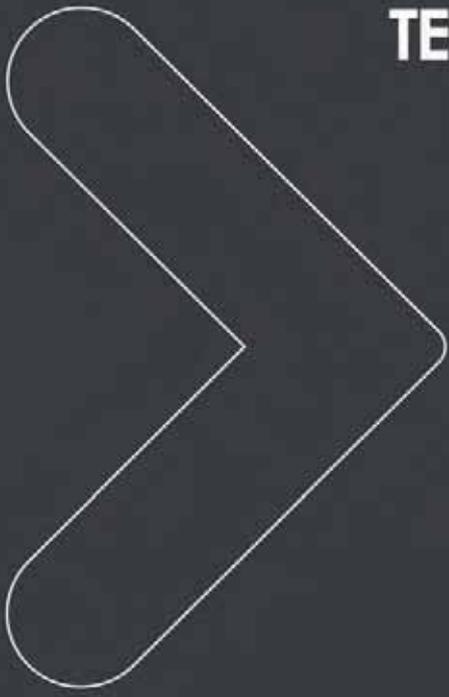TECHNICAL

3D Laser Crystal Engraving - A 3D image is created in a piece of glass or crystal by using lasers to create tiny fractures in the material.

Bleed - Printers cannot print right to the edge of a 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 3mm per side), then cuts the sheet down to the document size. Paper or plastic).

Blind Embossing -This is where a logo or design is stamped into the surface of a product such as a conference folder and not colour-filled.

Ceramic Transfer - A screen printed transfer, first applied to the ceramic material and then baked in an oven at a temperature higher than 700°C. During the baking process the ink is mixed with the ceramic itself creating a permanent print on mugs, tiles and other products. The process can also be applied in a similar way to glass and crystal.

CMYK - (Cyan, Magenta, Yellow, Black) The standard colour model used in the printing process. See Full Colour / 4-colour Process.

Colour Separations - The process of separating CMYK into film layers, each layer is then printed separately one on top of the other to give the impression of full colour.

Die Casting - Injecting molten metal into the cavity of a carved mould or die.

Die Cut - The cutting of special shapes from printed or un-printed material.

Die Stamp - Using a steel plate engraved with desired artwork used to stamp metal foil leaf to a product.

Die striking - Producing designs and cut outs by striking a blank metal sheet with a hammer that holds the die.

Digital Printing - Full colour. An inkjet printing technique, for flat and 3D shaped items, on nearly all materials. A logo can be digitally printed directly onto items in high quality.

Digitising - Digitising is the process of converting artwork into a stitch file that can be read by an embroidery machine and interpreted as different stitch types.

Direct to Garment Printing (DTG) - This process uses specialised or inkjet technology. The two key requirements of a DTG Print are a transport mechanism for the garment and speciality inks (inkjet textile inks) that are applied to the textile directly and are absorbed by the fibres.

Doming - A combination of a printed logo or design as a sticker with epoxy resin applied to the print, which creates a transparent dome.

Embedding - Materials such as a product replica or logo or design printed onto a clear sheet are suspended in a clear substrate, usually poured acrylic. (Cold Cast Acrylic Products).

Embossing and Debossing - Often confused. Embossing impresses an image into the surface in relief creating a raised image. Debossing is just the opposite and creates an image pressed into the surface of an object. In blind embossing, the image is not coloured or filled with ink or foil.

Embroidery - A design stitched onto a material through the use of high speed, computer controlled sewing machines. The design is reproduced with tightly-stitched thread. Embroidery is most commonly used on logo patches and directly on some wearables. Fine detail is difficult to achieve.

Engraving - Cutting an image into metal, wood or glass.

Etching - Using a process in which the image is first covered with a protective coating that resists acid. This is then exposed, leaving bare metal and protected metal. The acid attacks only the exposed metal, leaving the image permanently etched onto the surface.

Flash Curing - A technique that makes it possible to cure plastisol ink while the garment is still on the press, flash-cure technology has played a key role in the advancement of nylon, dark-garment, multicolour, and many other types of textile screen printing.

Flexography - A flexible rubber plate is wrapped around a cylinder for speed and control. As the substrate moves under the printing plate, it is pressed against the printing plate by another roller, and the ink is transferred onto the substrate. A separate plate is needed for each individual colour. Often used for printing carrier bags and paper products, though not so much these days.

Flock printing - A printing technique where the design is cut from a coloured foil and then pressed onto the shirt under high heat.

