

DIAMOND TECH
Innovations For Creativity



BEVEL MAX™

STUDIO BEVELING SYSTEM

OPERATIONS MANUAL

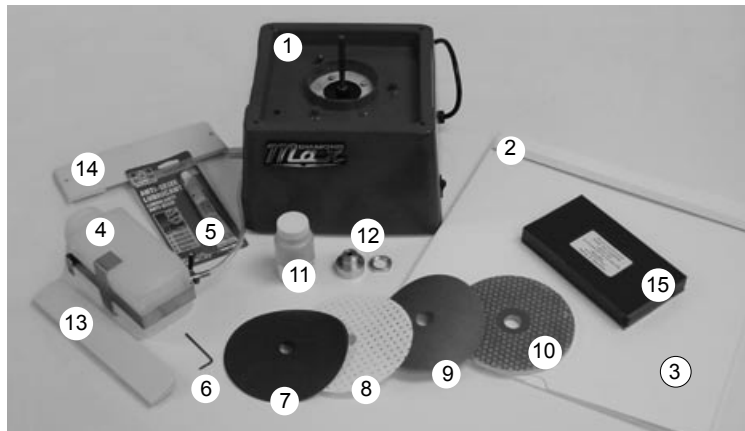
Before You Begin

Read and follow all instructions carefully.

- Your Bevel Max™ has been shipped partially assembled. Carefully unpack and ensure that you have all the pieces that come with your Bevel Max™ before initial setup.
- After unpacking all components, assemble grinder on a firm level surface to prevent grinder from tilting and rocking. Use a clean, well lit, ventilated area away from flammable vapors.
- Be sure the power switch is in the OFF position before plugging in the grinder.
- Always disconnect grinder from electrical outlet before setting up or servicing.
- Wear proper apparel. Never wear loose fitting clothes, neckties, jewelry and gloves that may get caught in moving parts. A waterproof apron is suggested.
- Always wear SAFETY GLASSES. Every day eyeglasses have only impact resistant lenses, they are not safety glasses.
- Never turn on grinder while glass or working materials are touching the disks.
- Keep out of reach of children.
- Never leave grinder running unattended. Turn power OFF when not in use.
- Do not operate while under the influence of medication or alcohol.
- To ensure top performance keep grinder properly maintained and lubricated.
- A waterproof apron is recommended.

Contents

Your Bevel Max™ Studio Beveling System has been shipped partially assembled. Carefully remove grinder and parts from package.



- | | |
|-----------------------------------|-----------------------------|
| 1) Diamond Max™ Grinder Base Unit | 9) 5 #60 Grit Grinding Laps |
| 2) Metal Splash Guard Support | 10) #180 Grit Diamond Disk |
| 3) Max Splash Guard Booth | 11) Polishing Compound |
| 4) Water Bottle and Metal Bracket | 12) Disk Holder and Nut |
| 5) Anti Seize Lubricant | 13) 15° Beveling Block |
| 6) Small Hex Wrench | 14) Splash Guard |
| 7) 5 #15 Grit Grinding Laps | 15) "How to Bevel" Video |
| 8) Polishing Pad | |

Read through the complete Assembly and Step-By-Step Procedures before using this machine. It is also recommended you view the "How to Bevel" video to become familiar with the process of creating bevels before use.

Assembly Instructions

A. Disk Installation

- 1) Remove the Disk Retaining Nut from the Disk Support Collar which is already installed on the base of the grinder shaft (Fig.1).
- 2) Using the hex wrench, loosen the screw holding the Disk Support Collar on the shaft and remove the collar (Fig.2).
- 3) Lubricate the full length of the Grinder Motor Shaft (Fig.3), as well as the inside opening of the Disk Support Collar, Disk and Disk Retaining Nut threads with a thin coat of Anti-seize. Anti-seize lubricant helps prevent these parts from seizing on the shaft and seals out ground glass particles. Anti-seize is readily available at any hardware store.
- 4) Reinstall the Disk Support Collar by aligning the flat surface of the shaft with the Collar Hex Screw and tighten.
- 5) Line up the pin hole on the bottom of the disk with the pin on the Disk Support Collar and lower the disk into place (Fig.4). Push disk down firmly to minimize disk vibration and secure by threading the Disk Retaining Nut onto the collar (Fig. 5).

