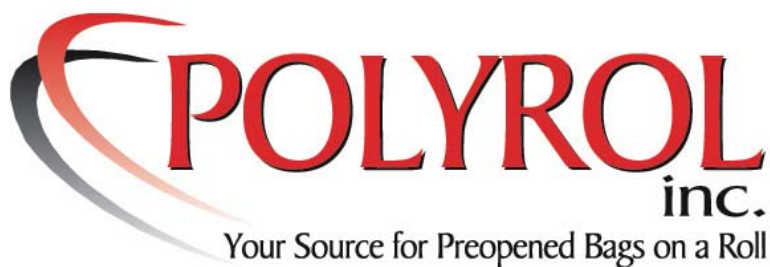


# *ART GUIDELINES MANUAL*

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## **WELCOME TO POLYROL**

The purpose of this manual is to help you understand the requirements to produce the high quality printing that has become a trademark of Polyrol Inc.

Good art is essential for high quality printing in flexography. It should not only anticipate potential advantages of flexography, but also the inherent limitations of the flexographic process. One of the most over-used and under-qualified phrases that the Pre-Press group encounters is "Use camera-ready art supplied". At least 95% of all art that is supplied by customers has to be handled by an artist in the Art Department. Although art is often received in a clean and well-constructed form, it is sometimes unusable "as is" because it was not designed for flexographic printing or did not take into account Polyrol Inc.'s manufacturing requirements.

Flexographic art is entirely different from art designed for offset or letterpress. Flexography is defined as "a method of direct rotary printing using resilient, raised image printing plates, affixed to variable repeat plate cylinders, inked by a roll or doctor blade wiped engraved metal roll, carrying fluid or paste type inks to virtually any substrate". The primary substrate that we print on is a stretchable form of Polyethylene. There are many factors that must be considered before the finished art can be prepared. Polyrol's Pre-Press Group is uniquely qualified to interpret the customer's wishes into an art of the highest quality, yet retain the reliability and simplicity required for efficient production. It is critical at the outset to prepare artwork with all the allowable tolerances and sharp, clean, mechanical elements, because the print job will never be better than the art.

## ABOUT OUR SYSTEM



The Art Department is currently using Macintosh System for our Graphics. We use Macromedia Freehand, Quark Express, and Adobe Illustrator to process the artwork.

It is essential that you include any supporting art (i.e. Tiff and EPS files, UPC codes, etc.) that is used in your file. We have a large library of standard fonts, but you should send both printer and screen fonts for any special or logo typefaces used in your files. **Not supplying these items will only lead to delays in producing your art.** Please provide a color proof of the graphics so we can process your art faster. Please send a printer proof for artwork-and the art on a disk.