Full Colour or 4-colour Process - A system where a colour image is separated into the 4 different colour values by the use of filters and screens (usually done digitally). The result is a colour separation of 4 images, that when transferred to printing plates and printed on a printing press with the coloured inks cyan (blue), magenta (red), yellow and black, reproduces the original colour image. These four colours can be combined to create millions of colours and is ideal for photographic images, tints and shades.

Gusset - A fold in the side or bottom of a bag.

Half Tones / Tints / Tones / Shades - Half tones are a pattern of tiny dots that simulate different shades of colour using varying percentages of a single ink. Visually, halftones create the illusion of a continuous tone image by using spots of varying size and density to represent darker or lighter colour values. Generally applicable to screen printing half tones can be used to create a tint or lighter shade of a colour or to create a gradient or the appearance of a continuous tone of colour.

Hot Stamp - Setting a design on a relief die, which is then heated and pressed onto the printing surface.

Kiss Cut - Light cuts within the border of stickers. The stickers can be peeled out of the backing material and the backing material remains.

Laminated print - The mounting or fixing together of substrates on a permanent basis using glue, heat or pressure to create a product or print with added strength or thickness.

Laser or Foil Stamp - Applying metallic or coloured foil imprints to vinyl, leather or paper surfaces.

Lenticular Printing - A process of creating multi-dimensional, animated or bi-view effects by photographing with an extremely fine screen and placing plastic made up of tiny lenses over the top.

Pad Printing / Tampo 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. Pad printing is used for printing on otherwise impossible products in many industries, although new digital print techniques have recently come into play.

Personalisation / Branding - Printing an item with a logo, image or name using one of the many possible print techniques, many of which are described here.

Print Area -The area on a product, with specific dimensions, in which the print of the desired logo or design is placed and can be printed effectively.

Puff Printing - A screening process, using special inks. After screen printing, the product is exposed to heat. A chemical additive in the ink causes the ink to rise as it dries.

Sandblasting - A mask is applied to crystal / glass and sandblasted to create a permanent design on the item by removing a layer of glass through the mask. The process can be reversed to protect the design.

Screen Printing / Silk Screening - Screen printing uses a fabric stretched tightly over a frame. Images (stencils) are created by blocking parts of the screen using various techniques. Ink is forced through the open areas of the screen onto the surface of the object. A separate screen must be created for each colour to be printed and colours must be applied in passes allowing drying time between each.

Step and Repeat - The same image is printed continuously in a pattern on the same sheet of paper.

Sublimation printing - A printing technique in which a digitally printed image is gassified into the material by means of a heat press or direct application of heat by other means.

The special sublimation dyes have a special quality that turns them from a solid state to a gas at a certain temperature without going through a liquid state. The dye can be absorbed into the material or product coating. When cooling down the material seals the dye making the print extremely wash-proof. The image is not on the surface, but rather part of the surface.

Thermal Transfer - A technology that uses heat to deposit dye or resin onto a finished product. It works by using heat and pressure to transfer the ink off the ribbon and onto the substrate that it is in contact with.

Trap - a slight overlapping area where two colours meet. Traps ensure that slight errors with print registration do not show up as white gaps on the printed product.

INDUSTRY AND TECHNICAL TERMS

Bitmap / Raster Graphics Files - The image content is made up of pixels where the pixels contain the information for position, size, angular position and colour and can be addressed individually. These formats are not recommended for promotional products production. Graphics file formats which are Bitmaps: PSD - Adobe Photoshop, EPS - Encapsulated Postscript File, TIFF - Tagged Information File Format, BMP - Windows Bitmap.

Caliper - Thickness of paper or other substrate.

Camera Ready - Artwork supplied that is of a high quality and ready to be printed.

Copy - Any words, sentences or paragraphs or other text to be printed.

Crop - To trim or remove unwanted portions from an image.

Drop Shipment - An order shipped to more than one location will be charged a fee for each additional destination.

DPI (Dots Per Inch) - A measurement of how many (ink or print) dots can fit into one inch. The higher the amount of dots the sharper the image will be. 300 DPI is generally classed as high resolution.

EPS (Encapsulated Postscript File) - A file format that transfers easily between computer systems. Often used for high-resolution images that will be added to another document.

File Format - Each different type of file has a format. A file format specifies how information is organized. (EPS is a standard format supported by many programs).

Font - The term used to describe a complete typeset from a particular typeface style. Examples of these include Helvetica, Times New Roman, Arial etc.

