

Check That Fold

The following checklist for the folding machine operator should help to improve the quality of folded products and increase productivity of the folder:

Are the press sheets square? Out-of-square sheets are difficult to fold and register. A square reference corner is essential. Defective sheets will need to be trimmed. This procedure will save the job but will increase the costs and reduce the accuracy that should have been possible.

Are the press gripper and side guides clearly marked on the press sheet? These marks are needed as guides in the folding machine. Without the guides the job may need to be re-trimmed.

Are the sheets crumpled? Do they have damaged corners? Are they in neat piles? Crumpled sheets with damaged corners piled in haystacks will cause folding difficulties. It may be possible to save the job, if the cutter operator is able to jog the sheets.

Are the skids properly identified? Do they contain spoiled, smeared, blank or mildewed sheets? The automatic folding machine works at a high speed, and the operator is unable to remove defective sheets. This may result in excessive time delays because hand sorting will be necessary to remove the defective products.

Are the sheets stuck together? When the ink or varnish is not dry the sheets will stick to each other. The operator should not have to wind, roll or pull sheets apart. The ink should be thoroughly dry and absolutely resistant to rubbing. Improperly dried ink may foul the folding machine rollers and may be transferred from the roller to subsequent sheets. The ink build-up on the rollers reduces the accuracy of the folder and there is excessive downtime while the rollers are cleaned.

Is there too much powder on the press sheets? Liberal powdering the sheets during printing may have a harmful effect on folding. The powder collects quickly on the rollers, makes them slippery and causes variations in the folds. This also causes expensive downtime while the rollers are cleaned.

Are the edges of the sheets wavy or tight? Press sheets may have wavy or tight edges due to uneven moisture gain or loss. This will cause wrinkling during

folding. This problem is almost impossible to solve.

Are there air pockets in the sheets? Poor imposition layouts may cause air pockets which will cause wrinkles in the folded sheets. Air pockets can be prevented. The binder should be consulted during the planning stage to verify the feasibility of the imposition. It is difficult to deal with this problem at the folding stage.

Is a clearly marked sample of how unnumbered sheets are to be folded supplied with the job order? When no sample accompanies the job, the result is unwarranted downtime while the operator waits for the supervisor to provide instructions.

Is the folder roller pressure correct for the type of material to be folded? Excessive roller pressure will cause indentations and roller marks on the printed sheet. Insufficient pressure will allow the paper to slip. Uneven pressure will pull the sheet through the rollers at an angle. Periodically the rollers need to be rechecked.

Have defectively folded signatures been eliminated? If the folder operator is not alert to folding problems and does not remove defectively folded products, quality problems will increase in subsequent processes. There may be malfunctions in binding equipment which will be expensive in man-hours and materials. It is more cost-effective to remove a bad signature than a book.

Jose, Can You Sea?

I was recently asked the question as to why I recommended that proofreading remain an OCCSTD for the LI rating since most computer programs have some sort of spell checker. My reply was a simple one, can you or any computer-programming geniuses figure a way to program a spell checker that will ques-

tion words that are spelled correctly but are the wrong words to use in a particular context? This is pointed out in the following poem:

I have a spelling checker,
It came with my PC.
It plainly marks four my revue
Mistakes I cannot sea.
I've run this poem through it,
I'm sure your pleas too no,
It's letter perfect in it's weight,
My checker tolled me sew.

Sheetwise Imposition

The term "imposition" refers in a printing plant to the positioning of copy on a press sheet. Sheetwise imposition is a pattern in which all the pages to be printed on one side of a press sheet are imposed on a plate or set of plates separate from the pages to appear on the other side of the press sheet, as shown in the illustration below.

5	12	6	8
4	13	16	1

One side of a press sheet

3	14	15	2
9	11	10	7

Second side of press sheet

When the printed sheet is folded to form a 16-page signature, it will consist of alternating spreads from the two sides of the press sheet:

Front: 1, 4, 5, 8, 9, 12, 13, 16

Back: 2, 3, 6, 7, 10, 11, 14, 15

Sheetwise impositions offer you two useful options.

