

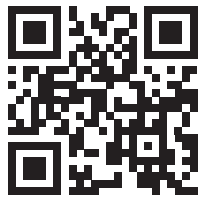


SidePouchTM

A PRODUCT OF AUTOMATED PACKAGING SYSTEMS

NOW PART OF **Sealed Air**[®]

STAND UP POUCH ART GUIDELINES MANUAL



Prepared by the Art Department of Automated Packaging Systems, Inc.
13555 McCracken Road • Garfield Heights, Ohio 44125

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WELCOME TO AUTOMATED PACKAGING SYSTEMS

The purpose of this manual is to help you understand the requirements to produce artwork that becomes the high quality printing that we are proud of here at Automated Packaging Systems.

Our best resource is our people. The Prepress Group at Automated Packaging Systems is staffed with FTA (Flexographic Technical Association) FIRST Certified Prepress Operators with many years of experience. Many of our Printing Department staff and managers are also certified as FIRST Press Operators and Implementation Specialists.

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. A high majority of arts that are supplied by customers have to be reviewed and adjusted by an artist in the Art Department. Although art is often received in a usable form, it is usually not optimized for flexographic printing or did not take into account manufacturing requirements. It is critical at the beginning to prepare artwork with all the allowable tolerances and to use the best elements, because the print job will never be better than the art.

Artwork for Flexographic printing is different from art designed for offset or lithographic printing. 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 printed. Automated Packaging System's Pre-Press Group is highly qualified to work with you to enhance or help design your artwork to print at the highest quality.



ABOUT OUR SYSTEM

We are fully equipped to review your your design, make suggestions, create digital files or take your Mac files and put the finishing touches on them in preparation for flexo printing and will be glad to get you started by making you a template of the bag size you need that will show you the available art area. Please call the number below, send us an email or contact your Automated Packaging Systems sales representative for further details.

Once your art is ready, please provide all mac files and a PDF of your Art. Also include all supporting files (jpgs, tifs, eps, psd, etc. as well as all fonts). Not supplying these items could lead to delays in producing your art.

Email can used to receive most types of files (under 10MB) and to send pdf proofs that don't require a color ink swatch to be approved by the customer. If the art files will be emailed or placed on the ftp site, please send a pdf for comparison and QA purposes. If you will be sending the files on a disk, a full size color print would also be appreciated.

The Macintosh applications we use are:



Adobe
ILLUSTRATOR



Adobe
PHOTOSHOP



Adobe
INDESIGN



Adobe
ACROBAT



ARTPRO

Contact and FTP info:

Art Department email: artdept@sealedair.com

Address: 13555 McCracken Road, Garfield Heights, OH 44125, USA

Phone: 1.330.528.2462

FTP site: <ftp.autobag.com> user: artftp password: art\$uff

(If you are uploading to the ftp site, please send the art dept. a notification email.)

We print spot color tints and process print at various line screens (mostly 110 for spot colors and 133 for process). Our presses require us to print screen angles 8 degrees off of standard LITHOGRAPHIC angles. All 4-color process and complex arts must first be reviewed by the Customer Service Pre-Art Team. All new process print art will have tifs and plates created using HD, 4000 ppi for sharper images and dots on the plate

