

# Materials

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# Using Metal Marking Spray

## Steps for Using Metal Marking Spray

**Step 1: Clean the metal surface to remove any residual grease.**

Apply a thin, even coat of metal marking spray to the area slated for marking. To achieve a high-quality marking effect, the uniformity of the product coating is essential, which may require several tests and practice. Always use the product in a well-ventilated area or a designated spray room.

Please note: xTool doesn't provide or sell 'Metal Mark Spray'. You can purchase it from Amazon or Etsy.

**Step 2: Get a stainless steel dog tag.**

**Step 3: Evenly spray the marking liquid on the surface using an airbrush or sprayer.**

Remember to place a piece of waste cardboard beneath the metal. Also, use the marking spray in a well-ventilated area or a designated spray room for proper air circulation.

## Step 4: Allow the surface to air dry for 3-5 minutes.

For optimal results, let the liquid dry naturally. It's not recommended to force it to dry using heat lamps, blowers, or fans.

## Step 5: For substrates that shrink significantly, apply a second coat.

However, ensure the first coat dries for at least 30-40 seconds before applying the second one.

## Step 6: Set parameters and initiate engraving.

Different metal marking sprays can produce varying sintering and engraving effects. It's recommended to conduct multiple test marks to achieve the best performance.

## Recommended Parameters□

Material	Vector Engraving		Bitmap Engrave	
	Power %	Speed mm/s	Power %	Speed mm/s
304 stainless steel	100	50	100	110
Titanium	90	50	90	110
Aluminum	100	50	100	110
Titanium plated alloy	90	50	90	110
Zinc-plated alloy	90	50	90	110
Aluminum alloy	100	50	100	110
Copper-plated alloy	100	50	100	110

## Step 7: Remove excess spray paint.

Wash with water or a damp towel or sponge. Typically, rinsing with running water for 3-5 seconds is sufficient to remove excess spray. If the engraved portion remains, a damp sponge and alcohol can be used for localized cleaning.

# Material Test Grid

xTool Material Test Grids

To create a material test array in the xTool P2S:

1. Add a small basic shape from the square tab on the left menu or an imported picture from the import tab on the left menu (square with a plus) and set it to engrave on the right side on the screen to engrave
2. Select the applications tab on the left menu (3 squares and a diamond)
3. Click "Material Test Array," set the max % to 50, max mm/s to 500, min mm/s to 150 and click done
4. Now you should have an array of shapes that says "Engrave Test-xTool P2S" at the top of it
5. Scale and align your test array as you see fit and start engraving!