

# Sandcarving in Seven Easy Steps:

## Blast Your Way to High-Quality Products

The term "sandblasting" doesn't do justice to the intricate and often delicate pieces that awards professionals can create using this 20 year old process.

Fortunately, the terms sandetching and sandcarving can be used interchangeably to describe the process that, although rough-sounding in name, really creates a fine detail and rich look.

Sandcarving is the process of applying a stencil to a product and "coloring in" the stencil's image with an abrasive applied at high pressure. The abrasive erodes the surface in the open areas of the stencil, leaving a permanent impression. The balance of the stencil covers and protects the object, leaving those areas untouched.

This easy-to-use technology has created many profitable opportunities for companies in several markets, such as awards, gifts, monuments and woodworking. Sandcarving is an inexpensive method of personalizing a variety of surfaces. Although the process is used most often on glass and crystal, you can get high-quality results with marble, ceramics, wood, granite and river rocks. And once an object is sandcarved, you can color fill the carved areas for a more unique personalization.

Sandcarving technology has been around for almost 20 years. Traditionally, large items would be "blasted" using a hand-cut rubber stencil. Today, you can create images that are smaller and of higher-quality detail using photo resist stencils, which are especially effective on delicate gifts and small and odd-shaped items. Photo resist technology has only been around for about 10 years. You work entirely with film until you adhere the stencil to the piece and blast it, which leaves less room for error. Another advantage is that you can expose several stencils at a time, making the blasting of large orders much faster. Sandcarving gives products a smooth and uniform cut with a clean, high-class look. Complete systems and supplies cost as little as \$600 for a small system and \$2,500 for a larger system. Once you have a sandblasting unit, you only need to purchase more film and abrasive.

**Using photo-resist sandcarving is fast and easy. Here's how it's done in seven easy steps:**

# 1

## Stencil Exposure

The first step is to make a stencil. Create an image on your computer and print it onto a film positive or paper (vellum) positive stock. Place the emulsion side of a film positive or the toner side of a paper positive against the emulsion side of your photo resist film to expose the image. A vacuum or compression frame should be used to ensure firm contact of the positive and the photo resist film during exposure.



# 2

## Develop Image

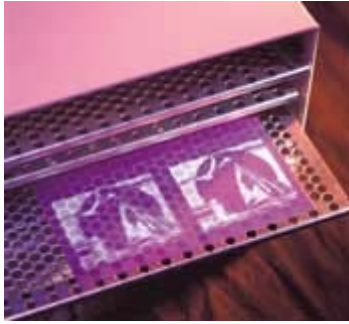
Remove the dull slip sheet from the emulsion side of the film. To reveal the image, the film needs to be sprayed or developed with water, removing emulsion related to image area. PhotoBasive films can be washed at temperatures up to 120° F at 50 to 1250 psi. Washout times range from 20 seconds to 2-3 minutes depending on the thickness of the film and detail of the artwork. Warm water and high pressure are recommended to increase production and decrease the washout time. Use a gentle, steady sweeping motion sprayed about 6-12 inches away from the film.



### 3

#### Dry

Remove the excess water from your film with a blow dryer or pressurized air. At room temperature, dry the stencil for 20-40 minutes. When completely dry the film will return to its uniform color. Drying time can be reduced 5-10 minutes by using a photo resist film dryer.



### 4

#### Transfer Stencil

Place the emulsion (dull) side of the stencil mask in the correct position on your object for blasting. Remove the protective carrier sheet by lifting a corner and peel it off in one quick motion.



### 5

#### Sandcarve

Place the object into the sandcarving unit. Hold the sandcarving gun 6-8 inches away from the object perpendicular to its surface. The recommended maximum pressure for a pressure-pot sandcarve system is 25 psi. A siphon sandcarving system should not exceed 85 psi. The abrasive grit size should be 180 or finer depending on the detail of the image.



### 6

#### Remove Stencil

Remove the stencil by peeling, soaking in water or applying resist remover to reveal the finished object. The stencil can only be used once.



### 7

#### Finishing Touches

Now you have an original sandcarved item. Remember, you can use sandcarving in combination with other personalization methods. Add an engraved plate or color fill your object. Mount it on a plaque board or marble stand. There are myriad ways to make sandcarving work in your business. Sandcarving is a quick and easy way to add originality to any product. And it will blast your sales into the next century.