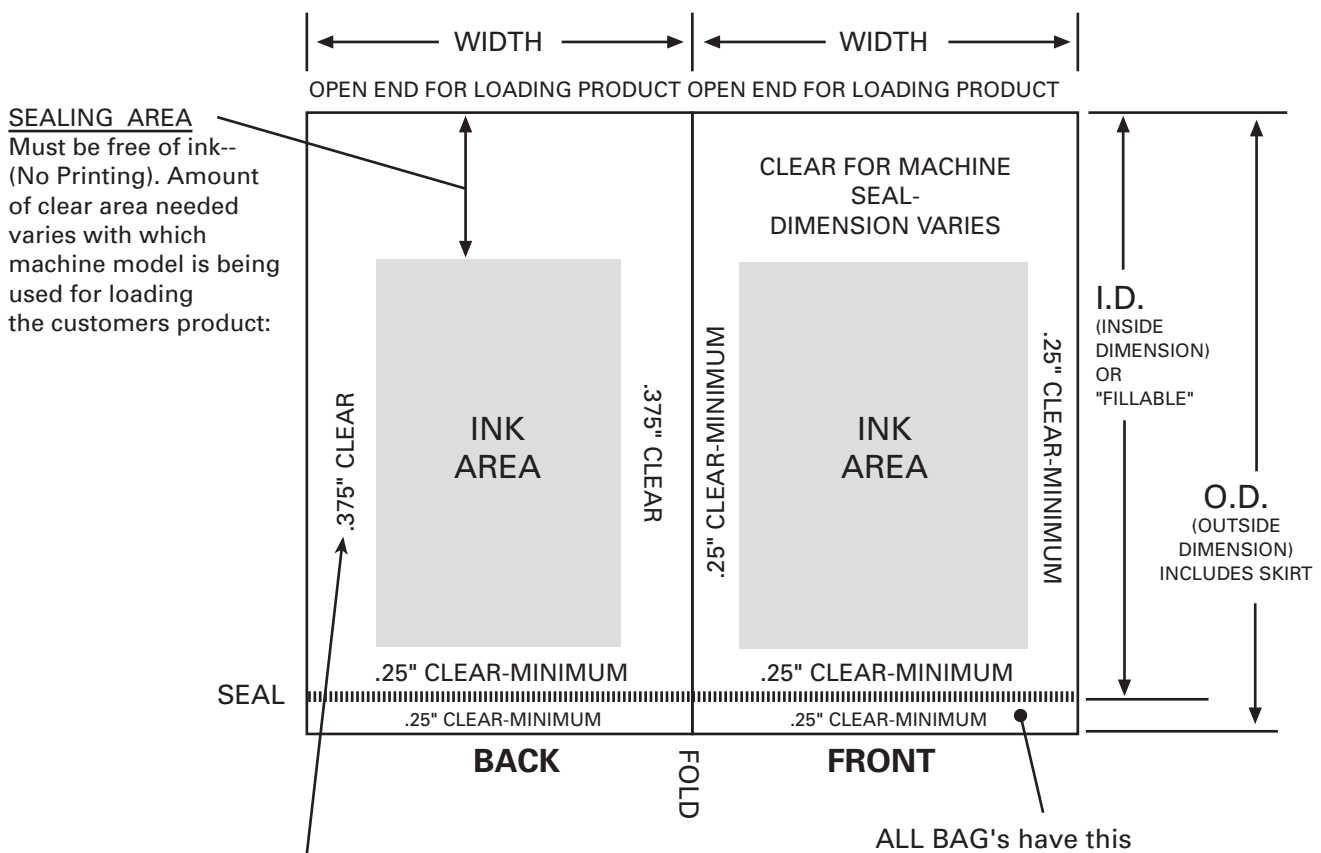
We are a FLEXOGRAPHIC printer and several adjustments to graphics must be made for our printing presses and packaging machinery so we need you send graphics on disk or by email. Please do not send negatives. We will also do the trapping of colors for our process.

The following pages provide a guideline for layout, size, color traps, etc. This is only a guideline. If you already have graphics available, we are fully staffed to make those adjustments.

By referring to this guide, you will save otherwise wasted time in getting your art to press and bags to your door.

# GRAPHICS LAYOUT

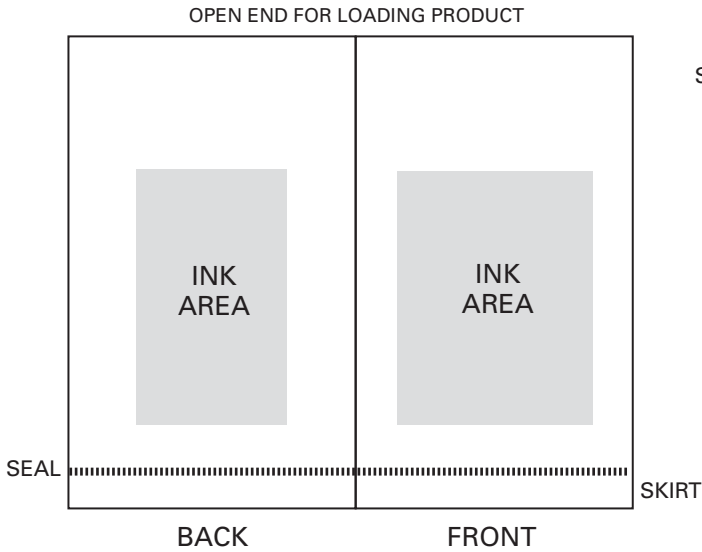
We've shown the layout as if both front and back of the bag are printed. You do not have to print both sides of the bag. If you are only printing one side of the bag, use the FRONT diagram for size and layout.