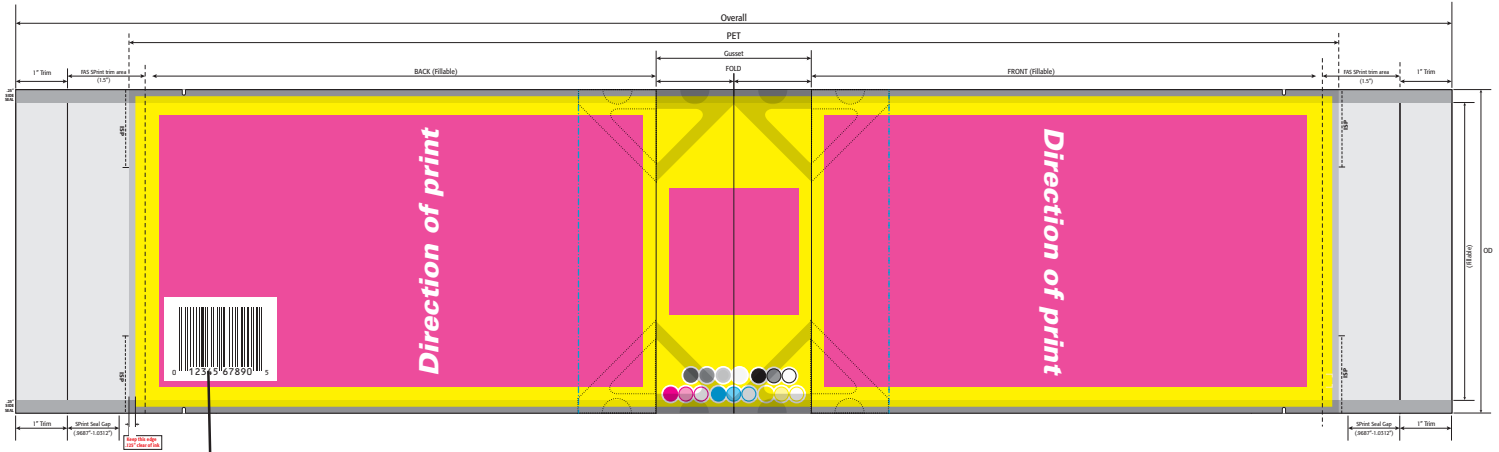
The following pages provide a guideline for layout, size, color traps, etc. This is only a guideline. If you already have graphics available, we are fully staffed to make those adjustments digitally although some additional charges may apply.

By referring to this guide, you will save valuable time in getting your art to press and ultimately bags to your facility.

GRAPHICS LAYOUT- Gusset

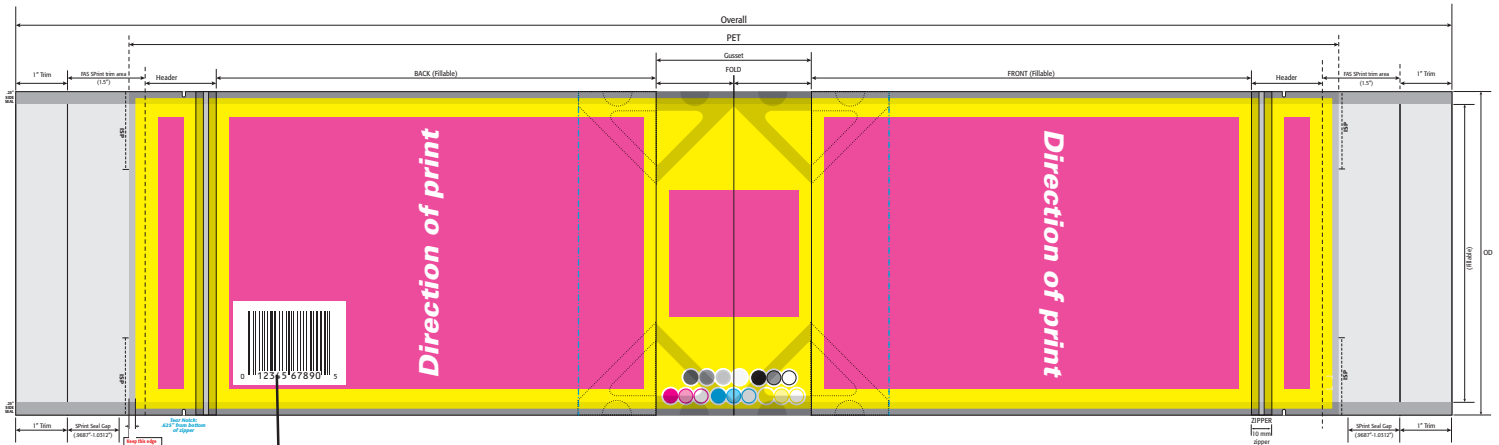
We've shown the layout as if both front and back of the bag are printed. You do not have to print both sides of the bag. If you are only printing one side of the bag, use the FRONT diagram for size and layout.

GUSSET BAG



UPC must print in direction of press run

GUSSET BAG WITH HEADER AND ZIPPER



UPC must print in direction of press run

GUSSET LINE
Any features below this line will be shown where they punch through into the gusset area.

