



AutoSleeve

A PRODUCT OF AUTOMATED PACKAGING SYSTEMS

NOW PART OF **Sealed Air**®

ART GUIDELINES MANUAL



Prepared by the Art Department of Automated Packaging Systems, Inc.
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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 be 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](ftp://ftp.autobag.com) user: artftp password: art\$stuff

(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

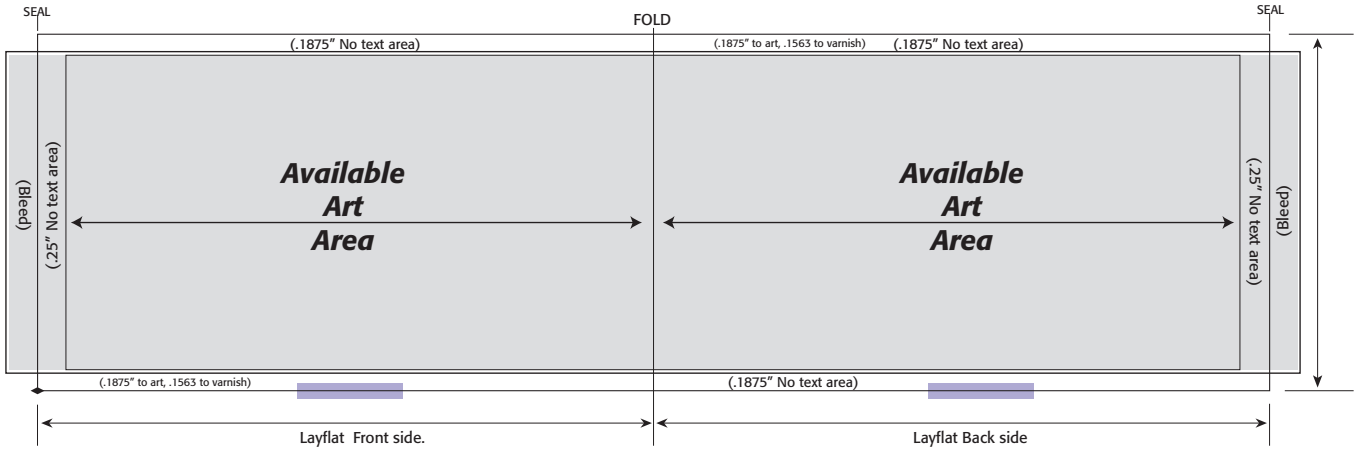
The following pages provide a guideline for layout, size, color traps, etc. This is only a guideline. If you already have graphics available, we are fully staffed to make those adjustments digitally although some additional charges may apply.

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

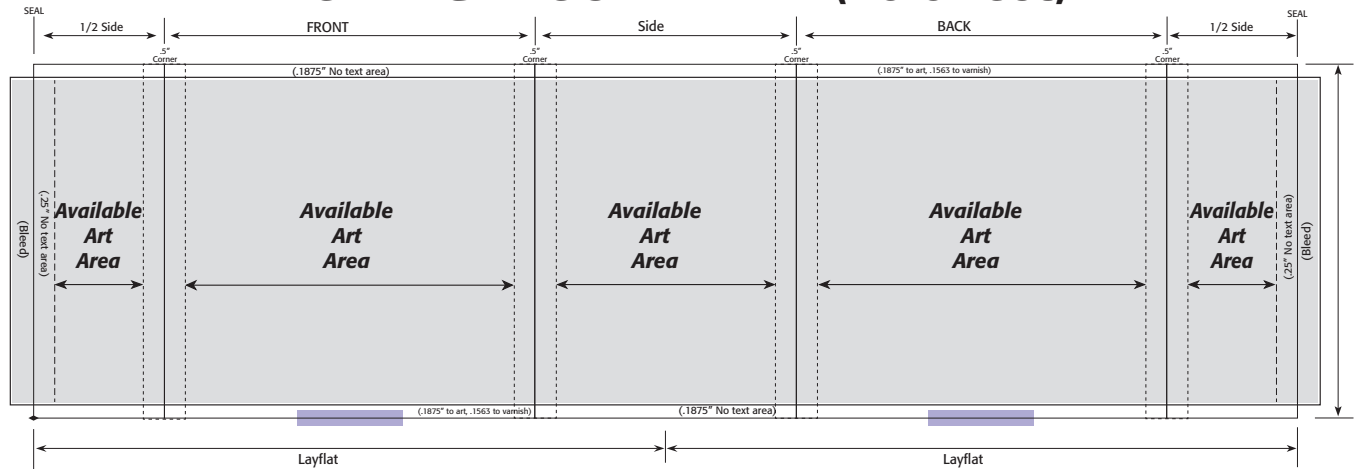
GRAPHICS LAYOUT

Dimensions from edge of Sleeve to edge of Varnish or artwork. Every sleeve requires a TRS (.1875" x 1.25"), but not necessarily a varnish. If Reverse print, all art must be 1/4" away from each side (SEAL) of the sleeve, including varnish, microdots and densit patches. We also cannot use a converting diamond since it would be in the seal area.

