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Litho Converting Process Primer

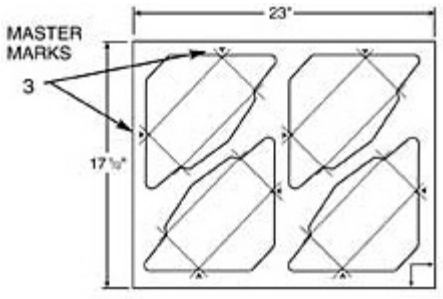
Litho Converting Guidelines

Litho converting is a process in which a flat sheet of paper, which previously may have been printed, embossed and/or foil stamped, is converted into an envelope.
To insure both quality and consistency in the manufacturing of lithographed envelopes, please adhere to the following guidelines.

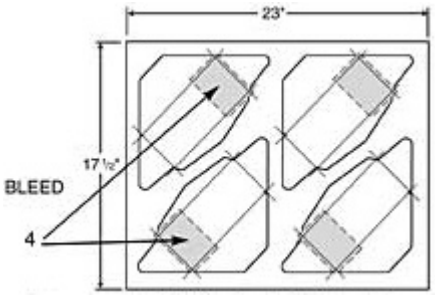
1) ALL LITHO JOBS REQUIRE A LAYOUT

On the layout you will observe the outline of the envelope showing the various cutting positions on the sheet as well as the “no print” areas. Note the corner dots on each of the envelopes. These dots must be positioned exactly as shown on the layout. The “no print” area shows where the seal gum and glue for the seams will be applied. There can be absolutely no ink allowed in the “no print” areas. We require one spotter sheet with the dots printed on the sheet for every 100 sheets that you print.

The spotter sheets should be clearly identified and kept separately from the rest of the order (do not print the outline of the envelope). Bay State Envelope must approve full sheet proofs prior to your printing.



#9 OSDS-4 out 17 1/2 x 23 Layout showing Master marks

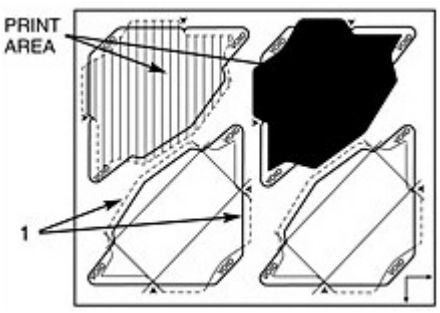


#9 OSDS-4 out 17 1/2 x 23 Layout showing copy to edge with wrap

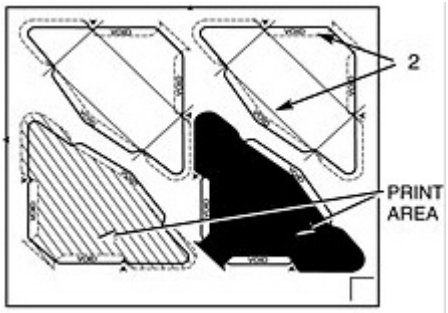
2) BLEED INSTRUCTIONS

It is impossible to fold solid printing exactly to score lines, therefore whenever a bleed exists (i.e. top, bottoms or sides) a minimum of 1/8” must be added to the bleed.

When converting pre-printed sheets of paper into envelopes, a “cookie-cutter” envelope die is placed on top of approximately 200 sheets at one time. As pressure on the die forces it through the stack of sheets, there is a tendency for the paper to “bubble” before the die cuts through the stack. This dynamic results in a variation of print position from blank to blank. In addition, variation in the folding process could result in the final image being out of position 1/16” to 1/8”



Outside Tint Master
- Full Bleed -

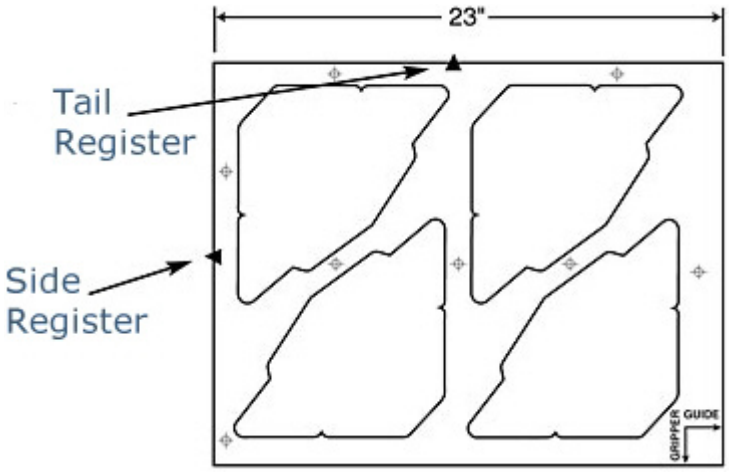


Inside Tint Master
- Full Bleed -

3) TRIMMING SHEETS

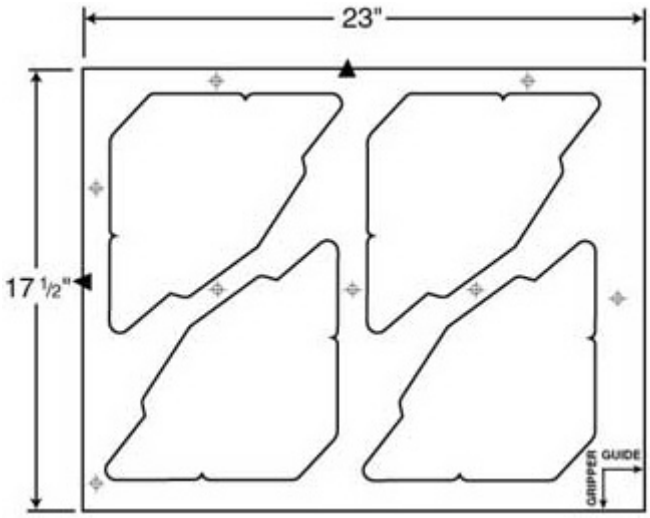
Sheets must be trimmed square on all four sides before printing. The master marks (also called “guide marks” or “crow’s feet”) are important because they show the die cutter where to place the envelope die for proper cutting position. Marks should be 3/32" to 1/8" away from the bottom flap on each side. This information is made available with every furnished envelope layout from Bay State Envelope. If you have any questions pertaining to the layout, please call Bay State Envelope for assistance.

