vise holds a 5" x 7" rock. Will cut a 5 1/4" depth over the vise.
- Saw arbor housing is cast aluminum with 3/4" steel arbor shaft and two sealed ball bearings. Saw table and tank are heavy gauge steel plate. Measures 24"W x 39" L x 21" High.
- Industrial powder coat finish on all appropriate parts.
- Motor available in 1/2 HP 115V/60Hz or 220V/50Hz.

This saw must be used with oil as a coolant. We recommend Roc-Oil, for fast cutting without the usual disadvantages of oil. (See page 47.) Requires approx. 2 1/2 gals. coolant.

NOTE: Blade not included in saw price. Choice of blade depends on your application. See pages 45-46 or call us for more information.

MODEL TC-14 SAW comes complete with base, tank, vise, power feed assembly, 1/2HP 115V/60Hz motor, guards and hood. (Blade not included.)

600-14-1000..... Shp Wt. 246 lbs.....3098.00

EXPORT MODEL same as above but with 220V 50Hz motor.

600-14-1000X..... Shp. Wt. 246 lbs.....3298.00

Saw must be crated for shipment.

CRATING FEE for either saw.

600-14C..... Crating fee195.00

SWING ARM SLAB SAWS

In a swing arm type of saw, the blade is mounted on a heavy swinging arm and moves vertically under gravity down through the rock. The rock remains stationary while a cut is being made.

You easily adjust the cutting speed by setting a needle valve that controls the flow of fluid from a hydraulic cylinder that supports the arm.

The arm is raised for the next cut by an electric pump that forces the hydraulic fluid back into the cylinder.

Apart from this smooth, simple feed system that doesn't need the usual sliding (or rolling) carriage, this type of saw has the advantage of using only one-half to two-thirds as much floor space, as they are shorter in the front to rear dimension.

Here are some advantages that you get only in Diamond Pacific's swing arm saws:

- Electric pump to raise the arm rather than a hand pump.
- Single belt drive sealed inside the swing arm,
- Table cross feed uses miter gears so handle can be mounted in front to save your knuckles.
- Table lifts out of saw tank leaving nothing in your way when cleaning the tank.
- Your rock is clamped to a table having a generous amount of travel in both front to rear and left to right directions.
- Adjustable lamp puts light where you need it.
- Saw tank sits on a cabinet type stand that houses the 15 gal. coolant recirculating system. Tank and cabinet are heavy gauge steel plate with a durable powder coat finish. Oil must be used as the coolant. We recommend Roc-Oil—see page 47.

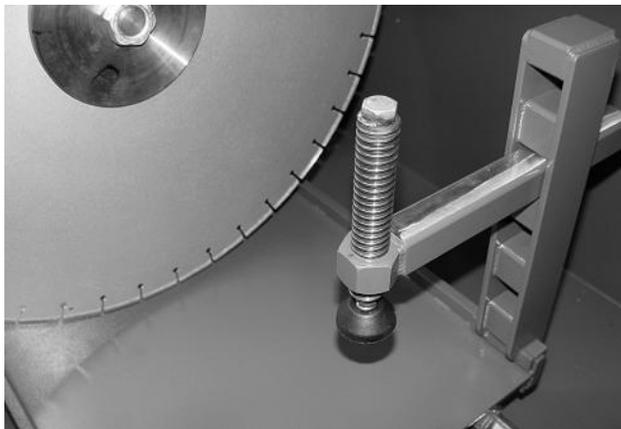
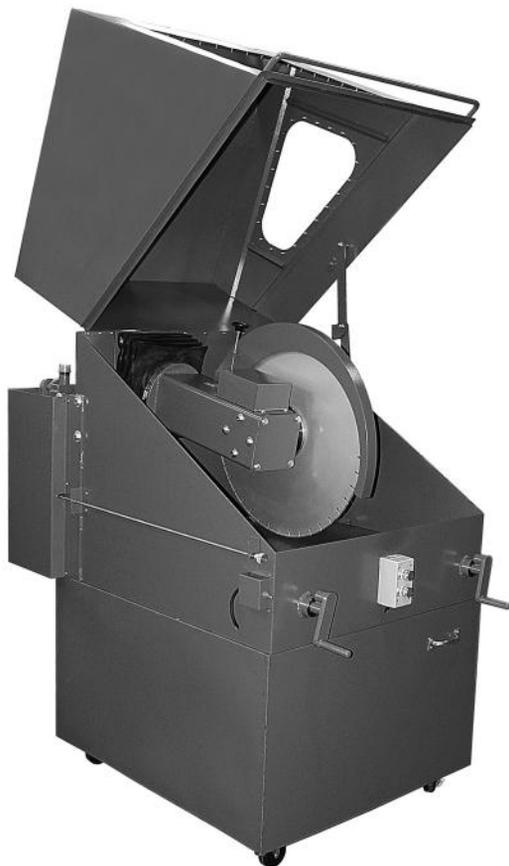


Photo shows *blade, vise and table.

* **Blade Not Included in Saw Price.** Choice of blade depends on your application. Please call for more information.

MODEL SA-18 SWING ARM SLAB SAW

- Overall Size: 38"L x 29" W x 59" H.
 - Table is 12" x 13½" with a cross feed of approximately 9".
 - Motor: ¾ HP 115V 60 Hz or 220V 50 Hz.
 - Shipping Weight: 670 lbs. Must be crated for shipment.
 - **SPECIAL ORDER:** Allow 6-8 weeks for shipment.
- | | | |
|---------------|------------------|-----------|
| 599-18 | 115V 60 Hz..... | 9895.00 |
| 599-18X | 220V 50 Hz..... | 10,250.00 |
| 599-18C..... | Crating Fee..... | 415.00 |

MODEL SA-24 SWING ARM SLAB SAW

- Overall Size: 48"L x 38" W x 71" H.
 - Table is 18" x 20" with a cross feed of approximately 13".
 - Motor: 1 HP 115V 60 Hz or 220V 50 Hz. 115V requires 20 Amp Circuit.
 - Shipping Weight: 1360 lbs. Must be crated for shipment.
 - **SPECIAL ORDER:** Allow 6-8 weeks for shipment.
- | | | |
|---------------|------------------|-----------|
| 599-24 | 115V 60 Hz..... | 12,075.00 |
| 599-24X | 220V 50 Hz..... | 12,485.00 |
| 599-24C..... | Crating Fee..... | 470.00 |



The TR Series rock saws (shown above is the TR-24 model) are re-designed and improved saws that we developed from the models we purchased from Contempo Lapidary in 1997. In turn, Contempo had developed their large saws from principles and features used by long time manufacturers such as Highland Park, Beacon Star, Frantom and others. Some of these older saws are still in operation after 50–60 years. We build our modernized saws to the same high standards of long life and performance.

MAXIMUM Work piece SIZES

Model	Blade Size	Height	Length
TR-18	18"	6 ¼"	16"
TR- 24	24"	8 ¾"	20"
TR- 36	36"	14"	25"

THE MODEL TR SERIES LAPIDARY SLAB SAWS

Built to handle large and heavy pieces of rock, these saws are also widely used in industry for other applications—cutting concrete and asphalt specimens for testing in construction projects, slicing core samples in the oil industry, geological specimens, etc.*

Whatever the job, these rugged slab saws are designed for years of dependable service. Our Powerglide Feed System, coolant recirculating system, hood safety switch, superior materials, etc., give you a large slab saw that is easy to use and built to last.

While the diameter of the saw blades makes a difference in the size of the saw and its components, the features and construction of the TR-18, TR- 24 and TR-36 Slab Saws are much the same.

***NOTE:** The standard TR Series slab saws are designed for lapidary use. For other industrial or commercial uses, modifications must be made to the saws. Please call us with your specifications to receive a quote.

SAW BOX AND HOOD

The tank not only serves to contain the coolant lubricant essential to the cutting process, it also forms the foundation or chassis for the saw mechanisms. In the TR Series, the tank is made of welded steel plate rather than sheet metal. Legs are heavy duty angle iron welded to the tank and braced to support the saw and heavy loads. The saw is solid with almost no vibration. The hood is lighter weight steel for easier lifting, with a clear, plexiglass window for viewing the saw blade in operation. The hood confines the saw while in operation for safety's sake, and also confines the coolant which is thrown in a heavy spray from the rotating blade. The TR-36 and TR-24 has gas springs to help raise and lower the hood. The two smaller saws have locking elbow braces with safety locking pin. Two safety switches on all three saws prevent the motor from running when the hood is up.

“V” GUIDE RAIL SYSTEM AND VISE

Since the saws are designed for heavy duty slabbing and quartering of large specimens, the vise and rail system are made to handle the job. V-grooved ball bearing guide rollers glide the vise carriage smoothly on precision ground, steel V-rails attached to heavy steel channels. Exact tolerances insure matching of hardened bearings, rollers and rails. Alignment of the rails to the blade is within approximately .005 maximum across the full blade diameter.

The vise is readily accessible for loading with wood faced jaws that open extra wide. It's made of cast aluminum for the 18" and 24" saws, and welded steel for the 36" saw. The vise is easily adjustable and will hold the material securely as it passes through the cutting blade.

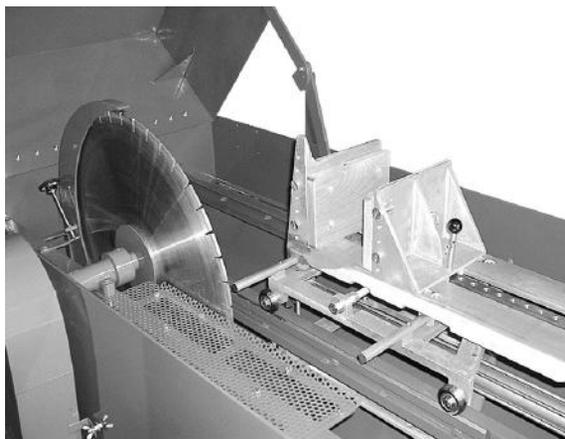
POWERGLIDE HYDRAULIC FEED SYSTEM

The Powerglide hydraulic feed system is standard on all three saws and is superior to screw feed systems by providing control of cutting speed and length of cut. Your saw blades will cut better and last longer because the hydraulic system feeds the material without slowing down the blade RPM. Another plus is the ability to stop and start the movement of the vise, allowing you to cut a “starting notch” in any surface. This kind of control helps prevent blade damage and “tweaking” of the rock from the vise.

The system consists of a hydraulic pump supplying fluid to a special hydraulic cylinder that in operation, moves the vise carriage with rock through the blade. Speed and pressures are determined by the type of material being cut, and are set by adjusting the easy-to-use regulator, gauge and feed valve.

A safety cut-off device prevents the vise carriage from moving beyond desired length of blade cut.

“V” guide rail system is standard on all 18” to 36” saws. Shown is system for TR-24 saw.

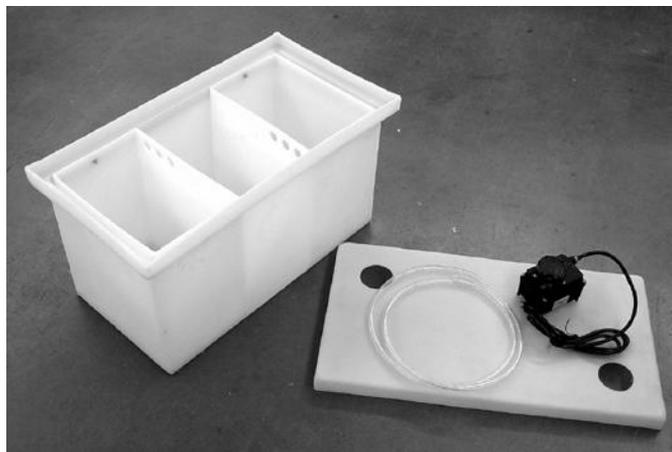


MULTI-STAGE FILTER AND RECIRCULATION SYSTEM FOR SLAB SAWS

We’ve improved and enlarged the coolant recirculating systems for our saws, and have made them available in kits for use on most other large slab saws as well. The system can move large volumes of clean oil over the cutting surface of the saw blade to keep it cool and lubricated. The holding tanks are heavy duty plastic with multiple settling chambers to filter out particles from the coolant. The tank and submersible pump are easily cleaned. See photo below.

Specifications for systems for TR Series saws approximate those given below for separate kits available for other large slab saws.

RECIRCULATING SYSTEMS FOR SLAB SAWS			
The kits contain submersible pump, coolant tank, hose and fittings. Systems will fit most saws and are easily installed using common hand tools.			
Tanks for 14" - 24" saws hold approx. 15 gal. and measure 17"W x 22"L x 12"H. Comes with lid.			
Tanks for 30" - 36" saws hold approx. 30 gal. and measure 34"W x 34"L x 6"H. Comes with lid.			
Kit Size	Order #	Shp. Wt.	Price
For saws 14"-24" pump 1/10HP 115V 60Hz	600-24-8000	14 lbs.	600.00
For saws 14"-24" pump 1/10HP 220V 50/60Hz	600-24-8000X	14 lbs.	625.00
For saws 30"-36" pump 1/10HP 115V 60Hz	600-36-8100	28 lbs.	745.00
For saws 30"-36" pump 1/10HP 220V 50/60Hz	600-36-8100X	28 lbs.	765.00
Crating Fee	600-36-8100C		125.00



MODELS TR-18 AND TR-24 SLAB SAWS

These 18" and 24" saws are the best commercial and industrial models on the market.

The standard TR-18 and TR-24 series slab saws are designed for lapidary use, providing anyone wanting to cut large pieces of rock with a heavy duty, reliable rock saw.

These saws are also ideal for many industrial and commercial needs, such as cutting concrete and asphalt specimens for testing in highway and other construction projects. For those applications, modifications to the saw generally must be made. For anyone with such special requirements, just provide us with your specifications and we will give you a quote on building a saw to fit your particular need.



STANDARD FEATURES FOR BOTH MODELS:

- **Powerglide Hydraulic Feed System** pushes rock to blade for steady cutting. See page 45. Both saws must be used with oil—we recommend Roc-Oil described on page 47.
- **V-Guide Rail System** with heavy cast-aluminum vise features quick release pin and positive screw tightening. (See page 40.)
- **Multi-Stage Filter and Recirculation System.** See page 40 for complete description of this 15 gallon capacity tank system that makes easy work of the process.

- **Arbor Shaft is 1" Diameter** in a one piece, cast aluminum arbor housing with sealed ball bearings.
- **Heavy Duty Tank of 3/16" Steel Plate.** Tank has sloped bottom for proper drainage of coolant. Heavy steel legs on casters allow moving of saw. Leveling screws on each leg. Steel hood has large plexiglass top window for visibility of saw in operation.
- **Safety Features** include full steel belt guard and hood activated cut-off switch.
- **Blade Not Included in Saw Price.** Choice of blade depends on your application. See page 45 or call us for more information.

NOTE: 1 HP saws wired for 115V require a 20 Amp circuit and a NEMA 5-20R receptacle.

NOTE: 1½ HP saws wired for 115V require a 30 Amp circuit and receptacle, and are special order.

MODEL TR-18 SAW

- Tank Size: 45" L. x 27" W. x 14.75" Deep.
 - Overall size: 50" L x 34" W x 47" Tall.
 - Cross Feed: 6"
 - Vise Opening: 7"
 - Depth of Cut: 6¼" with 5" flange
 - Motor: 1 HP Motor: 115V 60 Hz or 220V 50 Hz.
 - Shipping Weight: 670 lbs. Must be crated for shipment.
 - SPECIAL ORDER: Allow 4-6 weeks for shipment.
- | | | |
|-------------------|------------------|---------|
| 600-18-8000..... | 115V 60 Hz..... | 8635.00 |
| 600-18-8000X..... | 220V 50 Hz..... | 8965.00 |
| 600-18C..... | Crating Fee..... | 420.00 |

MODEL TR-24 SAW

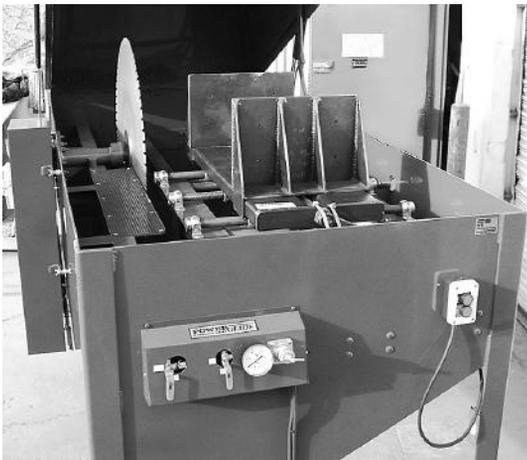
- Tank size 61" L x 32" W x 18" Deep.
 - Overall size: 69" L x 37" W x 47" Tall.
 - Cross feed: 8"
 - Vise Opening: 17"
 - Depth of cut: 8¾" with 6" flange.
 - Motor: 1½ HP 230V 60Hz or 220V 50 Hz.
 - Shipping Weight: 890 lbs. Must be crated for shipment.
 - SPECIAL ORDER: Allow 4-6 weeks for shipment.
- | | | |
|-------------------|------------------|-----------|
| 600-24-9000..... | 230V 60 Hz..... | 10,835.00 |
| 600-24-9000X..... | 220V 50 Hz..... | 11,245.00 |
| 600-24C..... | Crating Fee..... | 475.00 |

MODEL TR-36 SLAB SAW

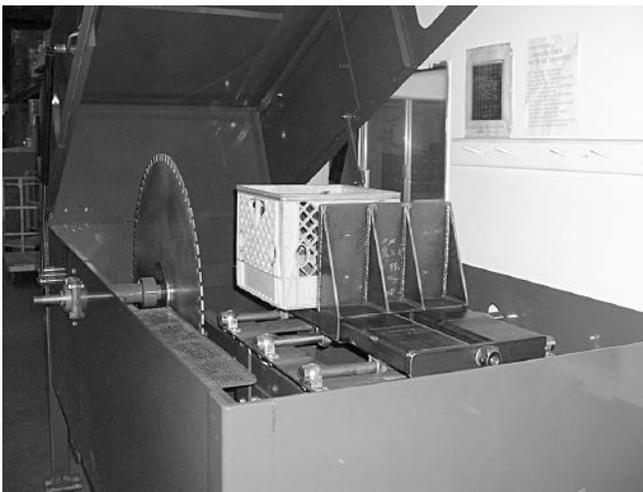


This 36" professional slab saw is a giant in size and performance

- For all it's size, the Model TR-36 saw is easy to operate and provides professional cutters of gem material, glass and core samples with reliable performance cut after cut.
- The true workhorse and "secret" of many successful cuts is the Power Glide Hydraulic feed system. (See page 51.) The basic design and simplicity of function insures fast, clean cutting of materials. You are able to set pressure and feed at a constant positive pressure. The Power Glide system for the TR-36 even has a "power return" feature which returns the carriage after a slice has been cut.
- Blade is constantly cooled and cleaned by the recirculating system. (See page 40). Coolant is directed to both sides of the blade throughout the cutting operation. Recirculation tank holds 30 gallons Oil must be used as a coolant. We recommend Roc-Oil for best performance. See page 42.
- Vise is operated by a 1" Acme thread screw. It has a 23½" opening with 14" depth of cut, 11½" cross feed for a maximum of 14"H x 23½"D x approx. 30"W rock size. Jaw face is 15" wide. V-Guide rails have 4" U Channel supports. Arbor shaft is 1".
- ~~The tank is made of 3/16" steel plate and measures 96" long x 40" wide by 27" deep. The hood has four heavy duty, gas assist springs for lifting. Safety shut off switch stops saw when the hood is raised.~~
- Comes with 3 HP continuous duty motor. Specify 220V 60 Hz. or 240V 50 Hz. (5 HP and 3-phase motors also available in either frequency. Call for quotation.
- Blade not included in saw price. Choice of blade depends on your application. See page 45 or call us for more information.



Control panel for Power Glide System is easily accessible.



Cuts rocks up to 14" H x 25" D x Approx 35" W.

MODEL TR-36 SAW

The Model TR-36 Saw is SPECIAL ORDER. Allow 6-8 weeks plus delivery time. Saw must be crated. Shipping weight is 2000 pounds. (Crate size: Approx. 6'H x 5'W x 10'L.)

605-36-1000.....	230V 60 Hz	20,130.00
605-36-1000X.....	220V 50 Hz.	20,680.00
605-36C.....	Crating fee	745.00

SPARE PARTS FOR SAWS

When ordering any of the items below, please state catalog number and year and model of your machine, or give a brief description of your machine so that we can send the proper part.

SPARE PARTS FOR TR-18, TR-24 and TR-36 SAWS				
Item	Fits Machine	Order #	Shp. Wt	Price
Arbor Bearing Insert (inner)	TR-18, TR-24	690-90-1160	8 oz.	80.00
Arbor Bearing Flange (outer)	TR-18, TR-24	690-90-4104	8 oz.	74.00
Arbor Bearing Insert (inner)	TR-36	690-90-2220	8 oz.	75.00
Arbor Bearing Flange (outer)	TR-36	690-90-4200	8 oz.	80.00
Coolant Pump, 110 Volt	TR-18, TR-24, TR-36	690-70-7430	1 lb.	160.00
Coolant Pump, 220 Volt	TR-18, TR-24, TR-36	690-70-7430X	1 lb.	165.00
Flange, 5" x 1" (sold individually)	For 18" Saws	690-66-2504	2 lbs.	82.50
Flange, 6" x 1" (sold individually)	For 24" Saws	690-66-2604	4 lbs.	100.00
Flange, 8" x 1" (sold individually)	For 36" Saws	690-36-4006	6 lbs.	131.00
Hydraulic Cylinder	TR-18	690-18-7001	4 lbs.	425.00
Hydraulic Cylinder	TR-24	690-24-7001	5 lbs.	495.00
Hydraulic Cylinder	TR-36	690-36-7001	7 lbs.	540.00
Hydraulic Pressure Regulator	TR-18, TR-24, TR-36	690-24-7102	1 lb.	151.00
Hydraulic Pump	TR-18, TR-24, TR-36	690-24-7201	1 lb.	375.00

SPARE PARTS FOR OLDER HIGHLAND PARK SAWS

We have worm gears and worms for some older Highland Park saws. Most older gears have a part number on them, such as G-1039. Use that number to locate and order a new gear from the chart below. Otherwise, send in the old part so that we can match it with a new gear. If you need both a gear and a worm make certain to order the proper corresponding worm for the gear. Since there are many older model saws with different gears and worms, we cannot guarantee a fit in every case, but a new part may be returned if unused and undamaged.