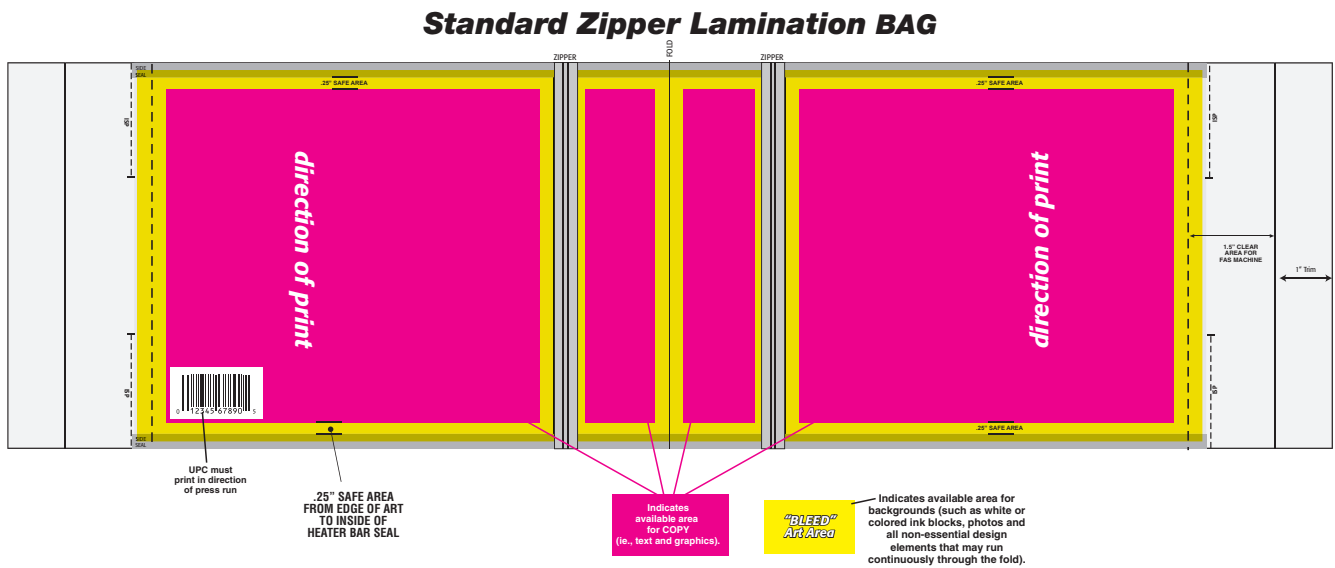
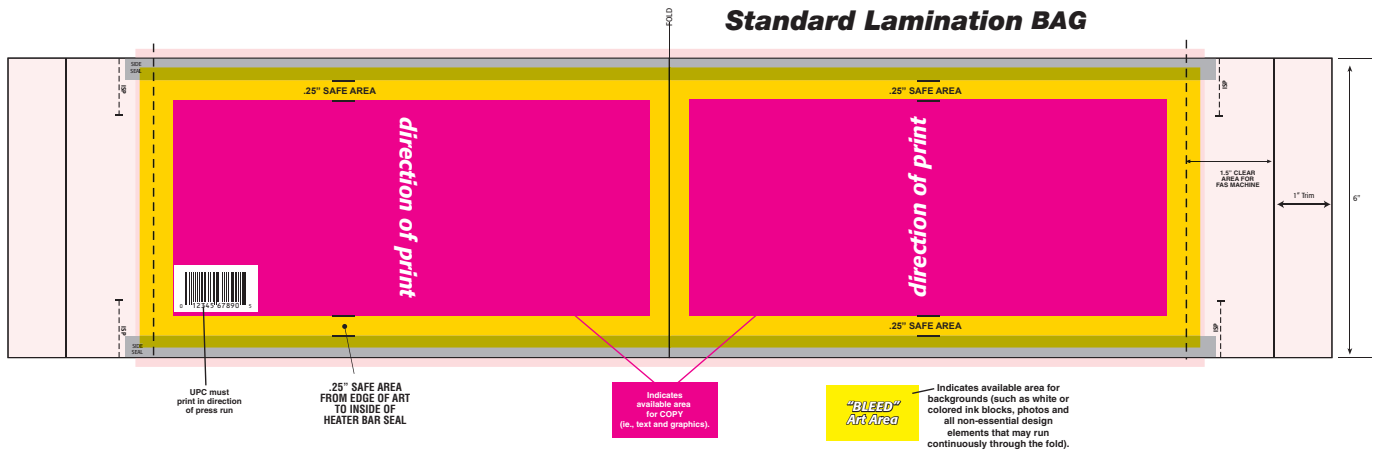
Indicates Available Art Area

ATTENTION: Indicated art areas are only approximations based on our minimum tolerances for seals, as well as for print & feature (i.e., airholes) drifts. Please be aware that all graphics are subject to a standard Graphics Customer Service Department review and your design may require changes before it can be printed.

