

USING A DRIP SILVER KIT

A mirror is made by depositing a thin layer of metal on a sensitized, non-metallic substrate, usually glass. With a Drip Silver Kit you can mirror concave or convex shapes using hand operated siphon bottles instead of an air compressor and spray guns.

A Drip Silver Kit contains enough silver to mirror about 260 square feet.

MIRRORING IS A CHEMICAL PROCESS. THESE PROCEDURES ARE *IMPORTANT*.

- **Cleanliness** - The glass must be absolutely clean, including the edges.
- **Gloves** - Wear gloves to keep your hands and the glass separate.
- **Careful measurements** - Be careful but not fanatical with measurements.
- **Distilled Water** - Always use steam distilled or de-ionized water. The minerals in tap water or any other type of bottled water will ruin the mirror.
- **Timing** - Use a clock or timer to time the tinning and silvering steps.
- **Concentration** - Arrange your time so you can work without interruption.

SAFETY

- **Storage** - Store the chemicals in a cool, dark place away from children and pets.
- **Staining** - The silver creates brown stains. Wear rubber gloves and cover your bench with several layers of newspaper. Silver Remover removes silver stains from skin and clothes.
- **Fumes** - Silver chemicals contain ammonia. We have respirators designed for ammonia and formaldehyde fumes.
- **Disposal** - These chemicals contain heavy metals. Follow the instructions in your Waste Treatment Kit to keep heavy metals out of the public sewer system.

YOU SUPPLY

- A tray to catch waste chemicals (see our instructions)
- Supports to hold the glass
- The glass to be mirrored
- A few gallons of distilled or deionized water
- 2 plastic buckets for waste treatment
- A timer or a clock with a second hand

MIRRORING TRAY

Because the Drip Silver Kit is designed to silver a wide variety of shapes, it does not include a way to catch the mirroring run-off or support the glass.

You can use any clean tray that is large enough to catch the silver as it drips off. Your supports should hold the glass at least 1 inch above the bottom of the tray to keep your object out of the waste water.

FLOW RATES

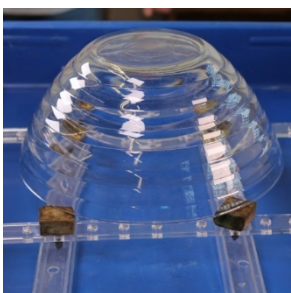
The speed at which the liquid flows through the tubes depends on the pressure on the liquid in the bottle. The pressure is determined by both the height of the siphon bottles above the object and the amount of liquid in the bottles.

To slow the rate of flow, lower the siphon table and/or partially empty the bottles. To speed up the rate of flow, raise the siphon table and/or add more liquid to the bottle.

The siphon will stop working when the bottles are nearly empty. The level of the liquid must be above the tube at the bottom of the bottle.

PART 1 – SET UP THE SIPHON SYSTEM

STEP 1 - PLACE THE GLASS IN A TRAY



Place your glass on supports in a clean tray.

The supports should hold the glass at least 1" above the bottom of the tray.

You do not want the glass to touch the used chemicals that will flow into the tray.

We use our Bench Kit.

STEP 2 - PLACE THE SIPHON TABLE UP HIGH



A siphon works by gravity.

Place the siphon table with the attached silvering bottles on a waterproof support so that it is higher than the top of the glass in the tray.

When you start the siphon you want the liquids to flow “downhill”.

STEP 3 - PRACTICE STARTING THE SIPHON



Fill the bottle with distilled water.

To start the siphon

1. Place the wand in your tray (downhill).
2. Open the white plastic clip.
3. Cover the hole in the bottle cap with your finger.
4. Squeeze the bottle until water runs out of the wand.
5. Remove your finger from the hole.
6. Release the bottle – water should continue to flow out of the wand.

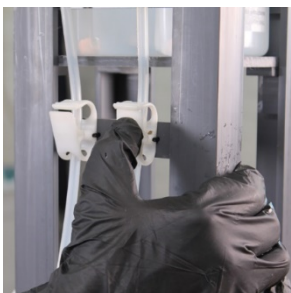
STEP 4 - PRACTICE ENDING THE SIPHON



To draw the liquid back into the bottle and end the siphon

1. Rinse the end of the wand with distilled water.
2. Hook the wand onto a back leg of the siphon table.
3. Open the white clips.
4. Squeeze the bottle to force out the air.
5. Cover the hole in the bottle cap with your finger.
6. Release the bottle to vacuum the liquid up the tube and back into the bottle.
7. Remove your finger from the hole.

