CREATING JEWELRY

with the

EZ-Lathe©
by Ti-Research

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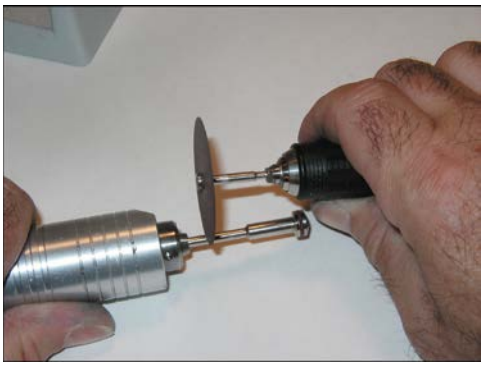
When I first saw the EZ-lathe, I immediately thought of its simplicity. After I had used the EZ-Lathe, it became apparent the complexity of the designs that could be created using one of the most basic shapes, the circle. The EZ-lathe created just that—circles.

Combine the ability to create circles, the turning of cylindrical shapes and a little imagination and experience the possibilities.

The EZ-Lathe comes packaged as a starter kit with everything you need to get started. Mandrels for the rotary hand piece, a table to mount the wax onto and screws to attach the wax are all included. Also available a wax refill kits.

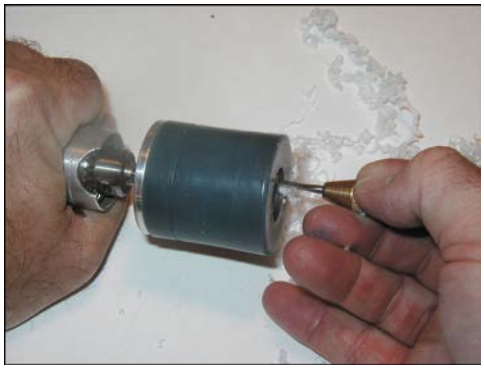
When first fitting the mandrel to the hand piece, excessive shaft length could cause the shaft to bend under the weight of the spinning wax blanks. Therefore, I have found that reducing the length of the shaft strengthens the integrity of the mandrel. Cutting the mandrel to size is very easy. Use a separating disk mounted in another hand piece, begin to spin both hand pieces and cut off the extra length of the shaft.



Mounting the wax is easy, just attach the table to the proper diameter mandrel and tighten the screw. Then select the wax cylinder that will best fit the shape you want to produce. There are pre - drilled holes in the table, one set is round holes and the other is oblong. The oblong holes are used for turning items that have an, offset finger hole. The wax has six pre-tapped holes that line up with the holes on the metal table.

Use a tweezers and place one screw through the metal plate and into the wax, tighten the screw. Then place a screw opposite the first and tighten it also. That is all there is to mounting the wax on to the mandrel. The wax is now ready to be turned.

Gripping the hand piece firmly with one hand and using a cutting tool with the other hand, start rotating the hand piece. Slowly and steadily start moving the tool into the center of the wax; this results in the removal of material. This is the basic procedure to hollow a ring. Measure the inside diameter to check finger size. After the correct size has been achieved, you will be ready to turn the outside of the piece.



Use a cutting tool to start trimming the outside of the wax. Measure the total thickness of the carving and once the correct measurement is achieved, the wax will be ready to have details added.

Using a finer cutting tool to add detail, start to cut and shape ridges in the wax to create a pattern around the shape.

To cut the newly-created shape from the wax stock, use a scalpel blade or a flat tool and spin the hand piece to cut off the shape.

Use files to flatten and smooth the edges of the ring. This is a basic ring shape and it can be made in a matter of minutes.

A hoop earring can easily be made from this ring shape simply by removing a section of wax.

Begin to make the earring by holding the ring in one hand, and then make a saw cut through the ring as if it were going to be sized.

Make a second cut to remove approximately one third of the overall diameter.

After the section has been cut away, filing will be required to smooth and shape the cut edges.

Many rings are designed thicker at the top and narrower at the bottom. This is easily created with the EZ-Lathe. First, attach the wax stock to the table using the oblong holes. Then determine the finger size; do this by removing material from the interior of the wax.

The finger hole will be centered on the wax stock. At this stage, no trimming is necessary on the exterior of the wax.

Next, you will need to take the mandrel out of the rotary hand piece. Loosen both of the screws and then shift the table to one side and retighten the screws. What has just happened is the finger hole has changed position on the table - the hole is now offset. However, by doing this, the outside of the ring can be turned on the EZ-Lathe and will result in a nicely-turned offset finger hole.

Begin to turn the outside of the ring - notice the wax appears off center to the table. Note that as the hand piece rotates, it will always retain its center point although we have changed the center point of the wax.

