

SCREENPRINT & EMBROIDERY DEFINITIONS

ACETATE A clear plastic sheet used in registration plates, blocks, etc. for printing.

ACRYLIC INK Ink with an acrylic component.

APPLIQUÉ Decoration or trimming cut from one fabric piece and stitched to another to add dimension.

BACK APPLIQUÉ A fabric piece used behind a design where the front fabric will be cut away to reveal the fabric beneath it.

BACKING/STABILIZER Woven or non-woven material used beneath the embroidered fabric to provide stability and support. Can be hooped with the fabric or placed between the machine's throat plate and the hooped item. Available in various weights and styles.

BIRDNESTING Thread collection between the fabric and the needle plate, resembling a bird's nest. May be caused by inadequate upper thread tension; upper thread not going through the take-up lever; upper thread not following the correct path; or flagging--the up and down motion caused in part by improper hooping.

BITMAP A raster graphic image made up of pixels that are either completely black or completely white, with no color or shades of gray. Sometimes called a "line shot." The most appropriate image mode for scanned logos or type that are not in color and do not contain shades of gray.

BLACK LIGHT INK Black light ink makes the print illuminate when viewed under black lights. The effect can only be viewed under black lights and this type of printing is ideal for rock group shirts, laser tag games, cosmic bowling, or anywhere black lights will be used. Black light ink works on white or colored shirts, however colored shirts will require that an under base of white be printed for the effect to work properly.

BOBBIN Spool or reel that holds the bobbin thread in a sewing machine; this thread forms stitches on the fabric underside.

BOBBIN CASE Unit holding bobbin in a sewing machine.

BOBBIN EMBROIDERY Designs worked with the fabric hooped facedown and the specialty thread or ribbon wound onto the bobbin. Most effective for simple designs such as leaves and vines, or special effects with threads too heavy to be threaded through the needle.

BONDING Permanently joining two fabrics together with a bonding agent. Heat sealing.

BUCKRAM Coarse-woven fabric stiffened with glue, used to stabilize items for embroidery. Commonly used in caps.

CAMERA-READY Text or artwork, which is black and white and ready to be photographed by a process camera. Digital files have largely replaced this method.

CANVAS Closely woven heavy hemp, flax or cotton cloth used for tote bags, covers, etc.

CARD Disk containing computerized embroidery designs read by the embroidery machine's computer.

CHROMATIC INKS Chromatic (or chromic) inks are inks that change color under certain conditions. (See Photochromic and Thermochromic)

CMYK The four process colors used in offset lithography printing. They are cyan, magenta, yellow and black (the key color). When these four colors are printed with halftone screens of various angles in this subtractive print method, they create oranges, reds, violets, and so on. The color gamut of CMYK is fairly limited, causing loss of color when a continuous tone photograph is reproduced using only 4 colors.

COLOR MANAGEMENT SYSTEM A combination of software and/or hardware devices used to produce accurate color results throughout a digital-imaging system.

CONNECTING STITCHES Threads that connect short-distanced objects in embroidery. Distance of 1/16" is the industry standard for using a connecting stitch.

CONTINUOUS TONE PHOTOGRAPH This is traditional photography in either black and white or in color. This process creates superior images with a tremendous range of tonal values and color saturation.

CROSS STITCH Two stitches that cross to form an X.

CRYSTALINA (PEARL SPARKLE) INKS Crystalina is much like glitter ink, but has a transparent look of pearlescence. It is printed over a color that has already printed on a shirt. It allows the color underneath to show through and adds a shiny and sparkly look to it.

CUSTOM DESIGNS Designs created by digitizing artwork or manipulating existing patterns.

DENSITY Number of stitches per given area.

DIE A stamping tool used for embossing or die cutting.

DIGITIZING Conversion of artwork into a series of commands read by an embroidery machine's computer via a card.

DIRECT-TO-PLATE This is the newest trend in 4 or more color printing. The digital file is imaged and separated directly to the printing plate. This skips the processing of color separated film and the making of a matchprint. Proofing is done using a high quality and accurate inkjet print. The plates are ready immediately for the printing press.

DISCHARGING A chemical reaction that destroys the ability of selected dyes to reflect color. This reaction takes place at temperatures above 180 degrees F. while water is present.

DISTRESSED LOOK "Worn and washed" also known as the "Distressed" look is a special effect that can be applied to most designs and text. This effect is used to simulate a "worn out" look to the print. The "worn and washed" look can be applied to color images, black and white images, and lettering.

