

Make Your First Hollow Metal Clay Bead

Learn beginner construction techniques to embellish a standard lentil shape.

by Cindy Miller



At 23 mm (7/8 in.) in diameter and 13 mm (1/2 in.) thick, this hollow bead is ready to take center stage in a necklace design.

The skills you need to make a two-sided hollow bead are fun to master and easy to adapt to other designs. This project is an exercise in rolling out and texturing clay, shaping and drying clay components, and joining and refining your work. With a little more time and clay, you can make my ring variation.



Bead panels

Make a template. Cut out a 1¼-in. (32 mm) paper circle. Fold it in half, then in half again. Open the circle, and make a mark where the folds intersect. Use a needle tool to pierce the paper at the mark. This is your template for locating the center of your metal clay disks [1].

Roll a sheet of metal clay. Lightly coat your hands, a plastic roller, a flexible Teflon sheet, a circle template, two small round forms, and a texture sheet with hand balm or olive oil. Roll about 28 g of metal clay to 4 playing cards thick.

Cut out two clay disks. Use a needle tool and a circle template to cut two 1¼-in. (32 mm) disks of clay from the sheet [2].

NOTE: Wrap the excess clay tightly in plastic wrap to prevent the clay from drying out. You'll use this leftover clay to make textured cutouts for your bead.

Mark the center of each disk. Place your template on a clay disk. Insert a toothpick through the hole in the template to make a slight indentation in the clay. Repeat to indent the other clay disk.

Shape the disks into domes. Place each disk indented-side down on a round form, such as a small lightbulb or a table tennis ball [3]. Allow the domed disks to dry completely.

Sand the domes. Place a dome rounded-side up on a piece of 150-grit sandpaper on a smooth, hard surface. Pressing lightly, move the dome in a circular motion to sand its edges flat [4]. Sand until the edges are approximately 1 mm wide. Repeat to sand the second dome.

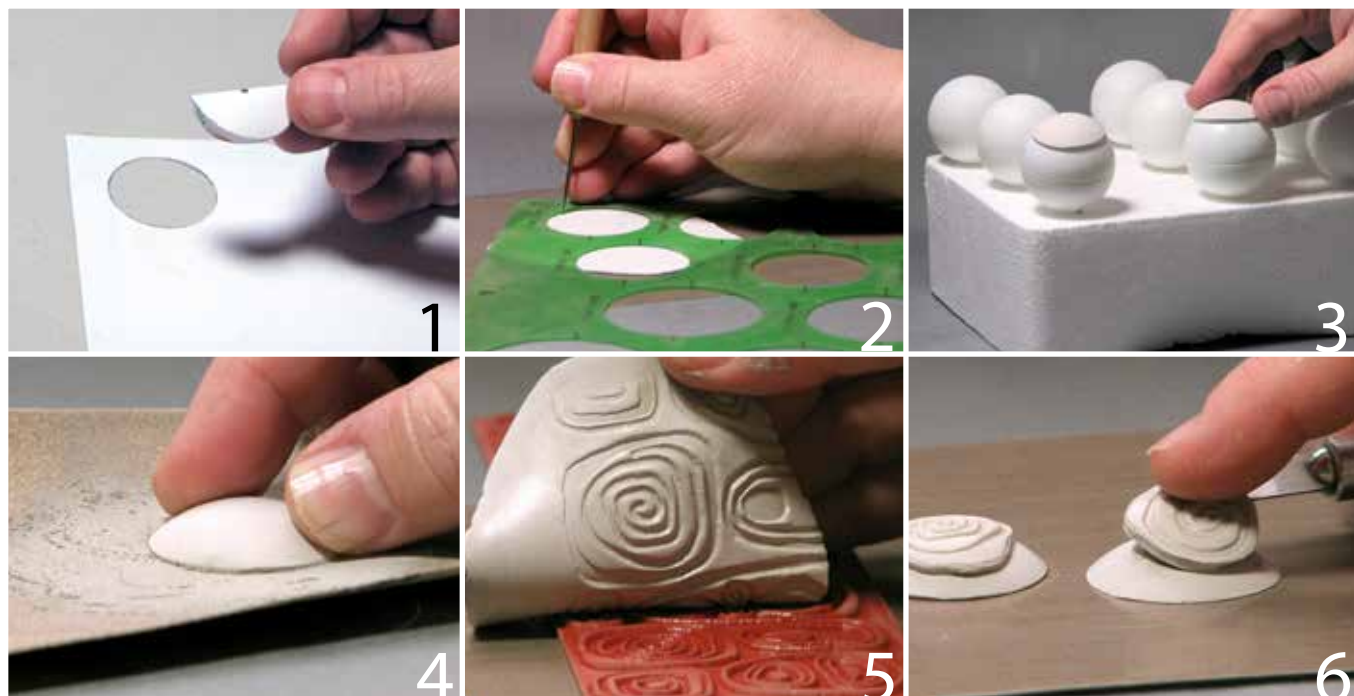
Textured accents

Roll a sheet of clay. Unwrap the reserved clay, and roll it to 3 cards thick.