STEP 5 - TEMPORARILY STOPPING THE FLOW



You can stop the flow temporarily by closing the white clips or by hooking the wand onto the back leg of the table.

The hook holds the wand above the water level in the bottle.

Use distilled water to practice.

PART 2 – MIXING THE CHEMICALS

STEP 1 – MEASURE THE SILVER



1. Measure out 15 ml of 2-Part Silver Solution and pour it into the bottle.
2. Measure out 485 ml of distilled water and pour it into the bottle. The bottle holds 500 ml (1 pint).
3. Rock the bottle to mix the chemicals.
4. Use a clean cylinder to repeat the process to mix the Silver Reducer into the Reducer bottle.

STEP 2 – MEASURE THE SENSITIZER



1. Measure out 250 ml of distilled water and pour it into the Sensitizer trigger spray bottle.
2. Use the syringe included with the Sensitizer to measure out 0.5 ml of concentrated Sensitizer.
3. Add the Sensitizer to the distilled water and rock gently to mix.

Note: Diluted Sensitizer for 2-Part Silver has a shelf life of 6-8 hours. *Mix up fresh Sensitizer every day.*

STEP 3 – MEASURE THE WETTING AGENT



1. Measure out 200 ml of distilled water and pour it into the Wetting Agent trigger spray bottle.
2. Use a clean cylinder to measure out 20 ml of Wetting Agent.
3. Add the Wetting Agent to the distilled water and rock gently to mix.

Note: You do not need to use Wetting Agent on glass. We include it in case you are silvering plastic.

PART 3 – SILVER THE GLASS

STEP 1 – CLEAN THE GLASS

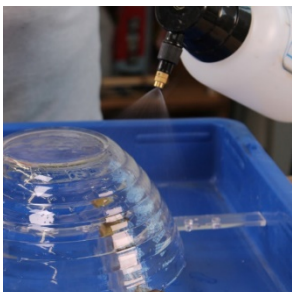


Clean the glass very thoroughly with Concentrated Glass Cleaner, the European Sponge and hot tap water.

Wear gloves to keep your fingerprints off the glass.

Clean glass is essential to successful mirroring. Water must “sheet off” the glass without beading up even at the edges.

STEP 2 – RINSE THE GLASS



1. Place the glass in the tray, supported above the level of any liquids.
2. Rinse the glass thoroughly with distilled water to remove all traces of tap water.

STEP 3 – USE WETTING AGENT ON NON-GLASS SURFACES



1. If you are silvering plastic, spray the surface with diluted Wetting Agent.
2. *Do not rinse off* the Wetting Agent before you sensitize the piece.

This step is not required for glass surfaces.

See our separate Wetting Agent Instructions for details.

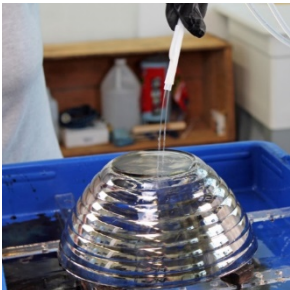
STEP 4 – SENSITIZE THE GLASS



1. Use the trigger spray bottle to spray the glass all over with a generous amount of Sensitizer.
2. Wait 30 seconds for the sensitizer to attach to the glass
3. Rinse the glass *very thoroughly* with distilled water.

You will not be able to rinse off the sensitizing layer that has adhered to the glass or plastic surface.

STEP 5 – SILVER THE GLASS



1. Make sure the Silver and Reducer are flowing out of the wand.
2. Move the wand around to drip the silver all over the glass.
3. Wait 10 to 15 seconds and then inspect the thickness of the silver. A good silver layer is almost opaque.
4. If necessary, add more silver. You can hook the wand on the table between passes to halt the flow.
5. When you are finished, close the white clips to end the flow.

STEP 6 – RINSE THE GLASS



Rinse the glass well with distilled water and set it aside to dry.

You can touch the silver gently with dry gloved hands without damaging it.

When it is completely dry, protect the silver with one of our backing paints, lacquers or Clear Uni-Coat.

STEP 7 – FINISHING UP



1. End the siphon on both bottles. See Part 1 – Step 4.
2. Pour any unused diluted Sensitizer into your waste bucket and empty your tray into your waste bucket for treatment later.
3. Use Silver Remover and Pumice to clean the face of your mirror if necessary.

ADMIRE YOUR HANDIWORK!



You have silvered an irregular shape using the physical properties of water and gravity.

The process is basically the same for silvering plastic and glass.

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