FTP (File Transfer Protocol) - The process of copying files between computers over the Internet. Fulfilment: The process of packaging and shipping an order for a distributor.

GIF (Graphics Interchange Format) - Is a bitmap image format that was introduced by Compuserve in 1987 and has since come into widespread usage on the World Wide Web due to its wide support and portability. GIF images are generally not well suited for quality printing.

High-res - The resolution (Res) of an image indicates the number of dots per inch (dpi). High resolution is usually anywhere from 300 dpi to 2,500 dpi.

JPEG or JPG (Joint Photographic Experts Group) - A commonly used method of lossy compression for digital images, particularly for those images produced by digital photography. The degree of compression can be adjusted, allowing a selectable trade-off between storage size and image quality. JPEG typically achieves 10:1 compression with little perceptible loss in image quality.

Lead Time - The amount of time required to produce and deliver an order, once an order has been received and approved.

Less than Minimum - The fee charged by a supplier for ordering 50% fewer items than the quantity listed in the minimum or first column. This option is not always available on all products.

Line Art - Black and white artwork that does not contain any halftone screens.

Low-Res - The resolution of an image indicates the number of dots per inch (dpi). Low resolution is usually anywhere from 72 dpi to 250 dpi.

Overs / Unders - The number of products that were printed in excess of the quantity specified / the production run of fewer products than the amount specified. The industry standard on most products is + / -5%, with the exception being on paper and plastic bags, which can be up to + / -10%.

Pantone Matching System (PMS) - The industry standard colour scale used to precisely match colours for printing. Each colour has a specific unique coded number indicating instructions for mixing inks to achieve the desired colour.

Pre-production Sample - An actual physical sample of the product itself produced prior to production.

Photoshop - Industry-standard image editing software made by Adobe.

PNG (Portable Network Graphics) - Is a raster graphics file format that supports lossless data compression. PNG was created as an improved, non-patented replacement for Graphics Interchange Format (GIF), and is the most used lossless image compression format on the Internet.

PostScript - Is a language for printing, meaning it treats fonts, images and graphics as geometrical objects and stores it into one document.

Premium - A product or service offered free or at a reduced price if the recipient performs some task, such as purchasing an item, meeting a sales quota, etc. Usually consumer-related.

Production Time - The amount of time needed to produce and ship an order, once an order has been received and approved. Stock products with a one-color imprint usually ship within 10-12 working days. Custom products and multi-colour imprints require longer production time.

Proofs - A digital representation of artwork on a product. There are five main types of pre-production proof.

Paper proof - A printed representation of the colour, size and position of the design.

PDF Proof - A digital layout of the item showing the print / decorating position and the print / decorating size to scale.

Cromalin Proof / Wet Proof - Seldom seen these days, a high quality photographic run-out of the print used as an accurate colour guide.

Digital Proof - Digital photographs or computer generation of the product / print.

Full Proof - A physical printed / decorated sample of the product itself.

Proof Approval - Proofs are sent for approval by the customer before an order goes into full production. Sometimes proofs can be done live on press at the start of a print run.

Register / Registration – Positioning of elements in printing so the images will be located precisely.

Resolution - The quantity of pixels that can fit into one inch determines the sharpness and quality of an image. For example, 72 dpi is low-res, 300 dpi high-res).

Reverse - A design or text appearing in white or other light colour on a black or dark background. Sometimes called a knockout.

RGB (Red, Green, Blue) - When mixed together these colours create white (light). (Example: televisions and computers display colour in RGB.)

Run-on - Extra copies above the number of those originally requested. A run-on price is much cheaper per item since the printing set-up costs are part of the price of the print run ordered.

Set-up Charge - A fee charged for the creation of screens, foil blocks, embroidery tapes, die stamps or laser tools which applies to most products.

Spot Colour - Refers to a method of specifying and printing colours in which each colour is printed with its own ink.

Typesetting - To lay out words, text and logos for printing.

Vector(ised) artwork - Artwork where the lines, shapes and colours that make up a piece of artwork are stored within the file as mathematical formulae to ensure accurate reproduction as the artwork is enlarged or reduced to fit a particular print area. They are more flexible than bitmapped images because they can be resized / stretched and placed over other images without a white block. (Example: an Illustrator EPS is a vector image.)

Web Page Graphics - Graphic images designed for the web are not suitable for use as artwork in promotional products or paper print production. Web page graphics are typically created at 72 dpi. Check to see if high resolution versions are available.