MODEL T10538
12-PIECE GLASS/ GRANITE DRILLING SET
INSTRUCTIONS

For questions or help with this product contact Tech Support at (570) 546-9663 or techsupport@grizzly.com

Introduction

This set features 11 diamond bits that cut through mirror, non-tempered glass, ceramics, porcelain, limestone, marble, and granite.

These bits can be used with a handheld drill or drill press. However, we recommend using a drill press whenever possible for greater control and precision (see **Figure 1**).

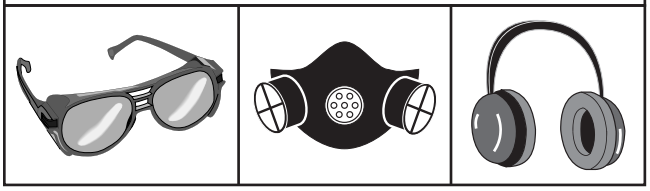
Figure 1. Example of diamond bit drilling hole in glass.

Inventory

Description	Qty
A. Drilling Guide	1
B. Bits 3/16", 1/4", 5/16", 3/8", 1/2", 3/4", 7/8", 1", 1 1/8", 1 1/4", 1 3/8"	1 Ea.

⚠WARNING

Eye injuries, respiratory problems, or hearing loss can occur while operating this tool. Wear personal protective equipment to reduce your risk from these hazards.



NOTICE

Do not use diamond bits to drill through tempered glass, as the glass will shatter.

Drilling Speeds

Use the chart below to select the appropriate drilling speed (RPM) for the bit.

Bit Size	RPM
3/16	2000
1/4"	2000
5/16"	2000
3/8"	2000
1/2"	2000
3/4"	1500
7/8"	1500
1"	1500
1 1/8"	1000
1 1/4"	800
1 3/8"	800

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Operation Tips

- Uniform support under the workpiece is essential to prevent it from breaking. Place a backing board under the workpiece to support it and reduce chip-out.

- To reduce chip-out, score one side of the workpiece first by drilling partially into it, then flip the workpiece over and drill through it.

- If using a drill press with a cast iron table, take steps to protect it from rust. Spray the table down with a liberal coating of oil and make sure the backing board completely covers the table.

- Make sure workpieces are properly secured.

- Make sure the workpiece is clean and moist so the suction cup grips the workpiece.

- To avoid making a mess, find a controlled way to add a small amount of water (e.g. 1 teaspoon) to the drilling area at a time. Eye droppers or spray bottles work well.

- The amount of water required to properly lubricate bits depends on the porosity of the workpiece. A good rule-of-thumb is to start with a puddle of water approximately the same diameter as the bit. Non-porous material, such as glass or marble, may not need additional water (depending on the thickness). Porous material, such as slate or tile, slowly absorbs water, requiring it to be constantly replaced. Most importantly, never allow the bit to run dry.

- Add water if the slurry becomes too thick. Move the bit up and down while drilling so water flows back into the cutting groove, cooling the bit.

- Use minimal pressure while drilling to avoid breaking the workpiece.

- Always use the guide when drilling with a handheld drill.

- Decrease pressure when the bit gets close to the bottom of the hole. This will minimize chip-out.

- Clean bits after each use.

- Never use the bits in an impact hammer. Doing so will cause the tip of the bit to split and shatter the workpiece.

- Follow all safety and operation instructions for your drill press or handheld drill. Take special care to avoid exposing electrical equipment to water as accidental contact with water could cause electrocution.

Guide Setup & Operation

If using a handheld drill, always use the included guide to keep the bit centered.

To set up and operate the guide:

1. Press the guide down, then flip the lock levers over to secure the guide, as shown in **Figure 2**.

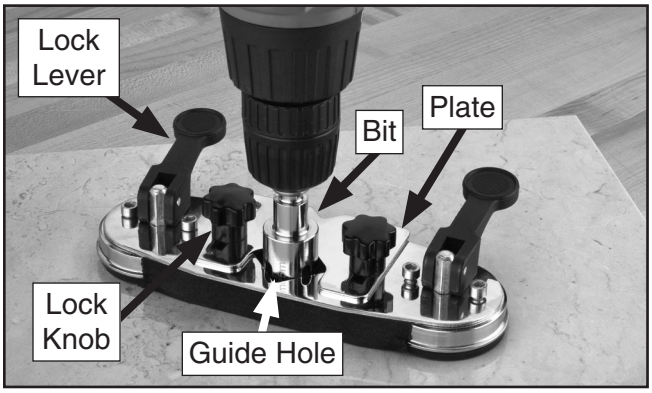

Figure 2. Model T10538 guide locked and setup for drilling.

2. Loosen the lock knobs, then slide the plate back enough to pour a small amount of water into the guide hole.

3. Insert the bit into the guide hole, slide the plate cutout against the bit until snug, then tighten the knobs. Use the small cutout for 3⁄16"–1⁄2" bits; the large cutout for 3⁄4"–1 3⁄8" bits.

4. Tug the guide to make sure it does not move. If it does move, unlock the lock levers and repeat **Steps 2–3**.

5. Turn the drill ***ON***, begin drilling. Add water to the guide as needed to maintain a slurry.

6. When the hole is complete, loosen the lock knobs, unlock the levers, and remove the guide.