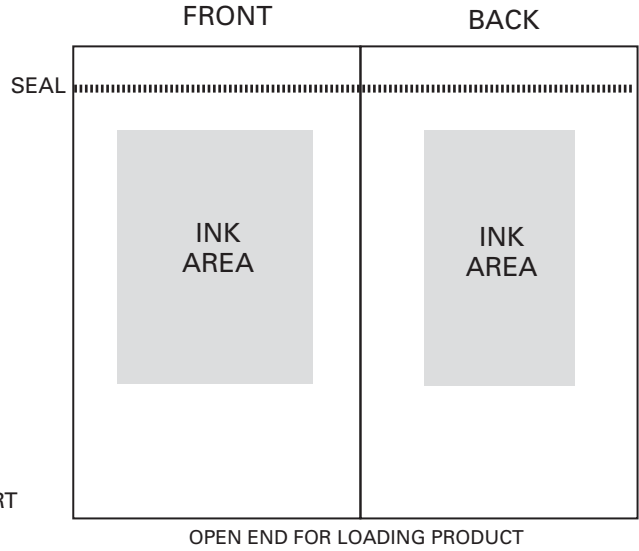
By making the back artwork narrower than the front artwork (using 3/8" Clear Area Margins), any small variations in folding during the construction of the bag will be less noticeable. (If the art widths were the same size the back art would show through the front in the clear areas). This only applies to bags made of clear poly.

