

Master the Sandcarving 2-Step

SIMPLIFIED STAGECARVING? YES, IT'S POSSIBLE!

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Sandcarving is a quick, clean, and simple process that will diversify any business. Sandcarving not only allows for deep etching capabilities with sharp, clean lines, but it also offers techniques unique to sandcarving that will increase the value of any project. These techniques include halftone, or photographic etching, frosting capabilities, complex curves, and the popular multistage carving capability!

Focusing on multistage carving, there's a very simple, two-stage sandcarving process. To further simplify the procedure, we're using RapidMask, the only dry-process film on the market, which saves even more time and resources.

The simple steps below prove how quickly and easily a two-stage carve can be achieved on glass—and you'll be amazed at how one easy technique can increase the value of any project.



1. GENERATING ARTWORK

When it comes to any sandcarving process, optimum end results truly stem from great and accurate artwork. When working with RapidMask and sandcarving, there are a couple important steps that **MUST** be addressed when creating artwork:

1. Ensure the artwork is in a “negative” format. Because RapidMask is a dry-process film, the artwork must be inverted to a negative image. Simply start creating artwork in a “positive image” format and then invert to a negative image. Once inverted, view the artwork as the “white/clear areas = blast”! Those areas will be sandcarved and removed from the substrate.
2. If the artwork needs to be set up as a back blast, or the substrate is being sandcarved from the back side, simply mirror the image.
3. Ensure artwork is setup for a two-stage carve. There should be distinct or enclosed “islands” within the artwork. “Cut lines” may need to be added to ensure an easy stagecarve or film removal process. Also, wide lines will help to achieve a deep Stage One blast, which will create more separation and pop.

Before going to print, make sure the black areas are 100% black or “K” in the CMYK spectrum and the white areas are 100% white. This is extremely important because ensuring proper color levels will eliminate bad artwork prints and prevent the film from being exposed improperly. When going to print, ensure the printing preferences are set for the darkest, or high density, output.



2. EXPOSING ARTWORK

After the artwork is printed onto inkjet or laser media, it's time for exposure. We're using the 4 mil thickness for a deeper etch. When exposing the artwork, make sure the artwork and RapidMask are placed emulsion-to-emulsion. The UV light passes through the artwork first, exposing the image onto the film. Because we're using RapidMask 4 mil film, we'll expose it between 2–2.5 minutes on a Letralite or standard UV unit. If you're using any other type of UV exposure unit, a simple "snap test" can be performed. The snap test ensures the exposed mask is brittle enough for sandcarving.

If you're using a different photomask, you'll need to wash out the film. We're skipping that step because we're using a dry-process film.

3. PUT PHOTORESIST ON SUBSTRATE

After the substrate is cleaned, apply the repositionable film to the substrate, sticky side down. A squeegee can be utilized to apply pressure, remove air bubbles, and adhere the film to the substrate.

Then, simply remove the film carrier and tape off any areas of the substrate that need to be protected.





4. STAGE ONE SANDCARVE

After the sandcarving system is turned on and the pressure is adjusted to 40 PSI, load the substrate into the cabinet. This is the Stage One sandcarve, the deepest carve. Thoroughly blast the entire substrate, achieving an approximate depth of 1/8 in. deep or as deep as the line is wide. Keep the nozzle about 4–6 in. away from the substrate at a 90-degree angle. This step will achieve the deepest etch, so keep the nozzle moving on the substrate until the desired blast depth is achieved while ensuring the film is not compromised.



5. REMOVE UNWANTED PHOTORESIST

When Stage One is done, remove the substrate from the sandcarving cabinet. In preparation for the Stage Two carve, peel away sections of the remaining photoresist film. A picking tool, razor, or even your fingernail can help with the photoresist film removal process.

6. STAGE TWO SANDCARVE

The Stage Two carve can be considered a “shotgun blast.” The cabinet pressure should remain at 40 PSI. Keep 12–18 in. between the nozzle and the substrate; the nozzle would be approximately at the back of the cabinet. Be sure the nozzle is aimed straight at the substrate. The shotgun blast is very quick and simple, lasting only a couple of seconds, to achieve a surface etch.





SHOW OFF THE FINISHED PRODUCT

Remove the entire stencil. Use warm water if needed.

Then, show off your two-step stagecarved product! This streamlined process saves you time and labor while creating a high-end look that will provide customers with a variety of highly valued products.



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to find everything you need to start and maintain your own sandcarving business, including photoresist films, sandcarving equipment and supplies, glass and crystal engraving products, and training resources.



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