HEAT STAMPING

Primary Design Considerations

To assure the success of a project, the first guideline you should consider is communication. By showing your layouts to someone experienced in stamping early on, you can avoid production pitfalls later. Because foil stamping and embossing use different techniques than conventional methods of fixing an image to a surface, here are some general considerations a designer should observe:

Typesetting. In general, larger text sizes work better than smaller. "Fill in" is a term used to describe bridging between the open areas of a character, or legibility of the text and overall appearance. However, copy sizes that are too large present problems on textured stocks, with "air entrapment" that can cause the foil to not adhere to portions of the desired area. Finally, because typefaces generally appear bolder when foiled, try not to track them too tightly. It is a good rule of thumb to type loosely and with more leading than you would ordinarily consider.

For a quality stamp of areas designed with intricate detail, be sure the space between the lines in the design is no less than half the thickness of the stock you are using.

Foils and Laser Printers. Although many foils have a wide temperature range, not all foil can be successfully run through a laser printer. Depending on both the operating temperature of the printer's fuser roller and the foil's temperature tolerances, consideration must be given when producing foil stamped materials intended for laser imprinting. As well, use caution if selecting dry, textured, parchment and recycled stocks because the low adherence properties of many of these stocks can cause the foil to release, crack, peel or dull under the heat extremes of a laser printer. If in doubt, ask your foil stamper for a test sheet for you to run through the printer.

Registration. If the design calls for tight registration of foil to print, foil to foil, or UV coatings and varnishes, consult with your stamping supplier for production specifications. Unlike offset printing, foils with tight registration are "kiss fit" or butted to the image(s), so do not use trapping techniques on artwork.

Special Applications

Foil Stamping

To achieve even greater color and treatment possibilities when foil stamping, there are some special applications you should explore:

Refractive Engraving gives an etched, old-world feel to a flat stamp through engraved cross-hatched lines that add texture and dimension. This technique also serves to emphasize the spectral reflections of color inherent in metallic foils.

Foil over Foil adds special color options with an additional pass through the foil process. Since different foils have different opacities and adhesive qualities, it is advised that you consult your foil or embossing supplier.

Stamp and Bump allows for versatility in design and the elimination of multiple embossing dies and passes through the press. This technique usually entails a first pass of flat stamping, and then a second pass of embossing or debossing the stamped areas (and/or blind embossing other areas), utilizing only one embossing die. Perfect for designs with fine detail, this method also assures clean, finite coverage. Again, it is advised that you consult your foil or embossing supplier.

Embossing

When considering an embossed design with additional colored foil, you may want to look into one of the following special effects:

Glazing is a technique which can be used with blind embossed images on textured papers. Increased pressure will create a burnished effect, which is particularly attractive on medium to dark colored stock.

Gloss Emboss is a method of combing a clear foil (similar to varnish) with blind embossing, resulting in a high-gloss embossed image.

Tint Leaf Combination combines the effect of a blind embossing pastel tinting of the image. Tint leafs are available in a variety of colors.

Textured Emboss leaves a tactile quality to embossing or foil stamping. Typical textures are pebble, wood grain, though more are available from your die supplier.

Three Dimensional Holograms are created from inanimate objects. Here the three dimensional illusion is very realistic-the subject appears to rotate in space as the angle of view changes. The spectrum in fact is also evident in this kind of application, producing changing color patterns and intensities as the image is tilted on either a vertical or horizontal axis, or as the portion of light source is changed.

Multiple Plane Holograms are produced by layering images in two to four planes to create a three-dimensional scene. The image planes may contain two dimensional shapes or three dimensional scenes. The image planes may contain two dimensional shapes or three dimensional objects. Using a deeper plane to create a drop shadow for a forward plane or using a flat image drawn in perspective can dramatically heighten the impression of depth even when using two dimensional planes. Each plane, whether two or three-dimensional, will seem to float at a different level and shift position slightly as the angle of view is changed.
Even flat images reflect spectral colors that can range from subtle to bright and from fairly monochromatic to a broad spectrum depending upon the angle of view and the type and intensity of the light source.

A good way to test your design is to create a mock-up using planes of glass or acetate with your layers of images in potion on them. Put a spacer between the layers of images in position on them. Put spacers between the layers to achieve the "look around" effect. As a rule of thumb, a 4" x 4" hologram, area would require ½" spaces.

Stereogram are sophisticated three-dimensional holograms capturing a sequence of live moving models. Produced with the aid of a movie camera to record individual "frames" of action, these frames are then transferred to foil creating an illusion of three-dimensional movement forward and backward as the image is tilted from side to side. As one might expect, stereogram are more time consuming to produce and therefore more expensive than regular three-dimensional holograms.