

Two-piece stainless steel JDG ring core



This is a precision project. Please read the instructions carefully.

Needed:

- JDG expanding ring mandrel appropriate to the size of ring you are making
- Ring blank 40 x 40 x 13 mm
- Digital calipers
- Good quality double-sided tape
- Chuck capable of holding 2" square block of scrap wood
- Softwood block of scrap wood 2" square by 2 ½" long
- Live centre
- Drill chuck or collet chuck
- Drill appropriate to the size of ring you are making

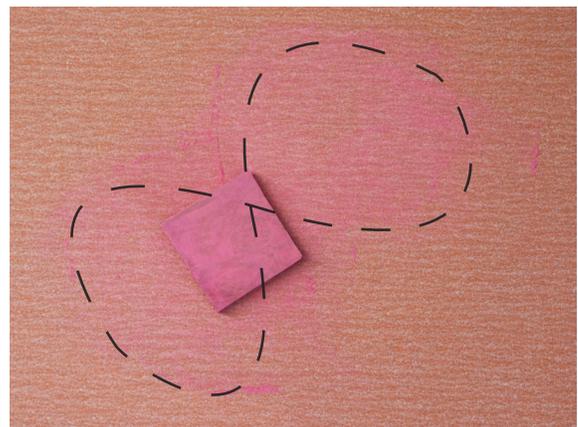
Preparing the blank:

1. Use a blank that is approximately 40 mm x 40 mm square and at least 3 to 4 mm thicker than the ring you are making.
2. Separate the two-piece ring core by using a flat bar that will fit into the channel of the ring core. Carefully twist the bar side to side to separate the two halves.

3. Mount a 2" x 2" x 2 ½" softwood scrap block of wood on a chuck and true up/ square the face of the block.

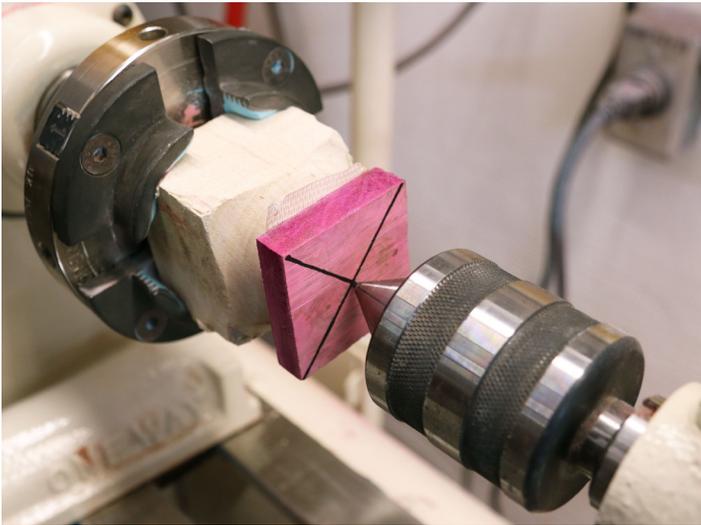


4. To ensure the ring blank is flat, place the ring blank face down on a sheet of 220 grit sandpaper and sand in a figure eight motion until smooth. This will give a good bonding surface to the tape between the ring blank and the waste block.

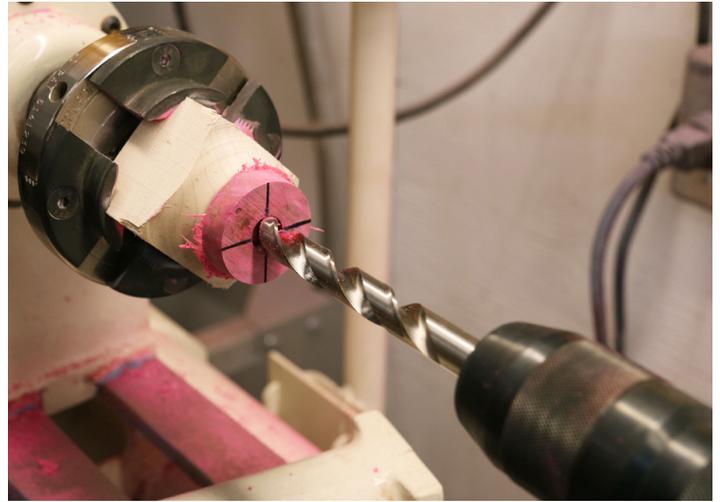


5. Apply 1 ½" double-sided tape to the flat surface of the ring blank and attach it to centre of the end of the trued face of the waste block.

6. Install a live centre in the lathe tailstock and advance it to press against the ring blank. This will strengthen the bond between the ring blank and the waste block.



3. Mount a drill bit that is approximately half the size of the ring into the lathe tailstock. Drill through the ring blank.



Turning the blank:

1. Rough-turn the ring blank round and then back off the tailstock.
2. Square up the face of the ring blank until the blank is 0.5mm wider than the channel of the ring you are making (4mm, 6mm, or 8mm).



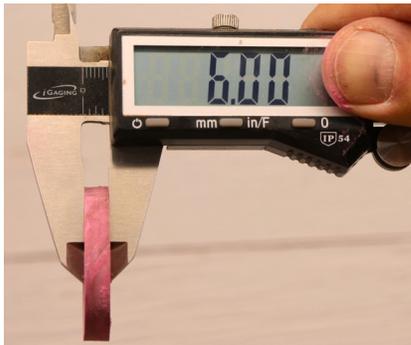
Note: image is for a 6 mm ring core only

4. Using a small scraper or skew, enlarge the hole until the ring core fits snugly into the hole. **Stop and check the size often to avoid making the hole too big.**



- Carefully (to avoid breaking the ring blank) remove the ring blank from the waste block. One way to do this is to take the sharp edge of the skew and insert the tip into the seam between the scrap block and the ring blank. Twist it gently from side to side to separate. Move around the ring blank repeating this motion. Be sure to be gentle or you risk breaking the ring blank – it is fragile.

- Lay the ring blank down flat on a sheet of 220 grit sandpaper and sand in a figure eight motion until the blank is EXACTLY the width of the channel in your ring (4mm, 6mm, or 8mm). **This measurement must be precise.**



Note: image is for a 6 mm ring core only

- Coat the inside of the ring blank with epoxy and insert the two ring core halves into the blank. With the ring lying flat, tap the ring with a wooden mallet until both halves fit tightly up against the blank. Make sure the seam on the inside of the ring core is completely closed. Wipe off any excess glue. Wait for glue to cure.



- Secure the correct size of JDG expanding mandrel in a collet chuck or drill chuck with draw bar. Mount the ring on the mandrel making sure the ring is mounted straight. Tighten the allen screw in the end of the mandrel with the supplied allen wrench/ hex key to secure the ring on the mandrel.



- Turn the blank flush with the metal, or your desired profile.



- Sand and polish to at least 600 grit. Apply finish of your choice.
- Remove the ring from the mandrel and remove glue residue from the inside of the ring core. This can be done with 220 grit sandpaper followed by Micro Mesh for a nice polish. A jewelry polishing cloth works well for polishing the ring now and after it have been worn.