WORM GEARS				MATCHING WORMS			
Order #	Old Part #	Shp. Wt.	Price	Order #	Old Part #	Shp. Wt.	Price
690-49-103010	G-1031	7 oz.	95.00	690-49-102988	HLTH	2 oz.	48.00
690-49-103028	G-1038	7 oz.	110.00	690-49-102996	HLUH	2 oz.	62.00
690-49-103036	G-1039	1 lb.	126.00	690-49-102996	HLUH	2 oz.	62.00
690-49-103051	G-1047	2 lbs.	303.75	690-49-103002	HLVH	4 oz.	67.00
690-49-103052	G-1046	1 lb.	168.00	690-49-103002	HLVH	4 oz.	67.00

SPLIT NUTS (CLUTCH) FOR HIGHLAND PARK AND FRANTOM SAWS

These split nuts are for older saws manufactured by Highland Park Co. If you are uncertain as to the size you need, give us a call. We cannot guarantee a fit in every case, but a new part may be returned if unused and undamaged.

Manufacturer	Size	Order #	Shp. Wt.	Price
Highland Park	Split Nut, $\frac{3}{8}$ - 16	690-49-110630	2 lbs.	83.00
Highland Park	Split Nut, $\frac{3}{4}$ - 16	690-49-116533	2 lbs.	83.00
Highland Park	Split Nut, $\frac{1}{2}$ - 20	690-49-110640	2 lbs.	83.00
Highland Park	Split Nut, $\frac{5}{8}$ - 18	690-49-116640	2 lbs.	83.00
Highland Park	Split Nut, Double 1- 14	690-49-116525	4 lbs.	166.00
Highland Park	Split Nut Spring	690-49-102954	2 ozs.	14.25
Frantom 18"-24" Saws	Split Nut (clutch) $\frac{5}{8}$ - 18	690-92-1700	3 lbs	125.00

SELECTING AND MAINTAINING A DIAMOND SAW BLADE

1. Identify type and hardness of material to be cut.
2. Determine correct blade speed. Blade speed must be matched to the blade used and material to be cut. Hard materials and thick blades require slower speeds. Soft material and thin blades require faster speeds. Refer to Guide to Operating Speeds for Blades below. Thicker blades are generally more durable and last longer, but thinner blades reduce material loss.
3. Evaluate capacity of your saw, and motor RPM. Make sure that your saw runs at the correct RPM's for the diameter of the blade. The chart at the bottom of this page shows speeds for motors running at 1750 RPM. Speed is determined by multiplying the motor RPM by the motor pulley diameter and then divided by the equipment pulley diameter. For example a saw with a 1750 RPM motor, a 3.0" motor pulley, 2.5" arbor pulley will operate at a blade speed of 2100 RPM's. ($1750 \times 3.0 \div 2.5 = 2100$) Referring to the "Guide to Operating Speeds for Blades" you will see that this is a correct speed for blades from 5" to 10" in diameter. If your saw is not operating at the desired speed, you will need to change the pulley sizes.
4. Consider coolant requirements. Saws with steel parts should be used with an oil type coolant, like our Roc-Oil. Steel core blades work best with oil. If water is used as a coolant, blade must not be left immersed in water.
5. Select rim style. Sintered continuous blades are a good all around lapidary blade. Segmented or notch rim blades have an interrupted surface which increases waste removal and coolant flow.
6. When installing a new blade check your arbor shaft for radial and axial play. Try moving the shaft back and forth and in and out. Any movement indicates that the shaft needs adjustment, new bearings, or replacement. Lapidary blades are manufactured to fit snug on the shaft. If the shaft is worn the blade will not spin concentrically and may bind or wear prematurely. Make certain that all belts on your saw are in good condition and properly tensioned.
7. Flanges are required to support the blade during operation. Flanges must measure at least one quarter of the blade diameter, so a 6" diameter blade would require flanges at least 1.5" in diameter. Make certain that flanges are smooth, flat and parallel.

Flanges should be recessed about three quarters of their diameter from their center. This supports the blade while avoiding distortion of its center core.

8. Start cuts by feeding in the work piece when the blade is running at operating speed. If the blade starts cutting to either side of its plane of rotation, you will get a nonparallel cut and may damage the blade. When cut is almost complete, a break may occur, leaving a jagged spur. This spur can damage the blade. To prevent this, infeed pressure should be reduced near the end of the cut.

9. A diamond blade will become dull or glazed along the cutting edge during use. To sharpen the blade, make a few cuts into a dressing stick, such as those on page 46. CAUTION: DO NOT sharpen plated blades.

10. Diamond on Continuous Rim, Notch Rim and Segmented diamond blades cannot be replaced. Saw Blade manufacturers do not offer repair services of any kind. Be sure you read all recommendations prior to using your diamond saw blade.

GUIDE TO OPERATING SPEEDS FOR BLADES

The chart below shows the recommended operating range for 4" to 36" saw blades. To select the best speed see instructions 2 and 3 of Selecting and Maintaining a Diamond Saw Blade.

Blade Diameter (inches)	Revolutions Per Minute	Blade Diameter (inches)	Revolutions Per Minute
4	2400-5700	14	750-1600
5	1900-4500	16	700-1400
6	1600-3800	18	600-1200
7	1400-3200	20	550-1100
8	1200-2800	24	450-950
9	1100-2500	30	350-750
10	950-2200	36	300-700
12	800-1900		

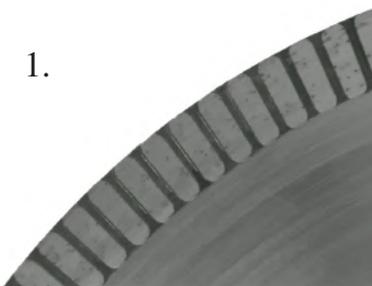
Motor Pulley Diameter	Table yields arbor shaft rpm (revolutions per minute) for a 1750 rpm motor											
	Equipment Arbor Pulley Diameter											
	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0	10.0
1.5	1750	1313	1050	875	750	656	583	525	438	375	328	263
2.0	2333	1750	1400	1167	1000	875	778	700	583	500	438	350
2.5	2917	2188	1750	1458	1250	1094	972	875	729	625	547	438
3.0	3500	2625	2100	1750	1500	1313	1167	1050	875	750	656	525
3.5	4083	3063	2450	2042	1750	1531	1361	1225	1021	875	766	613
4.0	4667	3500	2800	2333	2000	1750	1556	1400	1167	1000	875	700
4.5	5250	3938	3150	2625	2250	1969	1750	1575	1313	1125	984	788
5.0	5833	4375	3500	2917	2500	2188	1944	1750	1458	1250	1094	875
6.0	7000	5250	4200	3500	3000	2625	2333	2100	1750	1500	1313	1050

You can calculate the equipment shaft speed for other motor speeds by multiplying the motor rpm by the motor pulley diameter and then dividing by the equipment pulley diameter.

BD-301 SUPREME NOTCH RIM BLADES

The 301 series of blades are manufactured using a high concentration of industrial diamonds on a notch rim (see figure 1). Specially designed to provide superior cutting of hard materials.

Dia.	Rim Thickness	Arbor Size	Order #	Price
6"	.025	5/8"x1/2"	300-0602554-81	81.00
8"	.040	5/8"x1/2"	300-0804054-81	111.00
10"	.040	5/8"x1/2"	300-1004054-81	134.00
12"	.065	1" x 3/4"	300-1206586-81	227.00
14"	.065	1" x 3/4"	300-1406586-81	312.00
16"	.085	1" x 3/4"	300-1608586-81	402.00
18"	.085	1" x 3/4"	300-1808586-81	502.00
20"	.085	1" x 3/4"	300-2008586-81	552.00



1.

NOTCH RIM BLADES have a solid diamond sintered kerf for superior cutting of hard materials. Use Roc-Oil as a coolant. (See page 47).



2.

SINTERED CONTINUOUS Rim Diamond Blades, great choice for cutting gemstones and lapidary materials. For best life and performance. Use Roc-Oil as a coolant (See page 47).



3.

SEGMENTED RIM Diamond Blades. The segmented rim provides for better waste removal and cooler cutting in large diameter blades. Use with Roc-oil (see page 47).

WEIGHT CHART FOR SAW BLADES

Blade Size	Shipping Weight	Blade Size	Shipping Weight
4-6"	1 pound	18"	8 pounds
8-10"	2 pounds	20"	10 pounds
12"	3 pounds	24"	15 pounds
14"	4 pounds	*30"	40 pounds
16"	6 pounds	*36"	70 pounds

DIAMOND SAW BLADES

For assistance in choosing a blade see page 44.

BD-303 PROFESSIONAL™

The 303 Professional series blades are premium quality with a high diamond concentration. The 4" through 14" blades have a sintered continuous rim for providing smooth cuts (see figure 2)

Dia	Rim Thickness	Arbor Size	Order #	Price
4"	.014	1/2"	300-0401440-83	46.00
4"	.014	5/8"	300-0401450-83	46.00
4"	.020	1/2"	300-0402040-83	48.00
4"	.020	5/8"	300-0402050-83	48.00
5"	.020	1/2"	300-0502040-83	50.00
5"	.020	5/8"	300-0502050-83	50.00
6"	.014	1/2"	300-0601440-83	53.00
6"	.014	5/8"	300-0601450-83	53.00
6"	.020	1/2"	300-0602040-83	55.00
6"	.020	5/8"	300-0602050-83	55.00
6"	.032	5/8"x1/2"	300-0603254-83	72.00
6"	.040	5/8"x1/2"	300-0604054-83	72.00
7"	.050	5/8"x1/2"	300-0705054-83	71.00
8"	.025	5/8"x1/2"	300-0802554-83	69.00
8"	.032	5/8"x1/2"	300-0803254-83	72.00
8"	.060	5/8"x1/2"	300-0806054-83	78.00
9"	.060	5/8"x1/2"	300-0906054-83	81.00
10"	.032	5/8"x1/2"	300-1003254-83	85.00
10"	.040	5/8"x1/2"	300-1004054-83	88.00
10"	.050	5/8"x1/2"	300-1005054-83	112.00
12"	.065	1" x 3/4"	300-1206586-83	236.00
14"	.070	1" x 3/4"	300-1407086-83	261.00

The 303 Professional series blades in 16" to 36" diameters are segmented (see figure 3)

16"	.085	1" x 3/4"	300-1608586-83	315.00
18"	.085	1" x 3/4"	300-1808586-83	385.00
20"	.100	1" x 3/4"	300-2010086-83	496.00
24"	.100	1" x 3/4"	300-2410086-83	777.00
30"*	.125	1"	300-3012580-83	1209.00
36"*	.200	1"	300-3612580-83	1898.00

*** SHIPPING NOTE:**

All 30" and 36" blades are special order and will require longer lead times. 30" and 36" blades must be crated for shipment. Add \$40.00 crating fee to shipping cost. (Crate order number 300-36C)

BD-305 AGATE KUTTER



The BD-305 Agate Kutter Diamond Blade has been designed to cut a variety of hard lapidary materials on high speed, water cooled tile and brick saws with minimal chipping.

The stiffening/cooling slots guarantee straight cutting in dense rock material such as quartz, agate, geodes, petrified wood and jasper as well as granite, marble and porcelain tile.

The patented cooling slots of the BD-305 reduce the amount of heat and resistance generated when cutting, providing for faster cutting speeds, and a higher quality finish.

This blade will work in oil but it was designed to run in water at 3200 to 3450 RPM.

Dia	Rim Thickness	Arbor Size	Order #	Price
6"	.050	5/8 x 1/2	300-0605054-55	89.00
7"	.050	5/8 x 1/2	300-0705054-55	96.00
8"	.050	5/8 x 1/2	300-0805054-55	115.00
10"	.050	5/8 x 1/2	300-1005054-55	134.00
12"	.080	1 x 3/4	300-1208086-55	236.00
14"	.080	1 x 3/4	300-1408086-55	296.00

PROFESSIONAL BLADES FOR CUTTING GLASS

These supreme wet cutting blades are custom formulated for chip free, production cutting of glass

Dia	Rim Thickness	Arbor Size	Order #	Price
8"	.060	5/8"	300-0806050-85	101.00
10"	.060	5/8"	300-1006050-85	127.00
12"	.080	1"	300-1208080-85	198.00

PROFESSIONAL BLADES FOR TILE AND COUNTER TOPS

These blades are specially formulated for use cutting porcelain tile, granite and hard marble. A high-grade diamond crystal matrix is sintered onto a high-carbon steel core. The custom core helps to ensure straight cuts. These blades must be used wet. Rim height 7.5mm.

Dia	Rim Thickness	Arbor Size	Order #	Price
7"	.067	5/8"	300-0706750-84	91.00
8"	.067	5/8"	300-0806750-84	102.00
9"	.067	5/8"	300-0906750-84	115.00
10"	.067	5/8"	300-1006750-84	115.00
10"	.067	1"	300-1006780-84	115.00
12"	.095	1"	300-1209580-84	141.00
14"	.095	1"	300-1409580-84	178.00

BLADE DRESSING STICKS

These dressing sticks make it easy to sharpen saw blades to keep them cutting properly. Made of special aluminum oxide and designed for dressing diamond blades. Shp. Wt. : 8 oz.

For Blades:	Stick Size	Order #	Price
4" – 8"	1/2" x 1/2" x 6"	109-SS-05	7.20
10" – 14"	1" x 1" x 6"	109-SS-10	14.50
16" +	2" x 2" x 6"	109-SS-20	39.00

ROCK GRABBER CLAMPS

These handy clamps fit easily into most saw vises, making it possible to cut a stone to the last thin slab section. Made of durable cast aluminum. Comes in two sizes: 3" and 5".

601-70-1003 3" 1 lb.23.75
 601-70-1015 5" 1 lb.29.00

BLADE COOLANTS

Before buying any saw blade, make certain you know which type of coolant your rock saw requires. All diamond saw blades cut faster in an oil lubricant, but the old standard cutting oils have many undesirable features. Some saw blades and rock saws still must be used with oil, especially the larger blades and saws. Water is now often used as a coolant, but it can rust some blades and rock saws. Using the correct coolant will directly affect blade performance. The following is a general guideline:

SOFT ROCK: Use water, water soluble oil, or oil.

MEDIUM HARD ROCK: Use a water soluble oil or oil.

HARD, DENSE ROCK SUCH AS AGATE: Use an oil coolant only.



ROC-OIL — THE ORIGINAL USER-FRIENDLY, HIGH PERFORMANCE MINERAL OIL SAW COOLANT

Our Roc-Oil is a high quality mineral oil that out performs other cutting oils and without any of their usual disadvantages. Use it to cut any rock, from soft to hard, and in any saw, large or small. You get top quality performance along with user friendly advantages.

**** Roc-Oil is safe to handle. It doesn't burn your skin, unless you are very sensitive, and has no disagreeable odor.**

**** Roc-Oil is non-flammable under normal conditions. Its flash point is 302° which is above normal temperatures. It's also above the flash point of similar, lower grade mineral coolants.**

Dispose of Roc-Oil following your local requirements for mineral oils.

412-RO-1	1 gal.	Shp. Wt. 10 lbs.	20.00
412-RO-4	4 gal case	Shp. Wt. 40 lbs.	75.00

“ROC-CUT” WATER SOLUBLE LUBRICANT

Use "Roc-Cut" in your trim saws, cabbars, faceting units, and sanders—whatever uses a splash or recirculating system. It's inexpensive (mix 1 part with 20 parts water for sawing and 1 part with 30 parts water for grinding) and it will prevent rusting as well as give you a great cutting lubricant. Nontoxic, non-allergenic, has no vapors, odor or greasy film. Can be filtered and re-used indefinitely. NOT for slab saws when cutting quartz materials, nor for leaving in tank.

711-70-1116.	16 oz.....	Shp wt 2 lbs	7.20
711-70-1117.	1 gal	Shp wt 10 lbs	40.15

WATER AID

Water Aid is a concentrated wetting agent. It increases cutting action of sawing, grinding, and sanding/polishing operations using water by eliminating surface tension and preventing hydroplaning. It's biodegradable and normally harmless to skin. Approx. 6 drops per pint is all that's needed.



410-WA-108.....	8 oz. bottle.....	11 oz	3.25
410-WA-116.....	16 oz. bottle.....	1½ lbs	5.25
410-WA-110.....	1 gal.....	9 lbs	27.75

LUBE

Use this silicone extender fluid with diamond compound on canvas and leather polishing pads, phenolic laps, etc. Provides a lubricant to the polishing surface to keep your gemstone cool and the rock dust in a fluid form that is easily wiped away.

410-LUBE.....	2½ oz can	6 ozs. Shp.Wt.....	9.45
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TUMBLE POLISHING STONES

The tumbling of stones has been going on in Nature for eons of time, as anyone who has picked up a smooth and rounded stone from a beach can testify. This process in Nature is the same that man uses today to tumble polish gemstones: rubbing one stone against another in an abrasive substance, and generally in water. Man carries the process a step further—uses machines (tumblers) to achieve a high polish on his gemstones.

Tumblers can come in several kinds and dozens of shapes and sizes, as described on the following pages. All use the basic process of grinding, sanding, and polishing stones through movement in a series of abrasives from coarse to fine.

The steps in tumbling vary from the use of an extremely fine polishing material for only a few hours to put a final polish on a valuable gemstone, to the general sequence of coarse grit (60/90) silicon carbide through three, four or more polishing abrasives in subsequently finer grit, to the final polishing step. This can take from a few days to four to six weeks.

Most stones with a hardness of 5 to 7 1/2 on the Moh scale (see page 58) will tumble polish well. Softer and harder stones may still polish, but may require more or special steps and abrasives to achieve a satisfactory polish. Some stones will never polish no matter what you do to them.

Tumble polishing stones is an easy and great way to start kids (and adults) on a lifelong interest in the natural world around them. Finding your own rocks, and turning them into shining marvels of Nature is a rewarding experience.



ROTARY TUMBLERS

Shown is the 25RT twenty five pound Rotary Tumbler.
(See page 49.)

Shown is the Mini-Sonic MT-10 Vibratory Tumbler
(See page 51.)



VIBRATORY TUMBLERS

TYPES OF TUMBLERS

There are two main types of tumblers—the rotary and the vibratory. The first tumblers were of the rotary type, where a barrel revolves as it rides on two parallel revolving shafts. The vibratory type sits and shakes, causing the load to move within the barrel but without the harsher action of the rotary. Both types require a series of abrasives starting with coarse and working up to a fine polish.

Rotary tumblers are the most familiar type, and range in barrel capacities from around 4 lbs. to commercial sizes that will process hundreds of pounds of material. The smaller units (2–4 lbs. capacity) are popular for youngsters and beginners, but the less expensive kinds have more maintenance problems. A well built rotary tumbler can last for years, however, even decades, if given care.

Rotary (barrel) tumblers are generally easy to load, require a minimum of attention, and produce satisfactory results on most stones and metals. Their main tumbling action abrades away any sharp edges and points, leaving finished stones with rounded surfaces and contours. Rotary tumblers are not suitable for material that is pre-formed and desired to retain its shape.

Rotary tumblers generally take more time to finish a load of stones, from four to six weeks or more, depending on material and abrasives used. They also use more grit per load, but generally need fewer steps in the tumbling process, and less attention the rest of the time.

Vibratory tumblers have either mechanical or electronic drives. Mechanical units use motors for power, while the Mini Sonic tumblers use magnetic energy. They have no moving parts such as shafts, belts or pulleys, and are exceptionally long lived.

The action in vibratory tumblers is more gentle than that found in rotary tumblers. The barrel in a vibratory tumbler remains stationary even as it vibrates, producing a continuous movement of material and grit within the barrel.

Because of their unique, gentle polishing action, vibratory tumblers do not wear away the shapes of stones, so that they retain their original form. Hearts and squares will come out as hearts and squares. This makes vibratory tumblers ideal for polishing preforms, carvings, metal jewelry, castings, etc.

Vibratory tumblers are generally faster in polishing a given load of material than a rotary tumbler, but actual time can vary from one day for a final polish on a preform to several weeks on hard-to-polish stones when starting from scratch.

SEE PAGE 82 FOR BOOKS ON TUMBLING.

HEAVY DUTY COMMERCIAL TUMBLERS



Diamond Pacific rotary tumblers are designed for hard use, efficiency and long life. These machines are based on the original Highland Park design. Rotary tumblers are ideal for tumble polishing large loads of stone, light deburring, burnishing, peening, cleaning and finishing metal parts.

Our 25 pound, 40 pound and 65 pound barrels are made of industrial grade polyethylene. This barrel design does not require any liners. Lids are made water tight by inserting a neoprene rubber gasket between the barrel and the lid.

The double pulley drive on the barrel rollers combined with the polyurethane covers on the shafts eliminates barrel slippage. Rollers are mounted on heavy duty bronze bearings. Ball bearing guides keep barrels aligned.



Units for use in the USA come with an industrial rated 1/3 HP 115V/60HZ motor, heavy duty cord, in-line switch and Appliance Leakage Circuit Interrupter (ALCI) to protect against electrical shock. Units are also available with 1/3 HP 220 volt/50HZ motor for use outside the USA. Motor is mounted inside the base.



IMPORTANT NOTE: The weight of the rocks and materials varies, so load capacities listed by weight are approximate and for comparison only. A more accurate capacity of the barrel is given by volume. It is important to load your barrel to approximately 3/4 full, regardless of material and including fillers, abrasives and water. A load that is more or less than 3/4 full **WILL NOT** produce proper tumbling action.

