

Chemical Etching—1. The Product.



Chemical etching into decorative sheet metals such as stainless steel and brass produces very high quality signs. They are best known for use as traditional opening plaques or office nameplates, but also make some of the best wayfinding signs for apartment blocks, offices, and public buildings.

The process is similar to traditional engraving. It

recesses graphics into the surface of the metal, but unlike mechanical engraving it is a photographic process. This means that we can resolve incredibly fine detail, any typeface that you want, and very small text. Logos can be reproduced with amazing clarity, and it is even possible to reproduce photographs. If you have already been using chemical etching, you may be surprised at how much sharper our etched signs are due to our unique processes.

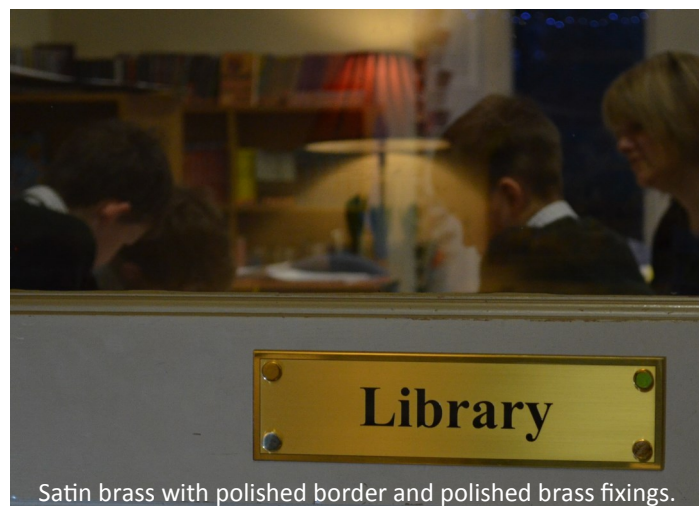


Satin stainless steel wayfinding signage.



Wayfinding signage in larger buildings needs to be safe, especially as it is usually located in entrances, stairwells and access corridors. Our internal wayfinding signage has been certified to BS 476: Part 6: 1989 + A1: 2009 – Fire Propagation, and BS 476: Part 7: 1997 – Surface Spread of Flame, by an industry-leading independent test company. This means that you can offer wayfinding signage that is not only stylish and attractive, it also meets the necessary regulations, and is a much safer option than plastics or other similar materials.

The most popular material for chemically etched signs is stainless steel, and we only use 316 grade stainless steel, so it is suitable for outdoor use. Brass also works well, and is offered in a range of attractive finishes. Other metals such as copper and bronze are always available too for those special projects.



Satin brass with polished border and polished brass fixings.

Chemical Etching and Digital Anoprinting for the Sign Trade.

Chemical Etching—2. The Process.

Chemical etching into metals to make signs is similar in many ways to mechanical engraving. It makes holes in the metal which are then usually filled with paint. The main difference between chemical etching and engraving is that it is a photographic process, so pretty much any graphic design that can be converted to a black & white image can be etched. A photographic film is made from your artwork, and this is transferred to a light-sensitive coating that we apply to the metal. That creates the stencil. We then take your plate to one of our purpose-built etching machines, where an acidic solution gently removes just the right amount of metal.



Etched stainless steel with simple colour blend & photograph.

We can fill the etched image in almost any colour. The example shown on the left has a simple colour blend, just one of many techniques that we can use to reproduce even complex logos. We can also use creative techniques to mix polished and satin finishes on one plate (see previous page). For advice on sign design just get in touch and we will be happy to help you create wonderful metal signage.

We can cut simple shapes such as discs, and also more intricate shapes such as the example on the right, using a variety of tools in our workshop, which means that we can offer our fast service even for quite complex designs. Plates that require accurate engineering such as control panels can be cut before or after etching using a variety of techniques such as laser, water-jet, or router cutting. We can advise on the best way to achieve such shapes.



Etching to more than one depth can create interesting effects.

Chemical Etching—3. Depth & Clarity.

Etching has traditionally been quite deep, often too deep as otherwise it is very difficult to get the paint fill into the etched detail. The problem with etching too deep, what we call over-etching, is that it blurs the graphics. Our unique processes allow us to paint even the finest of detail, so we do not need to etch as deep, and therefore we can create much sharper, and beautifully defined images. There are times however when depth is an advantage, and again we have developed specialist processes that allow us to etch very deep while retaining good clarity of detail.



If done correctly, chemical etching can reproduce extremely fine detail. The example on the left shows Times New Roman text etched at just 1mm high. Being able to reproduce text that is too small to read may not sound very useful, but it is this level of clarity that gives an excellent sharpness of detail to our signage, enabling us to use techniques such as reproduction of photographs, as shown on the previous page.



This second example has been etched slightly too deep. The text becomes bold, the corners of the squares and triangles have become rounded, centres of small letters are starting to disappear. These effects increase with deeper etching. This resolution would not reproduce fine detail or photographs very well. More depth can sometimes be useful however, such as for brass plates with bold designs that will be frequently polished.



There are times when deeper etching is required, such as the brass rubbing plate shown on the right, or to produce a cast plaque effect, as shown on the left. We select the ideal depth for each design.



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