

# Tube Setting



## Ingredients for a simple solitaire ring

- 10mm Sterling Silver Tube. OD 5.5mm | ID 4.2mm | Wall 0.65mm
- 1 x 5mm Round Faceted Stone (cubic zirconia is recommended)
- 100mm Sterling Silver D-Shape Wire. 3.0mm x 2.0mm

## Selecting & Preparing the Tube

### 1. Choosing the Correct Tube

The inside diameter (ID) must be slightly smaller than the stone's girdle diameter.

You will cut a bearing (seat) inside the tube to fit the stone.

A wall thickness of 0.6–0.8mm is ideal.

Too thin → weak wall, difficult to burnish. Too thick → hard to push over neatly.

This tube (4.2mm ID for a 5mm stone) is perfect because the stone can not fall into the tube.

### 2. How Much Metal to Leave?

Below the girdle (seat depth): Leave approx. 0.8–1.0mm base thickness under the stone for strength.

Above the girdle (metal to rub over): Leave approx. 0.3–0.7mm above the girdle.

This gives enough metal to push over securely while keeping the proportions elegant.

Too much metal = bulky, messy finish. Too little metal = weak setting

Consistency around the entire rim is key.

### 3. Cutting & Facing the Tube

Cut tube approx. 3.5–4mm high (adjust depending on stone depth, the culet should not protrude beyond the base).

File both ends flat and square. Use a tube cutter or a pin vice to cut/hold the tube.

Check with a flat surface to ensure it sits upright.

### 4. Cutting the Seat (Bearing)

Use a setting burr that is the same size as the girdle of your stone, can be slightly smaller, but never larger

Lubricate the burr. Use a pin vice to secure the burr, then cut slowly and precisely, evenly inside the tube.

The seat should sit just below halfway down the stone. Stone should snap in gently, not wobble.

The girdle must sit level all the way around.

## Making the Simple Solitaire Ring

### 1. Forming the Shank

Using 3.0 x 2.0mm D-shape wire (any texturing to be done first)

Steps: 1. Measure ring size, use formula (ID + metal thickness) x 3.14

File one end square, measure, mark, saw to length, file square.

Anneal, quench, dry, form with half round pliers or form on a mandrel.

Solder joint, quench, pickle to remove oxide and flux, rinse, dry.

Round and true the ring.

### 2. Attaching the Tube

Flatten a small section on the ring top (no larger than the OD of the tube).

Slightly file base of tube to match ring curve.

Solder tube upright onto ring. Clean up solder joints carefully, clean & polish.

## Setting the Stone

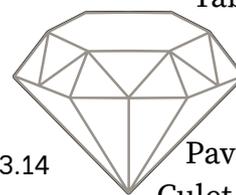
Place the stone on its table on a flat steel surface. Lower the mount onto the stone, evenly and carefully. Check the level from all angles.

Using a pusher or push metal evenly over the girdle in small stages:

North–South–East–West. Then work around fully, pushing the metal evenly over the girdle. Finish by smoothing the rim with a burnisher and a final polish

with rouge applied to a soft mop.

Tube settings are modern, clean, and durable; excellent for everyday wear.



**Table** Top flat surface, where the light gets in.

**Crown** Upper angled section above the girdle.

**Girdle** Outer edge at the widest point (stone sits here).

**Pavilion/Belly** Lower tapered section below the girdle.

**Culet** Small point or tiny flat at the very bottom.

Top Tip: Do ALL heavy filing, shaping and polishing BEFORE setting the stone.

Top Tip: Do NOT solder AFTER setting the stone.

Top Tip: Test the stone is secure by using the ultrasonic cleaner to dislodge it