

# TULSACK®

**GROWTH THROUGH INNOVATION.**

Eight Time Winner Retail Packaging Association Manufacturer of the Year

**NATURALLY.**

- Custom Printed
- Hot Stamped
- Post Printed
- Plain Stock
- .....
- Shopping Bags
- Flat Handle Sacks
- Merchandise Bags
- .....
- 100% Made in USA



**1** color  
low ink

**2** color  
medium ink

**3** color  
full ink

**Same Price!**

- same bag size
- same paper type
- same quantity



**Mixed Sources**  
 Product group from well-managed forests, controlled sources and recycled wood or fiber  
[www.fsc.org](http://www.fsc.org) Cert no. SW-COC-002390  
 © 1996 Forest Stewardship Council

- Prepaid freight for new prints 2,500 +
- Prepaid plates for new prints 25M +
- No over or under runs
- One case to multiple truckloads
- New custom prints within 4 weeks
- *Rapid Reorder* repeats within two weeks
- *100% Shipping Performance Guarantee*

**All Natural Kraft**  
**100% Recycled**  
 95% post consumer without upcharge

# Bag Customizing 101 • In-Line Flexo Printing • Post Printing

TULSACK offers three options for customizing bags:

## In-line flexo printing • Post printing • Hot stamping

Our bags are made from rolls of paper. The first customizing method has a 2,500 minimum per item and involves printing of the paper prior to folding into a bag, "in-line", on a three color press that is an integral part of the bag machine. Up to full coverage printing and bag making are executed in an automated, machine controlled process on 100% Recycled Natural Kraft, White Kraft, Oatmeal, and Claycoated papers. See page 4 for complete listing of size and paper type combinations.

The second and third methods are post converted in a manual process, with the logo applied to the paper after it has been folded into a bag. Post printing and hot stamping have obvious restrictions, including coverage area, panels that can be printed cost effectively or at all, numbers of colors and registration between them and extremely limited photo or screen tone capability. Nevertheless, post printing and hot stamping, most commonly one color one side, are excellent alternatives for minimum quantity customized

handle bags - as few as two cases.

However, with our low 2,500 minimum for three color full coverage in-line customized handle bags, we suggest that you consider carefully where the best value is once your quantity per size ordered at one time exceeds 1,000 bags. The all-side, multicolor branding is what opens up the *Walking Billboard* opportunity of a handle bag, turning a container into a powerful promotional vehicle - one of the lowest cost per impression advertising tools available.

Our *One Step Pricing* featured on the front cover of this catalog has removed premiums for multicolored, high coverage printing as a barrier to presenting your image just the way you want. Our simplified plate cost plan caps design preparation costs, making this an expense that can be budgeted at the start of the project.

In-line custom flexo printing and post converting do not have to be exclusive. As shown in the *Franciscan* photo below, they can be used together to produce outstanding results. This premium brand took advantage of three color full coverage printing on White Kraft, plus two side hot stamping to produce an outstanding package.

### Post converting processes



Post printing



Hot stamping



## Automated In-Line Bag Making & Printing Process

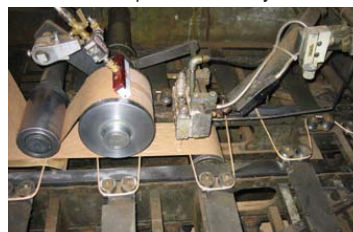
1. Roll unwind



2. In-line flexo printing



3. Handle and patch assembly



4. Handles into machine



# Hot Stamping

Natural Kraft is 100% Recycled (95% Post Consumer)  
Oatmeal Contains 60% Post Industrial Recycled Fiber



At an early stage in its history, **Yoga Works** may have only needed a few cases of bags, and would have been limited to a one color, one side spot print of its logo on a stock Natural Kraft bag.

For as few as the 2,500 fully customized bag minimum, **Yoga Works** is able to showcase its elegant branded logo and color scheme on a four side printed bag. The cost of multicolors and full coverage is easily affordable with our One Step

Pricing and plate cost cap. **Yoga Works** will never receive an over run, and will never have to wait more than two weeks for an exact repeat with TULSACK's **Rapid Reorder** commitment.