B. Grinder Set-up

- 1) Place the 15° bevel block on top of the grinder base in front of you, placing the pins in the holes provided.
- 2) Place the plastic splash guard on the opposite side of the grinder base (Fig. 6).
- 3) Unfold the three-sided Max Splash Shield and place behind and along the sides of the grinder base.
- 4) Attach the white metal splash guard support on the top of the center section. Hook the water bottle bracket to the center back of the splash guard (Fig. 7).
- 5) Fill the water bottle and place in bracket. Adjust the position of the grinder or splash shield so that the nozzle hangs directly over the disk.

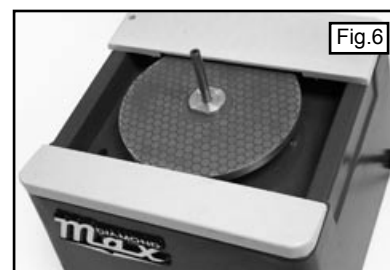
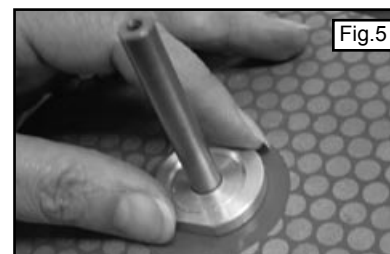
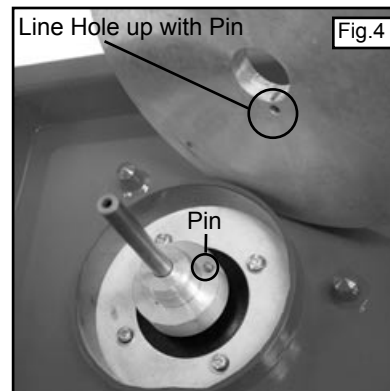
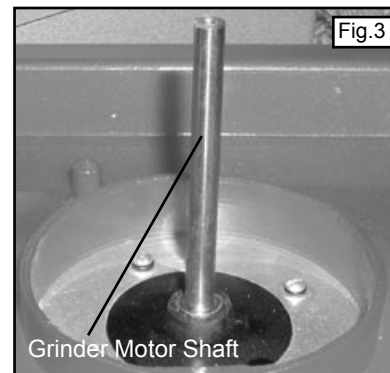
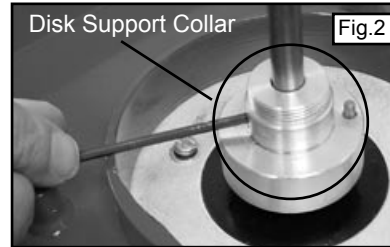
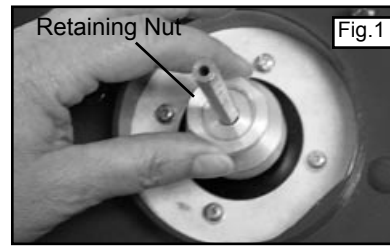
NOTE: Due to the amount of water required for beveling and polishing, it is recommended to use a large catch pan on which to place the beveler and splash shield. There will be a lot of overspray.

- 6) Be sure the water drain tube on the left side of the grinder base has a collection cup, catch pan or drain tubing attached to control the bulk of the water drainage.

Step-by-Step Procedures

A. Creating the Rough Bevel

- 1) Start with the 180 grit disk with no grinding laps on top. Rest the edge of the glass against the 15° bevel block, touching the disk. Hold glass in this position with both hands. Using a light but steady stream of water, turn beveler on and begin grinding the glass using moderate pressure. As the bevel takes shape, begin decreasing the pressure and move the bevel in a clockwise motion. This will minimize the deeper scratches. *NOTE: Always grind and polish glass on the right side of the disk (Fig. 8).*



Step-by-Step Procedures *continued*

B. Smoothing

- 1) After the bevel is shaped to the desired angle, turn off the water and beveler. Remove the retaining nut from the disk holder and place the 60 grit lap on top of the disk. Reinstall the retaining nut.
- 2) Using a light, steady stream of water, turn on the beveler and begin removing the grind marks from the glass surface. Slowly decrease pressure as you go over the beveled edge and move glass in a clockwise motion to aid in smoothing. (Fig. 9).
- 3) After the edge becomes clearer, turn off the beveler and water. As in Step 1 above, remove the retaining nut and replace the 60 grit lap with a 15 grit lap. Then repeat Step 2, removing more grind marks. When the bevel becomes clearer still, it's ready for polishing. Turn off the beveler and water supply.