After the ring has been reduced to the desired thickness and shape, measure for the width and cut off the ring.

This next project will be a ring that will have a single channel-set stone in it.

Begin by determining the finger size. Cut about 10mm into the wax stock. The reason for this is, you will be making two matching bands.

Turn the band down to a thickness of about 3mm. Next, measure and cut off a band 2mm wide. Then turn the stock edge flat and cut off another 2mm band.

Use a large file to smooth and flatten the edges on both bands.

Place both bands side by side and then separate the tops so a stone can be placed between the bands.

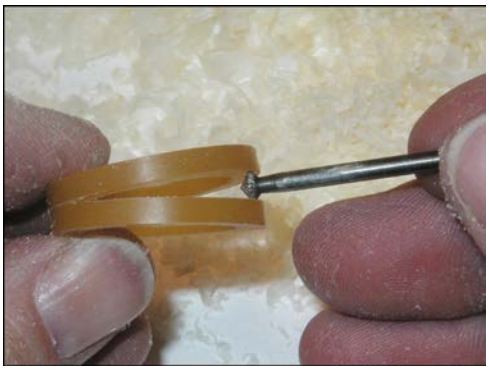
Turn the bands over keeping the ring aligned and together; place a small amount of wax on the bands to tack them together. Check the alignment of the bands and if they
align properly, add more wax to complete the joint.

Turn the bands over so you can access the interior of the set and add wax to fill in the space where the two rings meet. Add enough wax so that when the inside is filed smooth there are no void spots.

File the bottom of the shank smooth.

Also file the inside of the shank removing all excess wax.

Using a 45 degree bearing bur, cut seats into the inside walls of the wax. Be cautious to keep them even and directly opposite each other.



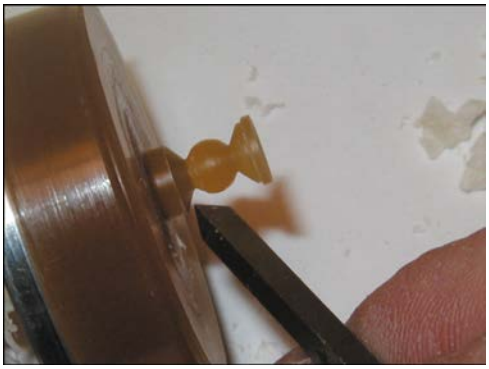
Pick up a stone and carefully place it into the stone's seat.

There should be some inward pressure and the stone should stay in place because of that pressure.

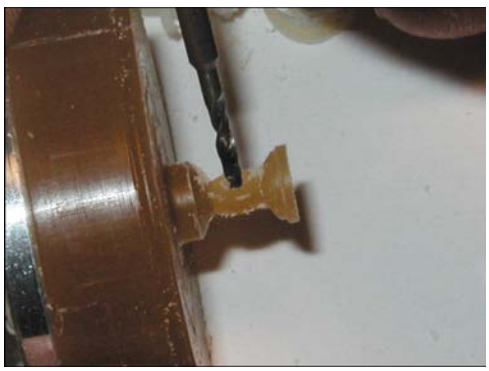
This is the completed ring. This style ring could be cast with the stone in place if desired.

This next piece is quick and simple; this will be a pearl cup with the bail attached. Begin by turning a cylinder shape about 10mm in length and 5mm in diameter. Make a seat for the pearl using a ball bur which matches the size of the pearl to be set.

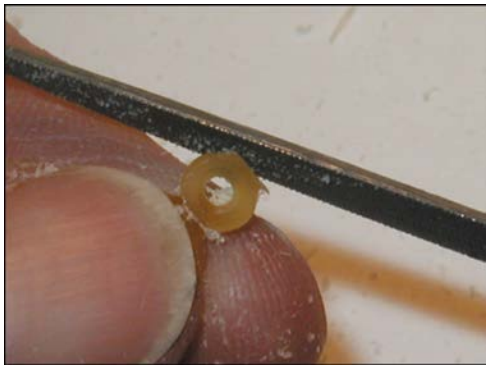
Use cutting tools to shape the pearl cup and also create a ball just to the inside of the pearl cup. File the ball from opposite sides to create what will look like a flat disk.



With a drill bit large enough to allow a chain to pass through, drill a hole in the center of the disk shape creating the bail opening for the chain.



Remove the pearl cap and the bail from the stock and shape the bail using files. Drill a small hole in the center of the pearl cap and insert a wax wire. Cut it to a length of 2mm. This wire will be used as the pearl post.



Pictured here is an example of the finished pearl cap with bail assembled onto a rope chain.

These are just a few of the jewelry pieces that can be made using the EZ-Lathe. The EZ-Lathe is simple, quick, and easy to use. Be creative and enjoy your EZ-Lathe.