One option allows you to introduce a third color into a two-color job at very little addition cost. You can, for example, run black with blue on one side of the press sheet, and black and brown on the other side. The extra cost for alternating two-color spreads is small; only the expense of the extra ink match and press wash-up is added to the cost of a conventional two color job.

The second option becomes valuable when you are producing a job in which four-color process illustrations will appear on some pages and black and white copy on others. If you place all the full-color illustrations on the pages that make up one side of the press sheet, the printer can run "four over one" rather than four colors on both sides of the sheet, thus cutting costs significantly.

The designer and printer should discuss each project before locking into a specific design format. You may be able to take advantage of an option offered by a sheetwise imposition.

Work and Turn Imposition

A work-and-turn imposition is one in which the pages to be printed on both sides of the press sheet appear on one plate or set of plates, as shown in the illustration below.

9	3	4	5
11	14	13	12
10	15	16	9
7	2	1	8

Both sides of press sheet are printed with same plate yielding two signatures.

After being printed on one side, the sheets are turned over to the blank side from left to right, and passed through the press again for imprinting **with the same plate**.

Note that since the design - type and illustration - for both sides of the finished piece appear on the same plate, a double size sheet is needed, and, in the case of the example shown, yields two sixteen page signatures instead of one.

DOS Files

AUTOEXEC.BAT gives you a way to issue a series of commands to DOS automatically when you start your computer. You can use AUTOEXEC.BAT to do such things as set system variables (PATH and PROMPT, for example) and load memory-resident programs. Like other batch files, AUTOEXEC.BAT is a text file that you can create or modify within any word processor that saves text in ASCII format. MEMMAKER.EXE (DOS 6) makes a backup copy of your AUTOEXEC.BAT, renaming it AUTOEXEC.UMB and storing it in your /DOS directory. (Available in MS-DOS 1.25 or later.)

Compared with sheetwise imposition - where eight pages are printed on each side of a press sheet - work-and-turn imposition cuts in half the number of impressions, the number of plates, and the press preparation time called makeready. Reduced production time reduces costs and allows the designer greater flexibility within his budget.

The ink colors you may have intended to use on only half of the pages may now appear on all of them at no additional expense beyond the cost of the camera and film assembly work involved.

Monitor Your Service Contracts

Service contracts on your equipment is an excellent way to maintain your equipment in good working condition. A service contract does have some advantages such as guaranteed arrival time of the service person, less down time, and availability of replacement parts. Other advantages include the extension of the life of the equipment as much as 30 percent, the trade in price should be higher when you upgrade, and the cost of the service contract is sometimes 15 to 20 percent less than the cost of regular service calls.

There are some questions that as a supervisor you should ask the vendor when discussing purchasing a service contract. These questions include: If this part "goes," what would it cost for the part plus the service? What is the most expensive part of this machine? How often does it break, and what is the average cost of repairing it? Maintenance service contracts will vary in what they cover, so find out what your are buying.

Read everything very carefully, do not just listen to the salesperson. Request a list of items that the service representative will do each time the preventive maintenance is scheduled. Know the parts of the equipment so that you can verify that the service was completed. Service people do get into a rush sometimes and may bypass something that needs attention. Keep track of the

service calls made between scheduled maintenance appointments. Electrical parts can malfunction at any time, but mechanical parts that break should show no wear because they are supposed to be replaced at designated intervals. Before you complain check your equipment closely, it could be that you may have an operator problem and not mechanical or electrical.

You can get the most out of your service contract by asking for the same service person to service your equipment. By having the same service person maintain your equipment you are getting an individual that will be familiar with your machine, your operator, and the conditions under which they work. This will speed up service and repair time.

Your machine operator plays an important role in maintenance service by keeping a "problem log" between regular service calls. The operator should list all difficulties such as:

- Paper jams. Where they occurred and how often they occurred.
- What did the operator do to correct the problem.
- Machine adjustments made and why they were made.
- Problems with supplies and delivery of supplies.

This information can reduce the service time by half and can be used to ensure that the required parts are on hand for complete preventive maintenance service.

LITHO NOTES

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