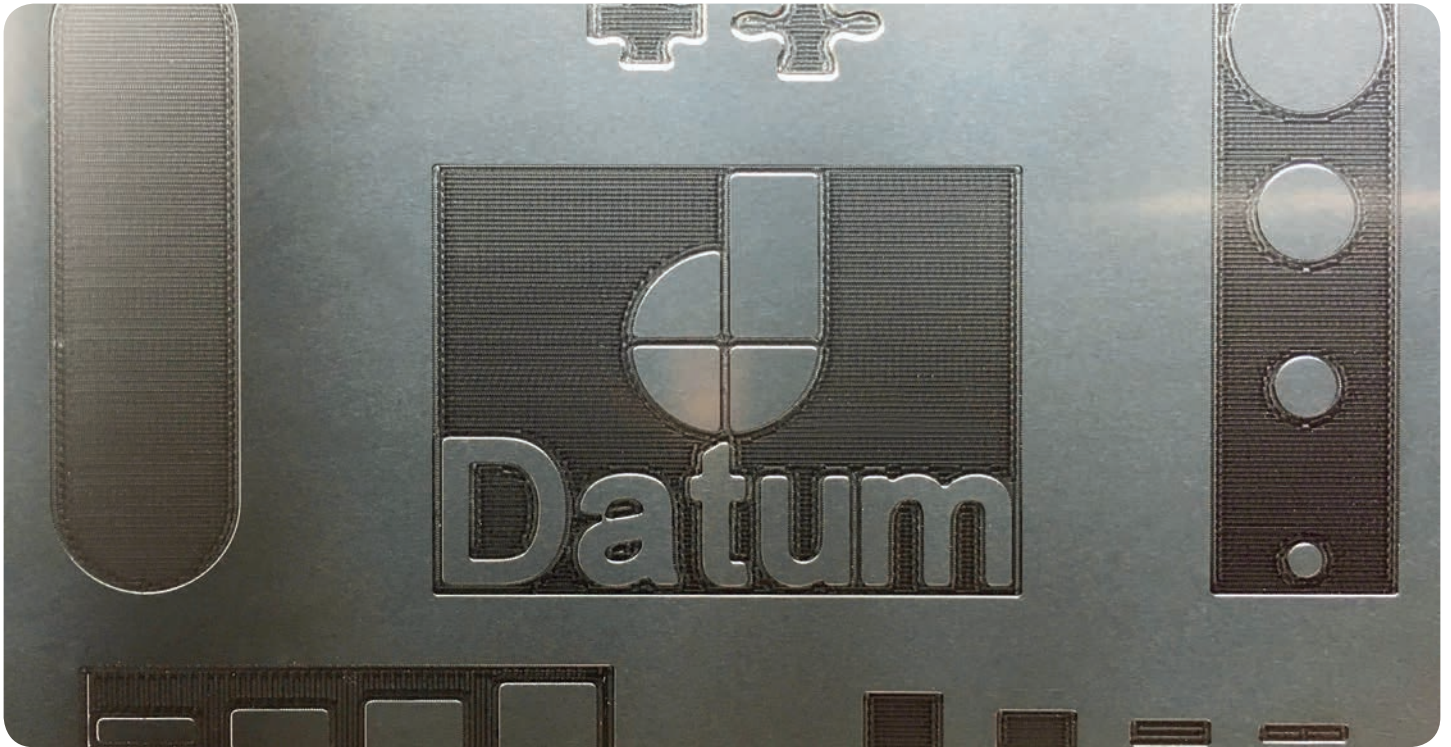


# Datum steps, pockets and cavities

## 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 for small geometries, smooth squeegee movement and better paste roll.



### 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 5µm
- 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.
- Surface finish approaching or the same as virgin cold roll PHD or Tension stencil materials. Guaranteed < 0.50 µm but typically < 0.30 µm.

These features reduce variability within the print process and help deliver certainty.

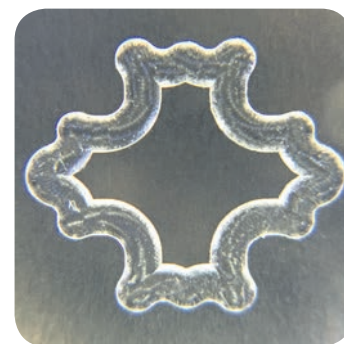


**Datum**

The data says yes

## Step production: Datum vs etching

Method of production	Etching	Datum
Accuracy	+/-10% (variable)	+/-5% (consistent)
Roughness	Ra >0.50 µm	Ra <0.50 µm
Transition	Uncontrolled	Controlled
Process	Hazardous	Clean
Delivery	24-48 hours	24-48 hours



## Datum Micro-profile Capability

Dimensional Capability	mm
Maximum material gauge	0.50mm
Minimum floor thickness*	0.05mm
Maximum sheet dimensions	610 x 850mm
Maximum machined area dimensions**	600 x 400mm

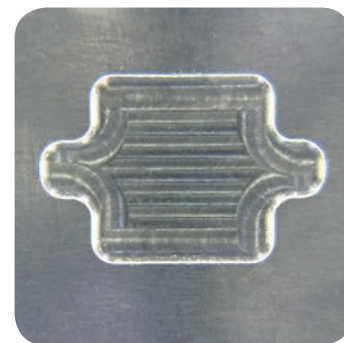
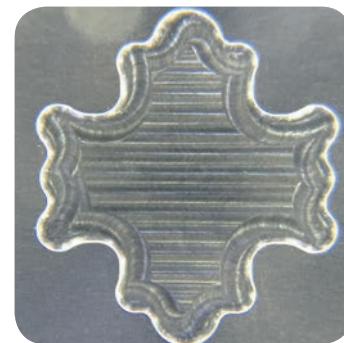
Dimension Tolerance and surface finish	
Thickness of the milled area	+/- 5µm
Surface finish (Ra)	< 0.50µm

Other	
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



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**Datum**

The data says yes