ROUND CONTAINER

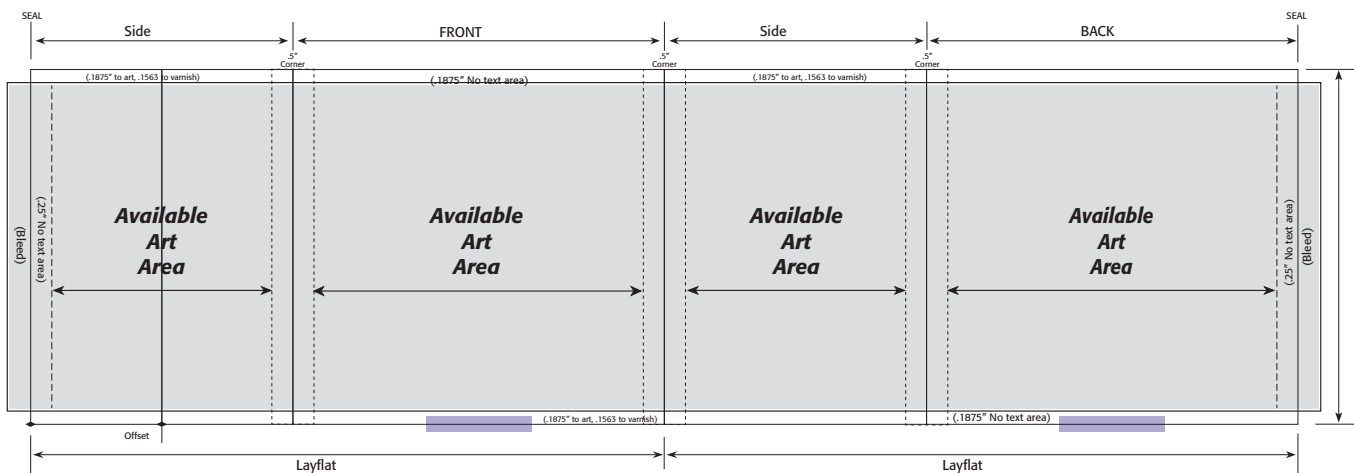


RECTANGLE CONTAINER (no offset)