DOT GAIN The phenomenon that occurs when ink expands its coverage during printing onto a substrate; often caused by abnormal or excessive absorption by the substrate.

DOTS PER INCH (DPI) A linear measurement of resolution used for scanning and printing. Generally, more dots per inch mean a higher resolution, a greater amount of visible detail in the image, and a larger file size.

DUOTONE A duotone begins as a black and white photograph. Generating two halftones of the same image creates Duotones. This will make two separate printing plates for a two color print job. The two plates are printed together and the resulting printed image is rich in tonal values. Duotones are often printed with black and a spot color, but any two colors can be combined. Unusual color combinations will require a press check.

DYE A soluble colorant; as opposed to pigment, which is insoluble.

DYE SUBLIMATION An imaging process that vaporizes colorant with heat and pressure, and deposits it on to a substrate in order to simulate a continuous tone image.

EMBROIDERY Decorative stitching on fabric.

EMBLEM/PATCH Embroidered design with a finished edge, applied to a garment or item after stitching.

FADING The loss of or change of color density, generally accelerated by exposure to sunlight.

FACING/STABILIZER/TOPPING Material hooped or placed on top of fabric with a nap or surface texture to contain the nap and hold the embroidery stitches above it.

FEATHERING A technique in many image-editing programs that allows for the softening of the edge around a selection.

FELT Non-woven fabric made from wool, fur or hair matted together by heat, moisture and pressure. Often used for patches or stitched samples.

FILL STITCH A series of running stitches commonly used to cover large areas. Altering the stitch angle, length or repeat sequence creates different fill patterns.

FINISHING Processes done after the embroidery is completed, including trimming loose threads, removing excess facing or backing, and pressing or steaming to remove puckers and hoop marks.

FLAGGING Up and down motion of the fabric under the needle action caused by improper hooping. Results in poor registration, unsatisfactory stitch formation and birdnesting.

FLASH BACK (REFLECTIVE) INKS Reflective ink contains millions of light reflective microspheres that when exposed to a focused beam of light, such as an automobile headlight or flashlight, it reflects a bright, glittering image back at the light source.

FLAT COLOR A technique of imaging graphics from regions of solid color with no gradations. Often used in fabric and wallpaper imaging.

FLOAT Longer-than-normal satin stitches that lay on top of a design, or the stitches made when the needle is disconnecting from the design; later removed.

FOIL Metallic foil gives a print a brilliant "gold plated" look. Foil is offered in several metallic colors and can be applied on top of puff ink for a look that really jumps out.

FLUORESCENT NEON INKS Fluorescent neon inks will make any print an attention getter. Fluorescent colors work well on hot rod designs, children's prints, or any design that you want to be noticed.

FRAME Holding device for inserting the hoop beneath the needle to maintain stability during the embroidery process.

FREE MOTION Hand-manipulated embroidery done with a zigzag stitch available on most machines.

GLITTER INKS Glitter inks contain large flakes of shiny Mylar, which will print a very shiny, reflective look. Glitter inks will not dull upon washing.

GLOW IN THE DARK INKS Glow in the dark ink glows just the hands on a watch that has been placed in a bright light. This ink is great for Halloween shirts, rock designs, or any design that you want to glow in the dark! Glow in the dark works on white or colored shirts, however colored shirts will require that an under base of white be printed for the glow effect to work properly.

GUIDE STITCH Series of stitches used to align embroideries in multi-hooping situations or to assist in fabric placement for appliqué.

HALFTONE Method of converting a continuous-tone photograph into a grid of larger and smaller dots. This pattern makes it possible to make film and/or printing plates. A halftone screen is the actual grid pattern. In offset printing, each of the CMYK color screens has a different screen angle so the printed dots will create a perfect rosette, which the human eye merges into a continuous tone.

HARDWARE Computer equipment, digitizer, modem and sewing machine.

HEAT TRANSFER The movement of a printed image from a holding (or donor) substrate to another surface. Certain temperatures and pressures are applied.

HEXACHROME Pantone has developed hexachrome printing as a solution to the color limitations of CMYK process printing.

HOLOGRAPHY A photographic system that uses laser light to expose film to a pattern developed by the interference pattern of the laser and the reflection. When these films are viewed under specific conditions a 3-D image is visible.

HOOP Wood, plastic or steel device used to tightly grip the fabric and stabilizer between an inner and outer ring. Attaches to machine's frame. Designed to hold fabric taut against the machine bed for embroidery.

HOOPING BOARD Device that aids in precise placement and uniformity in hooping subsequent garments or items for embroidery.

HUE A component of color notation, or the predominant color.