# LOAD SPECIFICATIONS

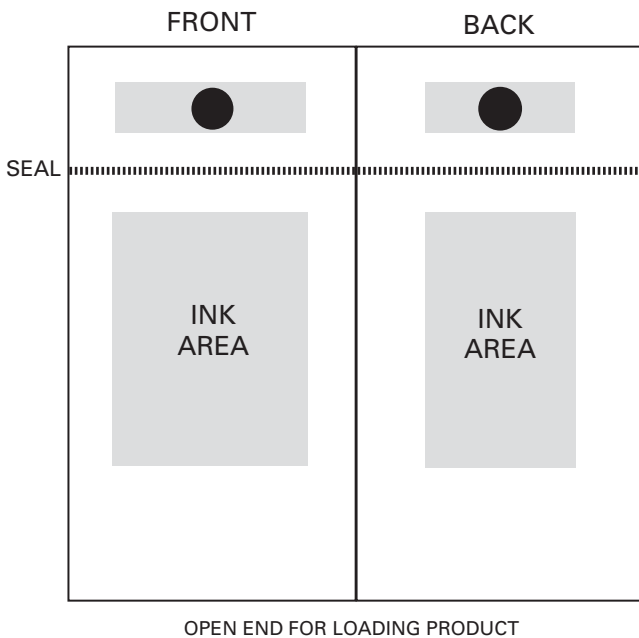
## TOP LOAD -- STANDARD



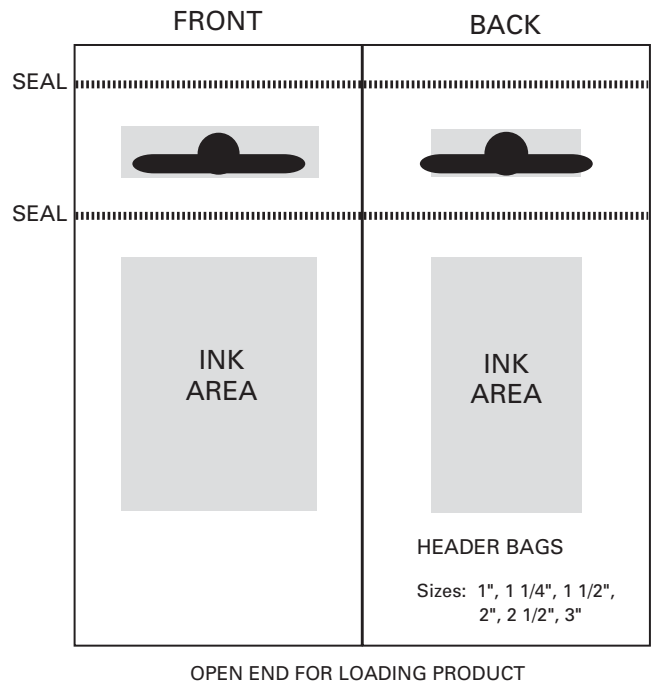
## BOTTOM LOAD -- STANDARD



## BOTTOM LOAD -- WITH A LONGER SKIRT AND HANGER HOLE

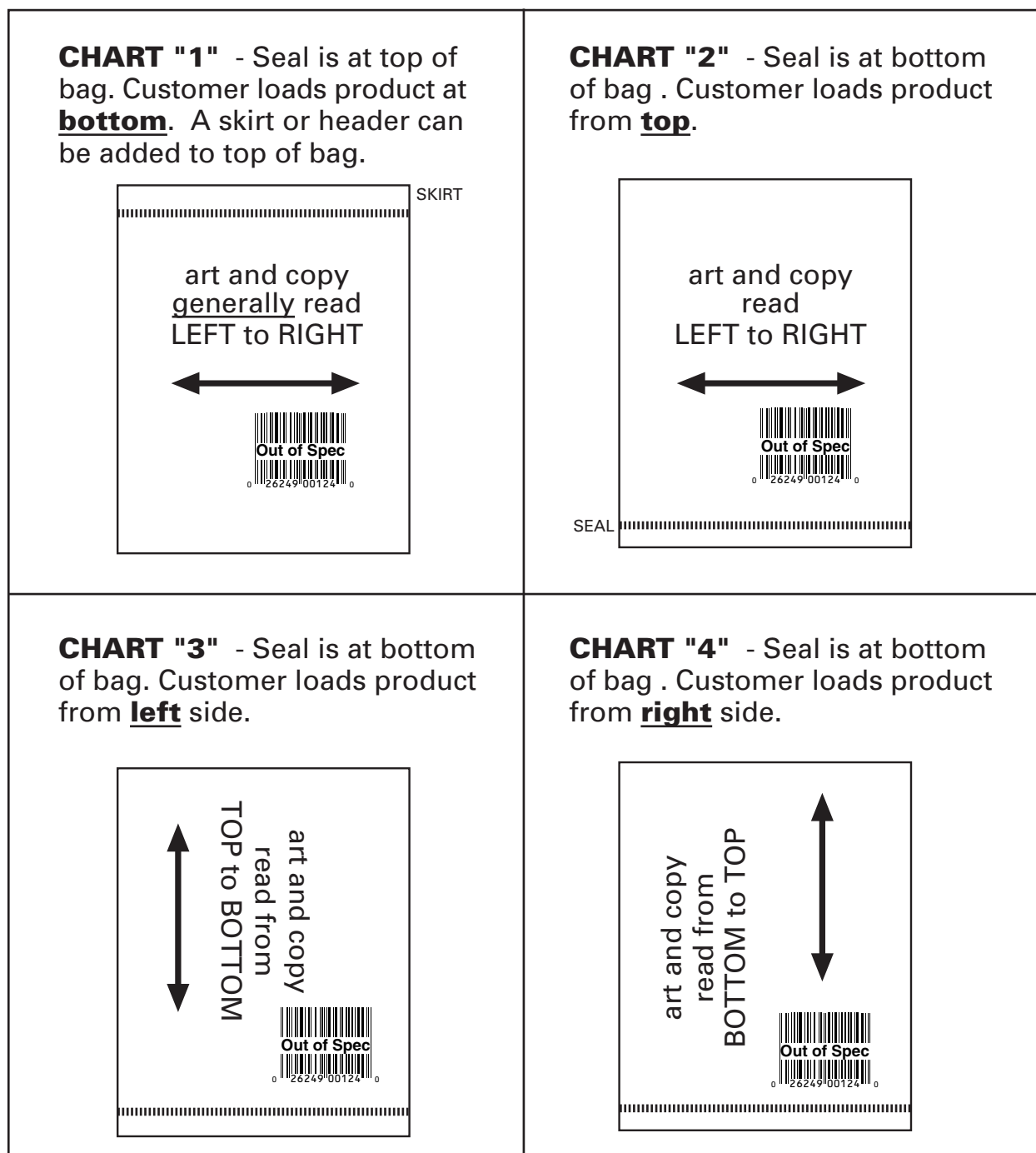


## BOTTOM LOAD -- WITH A HEADER (TWO SEALS) AND BUTTERFLY HANGER HOLE



# PRINT DIRECTION

The art can print in any direction on the bags. The only exception to this are UPC codes or any of the other types of bar codes. We use our own terminology "**CHART**", for print direction which relates to our manufacturing process. Note bar code orientation is with vertical lines. See examples below:



## BARCODE SPECIFICATIONS

Below you will find Polyrol Inc.'s Flexographic specifications for making barcodes for printing and scanning. If you cannot or do not have the software to create barcodes, the art department can create all codes in our Macintosh system *if* we have the complete information about the code.

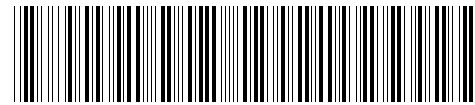
Standard 95%



.75" Minimum  
UPC Truncation



3 of 9



\*+H1604341061110\*

