Sinking a Small Dish

This is a silversmithing technique to change the shape of flat sheet metal by using a technique called sinking. This is done by applying pressure to the inside of the object with a rounded steel form (hammers) onto flat steel block or into a depression in a tree trunk or a sand bag. Raising a bowl is the technique of applying pressure to outside of the object using steel hammer and stakes.

YOU WILL NEED:

- 0.9mm silver sheet 70mm x 70mm (for a larger bowl use 1mm+ sheet)
- saw frame and 2/0 saw blade, engineers square, scribe
- dividers or a template for an asymmetrical or non-circular dish
- file (2 cut), emery paper/sticks 240-1000
- ball pein hammer, planishing hammer
- steel flat plate or tree trunk, wooden with carved depression, sandbag or large doming block
- steel mushroom stake or similar polished steel domed stake

The surface texture of the hammer & stake is transferred to your work so highly polished tools will save time creating a polished finish!

HOW TO MAKE A SMALL DISH

- 1. Consider the required depth of your dish and draw a simple plan of your design from the side so that you can refer to it during the making process.
- 2. Draw the desired design onto your metal, either scribe around a template or mark with the dividers, you could even use a marker and draw onto the protective plastic coating or straight on to the metal with a permanent marker. This will disappear as you anneal, pickle, rinse process. If not an alcohol wipe will quickly remove the pen.
- 3. Use a saw to carefully cut out your metal blank. Remove the burr created by the saw on the top and bottom edges. Be careful not to take too much off, you don't want to create a bevelled edge. A 240 emery stick will do the job.
- 4. Anneal the metal (see annealing handout), quench, always dry your work thoroughly **steel tools hate water!** you don't need to pickle at this point, a little oxidation will not hinder your progress.
- 5. Use a pencil to draw concentric circles from the centre out towards the edge. Leave 5mm from the outside edge

- the no hammer zone

- 6. You can now choose the surface you wish to hammer onto, the steel plate, wood, sandbag or hard high performance thermo plastic block. Whichever you choose you will be using a rounded hammer (ball pein, round end of a chasing or planishing hammer) to start striking the first circle (nearest to the edge but not the edge). Remember to hold your hammer at the end of the handle for better centrifugal force and to protect the wear on your wrist. As you progress it will be necessary to hold your dish at a slight angle.
- 7. Keep the hammer blows even and tightly spaced together around the circle, once all the way around check for any gaps and rectify. Repeat for the following circles, you will see the dish starting to form. Keep the hammer blows even by hitting in the same place with the same rhythmic pressure and pace and allowing the piece to move. Imagine a sewing machine needle and fabric, the hammer is the needle and the metal is the fabric.
- 8. Refer to your drawing to check the desired depth. If you have further to go anneal your work, quench and dry and continue for another round.
- 9. Once you have your desired depth, pickle, rinse and dry your piece. Use a polished steel domed stake and a planishing hammer to perfect the form. Work from the centre out towards the edge, use the same technique as sinking (sewing machine needle/fabric idea) and move the position of the dish on the stake not the hammer. The hammer is an up and down machine like process, this will help to create an even finish. Check the contours of the dish by holding it up to the light and curving it around. Continue to planish to perfect the curve from every angle.
- 10. Calking an edge is when you strike the very edge of the metal straight on to thicken it. You can also use a burnisher to shine up the edge.



FURTHER INFORMATION: www.creativetherapy.space/resources

Small-Scale Silversmithing by F. J. Whitelaw

Sinking by Eileen Moylan

