March 2006

PRINtips

Saving the Best for Last

What Happens in the Bindery

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There is one department in our printing company that you don't often hear about – our bindery. The bindery is where we take printed sheets to finish the job – cutting, folding, gathering, and stitching the press sheets into booklets; applying glue to make pads or bind the parts of a carbonless form; collating press sheets into sets; perforating tickets; numbering invoices; scoring invitations or program covers so they will fold without cracking; drilling three holes in sheets or in completed manuals or one hole in a clothing hang tag; or any other function required to get the press sheets into final form for delivery to you.

Our bindery is also where we do a final quality control check before packaging the finished job and printing the delivery receipt.

Bindery equipment

Almost all bindery functions can be performed in one of three ways: by hand (meaning the work is done manually without the aid of machines; with machines after printing is complete (also called *offline*); and with machines in conjunction with printing (also called *inline*). Most inline bindery functions are performed by digital printers, which can collate, fold, staple, or make booklets in the same operation with the copying. When the digital printers are operating at top speed, it is fascinating to watch – the machine operator loads sheets of paper at one end of the machine and unloads completed materials at the delivery end.

Our standalone or offline bindery equipment means more to your job than just greater speed. All the equipment produces a superior completed function when compared to a manual operation

such as you might perform in your office. Taken a single sheet at a time, paper is fairly easy to manipulate manually. But create a stack of paper and the conditions change dramatically.

For example, although it is easy to cut a single sheet of paper with scissors, a stack of paper needs to be cut by a blade. Our precision cutter not only has a blade, it also has a clamp to hold the stack (called a *lift*) in place while the cut is made. And the knife does not drop straight down; instead, it drops at an angle like a guillotine, smoothly slicing its way through the stack of paper.

Our folder is another example of producing a superior function. The folds are made when the sheet of paper is forced against a plate where it *buckles*, then goes through rollers to flatten the fold. This process creates the tight fold characteristic of a mechanical fold and is nearly impossible to duplicate manually. In addition, the feed mechanism on the folder sends each sheet into the machine in precisely the same way,

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without skew and at evenly spaced intervals. The result is a consistently perfect fold no matter how fast the machine is running.

"It also requires the ability to become proficient at a number of different pieces of equipment..."

Our bindery staff

Unless you've taken a tour of our facility, you may never have met any of our staff members who work in bindery. Bindery work requires careful attention to detail, accuracy, patience, neatness, mechanical aptitude, and manual dexterity. It also requires the ability to become proficient at a number of different pieces of equipment, to read and follow the instructions for producing the job without error, and to know the best order for performing bindery tasks.

At MacMillan Graphics, our bindery staff members check for quality of the printing before beginning their tasks. We also expect them to maintain the bindery equipment in good working condition, including routine preventive maintenance on a regular schedule. All are trained in safety techniques, as there is some danger in operating a cutter or a fast-moving folder.

"Whenever a piece of paper is folded, there has to be an allowance made for the panel that folds in or the piece won't lie flat."

How you can help: allowances for bindery

Our staff does their best work when you help by allowing for bindery when you are laying out your document. There are a few operations in particular where failure to account for bindery functions may jeopardize the final product:

Folding. Whenever a piece of paper is folded, there has to be an allowance made for the panel that folds in or the piece won't lie flat. Thus, all three panels of a trifold brochure do not have equal dimensions. Rather, the panel that folds must be sized so it is not as wide as the other two panels. This provides the necessary allowance for the panel that folds in to nestle against the fold. If you do not have access to information on folding allowances, contact us as (513) 248-2121 and we will provide dimensions.

Drilling: When preparing a document that includes drilling, plan for the placement of the drill holes. If the drill holes are at the binding edge, decrease the effective page size by at least

$^{3}/_{8}$ inch to allow for the holes themselves and for clearance around them. Also allow for any fasteners that will extend through the holes and obscure an area adjacent to the holes.

Binding: Allow a minimum of $^{3}/_{8}$ inch on the binding edge of the document if the binding allows the booklet or manual to lie flat; more if it doesn't. Be especially aware of how the binding will look when the booklet or manual is closed and consider it when designing the cover.

Let us help

In those instances when it makes more sense for you to do the printing yourself, do consider having us finish the project. Our equipment will produce a superior result to hand work done at your office, and will relieve you of the annoyance that comes from having to do a tedious job without having enough space or time to work on it steadily.