**ALL BARCODES REQUIRE A 3.5 MIL BAR WIDTH REDUCTION (BWR) AND SHOULD PRINT ON WHITE INK OR MATERIAL FOR SCANABILITY.**

<b>128</b>	No more than 18.0 CPI (characters per inch) No less than .0101 narrow bar
<b>Code 3 of 9</b>	No more than 6.8 CPI No less than: .0117 narrow bar; 2.4 ratio
<b>Interleave 2 of 5</b>	No less than: 30% code; .38" high; 2.4 ratio; .0120 narrow bar
<b>UPC / EAN</b>	No less than 90% magnification / .75" high

# **COLOR**

## ***MATCHING***

- We have the ability to match Pantone Matching System (PMS) colors.
- We can also custom match a sample supplied by the customer.

## ***PRINTING COMBINATIONS***

- Ten stations on press.
- Varnish overcoat requires one station.
- Target recognition requires one station (if required).

## ***PRINTING SEQUENCES***

Color laydown is from lightest to darkest.

Example:

- 1) White
- 2) Yellow
- 3) Blue
- 4) Black
- 5) Varnish (optional, only if product requires.)

## ***OPACITY***

- Inks are basically transparent.
- Use metallic inks or dark colors for greatest opacity.
- Colors are enhanced when printed over white, but still may be transparent.