"BLEED" Art Area

ATTENTION: Indicated art areas are only approximations based on our minimum tolerances for artwork "Bleed".

GRAPHICS LAYOUT- Standard



Maximum fillable length is 10"

BARCODE SPECIFICATIONS

Below you will find Automated Packaging Systems Flexographic specifications for making barcodes for printing and scanning. We have the software to create ALL codes in our Macintosh system but we need to know what kind of code (UPC, 3 of 9, Int. 2 of 5, code 128, etc.).

If the barcode is printing on clear material, it will require a white block underneath so the code will scan. Other scenarios where a white is required for scanability could include, but are not limited to barcodes printing on any other colored material but white. Most importantly, a high contrast between the barcode color and its background is essential for scanning. Two whites are required if the white print is an Autografix white ink.








The Art Department has a list of PMS colors and their reflectance values that help determine if the barcodes will scan when using certain Pantone colors. Generally, colors with high amounts of red will not scan.

Quiet zones are clear areas around bar codes that serve to isolate it from surrounding text and graphics. Bar code symbologies typically define a minimum amount of clear space that is to serve as the quiet zone. Industry standard recommends .25" quiet zone on each side of the code.

**If you are a *Medical* customer and *must* create your own code, please contact us for current bar width reduction and size minimums.

Below are examples of the more common code types and our specifications used to create those codes:

ALL BARCODES and 2D CODES REQUIRE A 1 MIL BAR WIDTH REDUCTION (BWR)

 <p>*+H1604341061110*</p>	<p>Code 128 No more than 18.0 CPI (characters per inch), Min .5" high bars, No less than .0101 narrow bar</p>
 <p>0 1 2 3 4 5 6 7 8 9</p>	<p>Code 39 No more than 6.8 CPI, Min. .5" high bars, No less than .0117 narrow bar and 2.4 ratio</p>
 <p>0 1 2 3 4 5 6 7 8 9</p>	<p>Int. 2 of 5 No more than 6.8 CPI, Min. .5" high bars, No less than .0120 narrow bar and 2.4 ratio</p>
 <p>0 12345 67890 5</p>	<p>UPC / EAN No less than 90% magnification, Min .5" high bars</p>
<p>2D codes (GS1 Datamatrix, Datamatrix, QR, etc.)</p> <div style="display: flex; align-items: center;">    </div> <p>1 MIL Bar Width Reduction (BWR) No less than .018 cell size</p>	

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

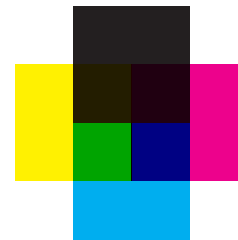
- Ten stations on press.
- Varnish overprint requires one station.
- Target recognition requires one station (required for PI and Prism Imprinters).

PRINTING SEQUENCES

Color laydown is from darkest to lightest.

Example:

- 1) TRS (*if required lays down first)
- 2) Black
- 3) Blue
- 4) Red
- 5) Yellow
- 6) White



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.

GRAPHICS REVIEW

Ink Bleeds, Screens, Process print should all be reviewed by our Graphics Customer Service team and Press Manager.

Some ink bleeds will require Etched press cylinders which can be costly and greatly increase lead times.

Some inks do not screen well, we do not screen White or Metallic inks.

TRAPPING

- Holding lines should be 1-1/2 (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, and metallic inks cannot be screened

• Color Traps (examples):

- Yellow over blue produces green trap
- Red over blue produces dark blue trap
- Orange over green produces dark green trap
- Yellow over pink produces red trap



TRS SUP & POUCH REFERENCE

TRS

Target registration mark that is used for PI412c and Prism imprintersto index bags through the machines.

Location **FAS-Sprint**: 1/2" from side
1/8" from PET edge
1 7/8" long



***TRS can be on either the front or back, left or right.**

PRINT TO SEAL LOCATIONS

- Ink bleeds 1/8" from edge of art to insideof heater bar seal
- Text, images, and graphics 1/4" from manufacturing seals

PRINT COMBINATIONS

- Ten available stations on press
- Target registration requires one station

MAXIMUM COMBINATIONS

- Ten colors, no target registration (Videojet)
- Nine colors with TRS (PI412c and PI412cw)

TYPE AND LINE WEIGHT SPECS FOR READABILITY AND QUALITY PRINT

See following pages

- 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.