White Kraft 2C

White Kraft 2C

In-line flexo custom bags

Natural Kraft 3C

Oatmeal 1C

Natural Kraft 3C

5. Handle/patch applied inside bag



6. Gussets being folded




7. Bottom formed and pasted



8. Finished bag delivery



# Handle Bag Size & Capabilities Guide

 While used widely in all market segments, these sizes are also top sellers in foodservice carryout.



## Quick Handle Bag Product Guide By Size Number

	<u>3</u>	<u>14</u>	<u>4</u>	<u>16</u>	<u>12</u>	<u>13</u>	<u>11</u>	<u>7</u>	<u>9</u>	<u>2</u>	<u>8</u>	<u>1</u>	<u>6</u>	<u>10</u>	<u>5</u>
In-line custom White Kraft, 100% Recycled Natural Kraft & Oatmeal 60% Recycled	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
In-line custom Claycoated to 50% coverage	•	•	•							•	•	•			
Plain stock White Kraft & 100% Recycled Natural Kraft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Stock 100% Recycled Natural Kraft Tints & Oatmeal 60% Recycled	•		•							•		•			
Plain stock Gloss White				•							•	•			
Short run Post Printing & Hot Stamping - Two case minimum	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

## Optional Handle Colors *For custom run shopping bags*

### Group I

-  3 - W. Beige # 468U
-  5 - Red # 186U
-  8 - Navy Blue # 289U
-  12 - Black

Group I colors available without upcharge at 2,500 bag minimum for in-line flexo custom printed shopping bags.

### Group IV

-  17 - Xmas Red 187C

### Group II

-  1 - Mauve # 681U
-  2 - Blue # 645U
-  7 - Hunter Green # 350U
-  9 - Pink # 699U
-  13 - Orange # 151U
-  14 - Ivory (Off White)
-  15 - Manila # 155U
-  18 - Purple # 261U
-  22 - Brown # 7518U

### Group III

-  4 - KY Blue # 286U
-  6 - Cranberry # 1955U
-  10 - Yellow # 108U
-  11 - Pewter # 4370U
-  16 - Xmas Green # 348U
-  19 - Teal # 3282U
-  20 - Process Magenta U
-  21 - Fuchsia # 227U

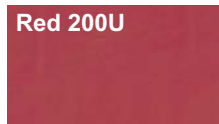
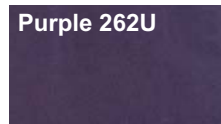
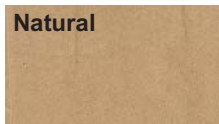
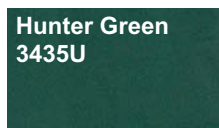
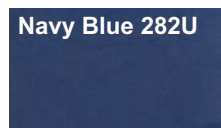
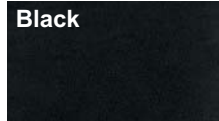
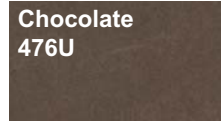
Groups II, III and IV available with upcharge at 25,000 bag minimum in-line custom printed shopping bags produced at one time. Bag sizes and print copies can be assorted. With these colors bag order(s) subject to over/under run. PMS nos. for approximation only.

# Stock Papers, Colors, Inks & Foils

## 100% Recycled Natural Kraft 95% Post Consumer

*PMS numbers for reference on Tints. Approximation only.*

*Black Tint has black handle.  
All other tints have Natural handle.*



As an integrated manufacturer and post converter, TULSACK offers the most consistent color control between sizes and over time. Master Distributors sourcing from multiple bag producers can not offer this consistency.

## White Kraft, Gloss White & Oatmeal 60% Post Industrial Recycled Fiber



**White Kraft**

**Oatmeal**

**Gloss White**

No post printing on Claycoated paper. Hot stamp, or in-line custom up to 50% maximum coverage only.