# **TRAPPING**

- Holding lines should be 1.5 point size minimum for registration.
- Adjoining colors must overlap by at least 1/64" (.0156") although 1/32" (.0312") is preferred. All trapping will be handled by our imaging department software.
- One metallic color cannot be printed over another metallic color.
- Color Traps (examples):
  - Blue over yellow produces green trap
  - Blue over red produces dark blue trap
  - Green over orange produces dark green trap
  - Pink over yellow produces red trap

# FLEXOGRAPHIC TYPE SPECIFICATIONS FOR GUARANTEED READABILITY

See next page

- Minimum **positive** type is 5 point **Sans Serif**.
- Minimum **reverse** type is 6 point **Bold Sans Serif**. For reverse print, the bolder the style, the better the reproduction.
- Minimum positive line gauge is 1 point.
- Minimum reverse line gauge is 1-1/2 (1.5) points.
- Thin positive lines and type may print broken or wavy and may be unreadable.
- Thin reverse lines and type will fill in and may be unreadable.

## TOTAL PLATE COSTS

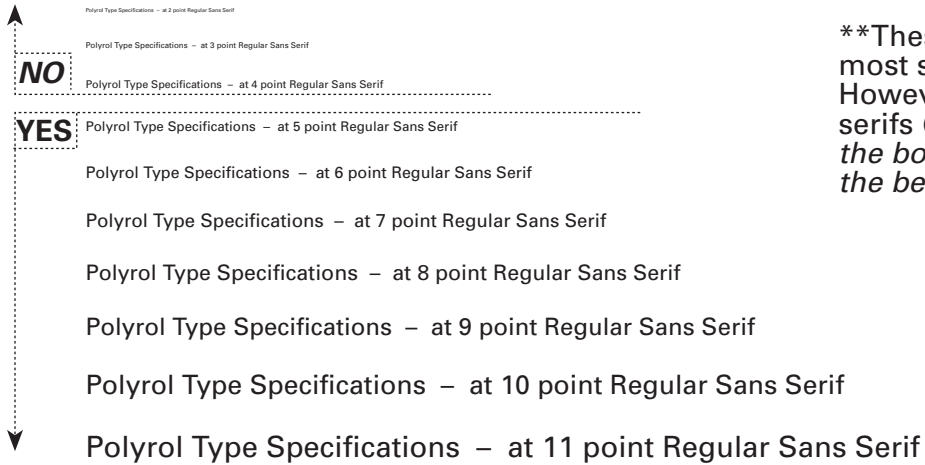
(includes art, Imaging and plate department's, labor and material)

- Artwork **WILL NOT** be worked on until a signed plate quote with a P.O. is received from the customer. All new and revised arts will be quoted automatically.
- Customers are billed for the first set of plates.
- If a customer makes changes to an existing design, they are billed for only the plates that change.
- When plates wear out, we will replace them at no cost to the customer as long as no changes are needed.
- We will not run other plates other than our own on our presses. Our presses are tested and set-up to run our specific type of plate material and thickness.
- Final art and plates are stored on site for reruns.

## APPROVAL OF ARTWORK

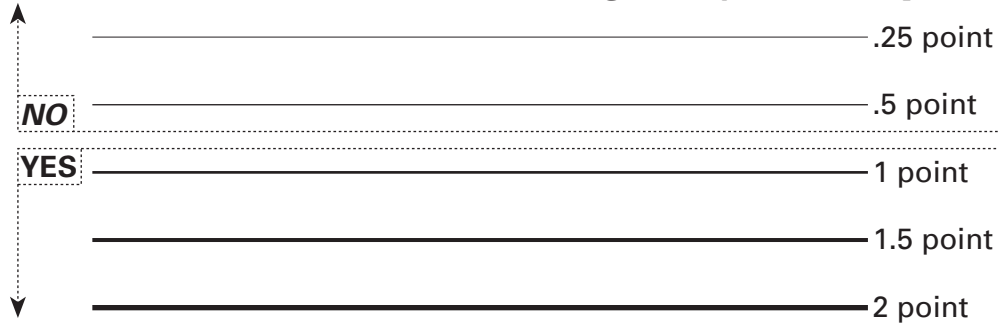
- All new art and all revisions will be proofed by customer prior to scheduling of order.
  - Proof formats:
    - Pdf (Adobe Acrobat) file that can be emailed to speed up approval process.
- Note: This type of proof can only be used if color swatches do not have to be approved
- Fax copy (revisions and simple new art)
  - Digital Black & white or color paper proofs (new artwork)
  - Color acetate overlays (new artwork, complex or bag mock-ups)
  - Digital color match proofs (Process print or color critical arts)
  - Color samples of the actual Inks on Polyethylene are provided for color approval.
  - Any revision requires written approval.
  - **Production of your order cannot begin until we receive your fully reviewed and signed approval.**