Texture the clay. Lift the clay and place it on your texture sheet. Use the plastic roller to gently press the clay into the texture sheet. Peel the clay from the texture sheet [5], and place the clay texture-side up on your work surface.

Make the textured cutouts. Use a craft knife to cut out two roughly circular shapes that are about ¾ in. (19 mm) in diameter from the textured clay.

Apply the textured cutouts to the domes. Use a paintbrush to apply a little water to the surface of each dome where you want to position a textured cutout. Use a palette knife or other tool to position the cutouts on the domes [6]. Gently press the cutouts to ensure that they're attached securely to the domes. Allow the components to dry completely.



materials

- Metal clay: 28 g (optional 20 g for ring project)
- Metal clay slip
- Fine-silver ring blank (optional)

additional tools & supplies

- Circle template
- 2 tennis table balls or other small round forms
- Liver of sulfur (optional)
- Polishing pad (optional)
- Ring mandrel (optional)



Beads shown
actual size

Assembly

Drill holes in the domes. Position the domes concave-side up on your work surface. Select a hand drill bit that will create a hole of your desired size; factor in the percentage that the clay will shrink during firing. I used a 1.6 mm drill bit for my bead.

Insert the drill bit into the indentation in the center of the dome [7]. Carefully twist the bit by hand to make a hole through the dome. Repeat to drill a hole through the second dome.

Assemble the bead. Use a paintbrush to apply a line of metal clay slip along the sanded edge of each dome [8]. Gently press the domes together, making sure the edges are aligned [9]. It's okay if some of the slip oozes out between the halves; you'll remove excess slip after the bead is dry. Allow the seam of the bead to dry completely.

Refine the bead. Gently smooth the seam of the bead with a sanding pad, rotating the bead as you sand it to maintain the bead's round shape [10]. Sanding the seam gives the bead a thicker, more rounded edge.

NOTE: Sanding may reveal imperfections or gaps in the seam. Use slip to fill these

gaps, and then allow the bead to dry completely. Sand the seam again to smooth the edge of the bead.

Firing and finishing

Fire the bead. Place the bead vertically in a kiln-safe bowl filled with vermiculite. Fire the bead according to the manufacturer's instructions. Allow it to cool completely.

Finish the bead. Use a soft brass brush and soapy water to give the bead a uniform matte finish. Rinse the bead in water and dry it with a soft cloth. To highlight the raised areas of the texture, rub them with an agate burnisher [11].

For a more dramatic look, give your bead a liver of sulfur patina. Lightly polish the bead with a polishing pad to remove the patina from the raised portions of the design [12].

Metal Clay Dryness

Wet	A lot of moisture; very pliable
Semi-dry	Some moisture; firm, holds its shape
Mostly dry	Nearly devoid of moisture; rigid
Completely dry	No moisture; can be fired



Process photos by Cindy Miller

project idea: make a ring

By slightly modifying the way you make the bead in the featured project, you can create a sturdy hollow focal component for a ring.

Hollow focal component

Follow the bead-making steps in the project, but with these modifications:

- Cut slightly smaller circles of clay for the hollow form.
- Apply a textured cutout to only one side of the hollow form.
- Skip making the holes.

Ring shank

Set the hollow form aside to dry completely while you work on the ring shank. I built my shank on a premade fine-silver ring blank in order to save clay and take the guesswork out of sizing issues related to clay shrinkage.

Cover the ring blank. Roll about 20 g of metal clay to 3 playing cards thick. Use a tissue blade to cut a strip of clay about 0.5 mm ($\frac{1}{64}$ in.) wider and 5 mm ($\frac{3}{16}$ in.) longer than the outside surface of your ring blank. Wrap the strip of clay around the ring blank so that the strip's ends overlap.

NOTE: The strip should slightly overhang the width of the ring blank to allow for clay shrinkage during firing. After firing, you can file any excess overhanging clay flush with the edge of the ring blank.



The hollow ring topper is 20 mm ($\frac{3}{4}$ in.) in diameter and 7 mm ($\frac{1}{4}$ in.) thick.

Use a craft knife to cut through the strip where it overlaps, and remove the excess clay. Apply slip to the strip ends and join them. Allow the clay to dry to mostly dry.

Attach your hollow form. Use fine-grit sandpaper to create a flat surface on the untextured side of your completely dry hollow form. This is where you'll attach the hollow form to the shank. Use a paintbrush and distilled water to dampen the hollow form's flat surface and the ring shank where you will attach the form. Use thick metal clay slip to attach the hollow form to the ring shank. Allow the slip to dry completely.

NOTE: Use a ring mandrel to support the ring as it dries.

If necessary, add more slip to ensure the connection is secure. Allow the assembly to dry completely. Remove the ring from the mandrel. Refine the ring with sandpaper or sanding pads.

Fire and finish the ring. Support the ring in a bowl filled with vermiculite. Orient the hollow form to sit vertically in the vermiculite. Fire the ring according to the manufacturer's instructions. Finish and patinate it as desired.