## Stock Pigment Hot Stamping Foils Matte finish

Black	Dark Green 3302U	Bright Yellow 142C
Red 193C	White	Electric Blue 2728C
Orange 179C	Navy Blue 280C	Light Pink 204U
Deep Pink 214C	Purple 2627U	
Ivory 7401C	Brown 469C	

## Stock Metallic Hot Stamping Foils

Metallic	Metallic	Matte Metallic
Gold	Silver	Copper
Red 1797C	Blue Pro. Blue C	Gold
Green 3405C	Copper	Silver
Purple 8142C	Apple Green 375C	Pearlized Blue 8182C
Fuchsia 8082C	Teal 320C	

*PMS numbers on foils for reference. Closest PMS # for shade is shown, not necessarily for matte, metallic or matte metallic finish. Approximation only. Not exact match. When we can source non-stock foil without minimum or premium charges, no upcharge. Any non-stock foil upcharge will be quoted for approval.*

## Hot Stamping



All stock products can be custom hot stamped. Bags above are, from left to right, Hunter Green Natural Kraft Tint, Black Natural Kraft Tint and Navy Blue Natural Kraft Tint. The Black bag is hot stamped two colors - gold and white.

## Post Printing



All 100% Recycled Natural Kraft, White Kraft and Oatmeal stock bags can be customized in this economical, short run post converting method. One color/one side merchandise bags and flat handle sack are shown above. No post printing on Claycoated paper. NK merchandise bags 70% post consumer.

## Stock Ink Colors for Post Printing

Black	Orange 021U	Rhodamine Red U
Red 199U	Reflex Blue U	Dark Green 560U
Copper 876U ***	Wine 209U	Navy Blue 294U
Gold 873U ***	Dark Teal 322U	Cinnamon 174U
Purple 526U	Light Teal 327U	Light Green 354U
Silver 877U ***	Brown 490U	PMS Process Blue U

*Post print ink PMS numbers for reference on White Kraft paper only. Not reformulated for other post converted paper types.*

**Custom Ink Match** Available with upcharge.

**Competitive Ink Colors** When our stock ink color is not a suitable alternative to another post printer's published stock color, we will match at no additional cost.

\*\*\***Metallic Ink** Copper, Gold and Silver available with upcharge.

## Oatmeal Kraft 60% Post Industrial Recycled Fiber

With its mid-tone earth shade, Natural flecks, excellent print quality and 60% post industrial recovered fiber base, Oatmeal is an excellent transition between 100% Recycled Natural Kraft and White Kraft. The sheet is a mixture of unbleached and bleached fiber.



One color



Three colors



Two colors

## Claycoated Max 50% coverage, no trap or overprint



Two colors

Two colors

Two colors

Two colors

## Sustainability

### Operational commitment to sound environmental practices

TULSACK has run its business in an environmentally sound manner at least as long as the words *Sustainability* and *Green* have been associated with the commitment to consume fewer raw materials and reduce outputs into the air, water and solid waste streams, and before it was demanded by customers. It's made good business sense, and it's often embodied in laws and safety regulations that all responsible converters must follow. Best practices include:

- TULSACK has used environmentally friendly water based inks exclusively for over two decades. This is why we offer so few truly "metallic" inks and discourage their use.
- Unused inks are rebled into darker "work off" colors, or reprocessed with modern technology separating and recovering water from pigment. This reduces water use and solid waste.
- Every pound of waste paper - bag paper, boxes, handle material, bundle wrap and shredded office waste paper - is collected and sold into the recovered fiber market.
- Throughout the 1980's and 90's, we used only 40% post consumer recycled Natural, until the mill withdrew from the bag market. **In 2008 all Natural Kraft is 100% Recycled, 95% PC.**
- Packaging - the cases and bundles our bags go into and the manner in which we stack pallets - is designed to support the most efficient utilization of truck capacity possible. The result is substantially less fuel needed to deliver TULSACK products.
- This catalog is produced on Forest Stewardship Council (FSC) certified paper by an FSC certified printer.

### Soy Inks

- Periodically we are asked if our bags can be printed with soy inks. Soy based inks have a very limited role in flexographic printing. We only print flexographically.
- Flexographic inks are thin and watery. Over the years the hazardous chemical solvent component of the solution in which pigments were dispersed has been mostly replaced by water.
- Offset litho inks are thick and pasty. The material within which pigments are dispersed are petroleum based compounds. It is these thick, pasty compounds that soy oil is designed to replace in offset litho inks.
- Ink experts we have talked with report that attempts to use soy oil in flexo inks required a material increase in chemical solvents to make the ink perform to minimum levels of printability, and to prevent the inks from rubbing off the package.
- Click the *Sustainability* link at [www.tulsack.com](http://www.tulsack.com) for more info.