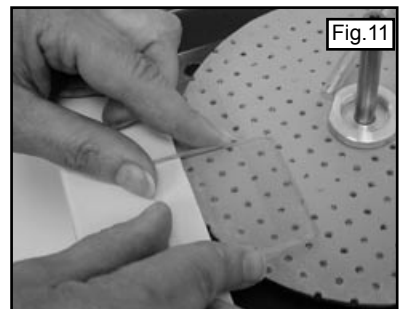
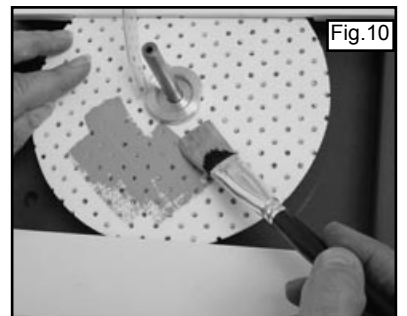
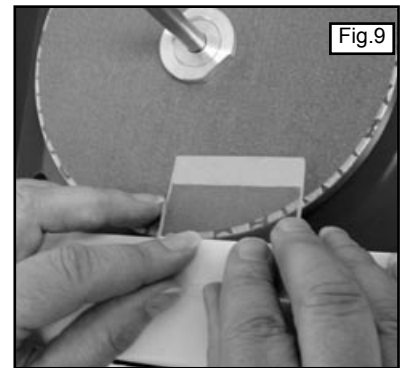
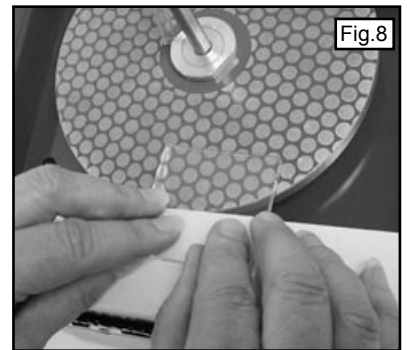
C. Polishing

- 1) Remove the retaining nut and the 15 grit lap and replace with the polishing pad. Refasten the retaining nut.
- 2) Starting with five or six drops of water in a cup, add polishing powder slowly until the mixture thickens into a light paste. Using a small brush, apply the polishing paste lightly over the polishing pad (Fig. 10).
- 3) Turn water on so that it slowly drips two or three times every five seconds. Turn on the beveler and polish the beveled edge to final clarity. You may need to periodically wipe off the glass with a soft cloth to check clarity (Fig. 11).
- 4) If there are grind marks left after polishing, repeat from Step 1 or 3 under B-Smoothing, depending on the depth of the marks.

Use and Care Information

Remember to wear safety glasses or install a protective face shield when beveling.

- 1) When beveling, move the glass from side to side away from the center to the right edge of the disk, laps, or pad. Using the left edge may cause glass chipping or laps to tear.
- 2) Do not use excessive force when beveling. Unnecessary pressure will shorten disk and lap life.
- 3) Use plenty of water for disk and lap work. Only a drop or two every few seconds is required for final polishing.
- 4) Rinse off polishing pad with clean water when finished.
- 5) To maintain ease of assembly, and to extend the life of the beveler, clean often and lubricate shaft, inner disk opening, and all set screws with "Anti-seize" after each use.



Troubleshooting

Problem 1: Disk or disk holder are stuck on the motor shaft and cannot be removed.

Solution: Hardened glass residue may have become lodged between the disk, and/or holder and shaft, forming a “cement-like” bond. First start by spraying a lubricating oil, such as WD-40, on the shaft and disk opening and let sit 1-2 minutes. Using a rubber mallet, gently tap on the disk while pulling up to break the seal.