IMPOSITION The arrangement of individual pages onto a larger sheet, front and back, so that when the printed sheet is folded the pages will be front and back and paginated properly. This printed sheet is called a signature. Books, catalogs and magazines are made of a series of folded signatures, which are all bound together. Printers use special software for the imposition of digital files from a page layout program.

INK JET PRINTER A type of printer that sprays tiny streams of quick drying ink.

LAP The slight over lapping of printed colors, usually the result of trapping. Trapping is a method used to allow for slight faults in color registration.

LINE ART Artwork that is black and white, without middle gray tones. Logos are often line art.

LOCK STITCH Formed by three or four consecutive short, tight threads stitched at end of embroidery to prevent raveling.

MAKE-READY The steps it takes to prepare a printing press and/or binding equipment for the next project. This is actually one of the more expensive parts of a print job. Use of specialty papers or metallic inks can increase the cost of make-ready.

MARKING Making temporary marks on fabric to aid in hoop placement and to reference needle beginning points.

MATCHPRINT PROOF Also called a Rainbow, this is a high quality color proof made from the actual film separations, which will be used to make the printing plates. This is the final proof prior to color printing. The printing press operator will use the client approved matchprint for quality control during printing.

METAFIL A needle with an elongated eye, especially useful when using decorative or metallic threads.

MOIRÉ PATTERN This is an undesirable result of misaligned screen angles in CMYK printing. Proper alignment of common halftones screens should create a perfect rosette.

MONOGRAM Embroidered design composed of one or more letters, usually one's initials.

MOTIF A single embroidered design.

NETWORK Links computer, digitizer and embroidery machine together, usually via a modem.

OFFSET LITHOGRAPHY PRINTING Printing that uses an intermediary surface, a rubber blanket, to transfer the image from the inked plate surface onto the paper. An offset press can print from 1 to 6 colors, depending on the number of print heads.

PANTONE MATCHING SYSTEM (PMS)® The registered trade name of a brand of color matching system commonly used in commercial printing. Pantone colors can be specified for ink, papers, plastics, and fabrics. Pantone chips are available for solid spot colors and for process ink mixes. Specifying Pantone colors is the only accurate and predictable way to know that the color in the imaging application is the color that will be printed (your monitor is NOT a predictable indication of printed colors).

PATTERN The digitized design.

PHOTOCHROMIC INKS (light sensitive) Inks that change color when exposed to certain light.

PRESS PROOF OR PRESS CHECKZ This is an actual printed proof from the press itself before the entire print run is completed. A good press operator always does a press proof and matches the print output with the client approved color proof. Press check usually refers to the client and designer going to the print shop at printing time and approving the press proof. This is seldom done because of the added costs involved.

PUCKERING Result of fabric being gathered by the stitches. Possible causes include loose hooping, lack of or improper backing, incorrect tension or a dull needle.

PUFF EMBROIDERY Stitching a dense motif over embroidery/craft foam to create a three-dimensional effect.

PUFF INK Puff ink, like its name, implies raises or 'puffs up' when the ink is cured (dried) in the printing process. It adds a 3-dimensional look to a design.

RASTER IMAGE Digital scanners and digital cameras produce raster images. A raster image can also be created new with a raster based application such as Photoshop® or Painter® or Canvas®. Raster images are pixel resolution dependent and cannot be greatly increased in size without losing picture quality. These are typically large files and are more demanding of RAM and processor speed. See also Vector Graphics.

REGISTRATION Correctly aligning all stitches and design elements.

REGISTER The correct alignment of colors on paper during printing.

RESIZING The ability to scale a design to different sizes. May cause density problems unless stitch count can be altered.

RUNNING STITCH A single stitch between two points, used for outlining and fine detail.

SADDLE STITCHING A type of book binding that uses several metal staples along the spine to gather and bind pages for a booklet. This is the least expensive method of quality binding.

SATIN STITCH Formed by closely arranged zigzag stitches. Can be stitched at any angle and with varying lengths.

SCREENING The process of using screens or digital methods to create representations of continuous tone images in the form of dots in varying densities.

SCREEN PRINTING The technique of applying material (usually screen printing ink) to a surface by forcing it through a stretched fabric that has a stencil applied.

SELF-COVER Using the same paper for the cover as that used on the inside pages of a booklet. Higher quality booklets will use a cover weight paper on the outside.

SEPARATIONS The actual splitting of an image into the colors that will be used in the printing process. Normally, Cyan, Magenta, Yellow and Black (CMYK) are the separations for 4-Color printing.