***Metallic ink minimum type sizes are: 12 point Positive and 14 point Reverse.**

We may also suggest a larger size depending on typeface selection (serif vs sans serif).

TOTAL PLATE COSTS

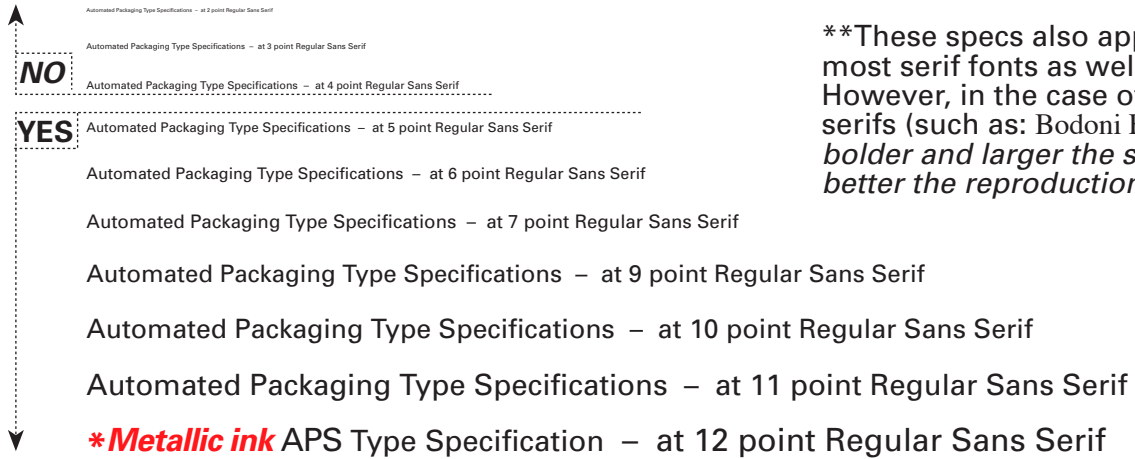
(includes art, Imaging and plate department's, labor and material)

- Artwork **will not** be worked on until a Purchase Order is received. All new and revised arts will be quoted automatically.
- Customers are billed for the first set of plates only, but not until art is approved.
- If a customer makes changes to an existing design, they are billed for only the plates that change.
- When plates wear out, APS will replace them at no cost to the customer as long as no changes are needed. **NOTE: Buyer's artwork, drawings and/or blueprints ("Artwork") will be destroyed in the event that no bag orders with that artwork are placed by Buyer for a period of four years.**
- APS 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

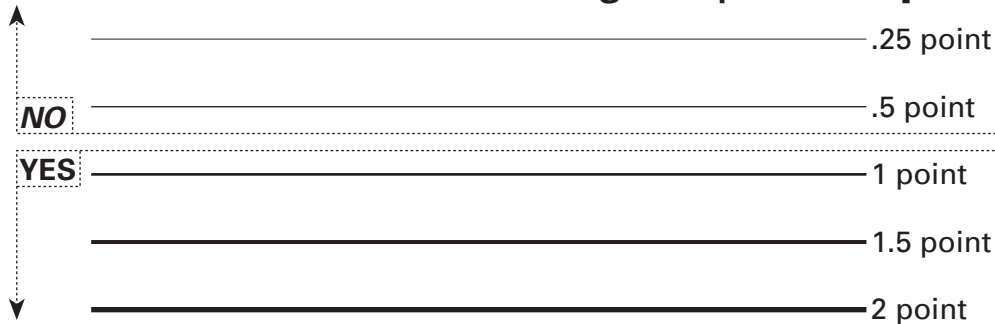
- All new and revised art will be proofed to customer prior to scheduling of order.
- Proof formats:
 - Pdfs can be emailed to speed up approval process, but can only be used if a hard copy proof is not required or color swatches do not have to be approved.
 - Fax copy (revisions and simple new art)
 - Digital Black & white or color paper proofs (new artwork)
 - Color proofs on polyethylene substrate (some limitations)
 - Digital color match proofs (Process print or color critical arts)
 - Bag mock-ups
- Solid color samples of the actual Inks on Poly are provided for color approval.
- Any revision requires written approval.
- **Production of your order cannot begin until we receive your signed approval.**
(if a waiver is necessary for your artwork, we will require the signed waiver to be returned before proceeding)
- If your art has a pre-printed barcode we ask that you return the barcode approval as well.