If this has not released the disk, you can purchase a penetrating catalyst (i.e. PB Blaster) from local auto parts stores. Spray a small amount on the shaft and disk opening and let it sit several minutes. The chemicals in these penetrating oils should dissolve the glass residue.

If you are still unable to remove the disk and/or holder, contact Diamond Tech **(800) 937-9593**. The unit may need to be returned to our Service Dept. for further repair. A Return Authorization Number is required for all service work.

NOTE: Routine cleaning of the beveler should prevent this problem from occurring. The disk and disk holder should be removed, cleaned and re-lubricated once a week or every two weeks, depending on use. Dismantle and clean all parts; store disassembled when not in use.

Problem 2: White powder visible on disk or laps.

Solution: This is an indication there is not enough water dripping onto the lap or disk during use. Grinding dry may damage the bevel or disk. Check to ensure water flow is steady and that there is plenty of water in the bottle. Reposition the water nozzle if needed, so water is directed onto the outer edge of the disk.

Additional Parts and Accessories

Item	Item Number
M4 UPGRADE KIT	120
180 GRINDER DISK	57
260 GRINDER DISK	56
360 GRINDER DISK	32
60 MICRON REPLACEMENT LAPS (PACK OF 5)	123
15 MICRON REPLACEMENT LAPS (PACK OF 5)	124
POLISHING PADS	125
POLISHING COMPOUND (4 OZ.)	126
CONE SET (SET OF 4)	225
WORK SURFACE GRID	289
UNIVERSAL FACE SHIELD	DM0750
EASY-ON FOOT SWITCH	FS0420
MAX SPLASH GUARD	P203
GRINDER MOTOR 110V/220V	P216/P216A
GRINDER CAPACITOR 110V/220V	P221/P221A
GRINDER DISK COLLAR WITH RETAINING NUT	P218
SLIDE VALVE	P201
SUPER SPONGE REPLACEMENTS	66SUPER
1/4" FAST BIT	GH0230
1/4" STANDARD BIT	GH0600
3/4" FAST BIT	GH0360
3/4" STANDARD BIT	GH0350
1" FAST BIT	GH0290
1" STANDARD BIT	GH0410
ANGLED BIT	GH0300
REDUCING BIT	GH0310
DISK HOLDER AND NUT	P219

Diamond Tech

Bevel Max 6 Year Warranty

All *Diamond Tech* grinders and accessories are manufactured to high quality standards and are serviced by highly qualified technicians.

Bevel Max™ Studio Beveling System is warranted to the original purchaser for six full years from the original purchase date. During the six year period, if you feel the **Bevel Max™ Studio Beveling System** is not performing properly and needs to be serviced, contact Diamond Tech at 800-937-9593 or email info@dtcrafts.com for a Return Authorization Number. Equipment will not be accepted at Diamond Tech without a Return Authorization Number.

If returning your grinder for evaluation or repair, be sure to include your Name, Address, Daytime Phone Number with Area Code and a letter explaining the specific problem you are encountering. You will be contacted if any necessary parts or service are not covered under the warranty.

Date of purchase ___ / ___ / ___

Mark the Return Authorization Number clearly on every package! *Do not send this product back without such prior authorization!* Return postage and insurance are the responsibility of the consumer. Diamond Tech will return your Bevel Max postage paid and insured if it is under warranty. Any Bevel Max no longer under warranty will be returned at the owner's expense. Diamond Tech reserves the right to repair or replace faulty equipment at its discretion. The **Bevel Max™ Studio Beveling System** is warranted against defective materials or workmanship. If the **Bevel Max™ Studio Beveling System** suffers damage due to customer modifications and/or is used for any application other than that for which it was designed, this warranty is void. This warranty does not include damage due to: (A) neglect (B) accident (C) unreasonable use (D) improper maintenance (E) any other causes not attributed to defects in material or workmanship. This warranty specifically excludes the Diamond Max™ Grinder bits or disks. Any implied or otherwise explicit guarantees made through merchandiser of this product are not covered in this warranty coverage agreement and are expressly disclaimed.

IMPORTANT NOTE: This machine was designed for certain applications only. *Diamond Tech* strongly recommends that this machine NOT be modified and/or used for any application other than that for which it was designed. If you have any questions relative to its application, please contact us and we will advise as to its proper use.



Diamond Tech

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