

SCREEN PRINTING FILM SPECIFICATIONS

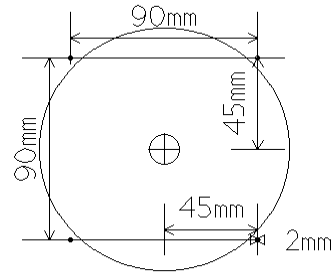
PLEASE FOLLOW ALL INSTRUCTIONS TO ENSURE A QUALITY PRINT JOB

FILM

- Positive
- Right reading
- Emulsion side up
- Minimum film thickness 0.004 in. (0.10 mm)
- Minimum film size 8 in. x 8 in.
- Film image shall have sharp, hard edges with a minimum density of 4.0
- Clear area shall have no fog
- Film shall be output at a minimum of 1270 dots per inch. For quality work 2400 dots per inch is recommended
- Color separated with one film per color. The specific PMS Pantone color or process color must be identified at the top right corner of the film along with a job number and print sequence
- A tonal bar containing 25, 50, 75 and 100 percent shaded areas shall be at the upper left of each film. Each area shall be 0.25 inch by 0.25 inch in size
- Film should be free from contamination, pinholes, scratches and creases

REGISTRATION MARKS

- Registration marks are to be made of solid circles – 2.0 mm in diameter. Solid circles shall be at 45, 135, 225 and 315°. Dots shall be 45 mm from the center of the image to the center of the dot measured both horizontally and vertically. There shall be 90 mm between centers of the registration dots, measured horizontally and vertically. (see diagram)
- Registration marks must appear on ALL pieces of film.



These are the dimensions for the placement of the registration marks

TYPE SIZE AND LINE PRINT

- Minimum printable type is 4 pt
- Minimum serif width is 0.5 pt
- Minimum reverse print type is 5 pt
- Minimum character line width is 0.5 pt
- Minimum reverse character line width is .75 pt
- Any color printing over another color(s) shall have 0.5 pt trap
- Bold face type recommended: best results are achieved with Helvetica bold type (font)
- Boxes, curves, rules - follow the direct and reverse print minimums above
- Only black color can be used to overprint a PMS color without knockouts

SCREENS/HALFTONES

- Dot shape **MUST** be elliptical with hard edge
- Recommended 85 lines per inch, with a maximum of 100 lines per inch
- Multicolor halftones are recommended at 100 lines per inch. If a higher line count is required contact your CSR for special requirements
- Tonal range to be within 15 to 85%
- Printing of vignettes is discouraged

- Lithographic separations shall be rejected
- Rescreened separations shall be rejected
- Radial tints shall not be used

ANGLES REQUIRED for each color separation -

Yellow	0°
Cyan	15°
Black	45°
Magenta	75°

- Single color halftones shall be: 75°
- GCR: whenever applicable, GCR shall be incorporated.

FOUR COLOR PROCESS

- Any color printing over another color(s) shall have 0.5 pt trap
- For any process job that requires a flood; the flood should be 0.5 mm smaller than the other colors

PROOFS

- Any multiprocess or multicolor halftone graphic shall have a proof supplied. This may be a dye proof, chromaline or equivalent.
- Care is taken to match proof copies as close as possible, but can not be guaranteed 100 %
- If perfect color match is required then a print sample should be requested. Contact your CSR as there is a charge for print samples.

INK COLORS

- Only Pantone PMS colors are to be used and must be identified by color numbers
- PLEASE NOTE: Care is taken to match PMS colors as closely as possible but slight color variations may occur. A white flood coat will help in matching Pantone PMS colors.

FILM IDENTIFICATION

- The following information shall be found at the top of each piece of film containing halftones: color, screen ruling, screen angle, dot shape, GCR used (%), job number

STANDARD CONTENT

- The designation “Made in Canada” shall be printed on discs designated for export
- NOTE: When applicable, the appropriate “Compact Disc” logo shall be clearly placed in the graphics with a minimum 50% contrast with background colors.
- NO ALTERATIONS OF THE LOGO WILL BE PERMITTED!

A FINAL NOTE

Film specifications for screen-printing differ from those of traditional or litho printing. Thus, film output must conform to specific requirements to ensure that you receive the highest quality printing possible!

Dimensions represent the diameter value

120mm
Outer diameter of CD

116mm
Outer limit of printing area. Also outer edge of the reflective area.

46mm
Inner mirror band. Inner limit for standard printing.

46 to 39mm
Identification band. Product I.D. code is engraved in this area.

39mm
Inner edge of reflective area.

27mm
Inner limit of extended printing.

25mm
Grooved ring on disc.

15mm
Diameter of hole.