Overall Tumbler Dimensions

- 25RT: 16" wide x 13" deep x 22" high
- 50RT: 28" wide x 13" deep x 22" high
- 75RT: 32" wide x 13" deep x 22" high
- 40T: 28" wide x 13" deep x 22" high
- 65T: 28" wide x 13" deep x 24" high

Model Number	Barrels Included	Load Capacity		Barrel Diameter	115V 60Hz Models		220V 50Hz Models		Shp. Wt.
		Weight	Volume		Order #	Price	Order #	Price	
25RT	1	25 lbs	2.5 Gal	12"	610-125	685.50	610-125X	768.50	45 lbs
50RT	2	50 lbs	5 Gal	12"	610-150	883.00	610-150X	965.00	63 lbs
75RT	3	75 lbs	7.5 Gal	12"	610-175	1065.00	610-175X	1147.00	78 lbs
40T	1	40 lbs	4 Gal	12"	610-140	772.00	610-140X	855.00	65 lbs
65T	1	90 lbs	8.5 Gal	15"	610-165	909.00	610-165X	991.00	74 lbs
For Replacement Barrels and Gaskets see page 53									

THE MT-4 MINI-SONIC VIBRATORY TUMBLER



HOW THE MT-4 WORKS

The MT-4 Mini-Sonic Tumbler operates without shafts, belts, pulleys, eccentric weight or even a motor—no moving parts, so the MT-4 will far outlast other types of tumblers. It operates on a unique principle employing interrupted electrical current that provides vibration as the driving force powering the rotation of the load. Operating frequency is 3600 vibrations per minute on 60Hz models and 3000 vibrations per minute in 50Hz Export models.

Rotation and intensity is adjustable with solid state electronic controls. During rotation, the tumbling load is alternately separated and compacted during each vibratory cycle. This improves the tumbling process and allows fresh abrasive to be drawn in between materials in the tumbler hopper. Only the contents inside the hopper actually rotate while the hopper itself remains practically motionless except for the driving arc of motion.

Only a small amount of abrasives are required in the Mini-Sonic tumbling process compared to ordinary rotary tumblers. As the abrasive begins to pulverize or break down and combines with rock dust and water, a slurry or coating mixture is formed, and it is this coating which should be maintained throughout all the tumbling processes. Too much water or too much abrasives will cause materials to collect in the bottom of the hopper and not rotate properly. It is only necessary to maintain a thin coating of abrasive slurry between the materials in the load to keep the polishing process working properly.

NOTE: when polishing with Vibra-Dry compounds, no water is required, and you will not have the slurry described above.

The MT-4 Mini-Sonic Tumbler is the best all-around tumbler on the market when it comes to performance, easy operation, and long-lasting service. You can tumble polish almost any kind of stone, from opal to topaz, delicate carvings and preforms, as well as metal items such as coins, jewelry findings, shell casings, etc.

It's unique tumbling operation is the key to the high performance of the MT-4. The vibratory motion is achieved without any moving parts. It improves the polishing process and uses only a small amount of abrasives compared to ordinary tumblers.

Load capacity is approximately four pounds including stone, fillers and abrasives. You control the rotation and intensity of the tumbler operation with solid state electronic controls.

Hoppers give exceptionally long wear. They are made of cast plastisol. With no motor, belts or pulleys to worry about, you have a tumbler built for years of worry free service.

Model	Voltage	Order #	Price	Shp. Wt.
MT-4	115V	432-004	315.00	11 lbs.
MT-4 *Export	220/230V	432-004-X	336.00	11 lbs.
MT-4 *Export	240/250V	432-004-XA	346.00	11 lbs.
Hopper -4 w/ lid	Fits All Models	433-04H	66.00	2 lbs.
Hopper lid	Fits All Hoppers	433-04L	20.50	8 ozs.
Tune up Kit	MT-4	490-402097	54.60	7 ozs.
* Export models come 220 or 240 Volt. Specify voltage or country of ultimate destination when ordering.				

Choose the tumbler that suits your needs: Five MINI-SONIC options to choose from

You control the tumbling action with a Mini-Sonic Tumbler, from the gentle processing of opal to the full power processing of agates, jaspers, topaz, etc. Tumble polish baroques, preforms, beads, sea shells, metals, etc., fast and efficiently and without changing the shapes to any measurable degree. You can even tumble polish carvings without wearing away delicate features.

Both the MT-10 and MT-14 feature dial speed controls for selecting the power required to control tumbling action and speed of rotation.

The Mini-Sonic tumblers are not your ordinary vibratory tumblers—the unique action of the Mini-Sonic tumblers is achieved without shafts, belts, pulleys, eccentric weights or even a motor. Without any moving parts to wear out or a motor to burn up, these tumblers will last longer than other small vibratory type tumblers.

Hoppers are of cast plastisol and the tumbler housing is made of durable ABS plastic. You get quality materials and workmanship in the Mini-Sonic tumbler.

HOW TO ORDER

We offer two tumbler base sizes with a variety of hoppers, as per the options illustrated. First select the base, either the MT-10 or MT-14, that will best suit your needs. Then select the hopper option you prefer, and use the appropriate chart for that option to order from.

You do not necessarily have to limit the number of hoppers you select to the options shown. Having extra hoppers, especially for the polishing stage, is recommended to prevent contamination.

NOTE: Export models come in both 220V and 240V. Please make certain you order the right model for your voltage requirements. Specify voltage or country of ultimate destination.

Choose from two MT-10 options



Option 1
Base with one
MT-10 Hopper



Option 2
Base with two
MT-4 Hoppers

Option 1	Qty to Order	115V Model		220/230V Model		240/250V Model		Shp.Wt	
		Order #	Price	Order #	Price	Order #	Price	Ea.	Total
MT-10 Base	1	432-010	420.00	432-010-X	462.00	432-010-XA	473.00	20 lbs.	20 lbs.
Hopper-10	1	433-10H	132.00	433-10H	132.00	433-10H	132.00	5 lbs.	5 lbs.
MT-10 Option 1 Totals			552.00	-	594.00	-	605.00	-	25 lbs.

Option 2	Qty to Order	115V Models		220/230V Model		240/250V Model		Shp.Wt	
		Order #	Price	Order #	Price	Order #	Price	Ea.	Total
MT-10 Base	1	432-010	420.00	432-010-X	462.00	432-010-XA	473.00	20 lbs.	20 lbs.
Hopper-4	2	433-04H	132.00*	433-04H	132.00*	433-04H	132.00	2 lbs.	4 lbs.
MT-10 Option 2 Totals			552.00	-	594.00	-	605.00	-	24 lbs.
* Total for two Hopper-4's. Price each 66.00									

Choose from three MT-14 options



Option 1
MT-14 Shown with
One Hopper -14



Option 2
MT-14 Shown with
One Hopper -4, One Hopper -10



Option 3
MT-14 Shown with
Three Hopper -4's

Option 1	Qty to Order	115V Model		220/230V Model		240/250V Model		Shp.Wt	
		Order #	Price	Order #	Price	Order #	Price	Ea.	Total
MT-14 Base	1	432-014	468.00	432-014-X	510.00	432-014-XA	520.00	26 lbs.	26 lbs.
Hopper-14	1	433-14H	198.00	433-14H	198.00	433-14H	198.00	6.5 lbs.	6.5 lbs.
MT-14 Option 1 Totals			666.00	-	708.00	-	718.00	-	32.5 lbs.

Option 2	Qty to Order	115V Model		220/230V Model		240/250V Model		Shp.Wt	
		Order #	Price	Order #	Price	Order #	Price	Ea.	Total
MT-14 Base	1	432-014	468.00	432-014-X	510.00	432-014-XA	520.00	26 lbs.	26 lbs.
Hopper-4	1	433-04H	66.00	433-04H	66.00	433-04H	66.00	2 lbs.	2 lbs.
Hopper-10	1	433-10H	132.00	433-10H	132.00	433-10H	132.00	5 lbs.	5 lbs.
MT-14 Option 2 Totals			666.00	-	708.00	-	718.00	-	33 lbs.

Option 3	Qty to Order	115V Model		220/230V Model		240/250V Model		Shp.Wt	
		Order #	Price	Order #	Price	Order #	Price	Ea.	Total
MT-14 Base	1	432-014	468.00	432-014-X	510.00	432-014-XA	520.00	26 lbs.	26 lbs.
Hopper-4	3	433-04H	198.00*	433-04H	198.00*	433-04H	198.00*	2 lbs.	6 lbs.
MT-14 Option 3 Totals			666.00	-	708.00	-	718.00	-	32 lbs.

* Total for three Hopper-4's. Price each 66.00.

EXTRA HOPPERS WITH LIDS FOR MINI-SONIC TUMBLERS

Hopper Type	Fits Models:	**Load Capacity	Shp.Wt.	Order #	Price
Hopper - 4	All Models	4 lbs. approx.	2 lbs.	433-04H	66.00
Hopper -10	All except MT-4	8 lbs. approx.	5 lbs.	433-10H	132.00
Hopper -14	Fits MT-14 only	12 lbs. approx.	6½ lbs.	433-14H	198.00

** Load capacity for materials and grit is approximate since materials vary.

EXTRA LIDS FOR MINI-SONIC TUMBLERS

Lid Fits	Order #	Price	Shp.Wt.	Lid Fits	Order #	Price	Shp.Wt.
Hopper - 4	433-04L	20.50	8 oz.	Hopper - 14	433-14L	31.50	1 lb.
Hopper -10	433-10L	23.65	1 lb.				

SPARE PARTS FOR TUMBLERS

When ordering any of the items below, please state catalog number and year and model of your machine, or give a brief description of your machine so that we can send the proper part.

NOTE: There is a \$2.00 service fee for orders under \$20.00

Machine	Part Description	Order #	Price	Wt.
Mini-Sonic	Speed control w/knob 115V	490-401996	35.75	2 oz
Mini-Sonic	Speed control w/knob 220V or 240V	490-401997	36.50	2 oz
Mini-Sonic	Compression Spring	490-400196	12.60	1 oz
Mini-Sonic	Foot Spring	490-401196	10.00	1 oz
Mini-Sonic	MT Hopper Latch & Keeper Set	490-405196	14.50	6 oz
Mini-Sonic	Tune Up Kit (Requires 1/MT-4- 2/MT-10 - 3/MT-14)	490-402097	54.60	7 oz
Vibra-Sonic	Motor 1/3 HP 50/60HZ for VT or VSV Base	490-860996	346.50	18 lbs
Vibra-Sonic	Spring, vinyl coated with cup	490-861696	34.00	5 oz
Vibra-Sonic	Bearing - Rubber Mounted	490-865696	79.00	11 oz
Vibra-Sonic	Bearing - Old style pillow block	490-865996	75.00	10 oz
Vibra-Sonic	Drive Belts, Set of 2	490-861796-2	20.50	5 oz
Rotary	Motor 1/3HP 115V 60HZ with cord/switch/ALCI	690-94-5052	246.75	15 lbs
Rotary, Export	Motor 1/3 HP 220V 50HZ w/cord & Switch	690-94-5041	330.75	15 lbs
Rotary	Belt, Motor - for all Rotary Tumbler Models	690-91-4340	12.60	8 oz
Rotary	Belt, Shaft - for all Rotary Tumbler Models	690-91-4190	11.05	4 oz
Rotary	Shaft Assy, Long 25RT,12T (w/tubing)	690-30-104463	17.60	1.5 lbs
Rotary	Shaft Assy, Short 25RT,12T (w/tubing)	690-30-104471	17.05	1.5 lbs
Rotary	Shaft Tubing Kit 25RT,12T (2 pieces)	611-93-001	17.60	5 oz
Rotary	Shaft Assy, Long 50RT,40T,65T,24T (w/tubing)	690-30-104430	33.00	2.5 lbs
Rotary	Shaft Assy, Short 50RT,40T,65T,24T (w/tubing)	690-30-104420	32.50	2.5 lbs
Rotary	Shaft Tubing Kit 50RT,40T,65T,24T (2 pieces)	611-93-002	31.75	10 oz
Rotary	Shaft Assy, Long 75RT,36T (w/tubing)	690-30-104406	45.65	3.5 lbs
Rotary	Shaft Assy, Short 75RT,36T (w/tubing)	690-30-104414	45.65	3.5 lbs
Rotary	Shaft Tubing Kit 75RT,36T (2 pieces)	611-93-003	49.50	1 lb
Rotary	Tumbler Guide, long w/bearing	690-30-102618	24.25	6 oz
Rotary	Tumbler Shaft Bearing	690-90-2529-1	9.00	8 oz
25RT	Barrel Assembly, 25 lb polyethylene barrel	611-12502	145.75	4.5 lbs.
40T	Barrel Assembly, 40 lb polyethylene barrel	611-14002	172.75	5.5 lbs.
25RT - 40T	Lid Gasket for new 25 and 40 lb polyethylene barrels	611-12519	24.20	1 lb
65T	Barrel Assembly, 65 lb polyethylene barrel	611-16502	319.00	15 lbs
65T	Lid Gasket for 65 lb polyethylene barrel	611-16519	45.10	1lb

For any tumbler parts not listed please call Customer Service at the number listed above.

Build your own VIBRA-SONIC tumbler

Select hopper options to suit your own needs

You get to choose the size and number of hoppers for your particular operation with the VSV model series of the Vibra-Sonic tumblers. You can have up to six different loads in various stages of finish going at the same time.

You also get the unique process of the Vibra-Sonic tumblers that produces both a rotary and vibratory tumbling action reducing processing time up to one-tenth that of ordinary tumblers. Only the load rotates at over 2500 vibrations per minute.

Open type hoppers are easy to load and unload, and permit access for inspection during operation. Your materials tumble quietly, quickly and without splash or gas buildup. Even the most delicate of materials can be processed without breakage or loss of detail.

Shown on opposite page are the various combinations for hoppers available for the VSV-12 and VSV-24 machines. The VSV-50 only comes with Hopper-50 which has a 50 lb. load capacity. The capacity of the other combinations varies from 4 lbs. to 28 lbs. Hoppers are individually cast from plastisol for a quiet, long life. Each hopper (except the Hopper-50) is interchangeable with most Mini-Sonic tumblers as well as the VSV models.

There are three adaptors, one for each of the three VSV models. When ordering, make certain the adaptor you select is suitable for the hopper you desire.

Base fits all three VSV models. It is made from solid, cast aluminum with a durable powder coat finish. Motor is 1/3 HP 115V 60 Hz. Export model available in 230V 50 Hz.



UNIVERSAL BASE FOR VIBRA-SONIC VT AND VSV MODELS

Base fits both the Vibra-Sonic VT machines shown on page 56, and the VSV models shown here with their various hopper configurations. VT hoppers are interchangeable without modification; the VSV models do require different adaptors for the different hopper options. Bases are solid cast aluminum with a durable powder coat finish. They have adjustable actions and quiet, sealed bearings. Motor is 1/3 HP 115V, 60Hz. Also available in 230V 50Hz.

HOW TO ORDER

You will first need to choose the VSV model you prefer: VSV-12, VSV-24 or VSV-50. Then you need to choose the proper adaptor for that model, and finally, the quantity and size of the hoppers that will fit the adaptor. The Hopper 50 will only fit on the VSV-50 adaptor. The adaptor for the VSV-12 will hold only a single row of hoppers. In ordering, specify base order number, adaptor order number, and quantity and order number for hoppers you will need to make your machine complete.

PARTS FOR VIBRA-SONIC VSV MODELS

Item	Fits Model:	Order #	Shp. Wt.	Price
Base 115V/60H	All Models	438-BASE	35 lbs.	1166.00
Base 230V/50H	All Models	438-BASE-X	35 lbs.	1276.00
Adaptor 12	VSV-12	437-A12	5 lbs.	215.00
Adaptor 24	VSV-24	437-A24	10 lbs.	380.00
Adaptor 50	VSV-50	437-A50	11 lbs.	275.00
Hoppers	See below to order.			

HOPPERS WITH LIDS FOR VSV VIBRA-SONIC TUMBLERS

Hopper Type	Fits Models:	**Load Capacity	Shp.Wt.	Order #	Price
Hopper - 4	All except VSV-50	4 lbs. approx.	2 lbs.	433-04H	66.00
Hopper - 10	All except MT-4, VSV-50	8 lbs. approx.	5 lbs.	433-10H	132.00
Hopper - 14	All except MT-4, MT-10, VSV-50	12 lbs. approx.	6½ lbs.	433-14H	198.00
Hopper - 50	Only fits VSV-50	50 lbs. approx.	12 lbs.	439-50H	262.00
Lid, 50H	Only fits 50H Hopper***	-	2 lbs.	433-50L	52.50

** Load capacity for materials and grit is approximate since materials vary. *** See page 52 for other hopper lids.

Select hopper options to suit your own needs

Base + Adaptor + Hoppers = Tumbler

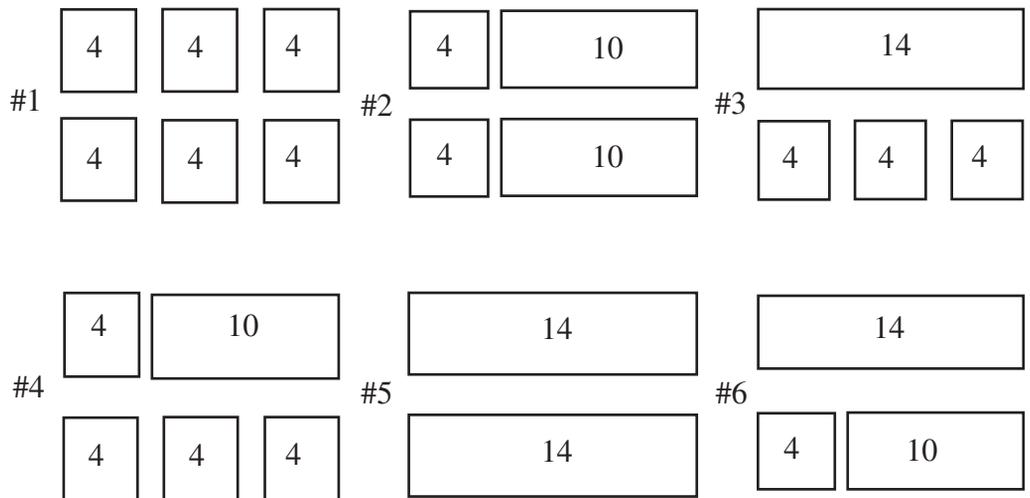


VSV-24



The VSV-24 Model takes the Adaptor-24 on a base.

Hopper options for VSV-24

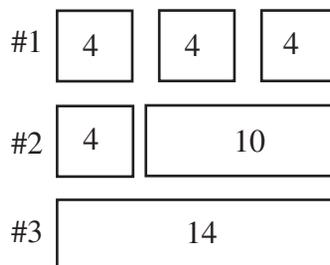


VSV-12



Hopper options for VSV-12

The VSV-12 Model takes the Adaptor-12 on a base.



See page 54 to order

VSV-50 Model

The VSV-50 Model only takes Hopper-50 and Adapter-50 on a base.



VSV-50



COMMERCIAL VIBRA-SONIC TUMBLERS HEAVY-DUTY, LARGE CAPACITY VT MODELS



VT-12



VT-14



VT-35



Universal Base for
Vibra-Sonic VT
and VSV Models

The VT models of the Vibra-Sonic tumblers have been the industry standard for over 50 years and still out-perform and outlast any other type of vibratory tumbler available.

The unique action produces both vibratory and rotary tumbling action reducing processing time for loads of stone or metal. Material may be processed without breakage or loss of detail.

VT hoppers open for easy access for inspection and loading and are quickly removable for unloading. Tumbles quietly, quickly, without splash or gas buildup.

Universal base fits VT models and VSV models on page 55. VT hoppers interchange without modification. VSV models require different adaptors. Base is powder coated solid cast aluminum. All VT hoppers are cast aluminum, with a soft plastisol liner. Hoppers may be re-lined to extend life, see below.

Base comes with 1/3 HP 115V, 60 HZ industrial motor. Also available in 230V, 50 HZ model for use outside the USA. Base has adjustable action and quiet sealed bearings. 115 volt model has Appliance Leakage Circuit Interrupter (ALCI) to protect against electrical shock.

All three hoppers listed fit the VT base. Select the size that best suits your needs.

VT-12 model features two 6 lb hoppers, allowing you to perform grinding and polishing operations simultaneously. Soft plastisol lids. Base requires two of these hoppers for balance, but you may fill only one at a time if desired.

VT-14 single hopper model is ideal for smaller stones or long pieces. Soft plastisol lined cast aluminum lid with wing-nut lock for liquid tight seal. Load Capacity 14 lbs.

VT-35 hopper for large loads or larger pieces. Has cast aluminum lid with wing-nut lock for liquid tight seal. Load Capacity 35 lbs (3.0 gal).

VT MODEL VIBRA-SONIC TUMBLERS				
Item	Fits Model:	Order #	Shp. Wt.	Price
Base 115V/60Hz	All Models	438-BASE	35 lbs.	1166.00
Base 230V/50Hz	All Models	438-BASE-X	35 lbs.	1276.00
Hopper VT-12	VT-12	439-06HC	7 lbs.	275.00
Hopper VT-14	VT-14	439-14HC	16 lbs.	539.00
Hopper VT-35	VT-35	439-35HC	27 lbs.	634.00
Hopper Lid	VT-12	439-06HCL	8 oz.	29.25

VIKING HOPPER RELINES

Viking VT hoppers are solid cast aluminum lined with plastisol. Hoppers are re-lineable for extended usage. To have a hopper relined, send it to us freight pre-paid and allow 45 days for processing your order.	Hopper Model:	Order #	Shp. Wt.	Price
	VT-12 Reline	440-021496	7 lbs.	135.50
	VT-14 Reline	440-021596	16 lbs.	266.75
	VT-35 Reline	440-021696	27 lbs.	341.25
	Lid, VT-14 Reline	440-021796	3 lbs.	40.00
	Lid, VT-35 Reline	440-021896	4 lbs.	40.00

RAYTECH VIBRATORY TUMBLERS



TV-5



TV-10



AV-18



AV-40

Using a vibratory tumbler can save you time and money. Unlike rotary tumbling where just the top, sliding layer of the load is being worked, the entire load in a vibratory tumbler is ground or polished continuously. This makes the finishing time shorter. Vibratory tumbling also has the advantage of retaining the overall shape of pieces better while still removing imperfections such as burs. In gem production, vibratory tumbling is preferred for preforms where shape must be retained.

