



Graphic Services Manual

Version 2.0

This manual outlines screen print and embroidery specifications, as well as the computer file types, programs, and platforms supported by MacKellar Incentive Marketing's Graphic Department.

Notes on the Screen Print Process

Silk Screened items can be produced two ways, with spot colors or as a four color process. The artwork submitted to us must be set up in one of these ways. This manual will provide you with information needed to produce a film ready file for the screen print process to avoid additional artwork charges.

Notes on the Digitizing/Embroidery Process

Embroidery digitizing is the process of converting existing artwork into a file containing machine code that is read by an embroidery machine. The embroidery machine moves on an X and Y axis and uses thread to create the desired image. This manual will provide you with information needed to supply artwork suitable for digitizing and a general knowledge of embroidery.

Mackellar's Graphic

Services Contact

Mackellar Incentive Marketing is concerned with the success of your project. For specific questions please feel free to contact our in-house artist and digitizer.

Graphic Artist

Tracy Evans
1804 Star-Batt Dr.
Rochester Hills, MI 48309
Phone: (248) 852-7526 X136
Fax: (248) 852-6243
Email: Tevans@mackellar.com

Digitizer/Embroidery

Andrew MacKellar
1804 Star-Batt Dr.
Rochester Hills, MI 48309
Phone: (248)852-7526 x 211
Fax: (248) 852-6243
Email: Andrew@mackellar.com

HARDWARE

Our art department is Macintosh based, currently running MAC OS X. We are able to work with both Mac and PC files.

Our digitizing department is PC based, Running Windows XP. Our Embroidery department consists of Barudan ZN and Barudan ZQ machines.

SOFTWARE

Screen Printing

We accept vector artwork in the following software applications.

Adobe Illustrator (CS4 or earlier)
Adobe Photoshop (CS2 or earlier)
Encapsulated Postscript Files (.EPS)

EMBROIDERY

We use Tajima DG/ML by Pulse Microsystems version 10.3.

We are able to read embroidery disks in the following formats:

Tajima, Barudan, Melco Condensed and Melco Expanded. Please call if your file format is not listed.

We accept image files supplied on disk or emailed in the following formats:

PDF, BMP, JPEG and TIFF.

Art supplied on paper for digitizing should be clear, not pixilated, and as close to desired size as possible.

(Please refer to pages 8-12 for more detailed information)

- ***Artwork supplied in any other format will most likely require retouching or manipulation and thus constitute an additional art or digitizing charge.***

MEDIA

Disks and Films

Disks

You may supply us artwork on any of the following:

- CD-ROM (PC, MAC)
- Flash Drives

Email/FTP

You can email your artwork for screen printing to Tevans@mackellar.com and your artwork for embroidery/Digitizing to Andrew@mackellar.com. If the file size is large, your artwork may be sent via FTP. Please contact your account executive for the current FTP username and password.

Film for Screen Printing

We use film positives, emulsion side up, to produce our screen images. If you choose to submit your design on film you must have your artwork to size (see pages 6 and 7 for screen print locations and dimensions) and each color on a separate film positive with halftone colors set no higher than 55 lines per inch (lpi). Use an elliptical dot for all halftones.

Please record the following information on each film:

- Name of company or individual placing order
- Color (Pantone Matching System (PMS) or Process colors only)
- (lpi) on halftone films only
- Screen Angles

Four color process films must be set at 55 lps and angles set as follows:

- Cyan- 52.5 degrees
- Magenta- 82.5 degrees
- Yellow – 22.5 degrees
- Black- 7.5 degrees

Be sure to keep line thickness at least 1 pt thick throughout the design. Include a white under base film if design is going on a dark colored shirt. If the design has colors touching or overlapping other colors, please set up artwork with the darker colors slightly (about 1/16") overlapping lighter ones.

Please include a color copy of your artwork with your film separations.

SILK SCREEN IMPRINT AREAS
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Listed below are our maximum imprint areas as well as standards for screen printed garments. Imprint areas for items not listed below can be determined when the goods arrive. Please call us for those imprint areas in order to avoid sizing charges.

Full Front print on your medium to adult size T-shirts and Crewneck Sweatshirts.

Maximum=13 ½" inches square Standard= 11 ½ to 12 ½ inches square

Full Front print on youth small and youth extra small size T-shirts and Crewneck sweatshirts

Maximum = 9 ¼ inches square Standard = 9 ¼ inches square

Full back print on youth small and youth extra small size T-Shirts and Sweatshirts

Maximum=9 1/4 inches square Standard=9 1/4 inches square

Left Chest Print on all sizes

Maximum=Depends on type of shirt Standard= 3 ¼ inches Square

Long Sleeve print on youth medium to adult shirts size T-Shirts and Sweatshirts

Maximum=15" Long x 3 1/2 " wide Standard=14 to 15" Long x 3 ½ wide

Long Sleeve print on youth small and extra small size T-Shirts and sweatshirts

Maximum=13" Long x 2" Wide Standard=12 ½ inches x 2" Wide

Short Sleeve print on all shirts

Maximum=3 ½ inches square Standard = 3 ½ inches square

Thigh prints on sweatpants and Shorts

Maximum= Depends on the type and size of the garment

Standard= 3 ½ inches to 4” inches square

Full Leg prints on sweatpants and workout pants. Adult Sizes

Maximum= 17” long x 4” wide

Standard=16” Long x 3 ½ inches wide

Full Leg print on sweatpants and workout pants. Youth Sizes.

