ADVANCED CHEMICAL ETCHING LTD

ETCHING

ACE – PHOTO CHEMICAL ETCHING

Using our chemical manufacturing process, Advanced Chemical Etching (ACE) have changed what is possible, providing a level of detail and quality that leaves our competitors standing.

Only ACE can consistently supply components manufactured with the unrivalled consistency, demanding tolerances and cost reductions we can offer to our customers.

Traditionally, processes employed in metal profiling to produce metal parts and components have included stamping, punching, laser and water jet cutting. These methods impart inevitable stress on the material, and can result in distortion, burrs and surface imperfections, leading to a loss of integrity and quality in the finished component. Hard tooling methods can involve long lead times, especially when alterations are required, and costs that scale quickly as design complexity increases.

Here at ACE we are ***constantly challenging*** the normal chemical etching process route. We continue our ***research into developing new***, ***precision etching processes*** in our ***R&D laboratory***. We are ***constantly evolving*** this ***unique process*** into a ***competitive engineering route*** for ***virtually every industry***.

WHY IS PHOTO ETCHING DIFFERENT?

Photo etching, also known as chemical etching, is ***a very precise method of metal cutting*** and etching that uses specially formulated acids such as Ferric Chloride (FeCl3) to produce designs on flat sheets of metal with thicknesses up to 2.5mm. Due to the nature of this process, it is possible to etch designs with an ***unrivalled level of complexity***, incorporating special features, in most metals, with thicknesses ranging from 5mμ to 2.5mm.

THE ACE ETCHING PROCESS

Our process starts with ***digital tooling***, where we receive data from the customer in the form of a ***DXF/DWG file or dimensioned drawing***. This method allows customers the flexibility to include several variations of a design on one sheet of metal. Once a sample has been approved and the best design chosen, ACE uses the same data to produce a photo tool for higher volumes. The photo tooling can be modified in a matter of minutes, and samples produced in hours, not days or weeks.

Once the ***design is printed onto the chosen grade of metal sheet*** and ***chemically developed***, the sheet is passed through the ***etching machine*** on a conveyor, where the ***acid solution is sprayed and attacks the unprotected surfaces of the metal***, until the chemical etching process is completed, and the ***resulting components*** can be ***rinsed and inspected***.

This process allows for the ***highest possible level of flexibility and complexity at the best price*** – and produces a product of the same consistency and quality from the first etching to the last, without the characteristic drawbacks of other cutting methods.

Contact ACE today on +44 (0)1952 416 666 to find out what we could produce for you – whether it's 1s or millions.

A PROCESS OF INNOVATION

ADVANCED CHEMICAL ETCHING LTD

CHEMICAL ETCHING

A STEP BY STEP GUIDE

ACE ARE LEADING THE ETCHING INDUSTRY

In this ***fast-moving manufacturing age***, ***ACE*** has a ***proven track record*** of ***developing precision etched components***.

We are constantly ***creating innovative chemical etching techniques*** and manufacturing ***millions of etched components every year*** in ***2000 different metals*** and in ***thicknesses of five microns to 2.5mm***.

Our team of ***technical experts*** are ready to ***advise on standard products for your sector*** or ***bespoke components*** that meet a specific technical application.

Contact Advanced Chemical Etching today to see how we can help you achieve your manufacturing targets, on time and on budget.

ACE – MAKING THE DIFFERENCE IN ***INNOVATION***, ***TECHNOLOGY*** AND ***MANUFACTURING***

CONTACT THE TEAM ON +44(0)1952 416 666 | info@ace-uk.net | www.ace-uk.net