### TULSACK Earns FSC Chain of Custody Certification

In 2008 TULSACK sought and earned this certification. What does it mean to be an FSC Supplier? TULSACK has been audited by an FSC-Accredited Certifier, and was found to have systems and process controls required to provide FSC materials to our customers.

FSC bag-grades are only available on a special order basis. Please direct FSC product inquiries to your TULSACK Distributor.

Visit <http://www.fscus.org/> for more information about The Forest Stewardship Council.



FSC Supplier  
SCS-COC-001706  
The mark of responsible forestry  
© 1996 Forest Stewardship Council A.C.

# Art Guidelines *A must read for designers of paper shopping bags*

## In-Line Flexo Printing Guidelines

### Introduction for the bag buyer and packaging sales person

In our experience, most custom printed bag projects get started with people not trained to get the art ready - the person needing the bag and the packaging salesperson. It is important to have a basic understanding of what is needed to get a custom printed project off to a good start. Indications of plate costs and lead times we provide are based on receiving correctly prepared B&W or digital art work. The following are not "correctly prepared art" :

- Business cards, letterheads, photocopies, faxes, etc.
- B&W or scanned art requiring more than 150% enlargement.
- Previously printed paper bags or other packages.
- Overall designs not positioned on one of our bag templates.
- Films and/or plates not to our specifications.
- Multi-color designs with tight register and trapping requirements not prepared to in-line flexo specifications.
- Designs with halftones and flat screens requiring adjustment for in-line flexographic printing.

This is not to say it is impossible to complete a project with these materials - only that it may cost more and take more time.

### Introduction for the graphic artist

Most artists and designers have a background in offset lithography, not flexography. If there is some flexo experience, it is in narrow web for labels, not the wide web used for paper packaging. These *Art Guidelines* are intended as a basic "how to" for designers and artists working on new flexographically printed shopping bag projects. The *Guidelines* should help to get the art done correctly the first time, minimizing prep expenses and prep time. If anything is unclear please ask.

### In-line flexographic printing & bag making

Flexography is a relief printing process using photopolymer plates that are .112 thick. In many respects flexo is like printing with rubber stamps. Our printing is done in-line with the bag making. Rolls of paper are unwound into the bag machine, printed up to three colors, handles applied, side folds formed and seam glued, individual bag cut away from web of paper, bottom folded and pasted, and the finished bag is packaged for shipment. See pages 2 - 3 for step-by-step photos of this process. There is a video of the process at the *Custom printed bags* Site Directory link at [www.tulsack.com](http://www.tulsack.com).

### Ink color matching and proofing

We use PMS colors specified, or can custom match submitted materials. There is no charge for matching. When using PMS, specify colors from the uncoated "U" section or coated "C" section as appropriate for the bag paper type. PMS ink color standards and formulations are per our ink supplier's current PMS swatch book. Please specify the PMSU shade that best matches color(s) previously printed on coated paper. May be a different PMS #. There are many PMS colors that can not be matched on uncoated papers, and paper colors/shades other than white.

Ink drawdowns for PMS colors on White Kraft and Claycoated sent only when requested on P.O., or when there are traps or overprints that should be approved prior to production. We send ink drawdowns for all PMS matches on Recycled Natural Kraft and Oatmeal, as well as for custom matches to colors other than PMS. Approval is needed before bags can be produced.

**Metallic Inks** With our commitment to environmentally friendly

water based inks and limiting the non-recoverable waste generated in our plant, we offer only three metallic inks: Gold 872, Silver 877 and Copper 876. Maximum coverage 50%, with upcharge. No custom metallic matches. Ask Customer Service about non-metallic matches to metallic colors, available without upcharge - the more sustainable ink alternative.

### Design templates, logo positioning and bag proofing

Unless the design is no more than a spot print, the designer should have a template before starting artwork. Each bag size has its own template. Templates can be requested from Customer Service, or found at [www.tulsack.com](http://www.tulsack.com) and [www.bag-art.com](http://www.bag-art.com). *Art Guidelines* are also posted at the sites.