The TV-5 unit is a favorite of hobbyists. It will process about four pounds of rock. Bowl diameter is 8" with convenient solid lid system. (The TV-5 should not be used for continuous commercial use.)

The TV-10 has a heavy duty drive and suspension combined with a tough, cross linked polyethylene bowl. Bowl has noise dampening cover and drains for liquid. (Cannot be used with steel shot.)

The AV-18 and AV-40 models are built rugged for industrial use. All are designed with heavy duty drive and suspension systems, and equipped with adjustable amplitude. Machine bowls are made of tough polyethylene with a sound dampening lid to reduce noise while in operation. All bowls have a drain for liquids.

All AV style models are SPECIAL ORDER machines. Please allow 4-8 weeks for delivery.

**THE MODELS LISTED ON THIS PAGE ARE FOR STONE FINISHING ONLY,
MAY NOT BE USED FOR BURNISHING.**

Model	Bowl Dia.	**Load capacity Material & Grit	Motor Size	Shp. Wt.	110V 60Hz Models		220V 50Hz Models	
					Order #	Price	Order #	Price
TV-5	8"	5 lbs.	1/57 HP	7 lbs.	113-23-001	116.95	113-24-106	124.95
Bowl TV-5	8"	5 lbs.	-	3 lbs.	113-23-005	24.95	113-23-005	24.95
TV-5 Bowl lid nut/grommet	-	-	-	2 oz.	113-23-004	2.00	113-23-004	2.00
TV-10	10"	10 lbs.	1/25 HP	16 lbs.	113-23-009	294.95	113-24-108	289.95
Bowl TV-10	10"	10 lbs.	-	5 lbs.	113-23-010	109.95	113-23-010	109.95
AV-18	12"	18 lbs.	1/15 HP	21 lbs.	115-23-024*	599.95	115-24-113*	624.95
Bowl AV-18	12"	18 lbs.	-	5 lbs.	115-23-036*	264.95	115-23-036*	264.95
AV-40	17"	35 lbs.	1/3 HP	51 lbs.	115-23-026*	1399.95	115-24-114*	1479.95
Bowl AV-40	17"	35 lbs.	-	16 lbs.	115-23-032*	405.50	115-23-032*	405.50

* Special order, allow 2-3 weeks delivery.

** Approximate-materials vary.

USING TUMBLING ABRASIVES

The main principle in polishing stone is to start with a coarse abrasive for grinding, and work through a series of increasingly finer abrasives to the final polish. The process is basically simple, but there are variations in gemstone properties, types of abrasives, many recommended grit (abrasive) sequences, and results produced by the different types of tumblers. All these variations and choices can be confusing, especially to a beginner, so it should be remembered that tumbling is basically simple, not an “exact science”, and can be great fun once the basics are mastered.

The first choice to be made is the type of tumbler to be used, Rotary or Vibratory. A brief description of the two types is given on page 48. Further descriptions can be found on the pages in this catalog listing the tumblers themselves.

Both rotary and vibratory tumblers use the standard silicon carbide grits with water in the mix as well as a filler of some type. However, Vibra-Dry mixes can be used in vibratory tumblers for the polishing steps, and produce higher polishes on almost all stones and metals. (See page 60). Vibra-Dry mixes do not use water, and can be re-used multiple times.

The beginner should be aware that some stones will not polish in either type of tumbler nor with any grit sequence. In order not to waste your time and money, be selective. See section on “Selecting Stones”.

Over the years, individuals have developed procedures and grit sequences that give them good results. As a result, you will find that advice, books and manufacturer’s instructions vary in their recommendations. All follow the basic principle of tumbling, but reading “Use 80 grit to start” in one source and “Use 60/90 to start” in another is confusing. Both work, and there is actually little difference between those grit sizes. In fact, most grit sizes that are used actually cover a range in particle size. Finer grits and polishes are more closely graded so that particle size is more uniform and so are the results. Finer grits and polishes are more expensive.

Fillers are recommended for use in both types of tumblers and in each step in almost all grit sequences. Fillers soften the action, fill space between stones, and carry the grit to the stone’s surface more efficiently. Fillers generally can be reused if thoroughly cleaned between grit sequences. We recommend the ceramic bits for both stones and metals as they seem to do the best job and will last longer.

SELECTING STONES

It is important that you select stones that will polish in order to be successful at tumble polishing. The looks of rocks can be deceiving, but in general, those with a hard surface and sometimes shiny look to them, are likely to polish.

Stones with hardness of around 5 to 7½ on the Moh Scale of Hardness are best. This includes the agates and jaspers which are the easiest to polish. Softer and harder stones, and certain stones such as Apache Tears and jade are special challenges, and require special procedures.

MOH SCALE OF HARDNESS

- | | |
|-------------|---------------|
| 1. Talc | 6. Orthoclase |
| 2. Gypsum | 7. Quartz |
| 3. Calcite | 8. Topaz |
| 4. Fluorite | 9. Corundum |
| 5. Apatite | 10. Diamond |

SCRATCH TEST FOR HARDNESS

Use the simple field test below to identify the relative hardness of a stone. Stones in the range of 6.5 to 7.5 will usually polish well.

Fingernails scratch	2 to 2.5
Pennies scratch	3
Knife blades scratch	5.5
Window glass scratches	5.5
Steel files scratch	6.5
Garnet scratches	7 to 7.5
Carborundum scratches	9.5

SILICON CARBIDE ABRASIVES

SILICON CARBIDE ABRASIVES				
GRIT SIZE	ORDER #	NET WT.	SHIP WT.	PRICE
UNGRADED 60/90 COARSE GRIND	400-0090-01	1 lb.	1¼ lbs.	5.55
	400-0090-02	2½ lbs.	3 lbs.	11.15
	400-0090-05	5 lbs.	5½ lbs.	18.90
	400-0090-10	10 lbs.	11½ lbs.	35.05
	400-0090-50	50 lbs.	53 lbs.	134.75
GRADED 220 COARSE GRIND	400-0220-01	1 lb.	1¼ lb.	6.35
	400-0220-02	2½ lbs.	3 lbs.	13.10
	400-0220-05	5 lbs.	5½ lbs.	21.30
	400-0220-10	10 lbs.	11½ lbs.	37.40
	400-0220-50	50 lbs.	53 lbs.	143.75
GRADED 600 PRE-POLISH	400-0600-01	1 lb.	1¼ lb.	7.60
	400-0600-02	2 lbs.	3 lbs.	13.50
	400-0600-04	4 lbs.	5 lbs.	22.10
	400-0600-08	8 lbs.	9 lbs.	38.95
	400-0600-40	40 lbs.	43 lbs.	149.80



These abrasives have sharp, hard grains for fast cutting. Use in tumblers, flat laps, sphere machines or wherever coarse and fine grinding grits are needed. The grit sequences below are standard, but can be varied depending on material and need. Standard sequence for rotary tumblers is 60/90, 220 and 600 silicon carbide, followed by a polish. For best results, use an aluminum oxide pre-polish 800 grit before the final polish. Use this same silicon carbide sequence including the aluminum oxide pre-polish, in vibratory tumblers.

NOTE: Silicon carbide abrasives are packaged in sturdy containers for convenient storage and use. Prevents leakage and contamination.

GRIT KITS FOR STONES

Kits are designed primarily for those just learning the fun of tumbling stones. The abrasives included will polish a variety of stones from soft to hard.

The KW-10 kit contains enough abrasives for approximately 8–10 loads for the MT-4 tumbler. You

will have less for the Raytech TV-5 and similar tumblers.

When using larger tumblers, it is more economical to purchase grits in larger quantities, and in the grit sizes to fit your needs.

WET KITS FOR ROTARY OR VIBRATORY TUMBLERS

The KW-10 wet kits can be used in rotary and vibratory tumblers, and use water in each step. Kits contain the following: 60/90, 220 and 600 silicon carbide grits, aluminum-oxide pre-polish, polish, ceramic media for filler, measuring cups, instructions.

403-KW-10 Shp.wt. 7 lbs 37.80

VIBRA-DRY+ MIXES

We've added two super-fine mixes of 75,000 and 100,000 grits to our improved line of Vibra-Dry polishes. These two super-fine mixes will give the professional a polish on precious stones and fine jewelry pieces that's been only dreamed of until now. You will enhance both the looks and value of your stones and jewelry. Even our standard Vibra-Dry mixes will produce a brilliant finish seldom achieved by any other method.

Vibra-Dry+ mixes allow you to polish stones and metal pieces without the addition of water, additives, thickeners, or fillers of any kind. Everything you need is in the mix. No more worry about keeping the right amount of liquid or slurry levels, and no mess at the end of each polishing step. Vibra-Dry+ is a dry process, so that your stones, coins or jewelry pieces can be easily removed from the mix, cleaned with only a polishing cloth or rinsed in water. The mix is then ready to process another batch of material. You save time, labor and compound, and achieve a superb polish as well.

There are three main ways to use Vibra-Dry+ to polish stones and metals. For someone, especially a professional jeweler, who wants to put a final, outstanding shine to finished pieces of jewelry, loose faceted stones, pre-formed or poorly finished cabochons, then using the 25,000 and 50,000 Vibra-Dry+ mixes fills the need. This applies to most metal pieces as well, such as finished jewelry, castings, coins, etc. In cases of severe tarnish or fire scale, metal pieces may need to be run through one or more coarser grits of Vibra-Dry+ first.

For those wanting to process valuable or delicate materials such as amber, pearls, opals, etc., most of the finishing process may be done just using a series of Vibra-Dry+ mixes, avoiding the use of most or all silicon carbide steps. It just depends on your material.

Then for those just wanting to tumble polish rough stones such as agate and similar gemstone materials, prepare your stones by processing them through the standard silicon carbide grits: 60/90, 220, and 600 grits, followed by 800 grit aluminum oxide pre-polish. This sequence prepares most stones even for standard final polishes, but a far better shine is achieved by then using the 25,000 or 50,000 Vibra-Dry+ mixes.

NOTE: Vibra-Dry+ mixes are formulated for the pre-polish and final polishing steps in processing stones and metals in vibratory tumblers. They are not recommended for use in rotary or barrel type tumblers.

The Guidelines given here are just that. For most stones from 6 to 8 in hardness, going through the silicon carbide grits will prepare your stones properly. Softer stones are harder to polish, and you might find that using some of the coarser Vibra-Dry+ mixes will help.

GUIDELINE FOR SELECTING GRIT SEQUENCE	
MATERIAL HARDNESS	USE VIBRA-DRY
Soft: 2-4 MOH scale (Amber, coral, pearl, etc.)	600-3000-25,000-50,000
Soft-Medium: 4-5 MOH scale (Apache tears, glass, shell, etc.)	3000-25,000, 50,000
Medium: 5-6 MOH scale (Jade, opal, turquoise, etc.)	3000-14,000-25,000, 50,000
Hard: 7-8 MOH scale (Agates, jasper, topaz, etc.)	14,000, 25,000, 50,000

VIBRA-DRY EXTENDER

This specially formulated extender compound relubricates standard Vibra-Dry abrasives and extends their life so that they can be re-used longer. **NOTE:** Cannot be shipped by air or overseas.

420-100299 4 oz.....8.75
 420-100499 16 oz.....31.35

VIBRA-DRY PLUS POLISHING COMPOUNDS								
AMOUNT	1 LB.		2 LBS.		5 LBS.		25 LBS.	
	GRIT	ORDER #	PRICE	ORDER #	PRICE	ORDER #	PRICE	ORDER #
600	421-00600-01	27.50	421-00600-02	49.50	421-00600-05	110.00	421-00600-25	480.00
1700	421-01700-01	27.50	421-01700-02	49.50	421-01700-05	110.00	421-01700-25	480.00
3000	421-03000-01	27.50	421-03000-02	50.00	421-03000-05	110.00	421-03000-25	480.00
14,000	421-14000-01	34.00	421-14000-02	61.00	421-14000-05	135.00	421-14000-25	590.00
25,000	421-25000-01	34.00	421-25000-02	61.00	421-25000-05	135.00	421-25000-25	590.00
50,000	421-50000-01	36.00	421-50000-02	65.00	421-50000-05	144.00	421-50000-25	630.00

POLISHES FOR STONE

The polishing compounds on this page are used on pads (see page 14), or buffs (see pages 5, 31, 33). To use these polishes, make a slurry by mixing polish with either water, mineral oil (like our Roc-Oil on page 47) or a 50-50 oil and dishwashing detergent mixture.

Cerium Oxide, Aluminum Oxide and Tin Oxide are packaged in durable, reusable plastic containers to prevent damage in transit and provide for easy storage.

ALUMINUM OXIDE PRE-POLISH

For use as a pre-polish on soft and difficult to polish stones such as Apache tears and tigereye. Can also be used as a final polish on extremely hard materials (+8 on MOH scale.) Great for slabs. 800 grit. Packaged in plastic containers.

GRIT SIZE	ORDER	NET WT.	SHIP WT.	PRICE
800	400-86-01	1 lb.	1¼ lbs.	9.55
	400-86-02	2 lbs.	3 lbs.	17.15
	400-86-05	5 lbs.	5½ lbs.	34.70
	400-86-10	10 lbs.	11½ lbs.	61.95
	400-86-25	25 lbs.	26 lbs.	120.80

CERIUM OXIDE



ALUMINUM OXIDE POLY PRODUCTS

These high grade polishing aluminas have been custom developed for the Lapidary Industry, use as you would cerium or tin oxides.

POLY-AL T

Is a medium fine powder, 0.8 micron particles. Polishes better than Tin Oxide. Particularly good on hard stones. Ideal pre-polish on softer stones, does not undercut.

- 401-ALT-4..... 4 oz. SizeShip Wt. 8 oz. 11.35
- 401-ALT-1..... 1 lb. SizeShip Wt. 1 ¼ lb. 39.60
- 401-ALT-5..... 5 lb. SizeShip Wt. 5 ¼ lb. 176.00

POLY-AL F

The finest of the Poly Products, with particles of only 0.2 microns. This polish will put a superior polish on most any stone that has been properly prepared for polish. Does not break down much during use, so you use less product

- 401-ALF-4 4 oz. SizeShip Wt. 8 oz. 11.10
- 401-ALF-1 1 lb. SizeShip Wt. 1¼ lb. 38.50
- 401-ALF-5 5 lb. SizeShip Wt. 5¼ lb. 172.40

Cerium Oxide is one of the best all-purpose polishes available. We carry this product in one grade, considered optical grade Cerium Oxide. Our Super Cerium Oxide is one of the best polishes we've tested. It gives an excellent polish to almost any stone and works especially well when used on a felt pad. Super Cerium Oxide is generally white in color. Color may vary. (Cerium Oxide is a mined product and may be white, tan, yellow, pink or brown. Standard Cerium is while supplies last)

- 402-83-04.... Super 4 oz.....Shp wt. 8 oz..... 18.90
- 402-83-01.... Super 1 lbShp wt. 1¼ lbs... 67.50
- 402-83-05.... Super 5 lbShp wt. 6 lbs.... 304.25

DP POLISH POLISHING COMPOUND

A hard, finely pulverized pyrochemically produced compound suitable for polishing gems of various hardness. Use DP Polish as you would cerium or tin oxide. Use DP Polish for tumbling. Mixes with water. Zip lock container.

- 400-70-01 DP Polish.. 1 lb.... Shp wt. 1¼ lbs. .. 10.00
- 400-70-05 DP Polish.. 5 lbs .. Shp wt. 5¼ lbs. .. 45.00

TIN OXIDE POLISHING COMPOUND

Puts an excellent polish on almost all gemstones, including the hard-to-polish ones. Packaged in plastic containers.

- 402-90-04.....¼ lb..... Shp wt. 6 oz. 14.90
- 402-90-01 ...1 lb..... Shp wt. 1¼ lbs. 51.30

FILLERS FOR TUMBLING STONE AND METALS

Fillers are an important addition to the stone/grit mix in almost any tumbling sequence or tumbler. Fillers help distribute the grit to the stone or metal part, and act as a cushion between the parts.

CERAMIC MEDIA

Non-abrasive, angle cut cylinders. Works well as a filler and carrier in tumbler loads of stone. Also used as a burnishing media on jewelry metals. Really speeds the job and helps leave a super finish. Cylinder size approx. 5/32" x 5/16". The one pound size comes in a zip lock bag. The 5, 10, and 50 lb. sizes are packed in reusable plastic containers.

- 400-CM-01..... Net. Wt. 1 lb..... Shp. Wt. 1 lb. 4 oz. 6.05
- 400-CM-05..... Net. Wt. 5 lbs..... Shp. Wt. 5 lb. 4 oz.26.25
- 400-CM-10..... Net. Wt. 10 lbs..... Shp. Wt. 10 lb. 2 oz.48.90
- 400-CM-50..... Net. Wt. 50 lbs..... Shp. Wt. 53 lbs.230.00

CORN COB FILLER

Ground corn cobs. Makes an excellent filler for polishing stones. Softer than walnut shells. Comes in 1 lb. and 5 lb. bags.

- 400-CC-1... 1 lb..... Shp. Wt. 1 lb. 4 oz. 4.00
- 400-CC-5... 5 lbs. Shp. Wt. 5 lb. 4 oz. 15.00

WALNUT SHELL FILLER - PLAIN

Makes a good filler for tumbling gemstones. Keeps stones from hitting each other during the tumbling process.

- 400-WS-11 lb Plain Shp. Wt. 1 lb. 4 oz. 3.00
- 400-WS-55 lb Plain Shp. Wt. 5 lb. 4 oz. .. 10.00

STAINLESS STEEL SHOT

Use as a burnishing media for metals. Contains a mixture of balls, ball-cones, and angle cut cylinders that are the right shape and size for jewelry work. No pins. Stainless steel shot will not rust. Use with burnishing compound.

- 400-SS-10 ...Net 1 lb..... Shp Wt. 1 lb 4 oz..... 20.60
- 400-SS-20 ...Net 2 lbs. Shp Wt. 3 lbs..... 37.10

BURNISHING COMPOUND

Use with steel shot to achieve a bright finish on jewelry metals. Great on both silver and gold. Starting ratio is a heaping tablespoon to a gallon of water. Adjust as necessary. Net Wt. 1 lb.

- 400-BC-20.....Shp. Wt. 1 lb. 4 oz..... 4.95

POLISHING WHEELS

See page 32 for buffing wheels.



POLISHING DISCS

Genuine leather and quality foam rubber discs. Make your own polishing pads or use on regular polishing heads. Rubber is 1/4" thick. Shp. Wt. each, 5 ozs.

Dia.	Leather		Foam Rubber	
	Order #	Price	Order #	Price
6"	101-82-110026	5.50	101-82-106526	4.00
8"	101-82-110028	10.75	101-82-106534	5.50
10"	101-82-110020	16.50	101-82-106542	8.25

LEATHER SQUARE KIT

Use these squares of leather to cover your polishing discs. Leather can be cut to fit. Use piece of strong wire contained in kit to fasten leather to your disc. Charge with any polish-ing compound. Leather can be used rough or smooth side. Shp. Wt. 12 ozs. each.

- 703-82-122283 8" sq. fits 6" disc 17.10
- 703-82-122291 10" sq. fits 8" disc 20.95
- 703-82-122309 12" sq. fits 10" disc 25.15

FELT DISCS

These discs are 1/8" thick wool felt with high tensile strength and excellent resistance to wear. Discs with magnetic rubber backing can be used on metal back plates and laps. Plain discs can be glued to back plates or used in other applications. Polishing compounds will adhere well to the surface.

Diameter	Unbacked		
	Order #	Price	Shp Wt
8"	100-PAD-U-08F	8.85	4 oz.
12"	100-PAD-U-12F	23.70	6 oz.
18"	100-PAD-U-18F	30.20	1 lb.

Magnetic		
Order #	Price	Shp Wt
100-PAD-M-08F	13.35	8 oz.
100-PAD-M-12F	34.95	1 lb
100-PAD-M-18F	64.70	2 lbs

DOUBLE DECK VIBRATORY LAP

You can be rough grinding and finish polishing at the same time with this 18" double pan set-up. Use the top pan with its special premium grade felt pad for all polishing, and the lower pan for the other stages of grind and pre-polish.

Slabs rotate in a circular orbit so there is little damage to any stone edge. Each pan comes with a heavy duty vinyl tubing around the outer edge to act as a buffer between moving slabs and sides of pan.

The upper pan comes with a premium grade wool felt polishing pad that can be charged with a variety of polishes for the final process on your slabs. Each pad should only be used with one type of polish. If you need to use different polishes, each should have its own polish pad to prevent contamination. The polishing pad is used over a smooth-surfaced aluminium plate.

The lower plate is aluminum finished with special indentations for use with silicon carbide grits for grinding and sanding flat stones. It comes with a heavy duty vinyl bumper ring to serve as a buffer between moving slabs and edge of pan.

Brackets hold the two pans in place, one above the other, and are designed for easy removal of the pans.

Machine is made of non-rusting aluminum castings. Only weighs 50 pounds so it can be moved from place to place but is still heavy enough for stability while in operation.

For use overseas, a transformer may be needed.



DOUBLE DECK LAP MODEL DL-18

The machine comes with frame, motor, two pans, felt polishing pad, set of brackets.



Double Lap shown with top pan removed.

