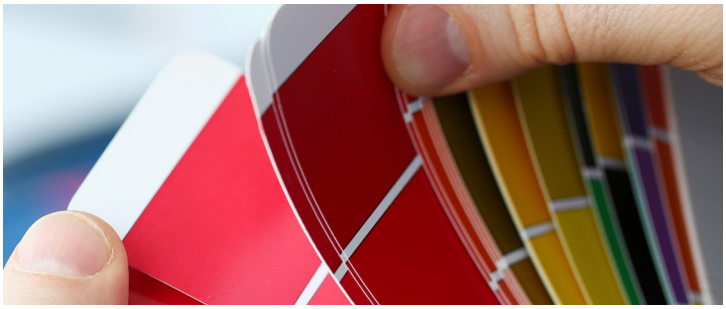
Print Processes



Get to Know the Processes

Different print processes can help heighten your brand's identity and marketing materials while attracting your target audience. To help you choose the right print process for your materials, we've broken them down so you can find the one best suited for your project.

Engraving (Intaglio) — Type and graphics are etched into metal plates. The recessed images are then filled with engraving ink and paper is stamped under two tons of pressure per square inch resulting in a raised image with startling clarity, color purity and depth. This results in a "bruise" on the back side of the stock. It is often run on thick or duplex stocks.

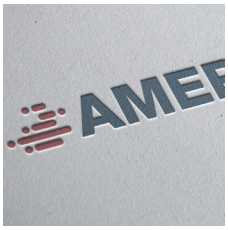
Pro: *Archival life. Perception of the highest degree of professionalism.*

Con: *1 color per pass. Bruise on the back limits 2-sided content.*

Foil Stamping — Uses heated metal dies to apply foil to paper. It creates reflective images and enables the use of light colors on dark stocks. Applied flat but is frequently combined with embossing to maximize impact. Available in dull or glossy finishes.

Pro: *Prints on dark stock, document authentication, shiny metallic prestige.*

Con: *May not be laser printer compatible. Not ideal for fine type. Some stocks may cause peeling.*



Letterpress (Typography) — Converts art and text into a rigid material (metal or photopolymer) which is used to print with any ink color. Yields recessed images which give a unique dimension and impression of a historical printing technique.

Offers a handcrafted look and feel. Like engraving, it has a very tactile quality with a slight debossing effect where ink is laid.

Pro: *Handcrafted look and feel.*

Con: *1 color per pass. Very fine type may break up, solid ink coverage can appear uneven, and print area is limited to 8x10.*

Tip: *Do not use coated paper due to potential of ink offsetting to back of sheet. A heavyweight but soft paper will give the best results.*

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Embossing and Debossing —

Embossing adds dimension by using a metal die to raise the paper. Debossing is achieved by using a reversed out metal die to stamp (recess) the image into the paper. Both embossing and de-bossing can create elegant and subtle multi-dimensional images.

- Blind Emboss - embossed image on paper without ink
- Registered Emboss - embossed image is registered with an ink printed image
- Foil Emboss - image has foil and embossing using a single brass die. Also known as hot leaf emboss (HLE).

Pro: *Enhanced visual appeal and elegance. Ideal for large quantity orders that require a foil and embossed image b/c only a single press pass is needed.*

Con: *Multi-level embossing may jam in office printers. Die cost.*

Tip: *Avoid fine lines.*

Die-cutting — A die is a thin, razor-sharp steel blade that allows multiple pieces of paper to be formed into a specific shape or pattern.

Both custom dies and common cut/shape dies are available. Dies can shape the entire perimeter, just one corner or edge, or cut out a shape from within the center of a piece. Die can be designed to create perforation.

Pro: *Unique edges and patterns.*

Con: *Can require a knockout tab. May have a long lead-time.*

Laser Cutting — Process where a laser beam burns through the surface of your substrate to leave a high-quality intricate design.

Pro: *Ideal for cutting out hand-written text, lace-like creations, rounded edges or shapes.*

Con: *Tiny flames are created by the precise lasers which may leave a slightly burnished edge.*

Offset Lithography (Flat Printing) —

Image produced using flexible aluminum, polyester, Mylar or paper printing plates. Image is laser imaged on a plate by Computer-To-Plate technology, known as a plate setter. The plate is affixed to a cylinder. Dampening rollers apply water covering the blank areas and allowing only the ink to adhere to the image area on the inking rollers.

