

1511-4

Using a foredom and drill press, Mark Nelson shows how to drill stones or Tagua nut to make your own bead.

Watch the video for this project online at:
<http://youtu.be/7cRb-liNXIk>

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Please continue to page 2 for project instructions.

Guest:



Mark Nelson



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Drilling Stones and Shells

Use either the Jett Sett fixturing compound to hold the piece you're drilling or use the sponge system (a small cup with a sponge and a bit of water in it). Jett Sett is ideal for stones and pieces that can take the necessary pressing to embed them in the compound. The sponge method is better for thin or fragile pieces such as shells or thin glass. The water used in both methods serves to keep the drill and the workpiece cool and it also helps to contain the dust and airborne particles created by the drilling process.

Preparing Stones & Other Hard Pieces

The Jett Sett method is preferred for hard work pieces.

- Heat, mix and prepare enough compound to hold the item (follow instructions included in your Jett Sett). Place the material you want to drill in the compound, pressing it down into the compound. Then form a well around the stone, pinching the outer edges of the compound upward to form walls that will hold just enough water to cover the stone. The compound will harden fairly quickly once removed from the heat.
- Place enough water in dish to just cover the workpiece and position it under the drill.

Preparing Shells & Other Fragile Pieces

The sponge cup method is preferred for fragile workpieces.

- Choose a sponge large enough to hold your stone or shell. Use a cup large enough to contain your sponge (a cut-down yogurt cup is ideal for this purpose).
- Fill the cup with just enough water that when the sponge is depressed, the water comes to the surface of the object, and when pressure is released, the water recedes. Position the cup under the drill.



⚠ WARNING! Wear a respirator to prevent breathing in particles released during drilling operations; wear safety glasses to protect eyes from cast-off shards of glass, stone, shell or other materials. Keep hair tied back and avoid wearing loose clothing that can get caught in rotary equipment.

See next page for steps and supply list.

Steps:

1. Mount a drill the size of your desired hole; tighten each hole in chuck with key to ensure a true seat.
2. Adjust the height of the drill press to allow the drill to go through the piece. **Please Note:** You can also deliberately set the drill so that the drill only partially penetrates thicker pieces (such as river rocks), creating interesting textures, channels and other design looks.
3. Start very slowly; the tip of the drill tries at first to dance around the flat surface a bit. Patience is key here because rushing the drill can result in either a broken drill or a fractured work piece.
4. As the drill begins to grind through the piece, you will see a cloudy residue escaping into the surrounding water. You may pulse the drill by lifting it up often and then continuing to drill. Depending on the thickness and hardness of the piece and the size of the hole you're making, drilling can take up to 45 minutes or so. You know when you're through because the drill will jump a bit when the resistance of the stone suddenly stops.
5. To release a workpiece from the Jett Sett compound, simply reheat it in hot water. The compound (which is completely re-usable as long as it stays clean) softens again to a clay-like pliability, making it easy to remove the drilled piece.

Important! Do not use diamond bits to drill metal—use only on stone, glass, shell and ceramics.

⚠ CAUTION! Always wear eye protection when performing these processes.

Supplies:

Order #	Description
330-012	Mini drill press
117-037	Foredom® DP-30 drill press
117-291	SwingAway™ arm
118-166	Jett Sett™ fixturing compound
349-000	Diamond core drill set
349-016	Diamond core drill set
349-020	Diamond twist drill set
201-054	Citation safety glasses
—	Water dish
—	Rocks
—	Shells
—	Glass
—	Sponges