Item	Order #	Shp Wt.	Price
Double Deck Lap	620-42-2000	53 lbs.	1496.00
Smooth Pan	621-42-2003	12 lbs.	305.00
Rough Pan	621-42-2004	12 lbs.	305.00
Polish Pad	621-93-0060	1 lb.	29.00
Bracket (Set of 4)	621-42-2115	2 lbs.	105.00
Rubber Ball	690-42-2005	6 oz.	5.50
Spring	690-42-2007	6 oz.	11.00
Spider	690-42-2002	7 lbs.	154.00
Counterweight	690-42-2009	8 oz.	30.25
115V Motor, Cord, Switch	690-42-5000	8 lbs.	305.00

GRIT SEQUENCE FOR LAPPING

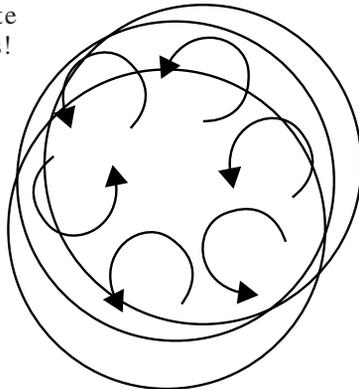
The choice of abrasive grit sizes for the lapping process follows somewhat that in tumbling or stone polishing procedures. The choice also depends upon the material, and preference of the person doing the work. The following sequence of silicon carbide grits is commonly used, and will generally produce a satisfactory polish on most materials: 60/90, 220, 600, and then a polish. Generally, the more steps the better the polish. Abrasives sold on pages 59, 61.



A UNIQUE DOUBLE ACTION WORKS FOR YOU

While the Vi-Bro-Lap plate oscillates, work-piece rotates! This gives faster grinding surface speed; distributes abrasives, assures a flat polished surface, and equalizes wear on lap plate. Allow 3-4 weeks for delivery.

We have most parts for older Vi-Bro-Laps. Call us for information.



“VI-BRO-LAPS” IN TWO SIZES

Both the 20" and 27" Vi-Bro-Lap models give you the satisfaction of achieving flat surfaces on geode halves, agate, petrified wood and other material, yet relieves you of the necessity for constant attention to the lapping process.

The Vi-Bro-Lap can accommodate a number of specimens at the same time. The tempered aluminum lap plate is grooved in a criss-cross pattern. This permits abrasive particles to circulate between the lap plate and the work piece so that the abrasive itself is continuously being crushed to a smaller size.

When the work piece surface is ground flat and satin smooth use the felt polishing pad with a fine polishing compound to obtain a fine mirror like finish on your work piece.

SPECIFICATIONS

- Lap plates are manufactured from heat treated aluminum alloy to produce a tough, wear-resistant surface. Each surface has milled V-grooves in a square grid pattern.
- Suspension is controlled by aircraft strength cable, adjustable for fine leveling to keep work pieces evenly distributed over the lap plate surface.
- 20VL measures 21" W x 21" D x 21" H.
27VL measures 28" W x 28" D x 30" H.
- Frame is welded, fabricated steel for stability.
- Comes with 1/3 HP motor. Felt polishing pad included. Export model, 220 volt/50 HZ available for use outside the USA

Item	20" Model 20VL			27" Model 27VL		
	Order #	Shp Wt.	Price	Order #	Shp Wt.	Price
Model with 1/3 HP 115V 60 Hz motor	620-41-108415	176 lbs.	2365.00	620-41-108423	270 lbs.	2740.00
Export model with 1/3 HP 220V 50 Hz motor	620-41-108415X	176 lbs.	2585.00	620-41-108423X	270 lbs.	2960.00
Crating fee- machine	620-41-C20	-	215.00	620-41-C27	-	250.00
Replacement plate	621-41-118208	28 lbs.	781.00	621-41-118190	84 lbs.	1018.00
Crating fee 27VL plate				621-41-118190C	-	75.00
Polish pad, wool felt	621-41-117101	1 lb.	36.00	621-41-117119	2 lbs.	65.75
Cable & eye bolt kit	690-41-100438	8 oz.	23.00	690-41-100420	8 oz.	23.00
Rubber foot	690-41-104120	6 oz.	11.50	690-41-104120	6 oz.	11.50
Flange bearing	690-90-4120	2 lbs.	67.00	690-90-4120	2 lbs.	67.00
Pillow block bearing	690-90-5684	2 lbs.	47.00	690-90-5684	2 lbs.	47.00
Rubber for Bumper Ring	690-41-118211	1 lb	17.00	690-41-118210	1 lb	18.00

ROTATING DISC FLAT LAPS

Now you can polish your bookends and large flats on the same machine, using either our Magnetic Novas or the standard process using abrasives on the rotating disc itself.

We've modified our RL Model Rotating Flat Laps to accommodate the speeds and set up necessary for both processes.

For the fastest and most efficient way to polish large flats, we recommend using our Magnetic Nova Laps. You save time in two ways. First, the actual polishing process for each step is reduced by the speed and efficiency of our resin-bond diamond Magnetic Nova Laps. Under normal circumstances, it only takes 15 to

25 minutes for each grit step to polish your large flat. Second, you save a lot of time by not having the usual clean-up job between grit changes. Changing grits with Magnetic Novas simply means removing one flexible lap from the plate and installing the next—taking only a few moments at most. (See photo below.) Since the diamonds in Magnetic Novas are permanently bonded to their working surfaces, there's little chance of contamination.

USING DIAMOND MAGNETIC NOVAS

Our diamond Magnetic Novas are the fastest and most efficient way to polish large slabs on the RL Lap machines.

Our recommended general-purpose grit sequence of Magnetic Novas for RL machines is 60, 280, 600 and 1200 grits, followed by Super Premium Cerium Oxide Polish on a felt pad. We also recommend the use of a 30 grit Magnetic Nova for those slab surfaces with deep saw marks or other features requiring grinding preparation. Other grit sequences can be used to fit your need

We recommend that Magnetic Novas in diameters 12" and larger be used with 1" arbor holes. The hole prevents the "dead" center of the revolving lap from "grabbing" your work piece, yet does not prevent you from using the entire surface of the lap.

USING THE STANDARD LAPPING PROCESS

If you need to precision grind and polish a flat surface on stone, glass or optics, use the cast iron lap plate of the RL lap, and a series of silicon carbide or other abrasives. The rotating cast iron plate is built to fulfill the fundamental requirements of precision lapping with maximum stability and wheel balance. Lap plates are machined to exacting tolerances and grooved with concentric V-groove circles for retention of the abrasive. Your surface will be FLAT.

Standard grit sequence for most purposes is 60/90, 220, RMV 600, RMV, followed by a polish. We recommend our Super Premium Cerium Oxide sold on page 61.



Magnetic Novas are easy to exchange.

To order Magnetic Novas see page 68.



Model 12RL

8RL ROTARY LAP

Now you can polish your small flats using our Magnetic Novas!



Our new 8RL Rotary Lap is a great new addition to our rotating lap line!

This smaller lap machine is great for small flats and flat surface lapping. This portable and affordable lap will fit on most benchtops and in most small work areas,

This machine is capable of polishing most small slabs, bookends and pen stands etc. that would be produced by a small slab saw essential to any lapidary's toolset. (See pages 35-37 for our line of saws).

The 8RL was designed with our Magnetic Novas in mind. Magnetic Novas are Ideal for use with the 8RL Rotary Lap. Changing grits with Magnetic Novas is quick and easy, one Magnetic Nova is removed and replaced with a subsequent grit.

Since the diamonds are permanently bonded to the work surface of the Magnetic Nova, there's little chance of contamination.

Our diamond Magnetic Novas are the fastest and most efficient way to lap . Our recommended grit sequence for Magnetic Novas for the 8RL is 30, 60, 280, 600, 1200 and 3000 grits followed by Super Premium Cerium Oxide Polish on a felt Pad. Other grit sequences are available and can be used to suit various needs.

Machine tanks are heavy duty fabricated with powder coating. The 8RL Tank measures 12"x 14" by 17" deep. Overall height is 27".

Drip style water reservoir has an adjustable valve to regulate flow of water. The drip spout is easily moved as needed.

Magnetic Novas not included with machine.

Please call us for more information.

500-RL-100.....	36 lbs Shp Wt.....	\$825.00
500-8RL-100-X.....	36 lbs Shp Wt.....	\$990.00



ROTATING DISC FLAT LAPS

Our RL Flat Laps are rugged machines, from cast iron lap plates to metal tanks. They will give years of service.



Model 18RL



Cast iron lap plate

- Motors for both size machines are thermally protected, with manual reset buttons. This prevents any unintentional, unexpected restart of the motor.
- Arbor shafts are 1". Bearings are 1", factory lubricated and sealed to prevent contamination.
- Machine tanks are heavy duty, fabricated steel with powder coating. Safety screen protects the operating mechanisms below the tanks, but still allows some visibility. The 18 RL tank measures 24" x 24" x 7 3/4" deep. Overall height is 34". The 12RL tank measures 15" x 15" x 6 3/4" deep, with and overall height of 13 3/4"
- Drip style water reservoir has an adjustable valve to regulate flow of water or water-abrasive mixtures to the rotating discs. The drip spout is easily moved over the disc surface as needed.
- The cast iron plates are machined to exacting tolerances and grooved with concentric V-groove circles for use and retention of abrasive charges. Magnetic Novas attach easily to the surface of the plates as well.
- Our RL Model Flat laps run at speeds suitable for both the use of abrasive grits on the rotating plates, and for use of Magnetic Novas. Machines with variable speed motors are generally not needed, but are available as a SPECIAL ORDER. Call for technical assistance for your application, and for prices.

Magnetic Felt Discs listed on page 62.

Item	12" Models			Item	18" Models		
	Order #	Shp Wt.	Price		Order #	Shp Wt.	Price
12 RL Lap Machine 1/3 HP 115V-60Hz	620-40-121897	144 lbs.	2020.00	18 RL Lap Machine * 1/2 HP 115V-60Hz	620-40-121889	326 lbs.	3070.00
12 RL Lap Machine 1/3 HP 220V-50Hz For use outside the USA	620-40-121897X	135 lbs.	2130.00	18 RL Lap Machine * 1/2 HP 220V-50Hz For use outside the USA	620-40-121889X	326 lbs.	3330.00
12RL Cast Iron Replacement Plate	621-40-117085	25 lbs.	605.00	18 RL Cast Iron Replacement Plate	621-40-117077	76 lbs.	950.00
Crating fee RL machine	620-40-C12		120.00	Crating fee 18 RL machine	620-40-C18		235.00
* 18" Laps shipped via truck				Crating fee 18 RLPlate	621-40-117077C		48.00

MAGNETIC NOVA LAPS FOR LAPPING

Our Magnetic Nova Laps give you the fast polishing performance of Novas combined with the convenience of an easy on-off magnetic lap. They attach right onto most flat laps and are easily removed.

Magnetic Nova Laps have a $\frac{1}{16}$ " thick backing of solid rubber containing magnetized iron particles so the laps will adhere to a cast iron, steel or nickel plated lap. The rubber is coated with a thick layer of our special Nova resin-bond diamond formula for fast action and lasting service. The surface of the Magnetic Nova is made with a grid pattern for better performance.

You can use the Magnetic Novas on your present flat lap set-up in most cases, but they will not work on aluminum or diamond coated discs.

Our recommended general purpose grit sequence for sanding and polishing most flats, is to use Magnetic Nova Laps in 30, 60, 280, 600 and 1200 grits, followed by our Super Premium Cerium Oxide Polish on a felt pad. This sequence works especially well when used with our RL laps shown on pages 66-67. For deep saw marks you may add a coarse Diamond Plated Disc. Other sequences may be used with excellent results depending on the material to be polished.

We recommend that Magnetic Novas in diameters 12" and larger be used with 1" arbor holes. The hole prevents the "dead" center of the revolving lap from "grabbing" your work piece, yet does not prevent you from using the entire surface of the lap.

The 24" Magnetic Novas are SPECIAL ORDER.



Shown above is Magnetic Nova being removed from an 18RL lap machine.

HOW TO ORDER ARBOR HOLES

Standard Magnetic Novas do not come with arbor holes unless requested. ALL ARBOR HOLES ARE SPECIAL ORDER, BUT THERE IS NO ADDITIONAL CHARGE FOR THIS SERVICE. Allow 2-3 days extra.

To order an arbor hole in any Magnetic Nova, please specify arbor hole size you require by adding the following Special Order numbers to the standard order number of the Magnetic Nova.

For $\frac{1}{2}$ " arbor hole, add -4 to the order number.
 For $\frac{5}{8}$ " arbor hole, add -5 to the order number.
 For $\frac{3}{4}$ " arbor hole, add -6 to the order number.
 For 1" arbor hole, add -8 to the order number.

Example: 100-RM08-60-5 This signifies an 8" diameter, 60 grit Magnetic Nova with a $\frac{5}{8}$ " arbor hole.

If you have any questions, please call our Customer Service Representatives.

MAGNETIC NOVA LAPS

Grit Size	8" Laps: 99.00 ea	12" Laps: 191.40 ea	16" Laps: 390.50 ea.	18" Laps: 390.50 ea.	24" Laps: 907.50 ea.
	Order #	Order #	Order #	Order #	Order #
30	100-RM08-35	100-RM12-35	100-RM16-35	100-RM18-35	100-RM24-35
60	100-RM08-70	100-RM12-70	100-RM16-70	100-RM18-70	100-RM24-70
140	100-RM08-15	100-RM12-15	100-RM16-15	100-RM18-15	100-RM24-15
280	100-RM08-28	100-RM12-28	100-RM16-28	100-RM18-28	100-RM24-28
600	100-RM08-60	100-RM12-60	100-RM16-60	100-RM18-60	100-RM24-60
1200	100-RM08-12	100-RM12-12	100-RM16-12	100-RM18-12	100-RM24-12
3000	100-RM08-30	100-RM12-30	100-RM16-30	100-RM18-30	100-RM24-30
8000	100-RM08-80	100-RM12-80	100-RM16-80	100-RM18-80	100-RM24-80
14,000	100-RM08-14	100-RM12-14	100-RM16-14	100-RM18-14	100-RM24-14
50,000	100-RM08-50	100-RM12-50	100-RM16-50	100-RM18-50	100-RM24-50
Shp. wt.	1 lb.	1.5 lb.	2 lbs.	3 lbs.	4 lbs.

GRYPHETTE

Use this handy glass grinder for all your stained glass needs, and apply the same techniques to using stone slabs for creating lampshades, boxes, windows, etc.



This handy glass grinder offers remarkable performance and efficiency at an affordable price that makes it attractive for all your stained glass needs. The Gryphette is handy for wire wrapping too. Use the Grove Grinder Head for a fast easy way to groove around the edges of stone or glass pieces for wrapping your wire.

The Gryphette Grinder features a powerful motor that lets you grind shapes in your material at medium pressure without worry that you will overload the motor, even when using 1" heads.

Working table measures 6-3/4" x 6-3/4". Overall size of grinder is 7-3/4" x 7-3/4" x 6-1/4" high from base to table top. Unit comes with a flexible spray guard that allows large or specially shaped pieces of glass or stone to be ground without removing the guard, it simply bends out of the way.

The Gryphette is made of high impact plastic, and is so simple and well built that Gryphon offers a 5 year limited warranty.

GRYPHETTE GLASS GRINDER comes with 120 grit, 3/4" cylindrical diamond head 115 volt.

725-50 6 lbs Shp Wt \$85.00

DIAMOND GRINDING HEADS



CAUTION:
WEAR Safety Goggles WHEN USING GRINDERS

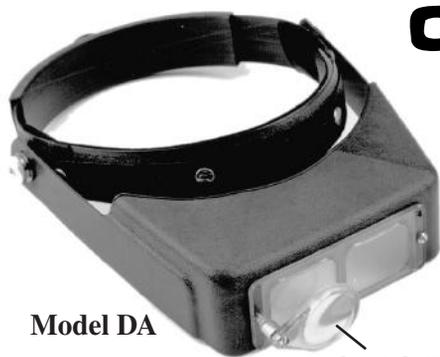
Gryphon Diamond Products are unsurpassed for grinding and drilling glass, ceramic, marble and granite. These bits are made to be self sharpening to extend wear and improve performance. Heads are guaranteed not to peel. All heads come with hex wrench.

CYLINDRICAL HEADS: The 3/4" and 1" diameters heads come in 4 grits. The Coarse head (C) 60 grit, is used for quick material removal. The Standard or Medium head (M) 120 grit, is best for all around grinding. The Fine (F), 220 grit will smooth the marks left by the coarser grits. Extra Fine (X), 600 grit leaves a smooth final finish.

The smaller 1/8" and 1/4" cylindrical heads or pins, come in Coarse (C) 60 grit, Standard (M) 120 grit and Fine (F) 220 grit. These may be used to drill holes in glass or stone slabs, then used to grind elaborate shapes within the inner surface. Head sits above table

GROOVE GRINDER is great for grooving stone and glass edges to hold wire when doing wire wrapping projects. Comes in Fine (F) 220 grit only.

DIAMOND HEADS					
Dia	Grit	Order #	Dia	Grit	Order #
1/8"	60	726-0125C	1/4"	60	726-0250C
1/8"	120	726-0125M	1/4"	120	726-0250M
1/8"	220	726-0125F	1/4"	220	726-0250F
3/4"	60	726-0750C	1"	60	726-1000C
3/4"	120	726-0750M	1"	120	726-1000M
3/4"	220	726-0750F	1"	220	726-1000F
3/4"	600	726-0750X	1"	600	726-1000X
Groove Grinder				220	726-2000M
Order Tools by Order Number Shown					
Price ea \$13.30			Ship Wt 8 oz		



Model DA

OptiLOUPE

optivisor®

The original Binocular Magnifier with optical lenses

Don't settle for plastic lenses when it comes to saving your eyesight and improving your vision for close-up work. OptiVisor's lenses are prismatic, optical glass ground and polished to precise, optical standards. They are bevel edged and mounted in an interchangeable plastic frame, allowing you to have different lens powers for different needs. OptiVisor is still your best buy in a headband magnifier.

Optivisor is equipped with these unique features

- **Adjustable Headband** - Conforms to fit all head sizes - fabricated from a special blend of lightweight ABS material - comfortable when worn for long periods of time.
- **It Tilts** - Adjustable pivots allow the visor to be tilted out of the way when not needed and at your fingertips when you need magnification.
- **Genuine Leather Comfort Band** - Padded with orthopedic felt - adds to comfort.
- Made completely in the U.S.A by skilled craftsmen.

Order #	Magnification	Shp. Wt.	Price
116-DA-02	Magnifies 1½ X at 20" focal length	12 oz.	51.80
116-DA-03	Magnifies 1¾ X at 14" focal length	12 oz.	51.80
116-DA-04	Magnifies 2 X at 10" focal length	12 oz.	51.80
116-DA-05	Magnifies 2½ X at 8" focal length	12 oz.	51.80
116-DA-07	Magnifies 2¾ X at 6" focal length	12 oz.	56.10
116-DA-10	Magnifies 3½ X at 4" focal length	13 oz.	56.90
116-DA-LP1	OPTILOUPE Monocular attachable lens. Adds 2½ extra power to your OptiVisor. Attaches to either eyepiece.	2 oz.	11.80
116-DL	Lens Plate Nos. 2, 3, 4 & 5 State number when ordering.	2 oz.	32.20
116-DL-07	Lens Plate No. 7	2 oz.	36.65
116-DL-10	Lens Plate No. 10	2 oz.	37.20
116-DA-00	Headpiece assembly, No lens*	10 oz.	25.00
116-PT3	Leather comfort band	1 oz.	5.50

OptiVISOR
as seen by
normal vision



1½ X at 20"



1¾ X at 14"



2 X at 10"



2½ X at 8"



2¾ X at 6"



3½ X at 4"



OptiLOUPE Option
Adds 2½ X
to all models
116-DA-LPI

ORDER OPTIVISOR IN ANY OF THESE SIX LENS POWERS

The VisorLIGHT™

Puts light on your viewing area when using your optivisor®

Visorlight™ attaches to your Optivisor, illuminating the magnified viewing area as you work. Gives you a hand-free light with 6000 candle power Xeonon Laserbeam. Takes two AA batteries for 4 to 5 hours use. Made in U.S.A.

MODEL LT-06 Has 10" cord for mounting on back side of visor (as shown below.)

116-LT-06.....Shp wt. 1 lb.26.50

MODEL LT-42 Has 42" cord and clips to allow battery pack mounting on belt or in pocket.

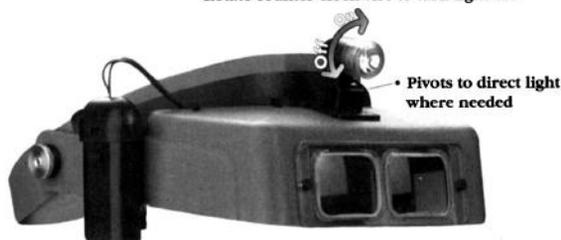
116-LT-42.....Shp. wt. 1 lb.26.50

REPLACEMENT BULBS for LT-06 and LT-42

116-LT-2204.....Shp. wt. 8 oz.....6.95



• Rotate lens clockwise to turn light on,
Rotate counter clockwise to turn light off



• Pivots to direct light where needed

HAND LENS

DIAMOND CUT 10X LENS

Diamond Cut is attractive and provides better grip. Triplet. 10X has good depth of field. Comes in either 18mm or the 21.5mm with larger field of view. Black finish. Leather case. (The 747 has larger lens than the 745 shown in photo.) (While supplies last).

- 150-ELP-745..... 18mm2 oz.....11.95
- 150-ELP-747 21.5mm.....2 oz.....16.95

TRIPLET 10X LENS

Economical yet offers 10X, 18mm triplet lens. Black finish. Comes with leather case. (While supplies last).

- 150-ELP-7442 oz.....11.55

LARGE 21.5mm 10X TRIPLET LENS

Case is hexagonal, but head is actually an elegant twelve faceted design. Silver finish. Leather case. (While supplies last).

- 150-ELP-7462 oz.....17.95

DIAMOND TRIPLET 10X 20.5mm LENS

Quality three-piece bonded lens is ground for distortion free viewing and extra sharpness. Rubber grip added for comfort and better control. Chrome/Black. Leather case.

- 152-ELP-759.....2 oz.....22.95

HEXAGONAL 15X TRIPLET LENS

A more powerful 15X lens with three-piece, color corrected lens. Has 20.5mm field of view. Chrome/Black. Leather case.