**Orders for spot imprints not on a template must include logo size and positioning instructions on the P.O., e.g., "Enlarge to 6" wide, position center left to right, 3" up from bottom."**

All bags are proofed, usually as a folded one color blueprint, with different shades used to differentiate multiple colors, and/or screens of one color. These blueprints do not show actual screens. When there are screens, a conventional dylux blue line will be burned from a negative for approval of the screens. Alternative proofs may be furnished when tight register and/or complicated trapping of multiple colors are involved. Bag proof approval is needed before production.

### Line width and type size

- Minimum positive printing line width: Two (2) point
- Minimum reverse printing line width: Three (3) point
- Minimum positive printing type size: Ten (10) point
- Minimum reverse printing type size: Twelve (12) point

These guidelines are subject to review with serif type faces, and with designs including areas of broad solid coverage along with small type in the same color. In these situations type/line may need to be larger and/or bolder. Think big for visual merchandising. Promote the brand to everyone who sees the bag and not just the person holding it.

### Register tolerance and trap

Wherever two colors meet, a minimum 4.5 point - 1/16" - is required to trap the colors. Where two colors are adjacent and not to touch, there should be a minimum 4.5 points of space between them. As a general rule this register tolerance precludes the use of two overprinting colors to create a third color, whether with solids or screens. If attempted this would need a third color such as black to outline the shape.

### Screens and halftones

The line screen used in our process ranges between 45 and 55. The coarse screen is not apparent from typical viewing distance and insures cleanest possible dot reproduction. Due to the differences between how wide web flexo and offset litho reproduce screens and halftones, we request the opportunity to review the design elements to provide specific production art direction as early in the planning process as possible. Halftones must have strong contrast, as must steps between manually selected screen values of the same color. Subtle tone variations will not reproduce. Please have the artist contact us before going very far with a design using halftones and screens. We're happy to supply printed bag samples with halftones upon request.

# Art Guidelines *A must read for designers of paper shopping bags* continued

## Post Print & Hot Stamp Guidelines

- Post printing and hot stamping are executed on bags after they are manufactured. There are limitations to these processes, including:
- Claycoated bags can not be post printed - hot stamping only.
  - Logos combining heavy coverage or reversed images may not print well. Positive images are preferred.
  - Screens, borders and heavy coverage areas will likely distort when post printed over the folds of a bag.
  - Logos containing fine detail and small reverses will probably fill in when hot stamped. Enlarge these areas or consider post printing for a better result.
  - See photos on page 5 for typical art reproduced successfully in post printing and hot stamping.
  - **P.O. must specify logo size and positioning instructions, e.g., "Enlarge to 6" wide, position center left to right, 3" up from bottom."**
  - Logos must be positioned at least 1" below the handle/patch.
  - Specifications to center top to bottom may be adjusted to "center best" when true center will cause image quality problems due to folds, patches, handles, etc.
  - Exact registration between two or more colors can not be maintained. Variation from perfect registration may range 1/8" to 1/2" depending on the product and process.
  - Screening limited to 30% density at 30 line screen.
  - We strive to produce the highest quality in our printing and hot stamping. Changes will be suggested when necessary to achieve a quality job within the capabilities of our processes and the materials available.
  - See copy size guide at right. Substrate and design combinations may reduce size capability.

## Supplied artwork formats that work best

- *Adobe Illustrator* or high resolution PDF files preferred.
- Original vector art.
- Camera ready mechanical or scanned (raster) digital images

that do not have to be enlarged more than 150%.

- CD for Mac or CD/DVD for PC.
- As email attachments to [submitart@tulsack.com](mailto:submitart@tulsack.com) or [submitart@bag-art.com](mailto:submitart@bag-art.com). Typical maximum as email attachment is 7 to 10 megabytes. We use *Stuffit* compression utility.
- With digital art please send all fonts and image source files and confirming PDF or hard copy - scaled laser or ink jet print, etc. - indicating correct output.
- .007 RREU (right reading emulsion up) negatives. Please do not supply negatives for designs with screens and/or halftones.
- .112 photopolymer plates with .050 relief. Please do not try to furnish plates for designs with screens and/or halftones. Plates already mounted on sticky back can not be used.
- .250 Magnesium dies for hot stamping, .0625 to .09375 relief.
- All supplied production materials subject to review for quality and suitability in our process. **Supplied plates and/or dies must be accompanied by film negatives.**