# Minimum Positive Type Spec is 5 point Regular Sans Serif\*\*

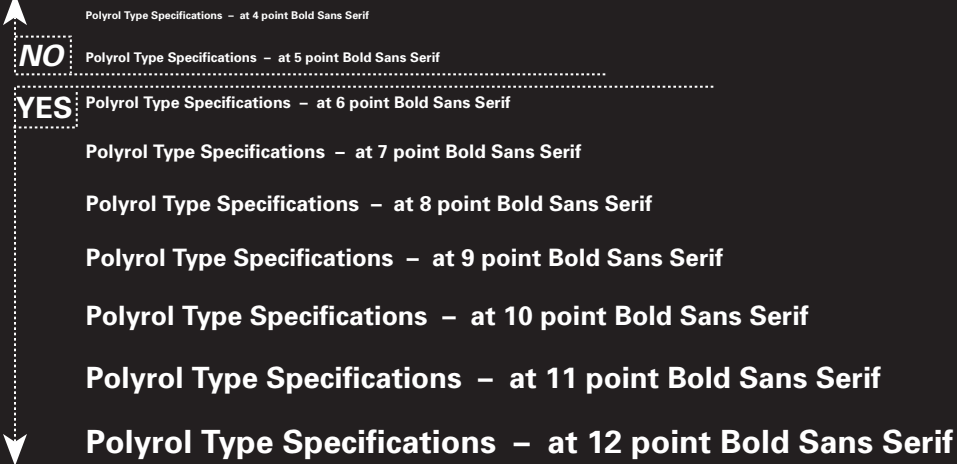


\*\*These specs also apply to most serif fonts as well. However, in the case of thin serifs (such as: Bodoni Fonts), *the bolder and larger the style, the better the reproduction.*

# Minimum Positive line weight Spec is 1 point.



# Minimum Reverse Type Spec is 6 point Bold Sans Serif



# Minimum Reverse line weight Spec is 1.5 points.



# FEATURES AND TOLERANCES

## PERFORATIONS

### VERTICAL PERF (VEP)

- Runs parallel to side seal
- Easiest to manufacture; Least expensive

### HORIZONTAL PERF (HEP)

- Runs parallel to manufactured seal
- Slower to manufacture; More expensive

### PARTIAL PERF (PHP)

- A horizontal perf that does not extend all the way across the bag
- Specify length of perf

### HORIZONTAL SEALED PERF (HSP)

- Sealed 'Cell' encloses along mfg. seal easy opening without contents contamination
- Specify length of perf


## HOLES AND PUNCHES

### AIR RELIEF HOLES:


#### PERFED (PRFD) OR THROUGH (AIR)

- 1/4" Standard
- Allows air to escape for flatter pkg.
- Avoid open end


#### ROUND HANGER HOLES (HGR)

- 1/4" to 2" (1/4" Standard) 
- Centered in header if position not specified
- Larger holes serve as door knob/hangers

#### BUTTERFLY HANGER HOLE (BTR)

- Retail use
- 1" or 1 1/4" width 

#### TRIANGLE HANGER HOLE (TRI)

- Retail use
- 5/8" or 1" wide 

## BAG SIZES:

All bag sizes may vary +/- 1/8" in width and +/- 3/16" in length

## SPECIAL FEATURES

All special features can vary +/- 1/4" vertically and +/- 1/8" horizontally. This includes hanger holes, air holes and perforations.