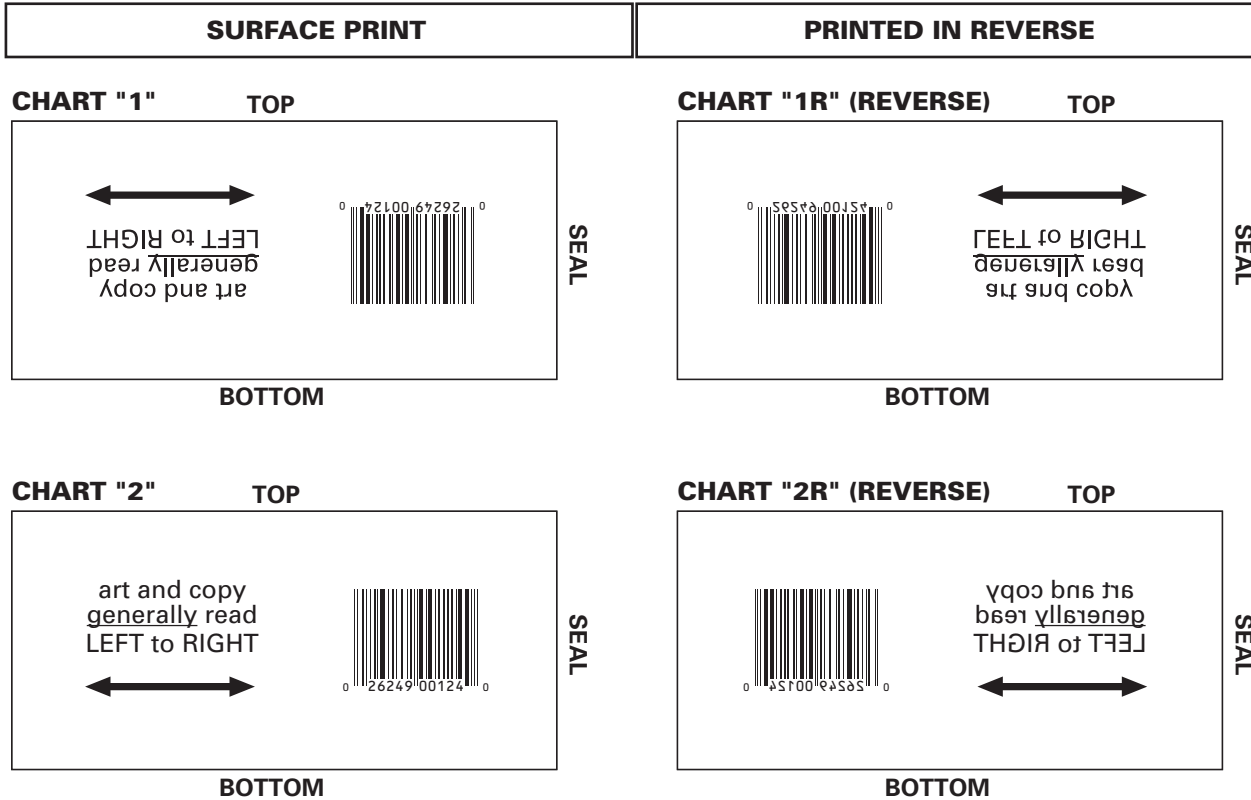
RECTANGLE OFFSET LEFT

Offset rewind sleeves require TRS (.1875" X 1.25") to be offset to a centered location on front and back.

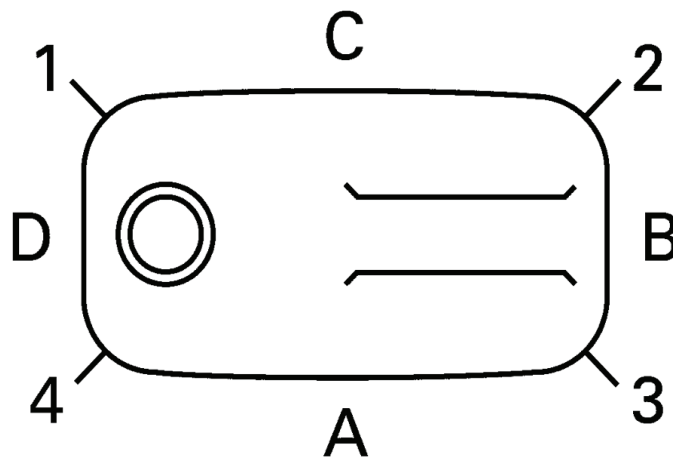


PRINT DIRECTION

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. Chart 2 surface print opens on front, chart 2 reverse print opens on back.



RECTANGLE CONTAINER DRAWING TO SHOW PANEL AND SEAM LOCATION



The Seal is? (1,2,3,4,B,D)- Note: if B or D is picked this will not need offset. we will build offset into the artwork.

Front Panel is? (A,B,C,D)

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>  <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

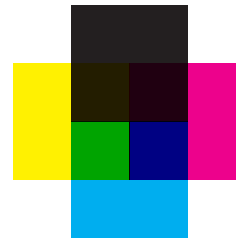
- Maximum Ten stations on press.
- Varnish overprint requires one station.
- Target recognition requires one station (if required).

PRINTING SEQUENCES

Color laydown is from lightest to darkest. (Unless it's revers print for lamination)

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.

GRAPHICS REVIEW

Ink Bleeds, Screens, Process print should all be reviewed by our Customer Service Pre-Art Team and press department.