The side and tail register mark is the envelope die cutter’s check system that insures a cutting lift is jogged and clamped in proper registration. It’s the last check that the cutter looks for before the die is placed for cutting. If the 200-sheet stack has that straight line running down the lift, it tells the cutter all is in proper registration and to proceed.



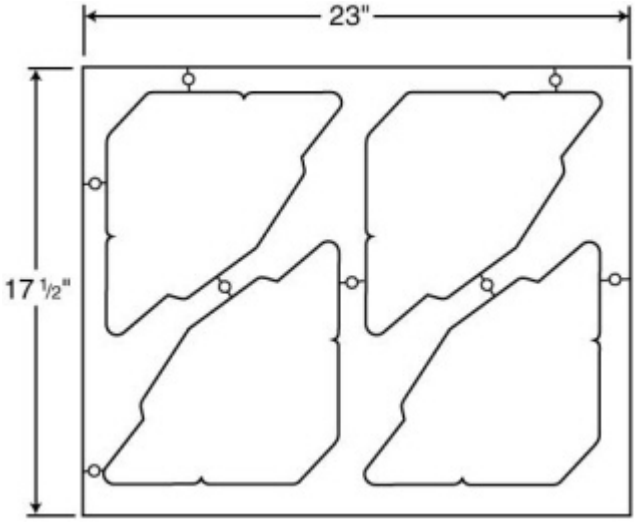
4) GUIDE AND GRIPPER MARKING

Gripper and guide edges must be clearly marked. The gripper guide defines the common edges used in the printing and die cutting process. The cutting sequence is always away from the gripper guide and worked back to the gripper guide. Each cut is drawn in sequence to achieve a “break point” and hold the sheets in place.



#9 OSDS-4 out 17 1/2 x 23 Layout
showing gripper-guide mark

The “break point” is the location where the die tears the paper away as it is cutting through a stack of approximately 200 sheets of paper. This breaking relieves the pressure on the die and keeps the cuts consistent from top to bottom.



#9 OSDS-4 out 17 1/2 x 23 Layout
showing “break points”

5) JOGGING

Before strapping the paper to a pallet the paper must be thoroughly jogged towards the gripper and guide marks. If it is not, the edges of the sheets will bend and tear in

transit thereby throwing the envelopes out of register. The paper must be strapped down securely to avoid movement in transit.

6) WASTE FACTORS

Use the following guidelines for envelope converting waste:

0-24M	20% waste
25M-49M	15% waste
50M-100M	10% waste
100M plus	8% waste

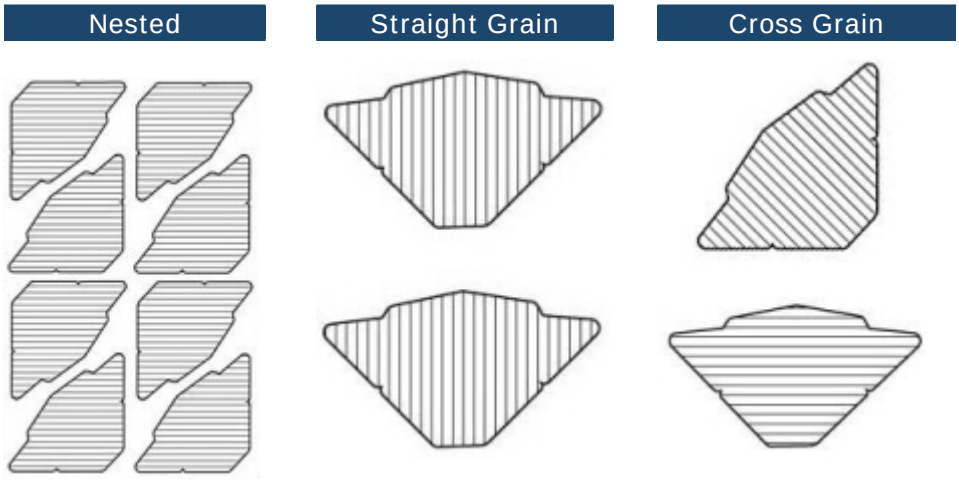
Call for waste factor on coated stock, large catalog and booklet sizes.

7) GRAIN DIRECTION

Ideally, the grain direction should be perpendicular to the flap, particularly on Catalog and Booklet envelopes. The term "Nested" means that the object is to get as many blanks on a sheet without regard to grain direction.

"Straight grain cuts" are those cuts that the grain direction runs vertically to the flap. These cuts are easier to fold and produce the lowest waste factors.

"Cross grain cuts" are those cuts that the grain direction runs horizontal to the flap. They are very difficult to fold, and in most cases may double straight grain waste factors.



8) RETURN SHIPPING INSTRUCTIONS

Please return layout with the printed sheets. Include packing list showing exact quantity of sheets. If there are multiple lots be sure each lot is clearly marked

IF YOU ARE NOT COMPLETELY SURE OF SOMETHING, PLEASE CALL AND ASK US BEFORE THE JOB IS IN PROCESS TO AVOID COSTLY CHARGES...Thanks!