## PRINTED GRAPHICS:

Art can move +/- 1/8" horizontally and +/- 3/16" vertically. **Warning: it is possible for the art to float within tolerance and the feature to float within tolerance to the point where the tolerances overlap and cause some art to be unreadable, punched out, etc.**

## CLEAR AREAS:

A minimum 1/4" clear area is required between the print area and the factory seal, A minimum 1/4" clear area is required between the print area and the side seals and header seals. PRINT CANNOT GO ALL THE WAY TO THE SEALS UNLESS IT IS AUTOGRAFIX PRINT. Autografix plate break is .375" +/- .25" based on cylinder availability. Wrap-around print allows us to extend the print through the sides seals only — a clear area is still required by the factory seal and open end of the bag based on machine clear sealing areas.

## CLEAR SEALING AREAS:

Each model of machine has its own requirement for clear (No Printing) sealing area at the open end of the bag (where the customer's product is loaded) **Please contact your sales representative for this information.**

## IMPRINTING:

The imprint area must be larger than the actual imprint copy by 3/4" in both length and width. Be sure to plan with the maximum imprint area for this bag if multiple imprints will be used. FAILURE TO ALLOW PROPER MARGIN FOR IMPRINTING MAY CAUSE THE IMPRINT COPY TO FALL OUT OF THE PLANNED IMPRINT AREA. Once the bag is printed, the only solution is to reduce the imprint copy.

## BAG SKIRTS:

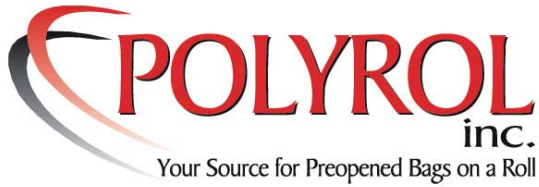
All Preopened Bags on a Roll will have a skirt. The standard skirt extends 1/4" (+/- 3/16") beyond the factory seal. Other skirt sizes must be specified clearly.

## TYPE SIZE:

The minimum size for POSITIVE Type is 5 Point for Sans Serif typefaces. Reverse copy must be at least 6 Point BOLD — Sans Serif typefaces. Serif or decorative faces should be made larger. In many cases, art design may require the type size to be below our minimum size requirements. It is not uncommon for type fill in to occur, especially with reverse copy. (Polyroll cannot guarantee the print will be readable)

## REGISTRATION:

All colors that touch will have a standard 1/32" overlap or trap to allow for proper registration. This can create a discoloration with certain color combinations. Whites are undercut 1/16" where applicable.



## COMPUTER EQUIPMENT AND APPLICATION INFO SHEET

We hope this information will help you in preparing your artwork on the Macintosh computer in the future. We are equipped to prepare Macintosh files for flexographic printing using your Mac files.

**PLEASE: Provide a MACINTOSH disk AND a COLOR PRINT of your Graphics.**

Email can be used to receive most types of files from customers and to send pdf proofs that don't require a color ink swatch to be approved by the customer. However, a full size color printout is still needed and should be sent with the Art Specification sheet through the Polyrol Sales person.

If the art will be sent via email, please send a pdf for comparison and accuracy.

**The Macintosh applications we use are: Please call for latest version available.**



Adobe  
ILLUSTRATOR



Macromedia  
FREEHAND



QUARK  
Express



Adobe  
PHOTOSHOP

- We CANNOT use WINDOWS FONTS.
- We can convert SOME WINDOWS files.
- If you use Corel Draw, you MUST save the file as a "MACINTOSH-Adobe ILLUSTRATOR" file and convert the fonts to shapes or paths.

### Current Equipment:

**Macintosh:** G4's and G5's

**Removable Media:** CD and DVD

Email: [info@polyrol.com](mailto:info@polyrol.com)