- 152-ELP-758.....2 oz.....19.95



745



744



746



759



758

JEWELER'S SAWS

DEEPTHROAT SAW FRAME High-quality, well-balanced frame is strongly constructed with hardwood handle. Adjusts to accommodate broken blades. 5" deep throat.

- 150-SAW-315..... 1 lb.19.95

DELUXE SAW FRAME WITH TENSION SCREW Ideal for use with diamond wire blades. Holds blades firmly with serrated holders. Tension screw tightens blade to exact tension desired. Frame adjusts to accommodate broken blades. 4" deep. Not shown but similar to SAW-315 above.

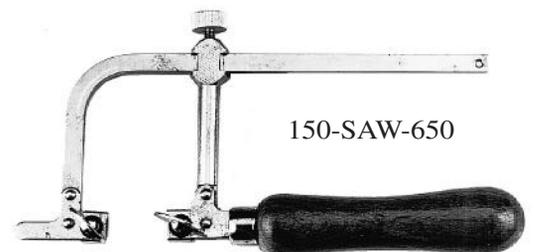
- 150-SAW-334..... 1 lb.22.95

JEWELER'S SAW FRAME This saw frame offers durable construction with a hardwood handle, large thumbscrews and a 3" depth. Frame adjusts to accommodate broken blades.

- 150-SAW-650..... 1 lb.8.25



150-SAW-315



150-SAW-650

JEWELER'S SAW BLADES

These saw blades are premium quality at a reasonable price. Come 12 per package. Blades increase in size from 4/0 to 0 and from 1 to 4. Size #4/0 is smallest blade and #4 is largest. Price is \$2.95 per pack of 12. Shp. wt. 1 oz per pck.

Order No.	Size	Order No.	Size
150-SAW-400.03	4/0	150-SAW-400.07	1
150-SAW-400.04	3/0	150-SAW-400.08	2
150-SAW-400.05	2/0	150-SAW-400.09	3
150-SAW-400.06	0	150-SAW-400.10	4

SCRAPER Here is another of those multiple-use tools craftsmen depend on. It is designed for cleaning, smoothing, deburring metals, cleaning surfaces for soldering, removing excess solder, and opening bezels. Has hollow-sided, triangular shape blade with three sharp edges, mounted in hardwood handle.

160-SR-950 2 oz. 5.95

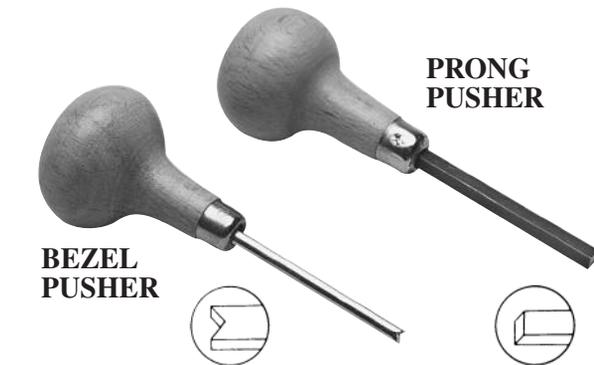
BURNISHER When smoothing and finishing soft metals or setting edges on knives and scrapers, jewelry hobbyists, model makers, and metal workers reach for these burnishers. Oval-shaped, tool steel, 1½" long blade is set in wood handle.

160-BS-121 Curved 2 oz. 2.95

160-BS-111 Straight 2 oz. 2.95

NON-MAR WEDGE CLAMP Holds jewelry, glass, plastics, wire, tiles, metals firmly for painting, polishing, buffing, drilling, filing, gluing, shaping. As wedge is driven in opposite end, leather lined jaws tighten to grip without marring the item. Solid body and wedge made of tough, resilient, mineral-filled nylon.

160-RN-530 6 oz. 6.95

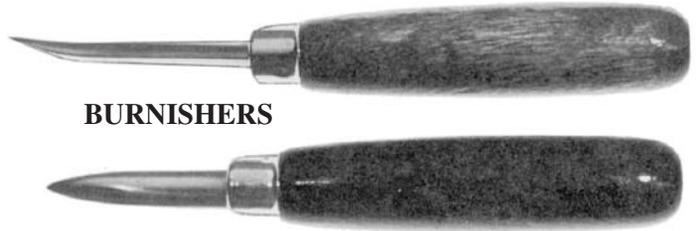


**PRONG
PUSHER**

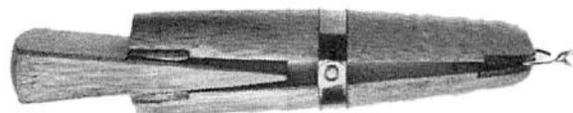
**BEZEL
PUSHER**



SCRAPER



BURNISHERS



WEDGE CLAMP

PRONG PUSHER

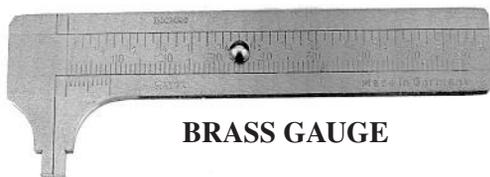
Polished steel tip set in comfortable wood handle. Use for pushing prongs or crown points around stones.

150-PSH-770..... 6 oz..... 2.60

BEZEL PUSHER

Has polished groove in tips that wipes and sets bezel against stone. Mounted in wooden handle.

152-DI-535..... 6 oz..... 3.45



BRASS GAUGE

PRECISION BRASS GAUGE 80mm sliding gauge includes inch scale in 1/16ths as well. 3" long.

150-GAU-168.80 3 oz..... 11.95

EXTRA HAND has many uses in jewelry making and other crafts. It keeps your hands free for soldering, gluing, and positioning, while work is held firmly at any angle required. Has a 6 ½" long, self-locking tweezer mounted in double ball joints connected to a heavy iron base. Base may vary from that shown. Replacement tweezer is nickel plated.

160-HO-475 1 lb. 4 oz..... 10.95

160-TW-385 Replacement tweezer 8 oz..... 3.95



**EXTRA
HAND**

PIN VISES

SINGLE-END SLIDE PIN VISE Pin vise has knurled slide for easy one-hand operation. Capacity of 0 to 0.8mm. Length is 4 1/2".

150-PIN-221 6 oz.4.80

DOUBLE END PIN VISE A different size steel collet mounted at each end of hollow handle makes this a highly versatile tool. Use to hold drills, taps, reamers, wire, rods, or precision knife blades. Collet capacity: 0 to .10" (0 to 2.5mm). Nickel-plated. Length approx. 4 1/2". May vary slightly from photo.

160-PV-657 6 oz.4.15



SINGLE END PIN VISE



DOUBLE END PIN VISE



WIRE PRONG HOLDERS

WIRE PRONG HOLDERS Press top of this unique tool and slim, stainless steel prongs emerge from tip. Release pressure and prongs close around your gemstone, gripping it tightly for inspection or display. Length: 5".

150-HOL-653 3 prong 1 oz. 2.45

150-HOL-654 4 prong 1 oz. 2.45

TRIPOD WITH MESH SCREEN

Set tripod with screen over an alcohol lamp or Bunsen burner to heat wax pot or keep it warm. Can also be used so that work can be heated from below while soldering or enameling. Comes with 6" square mesh screen.

162-BT-268 1 lb. 11.95

HEATING SCREEN

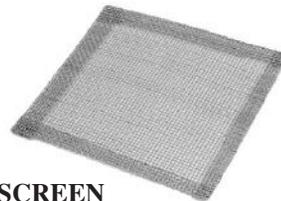
Use with tripod (right), or on a block, so that work piece can be heated from below while soldering or enameling. Measures 6" square.

160-BT-270 8 oz. 3.95

TRIPOD WITH SCREEN



SCREEN

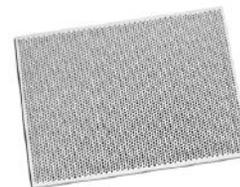


CERAMIC SOLDERING BOARD

CERAMIC HONEYCOMB SOLDERING BOARD

Popular honeycomb design holds pins to keep work in place while soldering. Made of a non-asbestos ceramic. Board is lightweight and reflects heat. Size is 3 7/8" x 5 5/16"

150-SOL-430 8 oz. 9.95



SOLDERING PICK



SOLDERING PICK

This deluxe titanium soldering pick is specifically made to lift minute drops of molten solder. Features a number 35 high-tech titanium rod to which solder cannot stick, unlike most soldering picks with steel wire picks. Has a non-conductive, non-roll handle.

150-SPK-930 2 oz. 4.95

HAMMERS

BRASS MALLET

Nicely balanced, solid brass head will not mar soft or delicate metals. Head 2" long on metal handle.

150-HAM-215..... 4 oz.....6.95

CHASING HAMMER

Use flat head to flatten, shape and form objects in silversmithing, arts and crafts. Also to strike chasing tools. Round end is for forming decorative patterns and designs. Head is 1" diameter.

162-HA-365 8 oz.....12.1

RAWHIDE MALLETS

Made from the finest quality rawhide. Mounted on a smooth hardwood handle. Head is heavily shellacked to prevent marring work. Use for forming or flattening. Head 1 1/4" dia. x approx. 2 1/2" long.

160-MA-171 Shp. wt. 4 oz.....23.95

BENCH VISE

This handy vise can be either clamped or screwed onto the workbench. Has twin guide rods to assure parallel closing and rigidity. Jaws are 1 1/2" wide, and smooth to prevent marring of soft metals.

150-VIS-204 2 lb..... 9.45

V-BLOCK AND CLAMP

This handy bench extension gives the extra support and space needed for filing, sawing, and drilling. Especially useful when using jeweler's saw. Block size: 2 1/4" x 7 1/2". Clamp fits table up to 1 3/4" thick.

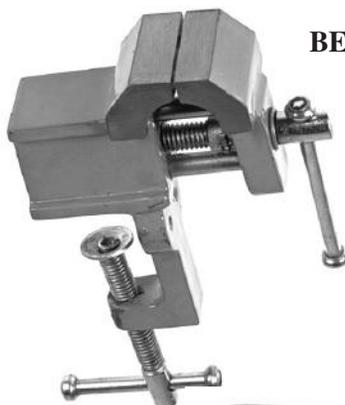
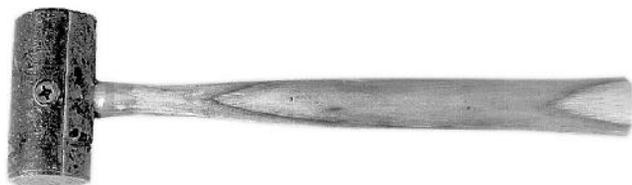
150-BPN-105 1 lb..... 7.95

BENCH PIN-ANVIL COMBINATION

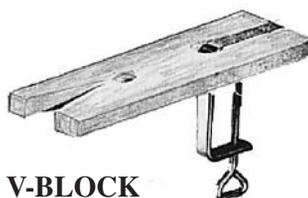
For supporting pieces being flattened, filing and laying out work. Anvil top is smoothly finished. Wood pin measures 4" long by 1 3/4" wide and is replaceable.

160-AN-1183 lbs 8 oz..... 16.95

160-BP-170 Pin only 7"L x 1 3/4"W5 oz3.95



BENCH VISE



V-BLOCK



BENCH PIN ANVIL

ECONOMY NEEDLE FILE SETS

An exceptional value for the price. Each set contains files that meet rigid temper requirements with sharp cutting surfaces. Standard shapes in the No. 2 cut. Average length 5 1/2". Imported.

SET OF TWELVE FILES

150-FIL-995..... 12 oz..... 12.95

SET OF SIX POPULAR FILES

150-FIL-993..... 8 oz..... 7.95

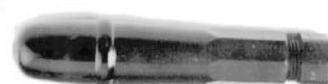
NEEDLE FILE HANDLE

Universal, reusable, plastic handle. Has non-slip chuck, holds file firmly.

150-HAN-7256 oz..... 5.95



ECONOMY FILE SETS



NEEDLE FILE HANDLE

FACTS YOU SHOULD KNOW WHEN CHOOSING PLIERS



CHAIN NOSE PLIERS

Traditional and the most popular pliers. Use to make bends, loops and similar forming operations on wire or sheet metal. In bead stringing, use to lock crimp beads, attach needles to bead cord, etc. Handy for most gripping, pulling, manipulating actions.

FLAT NOSE PLIERS

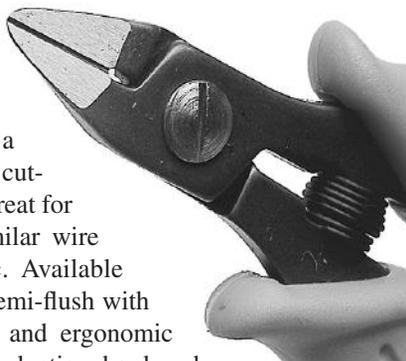
For gripping and holding flat or square objects securely, and for making angular bends and similar forming operations.

ROUND NOSE PLIERS

For making bends, loops, circles, coils in wire or sheet metal. The tapered, round jaws are smooth and will not scratch or nick soft metals. In bead stringing, use for closing bead tips, curving wire such as jump rings, looping eye pins, etc.

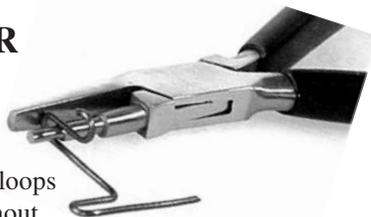
FLUSH AND SEMI-FLUSH SIDECUTTERS

Here's a reasonably priced flush cutter that offers the perfect answer to craft people who need strength in a precision sidecutter. This cutter, made in Europe, is great for Soft Flex Wire and similar wire for beading, crafts, etc. Available in both ultra-flush and semi-flush with a smooth spring return and ergonomic cushion grip handles. Induction hardened jaws are 61 Rockwell hardness. Length approx. 5".



- 152-PLR-470.00 Flush.....6 oz..... 28.95
- 152-PLR-470.10 Semi-Flush6 oz..... 29.50

MASTER COILER PLIER



The Master Coiler makes loops and coils consistently without nicking wire. These pliers allow you to hold the wire with the flat jaw while rotating the round jaw to form the perfect loop. Made of polished stainless steel jaws with a standard step-jaw.

- 152-PLR-747..... 6 oz..... 10.00

SONORA PLIERS

The Sonora line offers a new feel in pliers, with a textured, non-slip grip that will make your work a lot easier. Sonora pliers have box joints and are made of highly polished, stainless steel that will remain rust free. A real value for the money.



- CHAIN NOSE
150-PLR-260..... 6 oz..... 11.65



- BENT CHAIN NOSE
150-PLR-264..... 6 oz..... 11.65



- FLAT NOSE
150-PLR-262..... 6 oz..... 11.65



- ROUND NOSE
150-PLR-261..... 6 oz..... 11.65



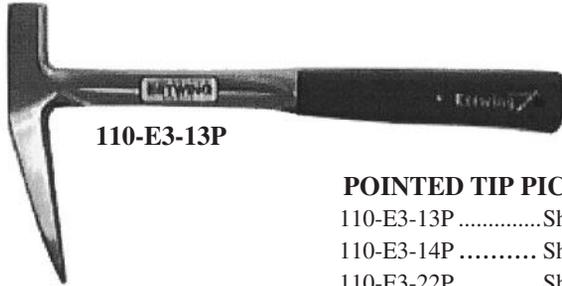
- SIDECUTTER
150-PLR-265..... 6 oz..... 12.55

Estwing GEOLOGICAL TOOLS

PROUDLY MADE IN THE USA

Estwing has been making high quality tools since 1923. These picks and hammers combine steel construction with top quality engineering. The E3-14P and E3-12BL picks are light enough for kids. The E6-24PC has a 50% larger face. Cushioned grips provide comfortable use in extreme heat or cold weather conditions. E-30 comes with leather grip. All other tools have nylon-vinyl grips.

NOTE: ESTWING TOOLS NOT AVAILABLE FOR SHIPMENT OUTSIDE THE USA AND CANADA.



110-E3-13P

POINTED TIP PICKS

110-E3-13P	Shp wt. 2 lbs.	27.60
110-E3-14P	Shp wt. 2 lbs.	33.20
110-E3-22P	Shp wt. 3 lbs.	34.30
110-E-30	Shp wt. 3 lbs.	38.40
110-E3-23LP	Shp wt. 3 lbs.	38.10



110-E3-23LP



110-E-30



BELT SHEATH FOR POINTED TIP PICKS

110-23

Shp wt. 8 ozs. 5.60

CHISEL EDGE PICKS

110-E3-12BL	Shp wt. 2 lbs.	32.85
110-E3-20BLC	Shp wt. 2 lbs.	34.05
110-E3-24BLC	Shp wt. 3 lbs.	36.00
110-E6-24PC	Shp wt. 3 lbs.	42.00



110-E3-12BL



110-E6-24PC



BELT SHEATH FOR CHISEL EDGE PICKS

110-24

Shp wt. 8 ozs. 5.60

GEO-PALEO PICK

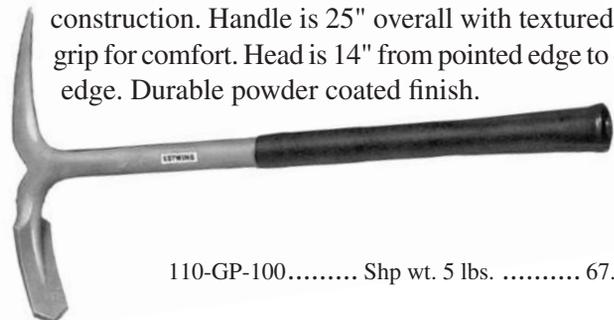
THE GEO/PALEO PICK - is an improved version of the former HOE-PICK. The Geo-Paleo Pick has all steel construction. Handle is 25" overall with textured vinyl grip for comfort. Head is 14" from pointed edge to chisel edge. Durable powder coated finish.



CHIPPING HAMMERS

110-E3WC

Shp wt. 2 lbs. 28.10



110-GP-100.....

Shp wt. 5 lbs. 67.40

ESTWING CRACK HAMMERS



- 110-B3-2LB Shp wt. 3 lbs 30.50
- 110-B3-3LB Shp wt. 4 lbs 30.50
- 110-B3-4LB Shp wt. 5 lbs 34.35
- 110-B3-4LBL..... Shp wt. 5 lbs 35.90

ESTWING CHISELS

These geological chisels are forged in one piece with a new unbreakable polymer cap and an oil resistant cushion grip. It provides 2 ½ times the striking surface of a standard chisel and reduces shock and sound over 80%. Grip allows comfortable use in both extreme heat and cold weather conditions. Made in USA.



For digging out pockets, vinyl cushion grip, ½" x 12".

- 110-ERC-12 Shp wt. 10 ozs 18.15



For wedging & prying, vinyl cushion grip, 5/8" x 9".

- 110-ERC-9 Shp wt. 2 lbs 17.95

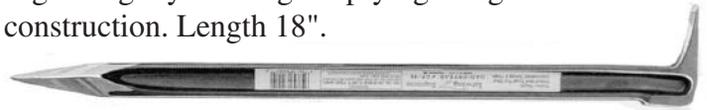


For splitting, vinyl cushion grip, 1 ¼" x 8".

- 110-ERC-8 Shp wt. 2 lbs 18.20

ESTWING GAD PRY BAR

Lightweight yet strong for prying. Forged I beam construction. Length 18".



- 110-GP-18..... Shp wt. 2 lbs..... 38.00



CLEAR SAFETY GOGGLES
Soft vinyl frame (supplier varies).
101-GOGGLE..... 2 ozs. 3.95

TREASURE SCOOP

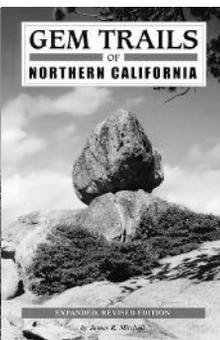
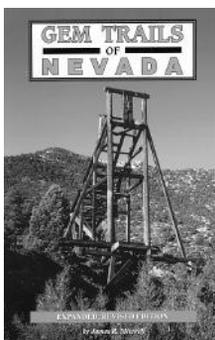
The Treasure Scoop is a great tool for rockhounding and beachcombing. Use to scoop up rocks and other treasures without bending over. Lightweight, sturdy, cast aluminum. Comes in two lengths. Makes great walking or balancing stick. Imported.

