

REFRACTION

Create Detail and Movement with Refractive Stamping

Refractive stamping has become a very popular method of applying foil for many different applications that creates detail, dimension, and movement. A refractive foil stamped image is created with a specialty engraved brass die. Very thin lines are etched in the engraving to demonstrate texture and detail in the foil stamped object. The foil is a standard hot stamping foil and is no different than foil used in a flat stamping application. The finely engraved lines create the texture and detail in the foil stamped image.

The advantages of utilizing refractive foil stamping include the following:

- Allows the creation of detail in the image without embossing the paper
- The thin refractive lines actually can create the illusion of movement in the image that cannot be done with other foil stamping methods
- Refraction with holographic foil is an inexpensive alternative to creating a custom 'hologram'

Types of Refractive Engravings

Standard Patterns. Most engraving companies that offer refractive dies have a library of standard patterns that can be etched in an image. This is most commonly used on lettering and simple line art. This is the most inexpensive method of utilizing refraction.

Custom Refraction. A custom refraction is more labor intensive than a standard pattern. The engraver starts with a standard pattern, but actually places the patterns at different angles and in many different areas within the image. The result is a beautiful, extremely detailed foil stamped image that appears to move as you look at it under a light.

Refraction and Overprinting. This interesting and dramatic application of hot stamping foil combines refraction with overprinting and is very popular for paperback books, software, and other packaging applications. This effect is accomplished by first foil stamping the image with a refractive engraving, usually using a metallic silver foil. Then the piece is sent to a printer to overprint the foil stamped area with translucent 4-color inks. Special inks are used to allow the ink to dry. Communication between the foil stamper, printer, and designer is extremely important, as the registration of the 4-color lithography over the foil is very tight. The designer must make sure the same film is used to create the engraving and the printing plates to ensure correct registration.

