



## Photo Mask Instructions

### Cut the sheet into individual Photo Masks

- When cutting each mask, cut around the outside of the 2mm pink border, leaving it attached to the mask.

### Applying the mask

#### Float the Photo Mask into position

- Dilute some of the adhesive concentrate (available from C.G.) - 1 part adhesive to 4 parts water (you may also store this diluted adhesive for use later).
- Ensure that the glass to be engraved (the "substrate") is clean and free from grease or detergents.
- Dunk the Photo Mask in the adhesive. For larger areas, it may be advisable to wet the substrate with adhesive as well.
- Place the wet Photo Mask in position on the substrate so that it is right reading. N.B. If you are not sure which way up that is, the edges tend to curl slightly away from the substrate side when wet. If put into position straight away, the Photo Mask will tend to stay put. It can be made to slide freely, however, if lightly moved with a small circular "polishing" motion during application. N.B. If one edge of the Photo Mask is laid down first and then the rest of the Photo Mask is rolled down onto the substrate, it will carry a pool of the adhesive in front of it and thus avoid trapping bubbles.

#### Squeegee away the excess adhesive

- Wet a sharp edged squeegee (available from C.G.) with a little adhesive. Gently holding the Photo Mask in position, work the squeegee out from the centre to the edges. At first, press lightly and then progressively more firmly. Squeeze out all bubbles and excess adhesive. Check the final position. If need be, you can peel the Photo Mask off and start again.

#### Allow to Dry

- Leave to dry overnight in a warm, dry atmosphere. Or force dry for around an hour in a low temperature oven at 45 - 48°C, DO NOT EXCEED 50°C.

When thoroughly dry, peel away the pink carrier film, leaving just the blue Photo Mask stencil film.

- **IMPORTANT:** at this stage it is vital to check in case you've left any bubbles under the Photo Mask. If you find any in the area around the image, mask over them. If they are within the image itself, it is likely that they will burst when they are blasted and we recommend discarding this Photo Mask and starting again.
- Mask the surrounding area to protect it from overshoot.

## Blasting

- Sandblast to the required depth. Be careful not to overblast and lose the finer details.
- **IMPORTANT:** Use the nozzle at right angles to the work piece.
- **FOR HALFTONES:** Do not attempt to cut any depth - this is a surface finish only. Depth will both wear away the smaller dots and generate additional reflections from the sides of the cut, spoiling the image. Using a fine grit, preferably one that is already well worn, a lower air pressure and, with the nozzle further away than normal (almost wafting the grit onto the mask), use a series of brisk, parallel passes, both across and up and down the image. This will help avoid banding.

## Grit size

- A grit size of 280/320 or smaller is recommended. Larger sizes may break down the Photo Mask too quickly. N.B. Most new grit is much sharper than grit that has been used for a while and may penetrate the fine detail Photo Mask at higher pressures, giving a very fine frosting effect on the substrate. Caution and a temporary reduction in working pressure is advised when using new grit.

## Air Pressure

- Using a suction cabinet, a 6mm nozzle, an 8 cfm jet and 280/320 grit, we recommend an air pressure of around 60psi (4 bar) N.B. The effects of different working pressures vary considerably from one cabinet to another. Our best advice is to take it easy to start with and gradually work up to whatever pressures best suit your equipment.

## Finishing

Finally, soak in warm water to float the used Photo Mask off the substrate. The engraving is now complete.

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