

# PRODUCTION GUIDE

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## Decorating Processes

### Colorfill

Screen printing an image and debossing it onto a surface.

### Deboss

The depression of an image into a material's surface so causing the image to sit below the product surface is a deboss.

### Decal

Artwork is produced on a transparent decal and applied to the product.

### Emboss

The image is impressed in relief to achieve a raised surface.

### Embroidery

A design is stitched into fabric through the use of high-speed, computer-controlled sewing machines. Artwork must first be "digitized;" the specialized process of converting two-dimensional artwork into stitches or thread. Certain formats of art, such as a jpeg, tif, eps or bmp cannot be converted into an embroidery tape. The digitizer must actually recreate the artwork using stitches. It then programs the sewing machine to sew a specific design in a specific color with a specific type of stitch. This is the process known as digitizing.

### Etching

A process in which an item is covered with a protective coating that resists acid to create the artwork. This leaves a bare surface and a protected surface. It is then exposed to acid. The acid attacks only the exposed surface leaving the image etched onto the surface.

### Foil Stamp

Applying metallic or colored foil imprints to vinyl, leather or paper surfaces. Usually used on a deboss.

### 4-Color Process

A color image is separated into four different color values using filters and screens. The result is a color separation of four images. When transferred to printing plates and printed on a printing press with the colored inks, cyan (blue), magenta (red), yellow and black, reproduces the original color image. These four colors can be combined to create thousands of colors just as your computer printer does.

### Hot Stamp

Setting a design on a metal relief die or plate, which is then heated and pressed onto the printing surface to achieve a deboss.

### Laser (Engraving)

Art or lettering is cut into a material by a laser beam that vaporizes the portion exposed through openings in a template.

**Offset Printing**

The transfer of ink from a metal printing plate to a rubber-covered cylinder is used on more complex artwork and for higher quantity runs.

**Pad Printing**

A recessed surface is covered with ink. The plate is wiped clean, leaving ink in the recessed areas. A silicone pad is then pressed against the plate, pulling the ink out of the recesses and pressing it directly onto the product.

**Screen Printing/Silk-Screening**

An image is transferred to the printed surface by ink, which is pressed through a stenciled screen and treated with a light-sensitive emulsion. Film positives are put in contact with the screens and exposed to light, hardening the emulsion not covered by film and leaving a soft area on the screen for the squeegee to press ink through. A different screen must be created for every color to be printed and each color is screened separately.

**Sublimation**

Dye transfer process where the image consists of a colored dye permanently embedded into the pores of the material surface. Used to imprint messages, graphics and photographs on a variety of items, primarily mouse pads, mugs, T-shirts, caps and trophy medals.

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## Artwork Glossary

### AI – (Adobe Illustrator)

Adobe Illustrator File, the very best in quality to recreate your artwork in the printing process.

### Bitmap files

Images are exactly what their name says they are: a collection of bits that form an image. The image consists of a matrix of individual dots (or pixels) that all have their own color (described using bits, the smallest possible units of information for a computer). Unless these are in very large sized resolution (600 DPI or better), they are unusable in the printing process.

### BMP

A generally low resolution image format. This format will not work to use in the printing process.

### EPS

Encapsulated Postscript file: An alternative picture file format that allows PostScript data to be stored and edited and is easy to transfer between Macintosh, Windows machines, and other systems.

### GIF

Commonly used on the web due to it's ability to reduce the number of colors an image uses to be viewed to save webpage load time. This format will not work to use in the printing process.

### JPG

Commonly used on the web due to it's excellent ability to compress the graphic to save webpage load time. This format will not work to use in the printing process.

### Mechanical Artwork

The traditional standard for acceptable mechanical artwork that is "camera-ready black and white" material

### Metafile

A collection of structures that store a picture in a device- independent format. Device independence is the one feature that sets metafiles apart from bitmaps. Unlike a bitmap, a metafile guarantees device independence. There is a drawback to metafiles, because they are generally drawn more slowly than bitmaps. Therefore, if an application requires fast drawing and device independence is not an issue, it should use bitmaps instead of metafiles.

### Page Layout Documents

The font files and document preferences that need to be supplied for use on the supplier's end in case they do not have a rare or special font that you would like to use.

**(PDF) files**

Adobe ® Portable Document Format preserve the visually rich content of original files, and are easier to read than HTML content that appears in a Web browser. Adobe PDF files print cleanly and quickly, and anyone can share Adobe PDF files, regardless of their platform or software application. PDF files provide good representation of how completed products will look, but usually are not good for sending artwork that needs to be printed.

**TIFF**

Tagged Image File Format file: A file format for exchanging bitmapped images between different applications.

**Vector files**

Sometimes called a geometric file, most images created with tools such as Adobe Illustrator and CorelDraw are in the form of vector image files. Vector image files are easier to modify than raster image files (which can, however, sometimes be reconverted to vector files for further refinement).

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## Printing & Imprint Industry Terms

### Bleeds

Printers cannot print right to the edge of a paper sheet. To create that effect, the printer must use a sheet, which is larger than the document size. Then the printer prints beyond the edge of the document size (usually 1/8"). The paper is then cut down to the correct document size.

### Camera-Ready

Artwork that is black-and-white and has very clean, crisp lines, making it easy to scan and is suitable for photographic reproduction.

### Drop Shipment

Product that shipped directly to a specific location and not to the "standard" shipping addresses for HCSC. For example, 100 water bottles are shipped directly to a health care fair and not to an HCSC facility.

### Halftone

An image produced by breaking the subject into small dots of varying intensities of gray ranging from white to black.

### Overruns/Underruns

The quantity printed in excess of the quantity specified is the overrun. The quantity printed under the quantity specified is the underrun. The industry standard on most products is plus or minus 5%.

### Pantone Matching System (PMS)

A book of standardized colors in a fan format used to identify, match and communicate colors to produce accurate color matches in printing. Each color has a coded number indicating instructions for mixing inks to achieve that color. Please feel free to use our Color Chart as a guide if you do not have access to a PMS Chart. Note: Computer video displays may not match industry identified color standards exactly.

### Personalization

Imprinting an item with a person's name using one of several methods such as mechanical engraving, laser engraving, hot stamping, debossing, sublimation or screen printing, just to name a few.

### Production Time

The amount of time needed to produce and ship an order after the Proof has been approved.

### Proofs

Proofs are re-creations of items being ordered with the artwork shown in place. This re-creation can come in a black-and-white image on paper or as an electronic image with color. The proof is designed to give the opportunity to verify the accuracy of the artwork and its size and location on the product.

**Quantity Pricing**

These are the prices for which items are discounted based on the quantity purchased.

**Set-up Charge / Screen Fee / Plate Charge**

A fee charged by the manufacturer for labor and materials needed to transfer a logo and/or artwork to the printing method.