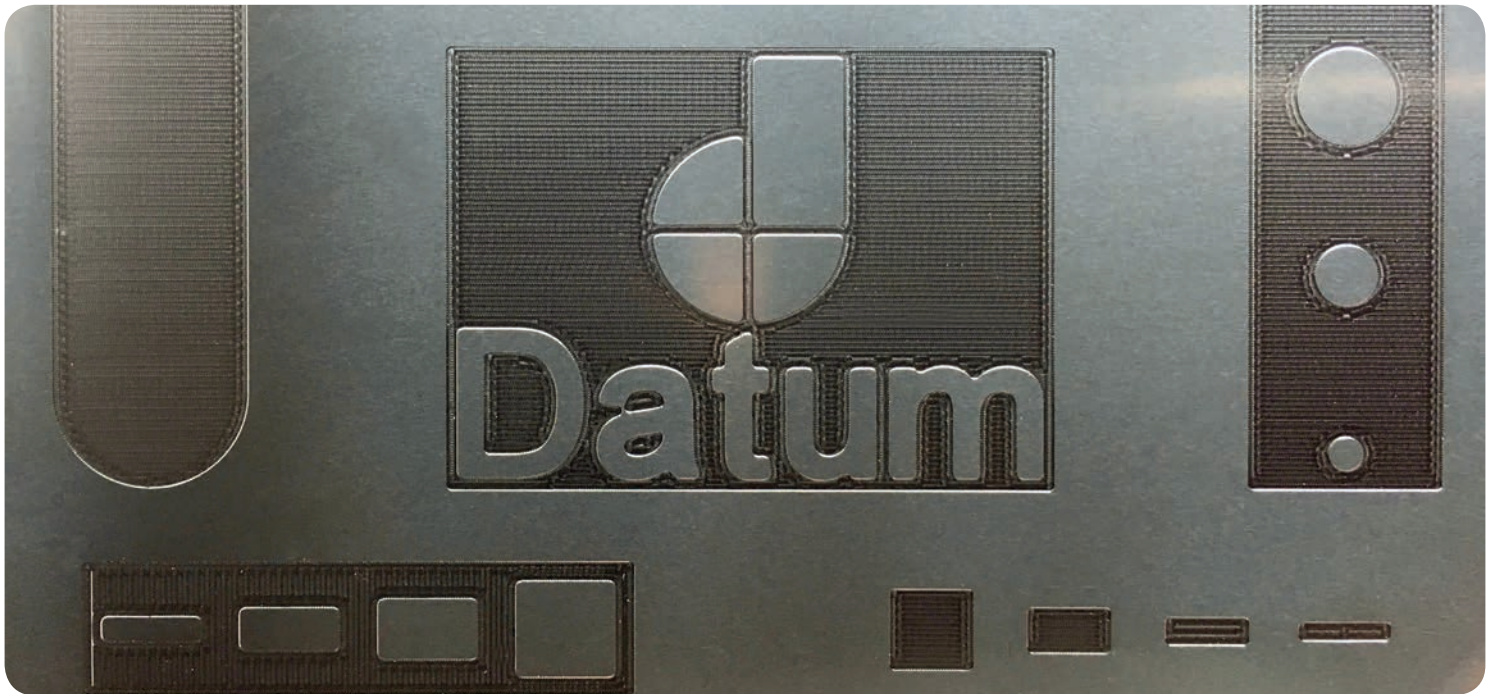


Datum steps, pockets and cavities

Micron Precision. Controlled Transitions. Fast Delivery

Datum supplies customised micro-profiled sheet and foil ready to be laser cut to stencils.

Offering significantly improved levels of positional accuracy, surface finish and transition control to open new opportunities for SMT multilevel stencils (steps), 3D Epoxy stencils, reservoir stencils and 2 print stencils.



A Fast Changing Market

The demand for smaller and smaller electro- mechanical components and Printed Circuit Boards (PCBs) is increasing.