- 111-TS-36 36" handle.....shp. wt. 2 lbs. 44.95
- 111-TS-42 42" handle.....shp. wt. 2 lbs. 46.95



Gem Trails of Nevada

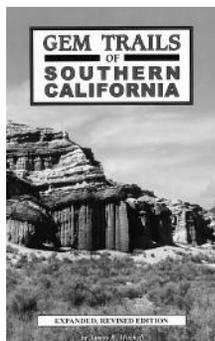
Mitchell. Agate, carnelian, fossils, garnets, geodes, wood and obsidian are just a few of the minerals covered. Lists 75 sites with detailed maps and photos. 224 pages.
240-418 13 oz. 12.95

**Gem Trails of Northern California**

Mitchell. Complete guide to Northern California. This guide features sites from the Oregon border south to San Luis Obispo. Includes color photographs that showcase the specimens that can be found in this area. Detailed text and maps make locating collecting areas easy. 192 pages..
240-441 13 oz. 19.95

Gem Trails of Texas

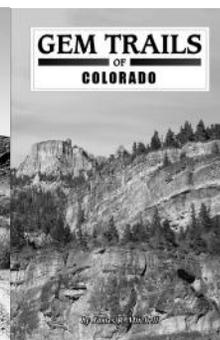
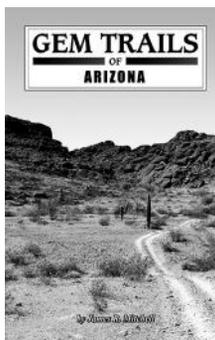
Cross. Newly revised and updated. 52 collecting sites mapped in detail and subdivided into 6 geographic regions. Tells you what can be collected, best seasons, road difficulty and GPS coordinates. Color inserts. 176 pages
240-405 13 oz. 14.95

**Gem Trails of Southern California**

Mitchell. The newest and most definitive guide to over 70 collecting sites for gems, minerals and fossils in Southern California. Maps, text and B/W locale photos lead the way. Includes vivid color photos of specimens that will excite and generate anticipation of great finds. 224 pages.
240-442 15 oz. 15.95

Gem Trails of Arizona

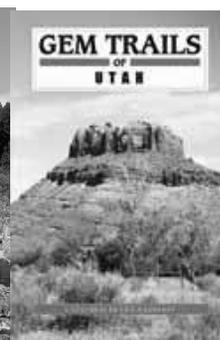
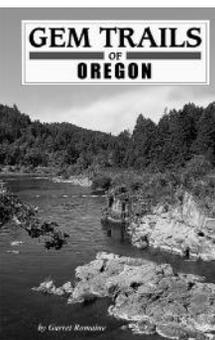
Mitchell. Over 100 collecting sites and GPS coordinates with clear maps and photographs. Color photos show specimens to be found. Over 272 pages.
240-401 1 lb 4 oz. 14.95

**Gem Trails of Colorado**

Mitchell. Features over 90 collecting locations. Detailed directions and a map for each collecting site lead you to over 80 different minerals plus fossils in the Centennial state. Color photographs aid in specimen identification. Includes information about local museums, and tours make this an ideal travel and collecting guide for rockhounds. 224 pages.
240-419 15 oz. 12.95

Gem Trails of Oregon

Romaine. Revised and Updated. Includes over 100 collecting locations. Each site has detailed driving directions, a map, GPS coordinates, photo and listing of nearby attractions. 272 pages.
240-404 1 lb. 16.95

**Gem Trails of Utah**

Mitchell. This guide has been revised and expanded and now contains over 90 sites. Each site includes driving directions and maps, photos and site descriptions. Photos highlight the collecting areas and a special color section will aid in identifying the specimens you find. 168 pages.
240-406A 1 lb. 12.95

Gem Trails of Idaho & Western Montana

Ream. This long awaited guide features 99 of the best collecting sites in the Gem State and Western Blue Sky State. 256 pages.
240-411 1 lb. 16.95

Gem Trails of New Mexico

Mitchell. This expanded edition includes over 100 collecting sites throughout the state. From mountain vistas to desert valleys you will experience New Mexico's scenic grandeur while searching for rocks, minerals and fossils. This guide includes GPS coordinates, road conditions, required tools, and nearby attractions. Each site has detailed directions, site map and information on what you may find there.
240-403 1 lb 4 oz. 14.95

Rockhound Guide Series.

Informative guides to collecting sites, featuring maps, detailed directions, advice on field techniques and collecting and preparing specimens..

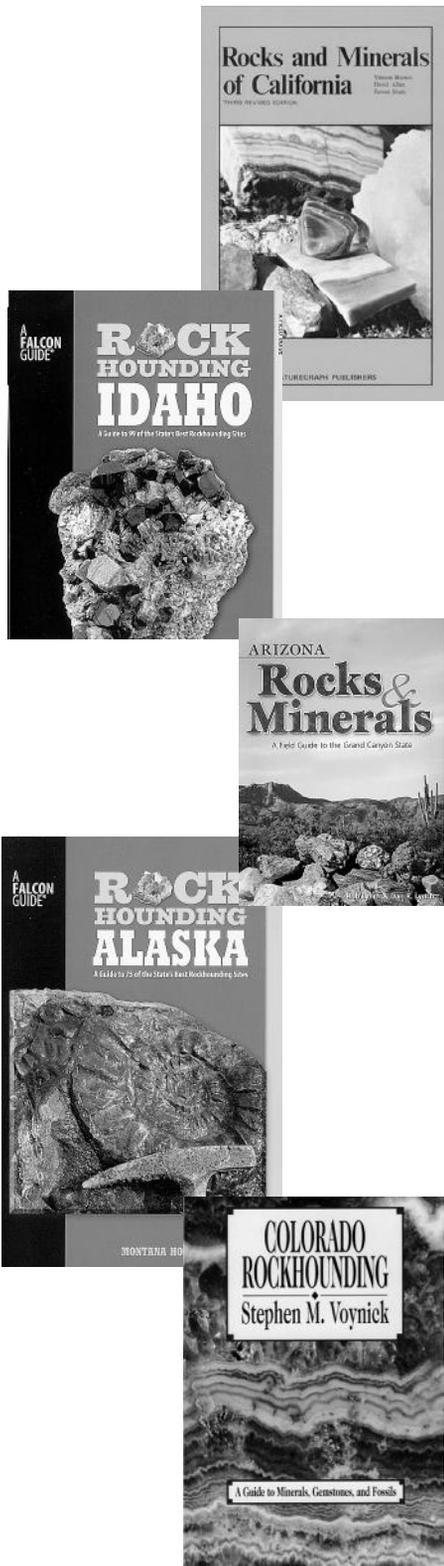
- Rockhounding Alaska, Hodges. 222 pgs..
242-4441 lb. 16.95
- Rockhounding Arizona, Blair. 220 pgs.
242-4661 lb. 18.95
- Rockhounding California, Butler 228 pgs.
242-4431 lb. 16.95
- Rockhounding Colorado, Kappele. 243 pgs.
242-4721 lb. 19.95
- Rockhounding, Idaho, Romaine 254 pgs.
242-4451 lb. 18.95
- Rockhounding Montana, Feldman. 232 pgs.
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- Rockhounding Nevada, Kappele, 240 pgs.
242-4671 lb. 16.95
- Rockhounding New Mexico, Vaskys & Freed.
260 pgs.
242-4911 lb. 15.95
- Rockhounding PA & NJ, Beard. 304 pgs
242-7001 lb. 16.95
- Rockhounding Utah, Kappele, 180 pgs.
242-4701 lb. 19.95
- Rockhounding Wyoming, Graham, 158 pgs.
242-4711 lb. 19.95

Audubon Field Guide To Rocks and Minerals: North American

Chesterman. 750 color plates are cross referenced to detailed descriptions of field patterns and rock locations. Excellent and comprehensive. 850 pages.
240-305 2 lbs. 22.95

Peterson Field Guide To Rocks and Minerals

Pough. Detailed descriptions of 270 minerals: geographic distribution, physical properties, chemical composition, crystalline structure and more. Portable format, color photos. 320 pages.
240-485 1 lb. 20.00



Agates: Treasures Of The Earth

Pabian, Jackson, Tandy and Cromartle. The agate is one of the world's most strikingly beautiful semi-precious gems. It draws collectors worldwide. This guide is illustrated with full color photos and includes worldwide listings of where to find agates. Hard cover, 192 pages.
240-360 1 lb. 19.95

Rocks and Minerals of California

Brown, Allan, Stark. Revised edition. Illustrations, color photos, and maps make this a handy reference book. Also provides listing of minerals along with the US topo maps on which they can be found. 200 pages.
240-413 1 lb. 13.95

Arizona Rocks & Minerals: A Field Guide to Arizona

Lynch. This handy durable book features photos that depict the detail needed for identification. Learn about and identify the rocks and minerals you'll find in Arizona. 252 pages.
240-481 1 lb. 14.95

Colorado Rocks & Minerals: A Field Guide to the Centennial State

Lynch. This handy guide includes full color photos and comprehensive facts for 115 rocks and minerals. Easy to use format. 280 pages
240-461 1 lb. 14.95

Colorado Rockhounding

Voynick. The "Bible" of Colorado Rockhounds. Covers more than 350 collecting sites, with an overview of the state's geologic origins and mining history. County-by-county guide illustrated with maps and B/W photos. 392 pages.
240-462 1 lb. 20.00

Michigan Rocks & Minerals

Lynch. An incomparable field guide to 96 of Michigan's rocks and minerals. Full color photos and details for identifying and collecting. 256 pgs
240-600 1 lb. 14.95

Minnesota Rocks & Minerals

Lynch. An incomparable field guide to 90 of Minnesota's rocks and minerals. Full color photos and details for identifying and collecting. 232 pgs
240-602 1 lb. 14.95

Washington & Oregon Rocks & Minerals

Lynch. Full color guide to 124 rocks and minerals of Washington and Oregon that can be found in the Evergreen and/or Beaver states. Includes regional maps. 320 pgs..
240-601 1 lb. 14.95

DK Smithsonian Rock and Gem: The Definitive Guide to Rocks, Minerals, Gems and Fossils

Displays every feature of the Earth's geologic splendor. Striking visual profiles for accurate identification. Advice on how to cut, polish and display objects. 360 page 240-436 2 lbs. 24.95

Simon & Schuster's Guide to Gems and Precious Stones

Lyman. Over 450 full-color photos and comprehensive entries on the major gems and precious stones of the world. 384 pgs. 240-301 1 lb. 17.99

Golden Guides

Handy reference guides to add pleasure and knowledge to your hobby. 4" x 6" size makes them easy to take along on field trips. All have color illustrations. Clear, concise descriptions written by experts. Average 160 pages.

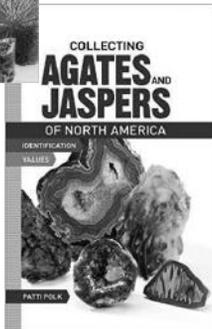
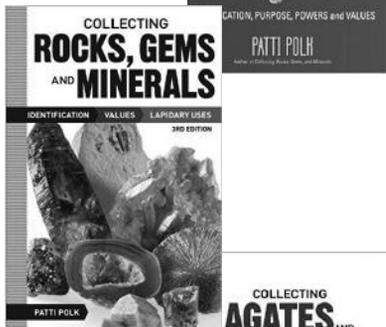
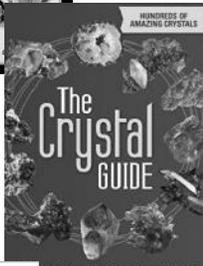
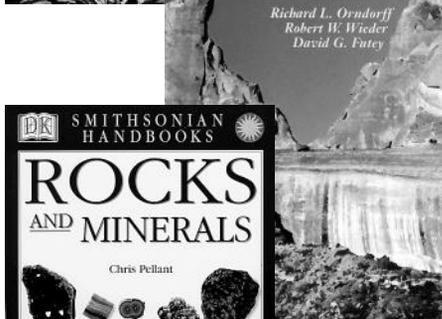
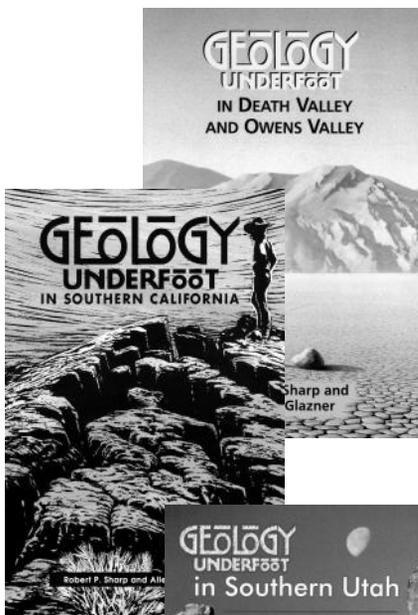
Rocks and Minerals

240-414 6 oz. 6.95

Gold Prospectors's Handbook

Black. Geological background, dynamics of stream flow, how to pan for gold, and what tools to use. Non-technical but advanced book for the prospector. 176 pages.

240-506 1 lb. 12.95



Geology Underfoot Series

A hands-on series about getting out of your car and out among the rocks and landforms. Will inform and entertain you, regardless of your knowledge level of geology.

- Death Valley and Owens Valley** - 325 pgs 240-181 1 lb. 20.00
- Illinois** - 306 pgs 240-182 1 lb. 20.00
- Northern Arizona** - 324 pgs 240-183 1 lb. 18.00
- Southern California** - 224 pgs 240-184 1 lb. 14.00
- Southern Utah** - 292 pgs 240-185 1 lb. 20.00
- Yosemite National Park** - 304 pgs 240-186 1 lb. 24.00

DK Smithsonian Books

Designed for beginners and experienced collectors alike, these field guides make identification of individual specimens sure, simple and straightforward. Each entry has a full color illustration as well as color-coded bands that provide at-a-glance facts for quick reference. Easy to use and beautiful to look at, this series is an invaluable resource for every collector. Soft Cover, 5 3/4" x 8 1/2".

Handbook of Rocks and Minerals

Pellant 256 pages 240-438 1 lb 8 oz 22.00

Simon & Schuster's Guide to Rocks and Minerals

Prinz, Harlow, Peters. Includes over 1000 illustrations, 600 in full color. Contains precise information on appearance, classification and formation on rocks and minerals. 608 pages.

240-300A 1 lb. 20.00

Crystal Guide

Patti Polk. 400+ delightful color photos Use and care of crystals. Tips for locating, buying, and collecting.

240-722 1lb. 19.99

Collecting, Rocks, Gems & Minerals

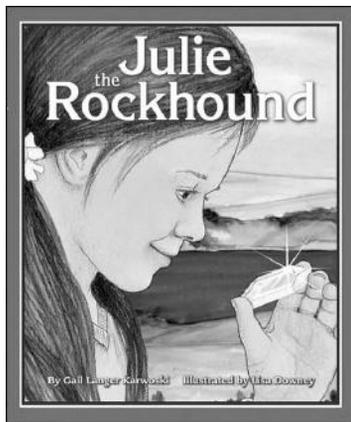
Patti Polk. Values and tips for locating, buying and collecting. Both lapidary and mineral display materials. 800+ beautiful color photographs

240-721 1lb 7 oz. 19.99

Collecting, Agates & Jaspers

Patti Polk. The only book on agates and jaspers to offer values. Featuring nearly 700 beautiful color pictures, the book provides an easy-to-use, quick reference format perfect for home and field.

240-720 1lb. 30oz. 19.99



Julie The Rock Hound

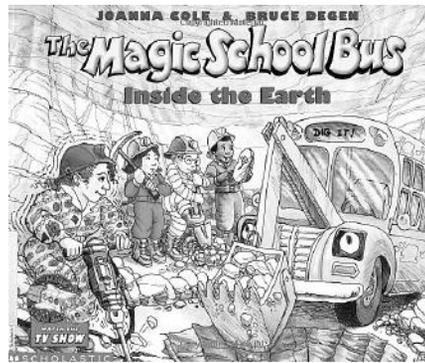
Karwoski. The perfect rock book for girls! When a young girl finds a shiny quartz crystal, her dad shows her how to dig for more specimens, and she takes on a new name, Julie the Rock Hound. Includes section that describes the different types of rocks and how they are formed. For ages 5-9. 32 pgs
 240-820 8 oz..... 9.95

DK Eyewitness Books

For beginning naturalists ages 10 and up. Hundreds of color photos and illustrations and full color wall chart. Softcover 72 pages.

Eyewitness Rocks and Minerals

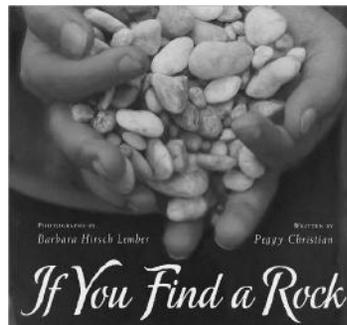
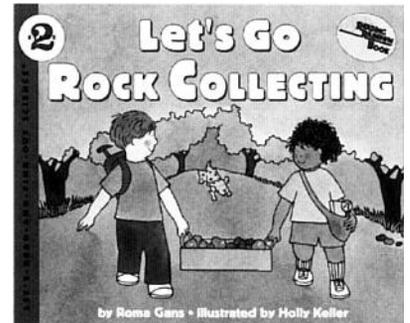
240-432 1lb. 4 oz..... 9.99



The Magic School Bus: Inside the Earth
 Cole. Follow the Magic Bus to a journey inside the earth. Filled with interesting illustrations and dialog on information every kid should know about the Earth's physical make up. 40 pgs.
 240-823 8 oz..... 6.99

Let's Go Rock Collecting

Gans. Easy-to-understands text introduces children ages 5 to 9 to rocks, how they are formed, what they are made of, and how they are used. Original color artwork and color photos. 32 pages.
 240-854 1 lb..... 5.99



If You Find a Rock

Christian. Children can discover the joy of rock hunting. This beautifully photographed and hand-tinted book celebrates the variety of rocks that can be found, including skipping rocks, chalk rocks and splashing rocks. Ages 6-9 160 pgs.
 240-818 1 lb..... 7.99

Playing Cards

Play cards and learn about the world around you at the same time.

Rocks and Minerals Playing Cards

Features 52 of the most common and most sought after specimens found in the United States.
 240-250 Rocks & Minerals.. 1oz.... 5.95

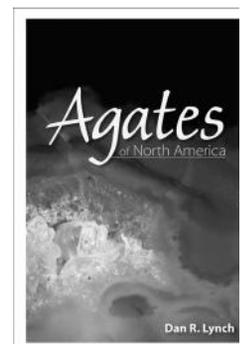


Agates of Lake Superior Playing Cards. Feature 13 different agates from this area.

240-251 Agates 1oz..... 5.95

Agates of North America Playing Cards

Features 52 of the most famous, valuable and rarest agates from the United States, Canada and Mexico
 240-290 Agates N. America. . 1oz. 5.95



Cabochon Cutting

Cox. Illustrations, photos, and detailed instructions will tell and show you how to cut a cabochon. Everything to start you on your way to expert cutting.

240-226 6 oz. 6.00



How to Tumble Polish Gemstones

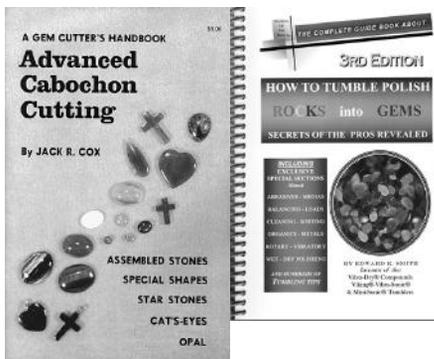
Wexler. Step-by-step instructions for turning pebbles and rough stones into sparkling jewels. A guide to the type of tumbling equipment available and how to use it. 32 pages.

240-231 6 oz. 6.95

Advanced Cabochon Cutting

Cox. Learn how to master special shaped cabochon cutting, assembled stones, star stones and cat's eyes. Special sections on opal and jade. 64 pages of detailed, illustrated text.

240-227 6 oz. 6.00



How to Tumble Rocks Into Gems—Secrets of the Pros Revealed

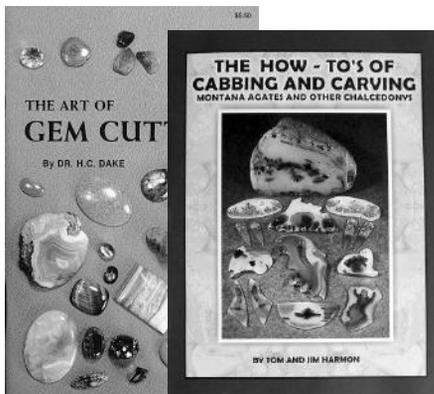
Smith. A guide to tumble-polishing rough rock into finished gemstones. Covers basic types of equipment, selecting materials, fillers, abrasives, etc. along with steps in processing. Covers stone and metal polishing in rotary and vibratory type tumblers. Illustrated with charts - Easy-to-follow style.

240-236 8 oz 22.20

The Art of Gem Cutting

Dake. Teaches how to buy rough stones, cut the gems, choose the right equipment, and how to properly use the equipment. Gets you started on the right path into the hobby of gem cutting. 96 pages.

240-246 6 oz. 6.95



The How-To's of Cabbings and Carving Montana Agates and Other Chalcedony's

Harmon. Learn how to turn raw agates into beautiful cabochons and carvings. Step by step in full color. Shows tools used for each step of the process. 46 pages

240-239 6 ozs. 10.00

Genie Video Guide For new owners of a Genie and old pros as well. This new DVD contains a wealth of information about the use and care of The Genie Gem-Maker. Covers such subjects as machine setup, break-in and wheel replacement, pump trouble-shooting, maintenance, and use of the Genie in the lapidary process. Professionally produced, informative and easy to follow. Contains over 80 minutes of useful technical information.

240-248 1 lb. 29.95

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ORDER & SHIPPING INFORMATION

Use any one of these easy ways to order:

✓ **By toll free phone**
(USA and CANADA)

1-800-253-2954

International

1-760-255-1030

✓ **By fax**

1-760-255-1077

Fax your order any time of day or night.

✓ **By mail**

Simply fill out our handy order form or your own purchase order and send it to our mailing address below.

OUR BUSINESS HOURS

OFFICE: 8:00 A.M. – 5:00 P.M. Pacific time.
(GMT -8:00) Monday–Friday.

To order, check on a previous order or for other inquiries, please call during the hours above. Office closed Saturday and Sunday.

RETAIL SHOP: 9:00 A.M. – 4:30 P.M. Monday–Friday.
Saturday, 9:00 A.M. – 3:00* P.M.

*We close on holidays, and the Saturday preceding Monday holidays, and sometimes early other days. If you are coming from out of town, please call to make certain we will be open, or to make an appointment.

OUR ADDRESSES

MAILING ADDRESS: For all correspondence, remittances and orders.

2620 W. Main St.
Barstow, CA 92311

SHIPPING AND PLANT LOCATION:

Please send all returns, etc. by UPS to our plant location:

2620 W. Main St.
Barstow, CA 92311

EMAIL: info@diamondpacific.com

HOW TO ORDER

State catalog number, item description and size when applicable. Also state year (or year purchased) and model type of machine when ordering replacement parts as some parts vary slightly from model to model.

DEALERS

Please write or call for dealer information.

PRICES

All prices subject to change without notice. **Items will be invoiced at current prices.** We reserve the right to correct any errors in this catalog.

MINIMUM ORDER FEE

Orders under \$20.00, including orders for spare parts, will be charged a \$2.00 service fee in addition to shipping and processing fees.

SPECIAL ORDER FEE

For special order items not manufactured by Diamond Pacific there will be a \$10.00 Special Order fee in addition to shipping and processing charges.

