etchform

Wickeder Group

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One-stop-shop supplier of high precision etched and electroformed

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ONE-STOP-SHOP SUPPLIER OF HIGH PRECISION ETCHED AND ELECTROFORMED METAL PARTS

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Principle

Etching, also known as (photo)chemical milling, is a process in which an acid dissolves a metal by means of a redox reaction. By protecting parts of a surface, in this way etching can be used to make a pre-determined design. High precision metal parts are made using precision etching according to a drawing specification. Using etching techniques, parts are produced for industries such as the automobile industry, electronics, energy, aerospace, medical and the optics industry.

Advantages

 Nearly all metals can be etched. • No change in material properties (stress, brittleness and hardness). Absolutely burr-free products. Limited tooling costs. • Product complexity has virtually no effect on the production costs.

Disadvantages

• High chemical disposal costs. • Poor particle control. • Poor repeatability based on the influences of temperature and concentration of etchant. Limited sheet thickness and outer dimensions.

metal parts

Precision etching in almost any metal Etchform is specialized in etching precision parts in almost any metal and alloy, including copper, brass, phosphor bronze, beryllium copper, stainless steel alloys, and also special materials such as titanium, molybdenum, gold, nickel, and silver. 0.003 mm - 1.5 mm thickness.

More information:



Production boundaries and limits

• Material thickness: 0.003 - 1.5 mm. (Titanium up to 0.5 mm). • Product dimensions: standard up to gross 550 x 550 mm. • Tolerances : standard +/- 10% of the material thickness with a minimum of +/- 0.01 mm. • Materials: (stainless) steel, titanium, molybdeen, gold, silver and copper.

Cost

Production and quality inspection costs are depending on: • Product complexity, tolerances and customer requirements. Material thickness, and quantities. • Cost of base material and chemicals. • Further requirements such as: cleanroom packaging.





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