

Editing tools — outlines, layers & booleans

The full vector toolkit: layer management, compounds, outlines around names, and cutting text out of wraps — everything you'd bounce to Illustrator for, in the browser.

tumblerforge-makerfoundryco.com · a Maker Foundry tool

1 The top toolbar and layers panel

Select anything and the **top toolbar** lights up: exact X/Y position and W/H size (in your mm/in unit, with an aspect-ratio lock), rotation angle, mirror, layer color, duplicate, stacking arrows, and delete.

The **Layers panel** (right side) lists every object top-first. Click a row to select it even when it's buried, drag or use ▲ ▼ to reorder, and click the eye to hide a layer while you work. New objects always land on top.

Layer order isn't cosmetic — it decides how booleans behave. The bottom object of a selection is always the base.

2 Group, ungroup, and compound

Group is temporary glue: select several objects and group them to move and scale as one; ungroup any time. **Make compound** is permanent fusion: it merges the selection into a single vector path — one layer, holes preserved, dramatically faster for big uploaded SVGs. **Release** splits a compound back into its parts.

Rule of thumb: group for arranging, compound before booleans.

3 Isolate layers with color

The color swatch in the top toolbar recolors the selection with one of 12 layer colors — including everything inside a group. Use it to tell overlapping pieces apart while editing. Canvas color never affects engraving: the 3D preview and your laser only see shapes.

4 Outline a name (the die-cut look)

1. Select your text or design.
2. In the left toolbar set the offset distance (mm) and click **Add outline**.

TumblerForge traces one smooth contour around the outer silhouette — letter openings are ignored, so a script name gets a single clean border rather than a bubble around every counter. The outline is placed directly *beneath* the objects it traces, ready to engrave as a backing shape.

Add sticker outline makes a ring instead: offset + band width, the classic patch border.

5 Convert text to outlines

Booleans work on vector paths, not live text. Select text and click **Text** → **outlines** in the top toolbar to convert it. Finish your wording first — after converting it's a shape, not editable text. Every studio font converts, and uploaded fonts are handled automatically.

6 Booleans: Weld, Subtract, Intersect, Exclude

Select two or more objects and the boolean buttons appear. The **bottom object is the base**:

- **Weld** — fuse everything into one shape.
- **Subtract** — cut the upper shapes out of the base (Illustrator's "Minus Front").
- **Intersect** — keep only the overlap.
- **Exclude** — keep everything except the overlap.

The result takes the base's place in the layer stack, so anything that sat above it — like the text that punched the hole — stays above and stays clickable.

7 Worked example: knock a name out of a wrap

1. **Upload** your background wrap SVG → select it → **Make compound**.
2. Add a **Text** name on top and position it.
3. **Text** → **outlines** on the name. (Optional: **Add outline** for a padded knockout, then use the outline in step 4.)
4. Select the name *and* the wrap → **Subtract**.

Result: the wrap now has a name-shaped hole, and the original name shape sits above it — keep it for a two-layer look or delete it for pure knockout.

Surprising result? Open the Layers panel — the shape you want to keep must be the lowest of the selected layers. `Cmd/Ctrl+Z` undoes any boolean.

8 Precision habits

- Type exact dimensions in the top toolbar rather than eyeballing handles.
- Keep critical text out of the shaded taper-transition bands.
- Mirror (\rightleftarrows / \updownarrow) for glass-back or dishwasher-safe inside engraving.
- Duplicate (⌘) + the side quarter-lines = matching left/right side designs fast.

Now you have the whole bench.

TumblerForge · questions → tumblerforge@makerfoundryco.com