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.
- Color Traps (examples):
 - Light 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



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

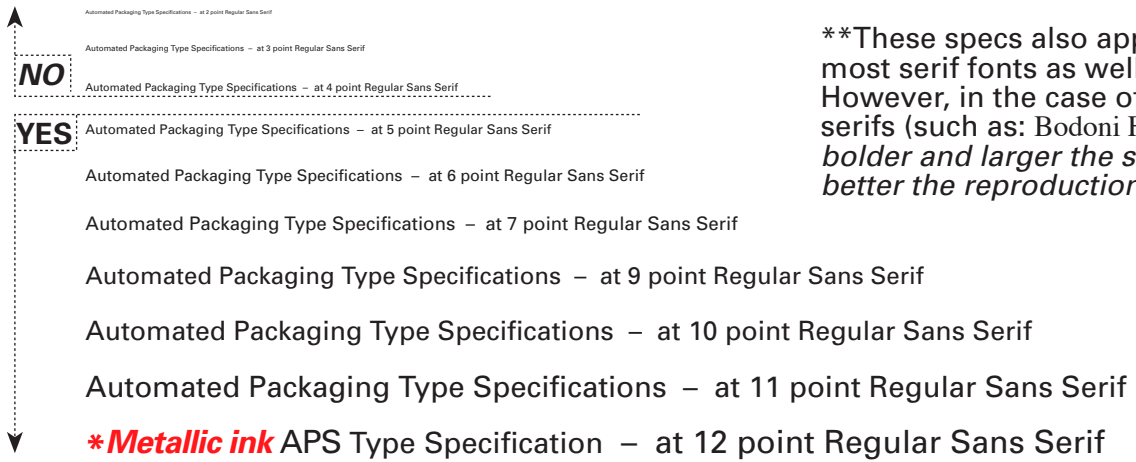
(includes art, Imaging and plate department's, labor and material)

- 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

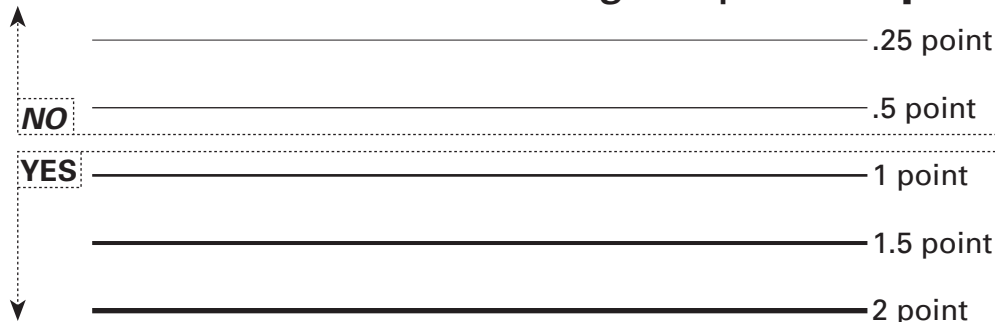
- All new and revised art will be proofed to customer prior to scheduling of order.
- Proof formats:
 - Pdfs can be emailed to speed up approval process, but can only be used if a hard copy proof is not required or color swatches do not have to be approved.
 - Fax copy (revisions and simple new art)
 - 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**

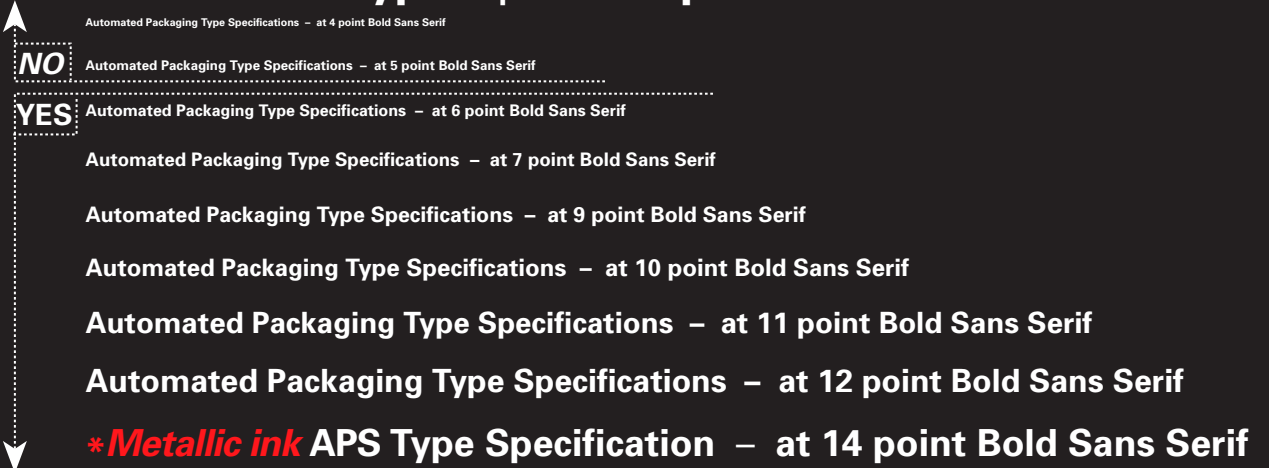


**These specs also apply to most serif fonts as well. However, in the case of thin serifs (such as: Bodoni Fonts), *the bolder and larger the style, the better the reproduction.*