The ink is transparent. When printing on colored stocks, it changes the color of the ink.

Pro: *High speed and larger sheet size for a lower cost.*

Con: *More set-up for complexity and longer turn time.*

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Digital Lithography (Flat Printing) — Uses CMYK inks. Digital printing eliminates many steps associated with traditional printing and can provide cost savings over offset lithography.

Artwork – digital files preferred. Can be submitted in all major software types of files. It is ideal for booklets, brochures and other literature.

Pro: *Great for a short run, print on demand with no inventory. Easy copy change. Full-color proofs.*

Con: *Not all PMS colors can be matched in CMYK.*

Thermography (Raised Print) — In either matte or dull for a shiny surface appearance. A plastic resin powder is dusted over "wet" lithography ink and the combination is heated to fuse together, causing the resin to swell and create tactility. Avoid using fine type, serif typefaces and extremely detailed artwork with small features

Pro: *Raised printing. Up to 2 colors per run, 9x10 image area.*

Con: *Shiny pockmarked solids. Very thin type may not rise. May not be laser printer compatible.*

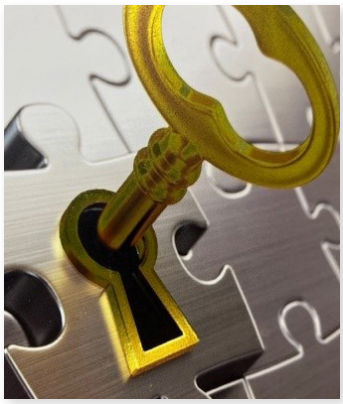
Laser Raise (raised print)- same as above, but special resin used in conjuncture with an ultra violet light cures the resin to a hardness that makes the raised print compatible with laser printers.

THERMOGRAPHY

RAISED FOIL

RAISED GLOSS

RAISED GLOSS
TEXTURE AND PATTERNS



DIGITAL FOIL

DIGITAL FOIL

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Print Processes

Additional Processes and Finishing

Silk Screen — The process of transferring a stenciled design onto a flat surface using a mesh screen, ink, and a squeegee.

Sleeking — An on-demand foil solution for short-run digital applications. To transfer the foil to paper, sleeking uses pressure and heat that specifically bonds to digital ink and some toners.

Pro: *No dies are needed.*

Con: *Paper selection may be limited.*

Sleeking technology can apply a simple finish, such as gloss or matte, a metallic background, such as gold or silver, or a dramatic holographic impression in spot locations or full coverage.

Spot Gloss — The process of applying a high gloss UV coating to a selected area on a printed piece. A common use of spot UV is to draw attention to a certain area of the printed piece.

Gilded (Painted) and Foiled Edge — Using engraving ink or metallic spray paint to color the edges of the paper.

Mounting (Pasted) Cards — Gluing multiple pieces of paper together to create one thicker sheet.

Burnishing — Flattening or raising the texture of metallic engraving ink depending on the type of die used.

Scoring — The process of making a crease in paper or cardboard, so it will fold easily. Scoring helps improve the appearance of the fold because it provides a consistent guideline and reduces the potential for the paper to buckle or crack. Scoring finish is also less likely to cause harm to toner-type inks or thick color coats.

Perforating — A procedure that creates a series of very fine holes in paper or card stock, usually along a straight line, to allow a portion of the printed piece to be easily detached by hand. Used for a variety of purposes, such as coupons, response cards, and remittance slips.

Numbering — Involves the printing of ascending or descending identification numbers so that each printed unit receives its own unique number. This unique number can appear in one position, or in multiple positions, on each document. Frequently used on contracts, invoices, purchase orders, quote forms, checks, raffle tickets and more.

Collating — The action of taking multiple different printed pages and putting them together into a complete set.

Padding — Applying a flexible adhesive along one edge of a stack of same-sized sheets. The adhesive secures the sheets as a unit, but allows the topmost sheet to be easily removed as needed. In most cases, padded sheets incorporate a chipboard backer for rigidity. Common examples include notepads, memo pads, and order pads.

3-Hole Drilling — refers to the process of creating round holes in paper using a rotating bit, such as the hole patterns needed for sheets and dividers placed into ringed binders.