At the same time there is a requirement for a larger number of different sized components on a circuit board requiring new technology to maintain manufacturing efficiency.

Industry analysts expect the requirement for step stencils to double in the next 3-5 years.

Datum's capability to produce precision steps, pockets and cavities on a wide range of thin sheets and foils gives you the ability to ride this trend and deliver on a fast changing market requirement.

Datum micro-profiling produces steps on the foil with the following benefits critical to the SMT process.

- Z- Axis dimensional accuracy within 5 μ m
- Complete edge control ensures a consistent angle and radius allowing apertures to be designed closer to steps and pockets.
- A more gradual transition in stepped areas can extend the life of the squeegee and stop paste build up within the transition.
- Using fiducials and camera guided positioning we can provide the same level of accuracy to features on both sides of a stencil.
- Burr free and surface finish approaching or the same as virgin cold roll PHD or Tension stencil materials. Guaranteed < 0.50 μ m but typically < 0.30 μ m.

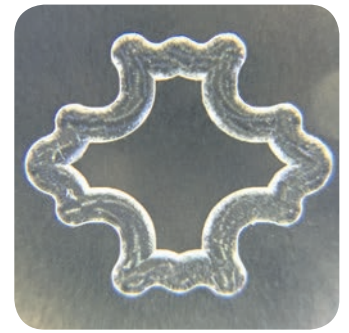


Datum

The data says yes

Step production: Datum vs etching

| Method of production | Etching | Welding | Datum |
|----------------------|-------------------|---------------------------|------------------------|
| Accuracy | +/-10% (variable) | Material Dependent | +/-5µm (consistent) |
| Roughness | Ra >0.50 µm | Material Dependent | Ra <0.50 µm |
| Transition | Uncontrolled | 90° steps. Limited height | Controlled & burr free |
| Process | Hazardous | Clean | Clean |
| Delivery | 24-48 hours | 24-48 hours | 24-48 hours |

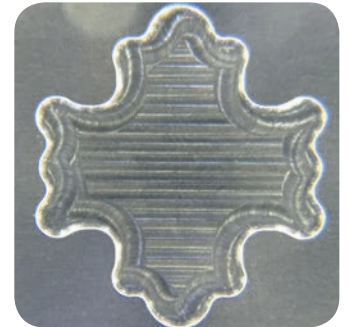


Datum Micro-profile Capability

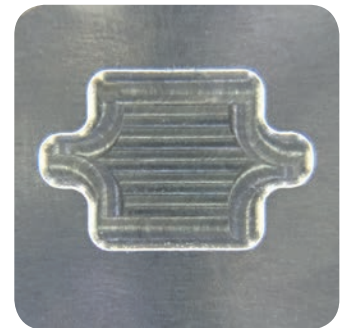
| Dimensional Capability | mm | Inch |
|------------------------------------|---------------|---------------|
| Maximum material gauge | 0.50mm | 0.020" |
| Minimum floor thickness* | 0.05mm | 0.002" |
| Maximum sheet dimensions | 700 x 1,000mm | 27" x 39" |
| Maximum machined area dimensions** | 600 x 900mm | 23.6" x 35.4" |



| Dimension Tolerance and surface finish | | |
|--|----------|-------------|
| Thickness of the milled area | +/- 5µm | +/- 0.0002" |
| Surface finish (Ra) | < 0.50µm | |



| Other | |
|--|-----|
| Can be machined pre-mounted? | Yes |
| Steps/cavities on both sides of the stencil? | Yes |
| Preferred file format *** | DXF |



* Smaller available but not guaranteed

** Depends on gauge

*** Potential processing fee for other formats or where excessive CAD work is required

UK

Datum Alloys Ltd
+44 (0) 1548 855 900
sales@datumalloys.com

USA

Datum Alloys Inc
+1 607 239 6274
us.sales@datumalloys.com

Singapore

Datum Alloys Pte Ltd
+65 3158 9807
sg.sales@datumalloys.com



Datum

The data says yes