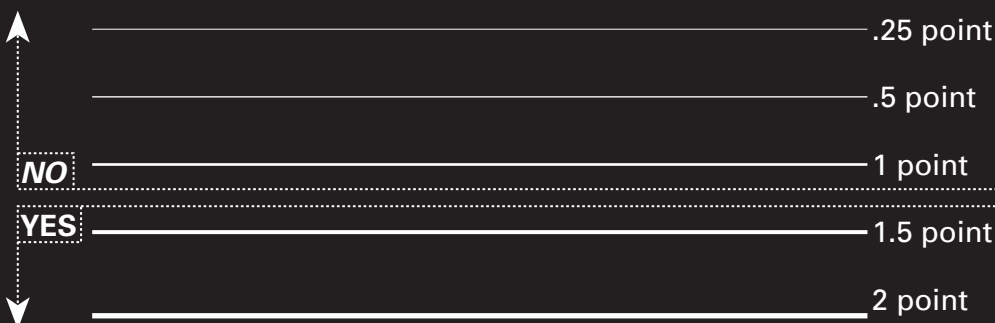
Minimum Positive line weight Spec is 1 point.



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)

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)

NO

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)

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)

NO

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)

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(Automated Packaging Type Specifications - at 11 point Bold)

TOLERANCE GUIDELINES FOR SLEEVES

Plastic is, by nature, tough, resilient and smooth to the touch. Polyethylene has a smooth surface and can move during production. In order to minimize the effects of this naturally occurring slippage, we have set these production tolerances in order to create the best possible plastic products.

Please be sure to review these tolerances. If you have any questions, please consult your sales representative.

SLEEVE SIZES:

Sizes may vary +/- 1/32" in width and +/- 1/8" in length

PRINTED GRAPHICS:

Art can move +/- 1/8" horizontally and +/- 3/16" vertically. Spot color screen range is from 3%-98%. Process print screen range is from 1%-98%. There will be a small graphical shape printed on the top/bottom of the sleeves that will be used for offset rewind purposes, if applicable.

COLORS:

Maximum of 9 colors + TRS, or 8 + TRS + Varnish (if a varnish is required). If you require a varnish this is counted as a station. 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.

COLOR MATCHING ON PRESS:

Automated Packaging Systems has the capability of measuring customer approved color standards utilizing a spectrophotometer as long as the printed graphics meet a minimum size of .25" area. Any printed graphics smaller than .25" area will be matched visually to the customer approved standard.

VARNISH:

Printed sleeves are subjected to many abrasive forces during printing, converting, shipping, and the end use. Our printed sleeves have been tested and pass the industry expectations which are:
Surface Print Film: 100 rub cycles, 4-lb. Block, print to film. If you have need of additional protection, a varnish overprint may be required. Varnish also available on reverse print if required, but cannot be any closer to the sides than 1/4".

REGISTRATION:

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

CLEAR AREAS:

A 1/4" clear area is required on each side between the print areas when wrapped unless it is wrap print (bleed). For reverse print, the 1/4" on each side includes the Varnish. Wraparound / Seal-Through Print requires a 1/4" bleed (left to right). A minimum 3/16" is required between the top and bottom of the art and the perf between sleeves, with a total of 3/8" clear area between the print areas from one sleeve to another unless a continuous print background or design is desired. Mock Continuous Print will require s 3/16" fill bar top and bottom (may require additional print station). Perf to Varnish is always 5/32" (on all sleeves)

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. If metallic ink is being used to print the type, it must be a minimum of 12 point positive and a minimum of 14 point bold for reverse. 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. (Automated Packaging Systems cannot guarantee the print will be readable and will not be responsible for fill in under these sizes)

CODES:

Barcodes can range from 90% - 120% (minimum 1/2" height). Barcodes can only print in one direction-picket fence style. A high contrast between the barcode color and it's background is essential for scanning. The Art Department has a list of PMS colors and their reflectance values that help determine if the barcode will scan. Barcodes will be created at the art proof stage. The number and type of code is all that is required. We also have the ability to create 2D codes.