SHADE The brightness or luminance of an image when compared to a gray scale.

SHADOW POINT The darkest tone printable in an image without being black. All tonal values below this threshold will print as black, with no detail.

SHEET-FED PRESS An offset printing press, which prints individual sheets of paper. In contrast, a web-fed press runs paper through on a continuous strip off a roll, like at a newspaper. Interestingly, newer digital presses of all sizes run paper on rolls.

SHIMMER INKS Shimmers have a finish similar to metallics, but with a much greater sparkle, and the color range of glitters. Shimmer inks are non-tarnishing and high-opacity, with excellent elasticity and washability.

SPECIALTY FILL Fill stitch capability that produces a design in relief.

SPECIALTY THREADS Threads designed for effects such as shine, glitter, iridescence or thickness. The threads often are made from synthetic materials including rayon, mercerized cotton, metallic and textured nylon.

SPOT COLOR This is a mixed ink of a specific color. Spot colors are used most commonly in logo design or to print a specific color which standard CMYK offset printing cannot produce. Depending on your goals and your budget, you could specify 1 or more spot colors by themselves, or in combination with the regular CMYK colors.

SPREAD A pair of facing pages. Sometimes called a two-page spread or double-truck.

STABILIZER See "*Backing*" and "*Facing*."

STOCK DESIGNS Embroidery designs readily available on disks or brand-specific cards.

STOCK PHOTOGRAPHY There are two kinds of stock photography. The most common is "royalty free". Royalty free photos are available in a wide range of prices depending on the source. Royalty free photos are still licensed, but the end user can typically use the pictures for a wide variety of editorial and promotional uses at anytime. "Rights Protected" photos are handled by traditional photo stock agencies and are licensed to a specific client for a particular project for a predetermined time. Rights protected pictures often cost several hundred dollars for the license (not ownership). High quality rights protected photos may be delivered as a transparency and will need to be scanned professionally. All these pictures should carry a photo credit and are copyrighted.

SUBSTRATE Ultimately, the material that receives the printed image. Sometimes called "Media".

SUEDE INKS Suede ink looks like the name implies suede leather. It also "puffs" or raises somewhat, and because of the three-dimensional look it offers, it can be considered for use as a lower cost substitute for embroidery.

TENSION Thread tautness.

THERMOCHROMIC INKS (heat sensitive) Inks that when exposed to certain heat will change color.

THERMOGRAPHY The use of a special powder on top of wet ink, then fusing with a heat treatment. The result is an embossed effect, which does not add greatly to the cost of the print job. This is commonly done on business cards and letterheads of one or two colors.

THREAD Fine cord of natural or synthetic material with two or more elements twisted together and used for stitching. Machine embroidery threads come in rayon (high sheen), cotton (duller finish), polyester (strong and colorfast), metallics (synthetic core wrapped with metal foil or thin slivers of metal foil) and acrylic (sheen similar to rayon).

TOPCOAT The coating applied to the surface of inkjet or other substrates during the manufacturing process. The topcoat enhances ink adhesion and other performance characteristics; it also helps to control dot gain, drying time and moisture resistance.

TRANSLUCENT Diffuse transmission of light. No clear image can be seen.

TYPEFACE A typeface is the style and shape of letterforms. Typographers specialize in designing typeface families such as Roman, italic, bold, demi, etc. Typefaces are broadly grouped into two main categories, serif and sans-serif. The serif is the little flourish on a letter such as with Times, sans-serif is a plain letter style such as Arial. Your choice of typefaces is described to your computer software by the font file.

UNDERLAY STITCH Stitches laid down before other design elements to help stabilize fabrics.

U. V. CURABLE INK Inks that become fixed/set by exposure to an ultra violet source.

VECTOR GRAPHICS Created from illustration programs such as Freehand® or Illustrator®, vector graphics are defined by points on the canvas and complex mathematical computations. Simple or complex shapes are created which can be overlapped, combined, aligned, etc. The shapes can be filled with color or gradients. Vector graphics have the advantage of creating small files and the artwork is always scalable to any size with out lose of picture quality. Programs such as Illustrator also allow the placement of raster images on the canvas. In fact, the most recent versions of Photoshop and Illustrator really blur the line between the two programs.

VECTOR IMAGE A computer image that uses mathematical descriptions of paths and fills to define the graphic, as opposed to individual pixels.

WASH A term meaning to affect color or tint by adding saturation or chroma.

WEATHERABILITY The ability of a material to withstand the effects of exposure to weather conditions and/or significant change in physical or chemical properties.