Perhaps you’ve received or inherited a piece of jewelry that’s been engraved to commemorate a special date or sentiment. This kind of engraving is usually done with a machine — and is entirely different from the one-of-a-kind hand-engraved design that graces this pierced pendant. But different doesn’t mean unattainable.

With a few tools and some practice, you’ll be able to complete this hand-engraved pendant and add panache to your next jewelry piece. We’ll show you what tools you’ll need to get started engraving and how to use them.
The touch of hand engraving on this 2½ x 1½-in. (64 x 38 mm) pendant provides visual balance to the asymmetrical silhouette of the floral motif.
Part 1

Pierced panel

Sketch your design. Place a cabochon on a piece of graph paper. Draw a line around the cab, leaving at least 1 mm of space between the edge of the cab and your pencil tip to represent the thickness of the bezel wire. Remove the cab and draw your pendant design around your guideline.

NOTE: As you draw, keep in mind that the design must be balanced to offset the weight of the cab.

Incorporate an opening at the top center of your design for a bail connector. (If the opening is not centered, the pendant will hang at an angle.)

Draw fine lines on your design where you want to engrave details [1]. We chose a botanical motif for our pendant — the leaf and flower shapes provide an ample area for us to engrave details like veins and petals.

Make a photocopy of your drawing so that you’ll have a reference later when you engrave the details. Leaving at least a 3 mm (¼-in.) border around the outer edge of your sketch, cut out your template.

Glue the template to metal sheet. Use warm, soapy water to clean a piece of 16-gauge (1.3 mm) sterling silver sheet that’s slightly larger than your template. Rinse and dry the metal.

Use a conservative amount of white craft glue to adhere your paper template to the metal sheet. Smooth the paper with your hand to remove any air bubbles, and allow the glue to dry.

Drill holes in the metal sheet. Use a center punch to make dimples just outside the lines of your template in the areas you’ll be piercing. Use a flex shaft with a 1 mm drill bit to drill holes through the dimples.

Pierce the template. Thread a 4/0 blade through one of the holes in the interior of your template [2].

TIP: When you saw an intricate or complex pattern, cut just to the outside of your template’s lines. You can refine the shape later with needle files, but you can’t add more metal if you’ve cut too close to your template’s lines.

To prevent any delicate areas from bending, work from the interior outward to pierce your template [3].

Saw the outer edge of the design. After you’ve sawn out all of the interior sections, saw along the entire outer edge of your template [4]. Place the pierced metal panel in warm, soapy water and let it soak until you can easily remove the paper from the metal. Rinse and dry the panel.

File and prefinish the pierced panel. Use needle files to clean up and smooth the interior and exterior edges of the panel [5].

Using progressively finer grits of sandpaper, sand both sides of the panel. Use a flex shaft with a buff charged with white diamond compound to polish the front and back of the panel.
Part 2
Bezel

Shape and solder the bezel. Wrap and cut bezel wire to fit around your cab [1]. When you are satisfied that the seam is flush, solder it with hard solder [2]. Pickle, rinse, and dry the bezel.

Sand and file the bezel. Use sandpaper to smooth the solder seam. Check that the cab fits in the bezel. File the top and bottom edges of the bezel so that they are level and the proper height for your cab [3]. Sand the edges of the bezel to smooth them.

Solder the bezel to the panel. Add denatured alcohol to fine borax powder to make a thin paste. Use a paintbrush to apply a coat of the solution to the panel and bezel in order to prevent firescale. Position the bezel on your panel. Apply flux to the bottom edge of the bezel, and place pallions of medium solder along the bezel’s inside edge [4]. Heat the panel and bezel with a torch until the solder flows. Pickle, rinse, and dry the assembly.

To get a feel for using a graver, we’ll walk you through how to practice on a piece of scrap brass or copper that you’ve secured in an engraving block or other stabilizing apparatus.

Lubricate the tip of your graver with liquid Bur-Life before you do any cutting. Keep the graver’s tip lubricated as you work.

Whether you’re using a hand graver [A] or a power-assisted system [B], hold the graver in your dominant hand.

Using a sliding stroke, push the graver along the metal to make a straight, shallow cut. Practice making a series of shallow cuts, and then progress to deeper cuts.

Do not use a scooping stroke or excessive pressure to push the graver. If you find that you are using force to move the tip of the graver, you could break the graver’s tip and make excessively deep cuts in the metal.

Do not make more than one pass in the same cut. (Once you’ve gained enough experience, you’ll be able to make a second pass with precision and without marring the original cut or the surrounding metal.)

To vary the width of a line, slightly roll the graver on its side as you push it along the metal.

To make curved cuts, use your nondominant hand to rotate the metal and keep your graver stationary [C].

For more information, visit www.engravingschool.com.
Part 3

Engraved design

Prepare the panel. Use acetone to clean the surface of your panel. Then apply a coat of Chinese white or white tempera paint to the front of the panel. These paints allow you to see your lines better while you work, and they’re relatively easy to remove when you’re done. We coated ours with matte white spray paint for metal [1]. Allow the paint to dry.

Referring to your photocopy, use a pencil to lightly draw the details onto the painted surface of your panel. Spray a clear coat of sealer over the panel to prevent the pencil from smearing.

Engrave your design. To engrave your panel by hand, you’ll use a “graver” — a piece of hardened, shaped, and sharpened steel — to remove small slices from the surface of the metal.

The handle of a graver is short and designed to fit into the fleshy part of your palm.
You’ll need to secure your panel in an engraver’s block or other apparatus. See “What You Need for an Engraving Station,” opposite, to determine which apparatus is right for you.

Before you begin engraving your panel, you’ll want to practice.

When you’re confident with your engraving skills, lubricate the tip of your graver with a drop of liquid Bur-Life and engrave your design [2 and 3], relubricating the graver periodically as you work.

Engrave the back. You can also use gravers to add your initials to the back of your piece. Instead of using white paint again, we used a fine-tip permanent marker to draw our logo on the back [4], then engraved along the lines.

Clean and prepolish the engraved panel. You can use water and a mild detergent to remove tempera paint or Chinese white from the metal. If you used spray paint to coat the metal, you’ll need acetone to remove the paint.

Polish the panel with a flex shaft and buff charged with rouge [5].

**TIP:** Avoid using abrasive compounds like white diamond or tripoli to polish engraved metal, because they’ll reduce the definition in your engraving work.

Set the cabochon in the bezel. If you are going to add a custom bail like ours, set your cab after you’ve added the bail. If you’re not adding a custom bail, set your cab now, using your bezel pusher and burnisher [6].

Polish the pendant. Polish your pendant with a cloth buff charged with rouge. If you didn’t make the custom bail, add a 16-gauge (1.3 mm) jump ring to the top of the pendant and thread a chain through the jump ring to complete the necklace.