Maximum= 14” Long x 3 ½ Inches wide

Standard=13-14” Long x 3” Wide

Butt print on shorts and pants

Average size on this print is about 10” wide x 2 ½ Inches Tall. The imprint area on this item varies with size so calling for an imprint area is suggested. Also this print can be a bit tricky because of the seam that runs down the middle. We cannot print over the seam. There must be about 1” of space in the center of the logo that does not print. See Example Below.



Hat Prints (Varies with hat sizes) Call for exact imprint area.

Smaller Hats

Maximum= 4 ¼ inches wide x 3” High

Standard= 3.5 Inches Wide X 2” High

Larger Hats

Maximum= 4.5 Inches Wide x 2 ¾ Inches High

Standard= 3 .5 to 4” Wide X 2 ½ Inches High

Embroidery

Sewing Field and Sizing Standards

Sewing Field

The embroidery sewing field is restricted by one or more of the following:

- a.) Garment type (Hat Front, Tote Bag, ect.)
- b.) Machine Limitations (Applicable to full back and full front logos)
- c.) Embroidery Hoop Size

An embroidery hoop is a framing device that fits onto the machine and secures the item being embroidered.

SIZING SPECIFICATIONS

- Left Chest: Maximum 110mm in Diameter
- Sleeve (Short): Maximum 85mm in diameter
- Full Front/Full Back: Maximum 250mm x 250mm (Approx.)
- Hat Front: 48mm x 115mm (Approx.)
- Hat Back: 25mm x 75mm (Approx.)
- Please call for sizing on specialty items. (Tote bags, Backpacks, Blankets, ect.)

GULDELINES FOR FILES

(Screen printing)

Proof

To ensure that the image is printed correctly, please provide a color copy of the artwork.

Fonts

All fonts used in the artwork must be included, or text must be converted to outlines or curves. Try to stay away from really small type and think looking fonts. See Line Thickness below.

Placed Art

In addition to sending the master art file, all elements that have been imported into the document must be supplied. This includes .EPS and .TIF.

Resolution

We require 300+ dpi files. Anything less than this will result in a poor quality print.

Scaling

If artwork must be resized prior to output, this should be noted within the file.

Colors

Build art for the appropriate print process: 4 color process or Spot Color or a combination of both. If art is being printed in sport color, color/swatch palettes should only contain pantone (PMS) colors. PMS colors are the art industries standard color palette.

Labeling

Label disks with customer contact name, project name, phone number, date, and file type.

Line Thickness

All lines/Strokes must be at least 1 pt thick.

*Please note that screen printed inks may not exactly match the pantone colors chosen due to the difference in print process and materials being printed on.

GUIDELINES FOR DIGITIZING

When submitting artwork for digitizing please be aware that we are recreating your logo using needle and thread. Thus, there are some limitations to what we can do. Some aspects of your logo may need to be modified to conform to machine specified minimums and maximum stitch lengths. The most common modification is to font size. Another frequent change is line width. Both of these modifications are exemplified below.

Minimum Font Height

5mm for Block fonts

7mm for serif fonts

Minimum Line width is 1mm

Maximum Font Height

25mm to 35mm depending on font

COLOR MATCHING

If you have strict rules regarding colors used in your logo you likely have a PMS number you would like us to match. PMS, which stands for Pantone Matching System, was developed for the art industry as a standard color guide. The embroidery industry has not developed a standardized thread chart, partly

because of inconsistency among dye lots. When supplied with a PMS number we match it with the closest thread color in stock and supply a sew out for approval.

SCREEN PRINTING

(Photoshop File submission)

When submitting an Adobe Photoshop file please follow these guidelines to assure a film ready file.

Four Color Process Printing

- Follow all guidelines on page 9 of this manual.
- Make sure the mode is set for CMYK color.
- Make sure your artwork is actual size per our imprint area guidelines on pages 6 and 7.
- If the print is going on a dark shirt, a white under base or discharge print on 100% cotton garment must be included in the channels palette to make the design "POP". This will make the print 5 colors instead of 4.
- Solid black type should not have Cyan, Magenta or Yellow under it.
- Include a color copy of your artwork with the file you submit to us.

Spot Color Printing

- Follow all guidelines on page 9 of this manual.
- Make sure all PMS colors are listed in the channel's Palette.

- Make sure your artwork is actual size per our imprint area guidelines on pages 6 and 7.
- If the design is going on a dark shirt please include a white under base channel. We will decide if the design needs the under base when we see the artwork but it should be included just in case.
- Include a color copy of your artwork with the file you submit to us.

SCREEN PRINTING

(Illustrator file submission)

When submitting an Adobe Illustrator file please follow these guidelines to assure a film ready file.

Four Color Process Printing

- Follow all guidelines on page 9 of this manual.
- Make sure the mode is set for CMYK color.
- Make sure your artwork is actual size per our imprint area guidelines on pages 6 and 7.
- If the print is going on a dark shirt, a white under base or discharge print on 100% cotton garment must be included in the channels palette to make the design “POP”. This will make the print 5 colors instead of 4.
- Solid black type should not have Cyan, Magenta or Yellow under it.

- Include a color copy of your artwork with the file you submit to us.

Spot Color Printing

- Follow all guidelines on page 9 of this manual.
- Make sure all PMS colors are listed in the channel's Palette.
- Make sure your artwork is actual size per our imprint area guidelines on pages 6 and 7.
- If the design is going on a dark shirt please include a white under base channel. We will decide if the design needs the under base when we see the artwork but it should be included just in case.
- Include a color copy of your artwork with the file you submit to us.