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

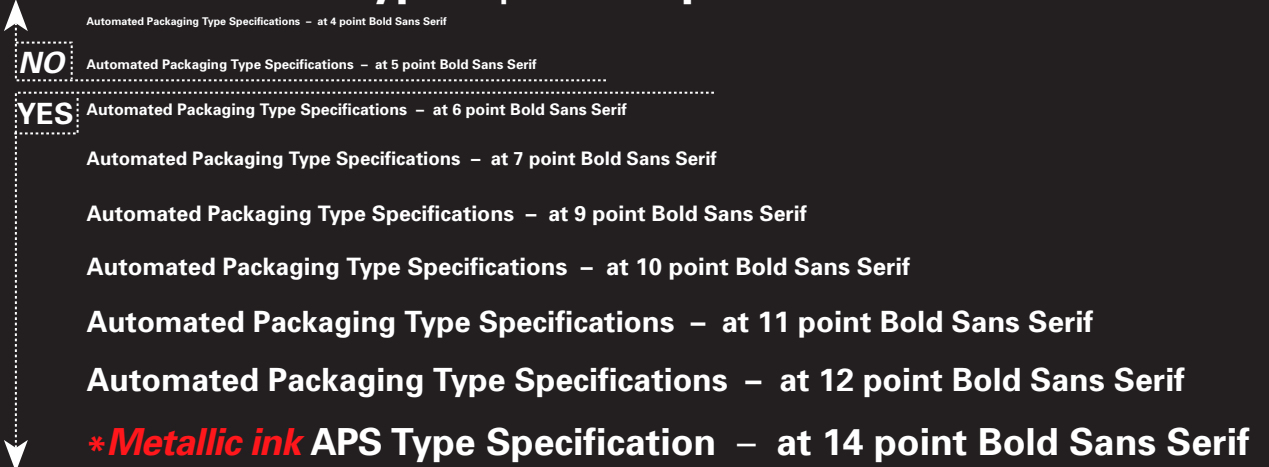


**These specs also apply to most serif fonts as well. However, in the case of thin serifs (such as: Bodoni Fonts), *the bolder and larger the style, the better the reproduction.*

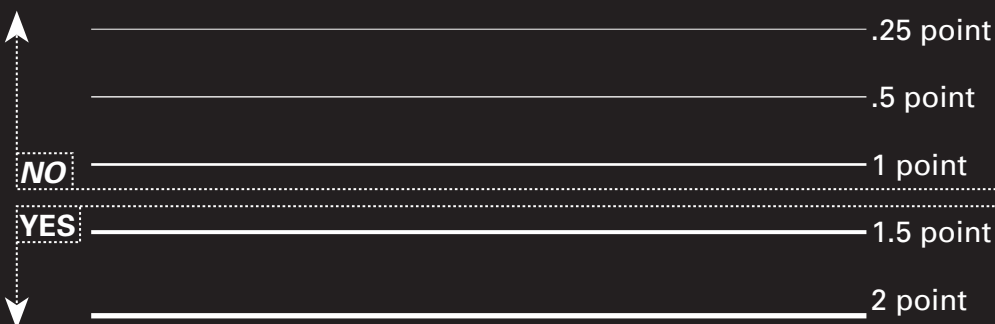
Minimum Positive line weight Spec is 1 point.



Minimum Reverse Type Spec is 6 point Bold Sans Serif



Minimum Reverse line weight Spec is 1.5 points.



