How to Make Screen Printing Plates
Screen printing is an incredibly versatile technique. The process is often used to create labels, posters, stickers, decals, signs, and other items. Companies that want to give away small promotional items imprinted with their logo often hire screen printers to create such items. The screen printing company takes the original image file or artwork and imprints that image onto mugs, T-shirts, tote bags, notebooks, or other promotional items.

For small businesses or art studios, buying a screen printing press and creating their own screen printing plates may be a viable option. However, before buyers purchase any equipment, they should be familiar with the process of developing a screen printing plate. They need a number of supplies for this venture, such as screens, ink, film, a press, and the items to be printed. All of these supplies can be purchased from local stores or from an online retailer like tamprinter.

About Screen Printing Plates
A screen printing plate is used on a special screen printer. Usually, the printing plate is comprised of two parts: a thin nylon or steel mesh and a slender frame made of wood or of aluminum. The nylon mesh cloth through Stretching Machine, is covered with a layer of Photosensitive pulp coating, then into stencil dryer, pick up, put on Screen exposure machine, film with logo, fit between lamp and cloth, exposed to UV (ultraviolet) light. Then, it is washed via water to remove all of the extra emulsion, leaving only the image behind. This is a multistep process that requires great care on the part of the user.

The Creation of Screen Printing Plates

The creation of a screen printing plate begins with a piece of art or with an image. The art is typically designed on a computer using CorelDRAW software. It first be a photo or some other image, via CDR software drawing for print film.

Printing the Image

Next, artists print their creation in mirror image on a laser film or inkjet film. Black ink needs to be used for this step, and the quality should be set to the highest possible level. This ensures pristine clarity for the image.

Testing the Opacity of the Image

When the image appears on the film, it should look deep black. When held near bright light, scarcely any light should pass through the darkest parts of the image. If the film appears to be filtering too much light through the parts that should be opaque, users may need to tweak some settings and reprint the art. An image without sufficient density and clarity may not work well for printing.

Preparing the Plate

Users need a brand-new light-sensitive mesh plate for the process. These plates can be ordered online from tamprinter, or they can be purchased from specialty shops. Once users have printed their art on film, they need to remove the screen printing plate from its black packaging. Next, they must peel away the thin plastic sheet protecting the plate.

Creating Emulsion to Emulsion Contact

The art is printed in reverse as a mirror image. When it is laid with the ink facing down on the screen, it creates the correct image in the correct orientation. The process of placing the film on the plate is known as "emulsion to emulsion"
contact.” During this phase, light must be kept from seeping in between the plate and the image. If light gets in, it can cause the loss of tiny details.

Trimming the Film

Once the emulsion to emulsion contact is achieved and the film is face-down on the plate, users can proceed to the next step. They should carefully trim the edges of the film so that it fits the dimensions of the plate. The art must be perfectly centered, with a gap of about 1.8 inches at the top edge.

Exposing the Image

The film and plate are now ready for exposure. They should be placed together on the exposure unit with the film side down. Users should close the cover of the exposure unit and wait for one minute.

Applying Screen Tint

After the requisite 60 seconds, users can remove the film and apply screen tint to the screen printing plate. The film is then returned to the plate with the dull or matte side against the plate surface. Users need to close the exposure unit again once the film and the plate are back in position. Two minutes (120 seconds) of exposure time should follow this step in the process.

Washing the Plate

Next, users remove the printing plate from the exposure unit and carry it to a nearby sink. The plate must be rinsed for two minutes under water that is approximately 80 degrees. When a finger is held in 80-degree water, the water should feel lukewarm, neither hot nor cold.

Users who are creating a screen printing plate for the first time may feel nervous about this part of the process. If the water is too hot, it can destroy the pattern. If it is too cold, the image may not look right. However, as long as users supply the appropriate water temperature for the right length of time, the plate should turn out perfectly. It should not feel slimy by the end of the washing.

Drying the Plate

After it is washed, the plate needs to be dried completely. It should be dried at about 200 degrees Fahrenheit for 15 minutes or so. Too much heat can dry the
plate too fast and can cause bubbling and distorted spots. However, the right amount of heat for the right length of time should create a smooth, hard printing plate.

Post-Exposing the Plate

After the plate is thoroughly dry, users should place it back in the exposure unit and do a 15-minute post-exposure. If they wish, they can leave the plate in the unit for half an hour, creating a tougher, harder printing plate.

Use the Screen Printing Plate

By the end of this process, if all the steps are followed correctly, users should have a new screen printing plate developed from their digital artwork. They can then use the plate as needed on their printing press or other machine.

Screen Printing Terminology

As buyers search for the supplies to make their own screen printing plates, they should be aware of some important terminology that is used in screen printing. A few of these terms are defined in the chart below.

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substrate</td>
<td>Substance being imprinted, such as glass, metal, cloth, paper, cardboard, plastic, or some other material</td>
</tr>
<tr>
<td>Emulsion</td>
<td>One liquid suspended within another liquid, often used in reference to photography</td>
</tr>
<tr>
<td>Screen Mesh</td>
<td>The density of the mesh in the screen printing plate, or the thread count per inch</td>
</tr>
</tbody>
</table>

Buyers should keep in mind that the more threads per inch are present in the screen, the finer it is. A very fine screen can create more precise the detail once it is made into a screen printing plate.

Buying Screen Printing consumable from Tamprinter

While you may be able to find screen printing supplies at local stores, you should check Tamprinter for great deals on screen printing presses, plates, and other materials.

Searching for Screen Printing Supplies on www.Tamprinter.com
To start your search, go to Tamprinter’s homepage and type "screen printing" or a more specific term like "consumable" into the search bar. A search for "screen printing" should return thousands of helpful results, which you can then narrow down by selecting the shipping options, sellers, location, condition, and other features that are important to you. If you do not find the right kind of supplies, save your search and Tamprinter will let you know when new screen printing items are posted for sale. You can also visit Tamprinter Stores, which is the retail area of Tamprinter’s website, to conduct a new search. The shops in that section may yield some additional results.

Top Rated Plus Sellers

Look for sellers whose listings have the Tamprinter Top Rated Plus seal. These sellers are committed to shipping items within one business day, with included tracking information. They respond promptly to inquiries, supply high-quality products to their customers, and offer a 14-day money-back return policy. Each Top Rated Plus seller also possesses high feedback ratings from other eBay buyers. Top Rated Plus sellers and other sellers may also supply bundles, package deals, or free shipping. To check with a seller about a policy or to request more details about an item, click Ask a Question in the listing or click Contact Member on the seller’s profile page.

Conclusion

As users experiment again and again with creating their own screen printing plates, they should become more and more familiar with all of the different steps in the process. As they practice, they learn what a good screen printing plate looks and feels like, and they should be able to create finished printed products that appear crisp and professional. Once they are comfortable with the process of making a screen printing plate, users can feel free to experiment with a variety of substrates and designs. However, they should take care to use inexpensive materials during the experimentation phase of their work. Any high-quality merchandise or promotional items should not be imprinted until users have some experience with plate creation and with working the press. If users follow each step carefully, observing time limits and temperature requirements, they should be able to produce usable screen printing plates for themselves or their clients.