PAYMENT

Payment must accompany order. When sending payment with your order please allow enough to cover shipping and processing charges. We do honor Visa, Master Card, Discover Card, and American Express. Send your card number, expiration date, and your signature when ordering by mail if you wish to use a credit card. California residents must add sales tax.

SHIPPING CHARGES

To determine your shipping and processing charges, you will need to find your Zone by consulting the Official Zone Chart on page V. Then use the chart on page VI to find the shipping charge in your zone column for the weight of your order. Use the next full pound for fractions of a pound. Rates on this chart do include insurance coverage up to \$25,000. Shipping charges listed on page VI are subject to change without notice. Large equipment will be shipped via truck freight prepaid and billed to your invoice. For assistance with freight charges on large equipment please call our toll free customer service number, 1-800-253-2954.

USA ORDERS

We generally ship United Parcel Service or Fed Ex Ground Services whenever possible. Include your complete shipping address along with your mailing address and phone number. UPS/FEDEX will not deliver to a post office box.

If you require parcel post, please advise us. Parcel Post or other special services may incur additional charges.

SPECIAL AIR SERVICE*

Please call for quotes if you wish air service. We ship UPS Next Day, 2nd Day or 3 Day within the USA.

NOTE: We cannot ship adhesives via Air Freight.

ORDER & SHIPPING INFORMATION

CANADIAN ORDERS*

We ship UPS to those Canadian areas having that service, otherwise, orders weighing less than 66 lbs. will be shipped parcel post. Heavier orders will be shipped truck freight. **ORDERS CANNOT BE SHIPPED COD INTO CANADA.**

FOREIGN ORDERS*

We ship parcel post on orders below the weight limits for your country, and air or ocean freight collect on heavier orders. Generally, air freight is the best way. Please include complete shipping instructions. Fed Ex, UPS, or other air services are available to most countries. Brokerage and Customs fees are the responsibility of the Customer. We do not have any information on these charges; they are incurred at your country's Port of Entry.

* Foreign orders must have phone number for freight companies to contact. No orders accepted without phone number.

*** NOTE: We cannot ship adhesive products to Canada or elsewhere outside the USA. Also, we cannot ship these products within the USA via air freight.**

DELIVERY, BACK ORDERS, AND SHORTAGES

Orders for standard catalog items are generally packed within 3-5 business days and shipped by ground carrier. Allow sufficient transit time from our factory to your destination when estimating delivery time.

For large quantities, special order or modified items, please call for prices and delivery time. Orders may be shipped in two or more cartons, and will be marked that way on the carton. If all cartons are not received within 3-4 working days please call customer service. For shortages in complete shipments, contact Customer Service immediately and provide the invoice number as shown on the packing slip.

Be sure to examine the contents and packing material carefully for small items that may have been missed during the unpacking of the parcel.

If an item is not available for shipment within the delivery time, it will be back ordered and shipped as soon as possible by ground carrier. Back ordered items will be indicated on the shipment's packing list.

Our back order policy does not apply to International shipments because of shipping restrictions. These items should be added to your next order.

RETURN OF MERCHANDISE

Any merchandise received that is not satisfactory may be returned to us within ten days of receipt for full refund of **purchase price of item only**, provided merchandise is returned in its ORIGINAL CONDITION and shipping is prepaid. Insure the items for full value as we cannot be responsible for loss or damage in return transit. Any item returned after the 10 days may not be accepted for refund and will be subject to a 20% re-stocking fee.

OFFICIAL ZONE CHART

This chart shows the zone from Barstow, California, for your ZIP Code. To use the chart find your ZIP Code Prefix (the first three numbers of your ZIP Code). Your delivery

ZONE from Barstow is shown to the right of the prefix. To determine the estimated shipping costs use the standard shipping/processing chart on the next page.

ZIP CODE PREFIX	UPS ZONE														
004-306	8	399	8	492	8	565	6	636-639	7	700-709	7	797-799	5	865-874	4
307	7	400-402	7	493-495	7	566-567	7	640-649	6	710-711	6	800-812	5	875-877	5
308-324	8	403-418	8	496-497	8	570-576	6	650-652	7	712-716	7	813-815	4	878-879	4
325	7	420-424	7	498-499	7	577	5	653	6	717-719	6	816-832	5	880-885	5
326-349	8	425-426	8	500-503	6	580-588	6	654-655	7	720-725	7	833	4	889-892	3
350-362	7	427	7	504	7	590-591	5	656-676	6	726-738	6	834-838	5	893-898	4
363	8	430-459	8	505	6	592-593	6	677-679	5	739	5	840-847	4	900-935	2
364-367	7	460-469	7	506-507	7	594	5	680-689	6	740-768	6	850-851	3	936-939	3
368	8	470	8	508-516	6	595	6	690	5	769	5	852	4	940-961	4
369-375	7	471-479	7	520-559	7	596-599	5	692	6	770-789	6	853-854	3	970-975	5
376-379	8	480-489	8	560-562	6	600-634	7	691-692	6	790-794	5	855-860	4	976	4
380-397	7	490-491	7	563-564	7	635	6	693	5	795-796	6	863-864	3	977-994	5

Please Note →

DAMAGE IN SHIPMENT

Open your packages upon receipt. **SAVE ALL PACKING AND CARTONS UNTIL YOU ARE CERTAIN MERCHANDISE IS NOT DAMAGED.** Any adjustment for damage to merchandise in shipment must be made to the carrier.

If there is any visible damage at time of delivery, the carrier must make note of this on receipt. In case of concealed damage discovered after unpacking, contact the delivery carrier immediately and request an inspection. **SAVE ALL PACKING AND CARTONS.**

SHIPPING AND PROCESSING CHARGES*

To determine your shipping and processing charges, you will first need to find your Zone by consulting the Official Zone Chart on page V. Then find the shipping charge in your Zone column

for the weight of your order. Use the next full pound rate for fractions of a pound.

* See page V for complete information

We will bill at current shipping charges.

Lbs	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Lbs	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
1	\$10.86	\$11.30	\$11.77	\$12.10	\$12.51	\$12.75	\$12.83	76	\$52.97	\$62.51	\$68.61	\$86.43	\$103.42	\$120.98	\$132.66
2	\$11.20	\$11.97	\$12.61	\$12.82	\$13.09	\$13.75	\$14.92	77	\$54.99	\$63.95	\$70.18	\$87.47	\$104.06	\$123.23	\$132.87
3	\$11.22	\$11.99	\$12.63	\$13.10	\$13.59	\$15.73	\$18.69	78	\$56.68	\$65.16	\$71.64	\$88.39	\$104.90	\$125.20	\$132.95
4	\$11.24	\$12.01	\$12.66	\$14.41	\$16.42	\$17.56	\$20.01	79	\$58.69	\$67.16	\$73.48	\$89.68	\$106.32	\$125.92	\$133.95
5	\$11.26	\$12.03	\$12.77	\$15.06	\$17.35	\$19.13	\$20.97	80	\$60.26	\$69.07	\$75.17	\$90.92	\$108.05	\$127.05	\$134.89
6	\$11.55	\$12.21	\$13.24	\$16.10	\$19.13	\$20.94	\$22.99	81	\$61.66	\$70.26	\$76.90	\$91.56	\$109.48	\$128.80	\$135.28
7	\$11.99	\$12.90	\$14.54	\$17.67	\$19.65	\$21.73	\$23.95	82	\$63.68	\$71.87	\$78.71	\$93.20	\$110.39	\$130.44	\$135.88
8	\$12.51	\$13.55	\$14.93	\$18.79	\$20.17	\$22.46	\$25.25	83	\$65.49	\$73.35	\$80.38	\$93.74	\$111.77	\$132.22	\$137.42
9	\$12.72	\$13.94	\$15.28	\$20.16	\$20.52	\$24.12	\$26.53	84	\$67.47	\$75.11	\$82.02	\$95.49	\$113.38	\$133.79	\$138.93
10	\$13.27	\$14.17	\$15.75	\$20.90	\$23.71	\$25.72	\$29.80	85	\$69.28	\$76.95	\$83.60	\$96.98	\$115.07	\$135.19	\$140.45
11	\$13.77	\$14.45	\$16.20	\$21.38	\$25.89	\$28.57	\$33.02	86	\$71.21	\$78.68	\$85.29	\$98.62	\$116.41	\$136.36	\$141.94
12	\$14.18	\$14.71	\$16.31	\$22.86	\$27.45	\$32.04	\$35.82	87	\$73.24	\$80.50	\$87.18	\$99.84	\$117.91	\$137.73	\$143.48
13	\$14.41	\$15.44	\$16.40	\$23.17	\$28.71	\$34.27	\$38.46	88	\$75.56	\$82.30	\$88.83	\$101.37	\$119.38	\$139.14	\$145.02
14	\$14.75	\$15.57	\$17.14	\$24.10	\$30.32	\$36.17	\$41.00	89	\$78.19	\$83.79	\$90.51	\$102.91	\$120.85	\$140.51	\$146.60
15	\$15.11	\$15.97	\$17.38	\$24.48	\$31.92	\$38.19	\$43.54	90	\$80.72	\$85.17	\$91.82	\$103.58	\$121.42	\$140.79	\$148.06
16	\$15.50	\$17.26	\$19.17	\$25.19	\$33.19	\$39.62	\$45.40	91	\$80.74	\$85.20	\$91.85	\$103.60	\$121.43	\$140.81	\$148.08
17	\$16.30	\$17.42	\$19.33	\$25.99	\$35.04	\$41.84	\$47.74	92	\$80.82	\$85.22	\$91.87	\$103.62	\$121.45	\$140.84	\$148.10
18	\$16.56	\$17.85	\$19.69	\$28.20	\$36.59	\$43.68	\$50.24	93	\$82.71	\$86.53	\$93.13	\$103.64	\$121.47	\$140.87	\$148.13
19	\$16.93	\$18.39	\$19.83	\$29.59	\$38.25	\$45.62	\$52.69	94	\$84.65	\$87.99	\$94.41	\$104.78	\$121.74	\$140.88	\$148.15
20	\$17.20	\$18.95	\$20.48	\$30.82	\$40.00	\$47.52	\$55.29	95	\$86.56	\$89.36	\$95.83	\$106.14	\$122.56	\$140.90	\$148.17
21	\$17.49	\$19.91	\$22.59	\$32.14	\$41.75	\$49.48	\$57.60	96	\$88.42	\$90.86	\$97.39	\$107.32	\$123.27	\$140.92	\$148.57
22	\$17.86	\$20.30	\$23.90	\$33.13	\$43.58	\$51.48	\$59.97	97	\$90.39	\$92.53	\$98.84	\$108.91	\$124.70	\$140.94	\$150.07
23	\$18.07	\$21.47	\$24.66	\$35.92	\$45.32	\$53.33	\$62.47	98	\$92.36	\$94.03	\$100.68	\$110.22	\$126.07	\$140.97	\$151.51
24	\$18.41	\$21.98	\$25.44	\$37.25	\$47.11	\$55.26	\$65.07	99	\$94.35	\$95.44	\$102.52	\$111.57	\$127.49	\$140.99	\$153.00
25	\$19.27	\$22.53	\$27.03	\$38.35	\$48.81	\$57.07	\$67.52	100	\$96.05	\$96.95	\$104.37	\$113.18	\$128.85	\$142.10	\$154.48
26	\$21.32	\$24.59	\$28.78	\$39.59	\$50.66	\$58.88	\$69.80	101	\$97.64	\$98.48	\$106.24	\$114.74	\$130.20	\$143.42	\$155.89
27	\$22.99	\$26.32	\$29.76	\$40.89	\$52.45	\$61.40	\$72.15	102	\$98.60	\$99.88	\$107.42	\$116.19	\$131.51	\$144.72	\$157.37
28	\$23.84	\$27.14	\$30.56	\$42.22	\$54.10	\$62.54	\$74.60	103	\$100.27	\$101.37	\$108.72	\$117.33	\$132.73	\$145.95	\$158.73
29	\$24.53	\$28.15	\$31.32	\$43.25	\$55.47	\$63.92	\$75.76	104	\$101.85	\$102.83	\$109.98	\$118.55	\$133.95	\$147.18	\$160.20
30	\$25.27	\$28.55	\$32.15	\$44.56	\$57.37	\$66.36	\$77.69	105	\$103.47	\$104.30	\$111.19	\$119.74	\$135.20	\$148.46	\$161.58
31	\$26.15	\$29.89	\$33.87	\$45.78	\$58.77	\$68.04	\$80.38	106	\$105.11	\$105.80	\$112.44	\$120.92	\$136.42	\$149.73	\$163.02
32	\$26.59	\$30.57	\$35.79	\$47.05	\$60.58	\$69.81	\$82.78	107	\$106.59	\$107.39	\$113.67	\$122.14	\$137.61	\$151.05	\$164.47
33	\$26.95	\$31.12	\$37.66	\$47.96	\$62.07	\$71.59	\$84.95	108	\$108.06	\$108.86	\$114.94	\$123.32	\$138.84	\$152.36	\$165.87
34	\$27.29	\$31.83	\$39.17	\$49.59	\$63.72	\$73.38	\$87.22	109	\$109.59	\$110.35	\$116.18	\$124.51	\$140.04	\$153.62	\$167.34
35	\$27.59	\$32.49	\$40.45	\$50.72	\$65.23	\$75.17	\$89.44	110	\$110.91	\$111.86	\$117.46	\$125.68	\$141.39	\$154.95	\$168.75
36	\$28.33	\$34.28	\$41.51	\$51.95	\$66.73	\$76.96	\$91.33	111	\$112.11	\$113.07	\$118.72	\$126.86	\$142.55	\$156.21	\$170.54
37	\$29.18	\$35.04	\$42.67	\$53.05	\$68.16	\$78.60	\$93.04	112	\$113.28	\$114.28	\$119.98	\$128.08	\$143.77	\$157.53	\$172.35
38	\$29.77	\$35.66	\$43.98	\$54.43	\$69.59	\$80.40	\$94.68	113	\$114.32	\$115.48	\$121.26	\$129.23	\$145.00	\$158.82	\$173.78
39	\$30.38	\$36.37	\$45.00	\$55.51	\$71.74	\$82.98	\$96.58	114	\$115.64	\$116.74	\$122.58	\$130.47	\$146.26	\$160.05	\$175.21
40	\$30.72	\$36.87	\$46.17	\$56.60	\$73.12	\$84.69	\$98.12	115	\$116.83	\$118.03	\$123.92	\$131.67	\$147.42	\$161.43	\$176.58
41	\$31.00	\$37.17	\$47.01	\$57.62	\$73.98	\$86.03	\$99.43	116	\$118.03	\$119.55	\$125.16	\$132.62	\$148.39	\$162.37	\$177.65
42	\$31.25	\$38.06	\$48.38	\$58.64	\$75.10	\$87.58	\$100.99	117	\$119.21	\$120.80	\$126.41	\$133.79	\$149.59	\$163.63	\$179.09
43	\$31.59	\$39.79	\$49.84	\$59.81	\$76.46	\$89.32	\$102.72	118	\$120.38	\$122.02	\$127.73	\$135.00	\$150.78	\$164.92	\$180.44
44	\$31.80	\$40.73	\$50.47	\$60.83	\$77.77	\$91.01	\$103.79	119	\$121.62	\$123.30	\$128.99	\$136.16	\$151.99	\$166.23	\$182.73
45	\$32.05	\$41.18	\$50.97	\$61.95	\$79.04	\$92.06	\$105.47	120	\$123.68	\$124.54	\$130.35	\$137.41	\$153.20	\$167.49	\$184.18
46	\$32.40	\$41.48	\$51.52	\$63.03	\$80.26	\$93.04	\$107.14	121	\$125.00	\$125.55	\$131.65	\$138.37	\$154.19	\$168.40	\$185.22
47	\$32.66	\$41.92	\$51.99	\$64.03	\$81.38	\$94.08	\$108.82	122	\$125.84	\$126.20	\$132.91	\$139.57	\$155.35	\$169.70	\$186.71
48	\$33.01	\$42.22	\$52.50	\$65.05	\$82.51	\$95.10	\$110.53	123	\$127.13	\$127.45	\$134.26	\$140.71	\$156.56	\$170.96	\$188.16
49	\$33.30	\$42.57	\$52.91	\$66.15	\$83.57	\$96.82	\$112.16	124	\$128.29	\$128.74	\$135.64	\$141.99	\$157.80	\$172.23	\$189.54
50	\$33.48	\$42.81	\$53.26	\$66.35	\$83.92	\$97.82	\$113.80	125	\$129.54	\$130.00	\$136.93	\$143.18	\$158.98	\$173.51	\$190.98
51	\$33.99	\$43.26	\$53.77	\$66.72	\$84.65	\$99.28	\$114.41	126	\$130.80	\$131.24	\$138.26	\$144.10	\$159.91	\$174.46	\$192.10
52	\$34.53	\$43.49	\$54.13	\$67.58	\$85.46	\$100.39	\$116.08	127	\$131.98	\$132.51	\$139.61	\$145.28	\$161.13	\$175.68	\$193.47
53	\$35.13	\$43.75	\$54.49	\$68.42	\$86.13	\$101.66	\$117.73	128	\$132.20	\$133.47	\$140.93	\$146.54	\$162.29	\$176.92	\$194.94
54	\$35.61	\$44.00	\$54.84	\$69.30	\$86.74	\$103.17	\$119.22	129	\$133.45	\$134.71	\$142.26	\$147.79	\$163.54	\$178.16	\$196.37
55	\$36.05	\$44.30	\$55.17	\$70.28	\$87.18	\$104.78	\$120.56	130	\$134.71	\$135.97	\$143.53	\$148.92	\$164.67	\$179.48	\$197.81
56	\$36.30	\$44.58	\$55.46	\$71.20	\$87.45	\$105.66	\$122.02	131	\$135.99	\$137.26	\$144.97	\$149.89	\$165.58	\$180.40	\$199.79
57	\$36.40	\$44.81	\$55.81	\$72.16	\$88.36	\$106.17	\$123.18	132	\$137.29	\$138.57	\$146.29	\$151.07	\$166.78	\$181.63	\$201.20
58	\$36.99	\$45.18	\$56.11	\$72.90	\$89.29	\$106.63	\$124.11	133	\$138.57	\$139.87	\$147.64	\$152.26	\$167.95	\$182.91	\$202.62
59	\$37.51	\$45.28	\$56.43	\$73.57	\$90.08	\$107.17	\$125.10	134	\$139.82	\$141.13	\$149.05	\$153.54	\$169.21	\$184.12	\$204.11
60	\$38.03	\$45.34	\$56.99	\$74.07	\$90.88	\$107.72	\$125.86	135	\$140.88	\$142.49	\$150.37	\$154.79	\$170.54	\$185.44	\$205.54
61	\$38.60	\$45.95	\$58.00	\$74.88	\$91.65	\$108.28	\$126.62	136	\$142.07	\$143.77	\$151.76	\$156.08	\$171.90	\$186.77	\$207.02
62	\$38.98	\$46.26	\$58.72	\$75.56	\$92.26	\$108.92	\$126.91	137	\$143.32	\$145.12	\$153.15	\$157.17	\$172.87	\$187.89	\$208.46
63	\$39.75	\$46.88	\$59.69	\$76.13	\$92.85	\$109.58	\$127.16	138	\$144.62	\$146.47	\$154.64	\$158.60	\$174.53	\$189.42	\$209.86
64	\$40.12	\$47.84	\$60.57	\$76.67	\$93.45	\$110.34	\$127.42	139	\$145.92	\$147.88	\$156.06	\$159.92	\$175.85	\$190.73	\$211.31
65	\$40.68	\$48.41	\$61.37	\$77.20	\$94.26	\$110.87	\$127.69	140	\$147.21	\$149.25	\$157.45	\$161.22	\$177.24	\$192.04	\$212.77
66	\$41.18	\$49.25	\$62.27	\$77.75	\$95.17	\$111.23	\$127.91	141	\$148.50	\$150.62	\$158.97	\$162.43	\$178.27	\$193.00	\$213.81
67	\$41.83	\$49.91	\$62.99	\$77.89	\$95.93	\$111.62	\$128.15	142	\$149.12	\$152.00	\$160.38	\$163.74	\$179.54	\$194.32	\$215.24
68	\$42.35	\$50.84	\$63.73	\$78.24	\$96.29	\$111.83	\$128.41	143	\$150.43	\$153.40	\$161.84	\$165.07	\$180.91	\$195.65	\$216.68
69	\$42.93	\$51.40	\$64.37	\$78.69	\$96.62	\$112.12	\$128.61	144	\$151.75	\$154.77	\$163.32	\$166.32	\$182.25	\$196.97	\$218.09
70	\$43.41	\$51.84	\$64.66	\$78.95	\$96.79	\$112.44	\$128.81	145	\$152.28	\$156.20	\$164.80	\$167.63	\$183.62	\$198.25	\$219.54
71	\$43.57	\$56.10	\$65.00	\$80.07	\$97.04	\$114.02	\$130.52	146	\$153.59	\$157.58	\$166.23	\$168.91	\$184.92	\$199.55	\$220.92
72	\$46.28	\$57.96	\$65.95												

Dear Valued Dealers, Customers & Friends:

Wow its 2020, a new decade!!!

First and foremost I want to thank my Uncle Bill Depue for his ingenuity in creating & leading Diamond Pacific Tool Corp since 1973! As my uncle has taken a step down and is now Vice President of the company, I Don Depue have taken over as President.

The past year has brought major changes to Diamond Pacific. We have a new Corporate board of directors, computer system, telephone system, internet service and Coming soon our new upgraded website.

With change, came challenges. Many days with communication loss to all of you. I believe the bugs are worked out now and we are up and running.

We are excited to announce, we are in the process of launching our updated website at WWW.DiamondPacific.com. Along with product information & pricing, you will be able to order and pay online.

Due to me being out of work with major hip surgery and all the changes we've made, this catalog was delayed way too long and we apologize.

All of us at Diamond Pacific say thank you. We appreciate your patience and continued support.

As I complete this letter, I want to thank my dedicated and hard working staff and employees. I appreciate all your hard work.

Sincerely:

Don Depue
President

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