Handle Bags Bag Size	Max Print/ Stamp Area	Bag Size	Max Print/ Stamp Area
5.5 x 3.25 x 8.375 *	4 x 3.75	14.5 x 9 x 16.25	10 x 10
5.5 x 3.25 x 13	4 x 6	16 x 6 x 12	13 x 6
8 x 4.75 x 10.25	6 x 5	16 x 6 x 16	13 x 10
10 x 5 x 10	8 x 5	16 x 6 x 19	13 x 11
10 x 5 x 13	8 x 7	18 x 7 x 18	15 x 11
13 x 6 x 16	10 x 10	12 x 7 x 12	9 x 6
13 x 7 x 13	10 x 6	12 x 7 x 15.75	9 x 9
13 x 7 x 17	10 x 11	* One side only	
Merchandise Bags			
6.25 x 9.25	4 x 6	12 x 2.75 x 18	8.5 x 11
8.5 x 11	6 x 8	14 x 3 x 21	10.5 x 11
12 x 15	10 x 11	16 x 3.75 x 24	12 x 11
10 x 2 x 15	7 x 11		

## Handle Bag Packaging Guide *For warehousing & distribution planning • Can vary with mill basis weight tolerance*

Shopping Bags <small>case</small>	Pack	Lbs./Pkg.		Lbs./M		Package Size	Cube	Pkgs./Pallet	Bags/Pallet	Pallet Height	Pallet Lbs.	
		NK	WK	NK	WK						NK	WK
5.5 x 3.25 x 8.375	250	14	14	56	56	13.25 x 12 x 20	1.84	24	6,000	46"	381	381
5.5 x 3.25 x 13	250	17	17	68	68	17.75 x 12 x 20	2.47	32	8,000	86"	589	589
8 x 4.75 x 10.25	250	24	24	96	96	17 x 14.75 x 18	2.65	45	11,250	95"	1,125	1,125
10 x 5 x 10	250	26	26	104	104	21.25 x 17.5 x 14.75	3.17	36	9,000	94"	981	981
10 x 5 x 13	250	30	30	120	120	21.25 x 17.5 x 14.75	3.17	36	9,000	94"	1,125	1,125
13 x 6 x 16	250	44	41	176	164	21.25 x 14 x 21	3.62	28	7,000	89"	1,277	1,193
13 x 7 x 13	250	38	35	152	140	17.625 x 13.75 x 24.25	3.40	27	6,750	79"	1,071	990
13 x 7 x 17	250	48	46	192	184	22.25 x 14 x 20.25	3.65	28	7,000	86"	1,389	1,333
14.5 x 9 x 16.25	200	44	42	220	210	21.5 x 15 x 19.5	3.64	24	4,800	83"	1,101	1,053
16 x 6 x 12	250	43	39	172	156	17.25 x 17.25 x 25	4.31	22	5,500	97"	991	903
16 x 6 x 16	200	40	38	200	190	24.25 x 17 x 14.75	3.52	25	5,000	79"	1,045	995
16 x 6 x 19	200	44	40	220	200	24.25 x 17 x 14.75	3.52	25	5,000	79"	1,145	1,045
18 x 7 x 18	200	49	44	245	220	23.25 x 18.75 x 16.75	4.23	20	4,000	89"	1,025	925
Flat Handle Sacks <small>bundle</small>												
12 x 7 x 12 *	250	33	30	132	120	19 x 16 x 12	2.11	36	9,000	78"	1,233	1,125
12 x 7 x 15.75 *	250	38	37	152	148	22.5 x 16 x 12	2.5	36	9,000	78"	1,413	1,377

\* These pallet stacks are for plain bags. For custom prints the stack will vary with total order quantity.

## Packaging

- > All products except plain and in-line flexo custom flat handle sacks are case packed.
- > Flat handle sacks are bundle wrapped with paper plus poly over wrap.

- > LTL and TL shipments are palletized and stretch wrapped. Pallets standard 40 x 48.
- > Cases/bundles are sized to avoid package delivery service oversized classifications.