Japanese and Chinese type minimum sizes

日本和中国式最小尺寸
日本語と中国語の入力の最小サイズ

Minimum Positive Type Spec is 8 point Regular**

	自动包装类型规格 -4点正 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-4ポイントで定期的に (Japanese) (Automated Packaging Type Specifications - at 4 point Regular)
	自动包装类型规格 -5点正 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-5ポイントで定期的に (Japanese) (Automated Packaging Type Specifications - at 5 point Regular)
	自动包装类型规格 -6点正 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-6ポイントで定期的に (Japanese) (Automated Packaging Type Specifications - at 6 point Regular)
NO	自动包装类型规格 -7点正 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-7ポイントで定期的に (Japanese) (Automated Packaging Type Specifications - at 7 point Regular)
YES	自动包装类型规格 -8点正 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-8ポイントで定期的に (Japanese) (Automated Packaging Type Specifications - at 8 point Regular)
	自动包装类型规格 -9点正 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-9ポイントで定期的に (Japanese) (Automated Packaging Type Specifications - at 9 point Regular)
	自动包装类型规格 -10点正 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-10ポイントで定期的に (Japanese) (Automated Packaging Type Specifications - at 10 point Regular)
	自动包装类型规格 -11点正 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-11ポイントで定期的に (Japanese) (Automated Packaging Type Specifications - at 11 point Regular)

We can print as small as 6 point positive type if **only the Japanese or Chinese text is on it's own plate separate from all the other art.

Please note that this page is only a sample of the type and size. It does not truly reflect how the type will actually **print** on our presses.

Minimum Reverse Type Spec is 8 point Bold

	自动包装类型规格 -4点粗体 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-4ポイントの太字で (Japanese) (Automated Packaging Type Specifications - at 4 point Bold)
	自动包装类型规格 -5点粗体 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-5ポイントの太字で (Japanese) (Automated Packaging Type Specifications - at 5 point Bold)
	自动包装类型规格 -6点粗体 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-6ポイントの太字で (Japanese) (Automated Packaging Type Specifications - at 6 point Bold)
NO	自动包装类型规格 -7点粗体 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-7ポイントの太字で (Japanese) (Automated Packaging Type Specifications - at 7 point Bold)
YES	自动包装类型规格 -8点粗体 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-8ポイントの太字で (Japanese) (Automated Packaging Type Specifications - at 8 point Bold)
	自动包装类型规格 -9点粗体 (Chinese Simplified) 自動化されたパッケージの仕様を入力します-9ポイントの太字で (Japanese) (Automated Packaging Type Specifications - at 9 point Bold)
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FEATURES AND TOLERANCES

Handles, Hangers, and Air Holes

Air Relief Holes:

Perfed

- 2 tic and 4 tic options
- 0.125" to 0.75"

Through

- 0.3125" (with placement restrictions)

Round Hanger Holes

- 0.25" & 0.3125"
- Centered in header if position is not specified

Handle Holes

- 2" x 0.75"
 - 3" x 1"
 - 78mm x 15mm
-

BAG SIZES:

All bag sizes may vary +/- 3/16" in width and length (Fillable length- measured from fold).

GUSSET SIZE:

Gusset size can vary +/- 1/8"

HOLES AND SIDE SEALS:

Hole location can vary both horizontally and vertically +/- 1/8"

Side seal size may vary +/- 3/16"

PRINTED GRAPHICS:

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. Art can move +/- 1/8" horizontally and 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.

COLOR MATCHING ON PRESS:

Density and screen patches must be printed on the bag to maintain quality of print and color. Automated Packaging Systems has the capability of measuring customer approved color standards utilizing a spectro photometer as long as the printed graphics meet a minimum size of 1/4" area. Any printed graphics smaller than 1/4" area will be matched visually to the customer approved standard. It is our intention to add patches for spot colors, but on rare occasions where the graphics don't allow, we may be required to match spot colors visually if printed laydown is less than 1/4" in size.

REGISTRATION:

Print REGISTRATION is +/- 1/32" for LINE print and +/- 1/64" for PROCESS print. Whites are undercut 1/16" where applicable.

MICRODOTS:

These are very small dots (only .009 in.) that are added to each printing plate for registration. They are usually trimmed off during Conversion, but sometimes they do end up on the finished bag.

CLEAR AREAS:

A minimum 1/8" clear area is required between the print area and edge of the side seals.

CLEAR SEALING AREAS:

FAS SPrint Bagging system: Requires 1.5" clear at open end of bag (top of the bag)

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. Imprinting over varnish is acceptable but must be indicated or requested since our standard process is to knock out the varnish overprint for areas to be imprinted.

TYPE SIZE:

The minimum size for positive type is 5 Point for Sans Serif and 6 Point BOLD for reverse –Sans Serif. Serif or decorative faces should be made larger. Japanese or Chinese font styles minimums are 8 point for positive and 8 point bold for reverse. If metallic ink is being used to print the type, minimum size is 12 point positive and 14 point bold for reverse. 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. (APS cannot guarantee the print will be readable)