

## **Electrochemical Etching Process Description**

Electrochemical Etching is non-destructive, fast, clean, and non-harmful to the user. Permanent inscriptions are made in seconds. Mild electrolyte and low voltage current etch the metal surface through openings in a stencil. Only the legend in the stencil is etched into the part surface. Marks/inscriptions can cover very small to large areas including curved surfaces. Depth, darkness and shade of the inscription are controlled through time, current, electrolyte and marking cycle.

A flexible stencil is positioned on the electrically conductive surface to be marked. It is held in place manually by the operator or with a stencil holding fixture.

Stencils produce thousands of marks in most applications.

A marking stamp/head moistened with very little electrolyte is pressed against the stencil. Electrolyte penetrates the openings in the stencil and makes contact with the part. Electric current starts to flow and in conjunction with electrolyte the mark is etched onto/into the surface.

The marking stamp/pad is handled manually by the operator or automatically in our marking systems.

Marking cycles are typically 1-2 sec.

Marking Voltage is typically 12-24 Volt with AC or DC current

Electrolytes typically are mild salt solutions in water.

**TUS Stencil Service for HIGH PERFORMANCE STENCILS usually ships in 1-2 days.**

Supplies are shipped ex stock.