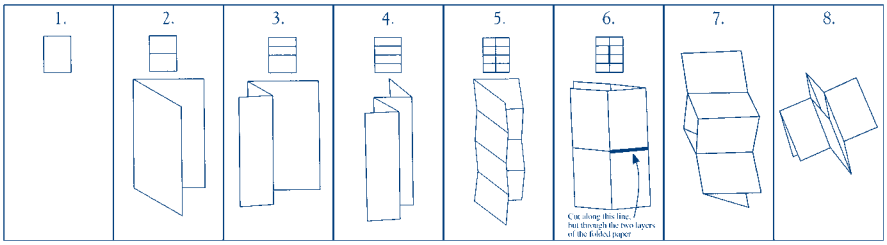
In general, bindery services are affordable, especially when considering the effort it takes to do the work at your desk. We'll be glad to discuss your options and provide a quotation.

Do-It-Yourself Booklet

Here is how to make a miniature booklet out of a single sheet of paper. When finished, the booklet will measure 2 3/4 x 4 1/4 inches and have a front and back cover and six inside pages.

1. Begin with an 8 1/2 x 11 inch sheet of paper printed on one side.
2. Fold in half shortwise, printed side out.
3. Fold back one edge to the middle fold.
4. Fold back the other edge to the middle fold.
5. Unfold the sheet, then fold longwise, printed side out.
6. Refold shortwise, then use scissors to cut along the line marked in bold.
7. Holding each end, push to the middle to open up where you made the cut.
8. Push all the way in.
9. Fold the left edge over to create the cover.

Palm-size press instructions courtesy of Adobe Systems.



IDEA CORNER

"...how to make a miniature booklet out of a single sheet of paper."

Q. *What are the different kinds of binding I can select for a booklet or manual?*

A. There are many possibilities, each with its own strengths and drawbacks. Here is a brief summary:

Saddle stitching: Applying a staple (called a *stitch* because the wire that forms the staple is contained on a spool and stitched through the booklet sheets) on the fold to create a bound set of sheets. Booklets and some magazines are finished with saddle stitching (which is also called *saddle binding*). The page count in a document that is saddle stitched must be an even number, divisible by four. If the finished booklet must be trimmed to the bleed or if it has page numbers near the outer edge, there is a risk the numbers could be trimmed off if not positioned carefully on the page.

Comb binding: Inserting coiled plastic "fingers" attached to a length of plastic is another way to bind a booklet or manual. The plastic acts as a spine as well as holding the manual together. Because holes for the "fingers" must be punched at about 3/8 inches from the binding edge of the sheet, it is best to keep that area clear of all text and diagrams.

Spiral binding: Similar to comb binding except the binding device is a length of coiled wire or plastic threaded through holes drilled on the binding side of the sheet. An advantage of spiral binding is that the bound document will lie flat when opened and the spine can be removed and rebound if necessary. As with comb binding, it is best to keep an area 3/8 inch from the binding edge clear of all text.

Wire-o: A continuous double series of wire loops that are threaded through punched slots at the binding edge. Wire-o binding will lie flat and requires 3/8 inch from the binding edge to be clear of all text.

Side stitch and tape: Assembled pages are stapled at the side with the staples running parallel to the edge, then tape is applied over the staples on both sides of the manual. Care must be taken to be sure no part of the cover image is obscured by the tape. As a rule, a taped binding won't lie flat.

Perfect binding: A method of gluing the edges of pages to a spine. Creates a sturdy bind but the document will not lie flat and an extra large gutter must be allowed at the binding edge to keep text visible. In addition, perfect binding is expensive in small lots.

The exact method you select depends on the intended use of the booklet or manual and the total number of pages. We will be glad to assess the situation for you and give you a recommendation. Call us.

Q&A
questions and answers

"Booklets and some magazines are finished with saddle stitching."

"The exact method you select depends on the intended use of the booklet or manual and the total number of pages."

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Creating a Brochure Tricks & Tips

When creating a brochure or booklet that will be folded and assembled after printing, it is useful to make a *folding dummy* to assist in correctly positioning individual pages on the panels. Here is how it's done:

1. Using a sheet of paper the same size and weight of the printed piece, fold the paper exactly as the brochure or booklet will be folded.

2. Number each page of the brochure or booklet, or write a short description of the page (*i.e.*, front cover, inside front cover, etc.). Also note the top and bottom of each page.

3. Unfold the sheet of paper and notice where each page fits on its panel as well as how the page is oriented.

4. Use the folding dummy as a guide when you are creating the page layout.

If the printed piece is a booklet sufficiently long to require more than one sheet of paper, then the folding dummy, when flattened out, will also serve as the imposition guide. It will show precisely where each page must be placed on each side of the flat sheet and how the page must be oriented.

The term for this type of layout is a *printer spread* and it differs significantly from a *reader spread*. If you submit your document to us laid out in a reader spread, we will need to rearrange the pages into a printer spread prior to printing.