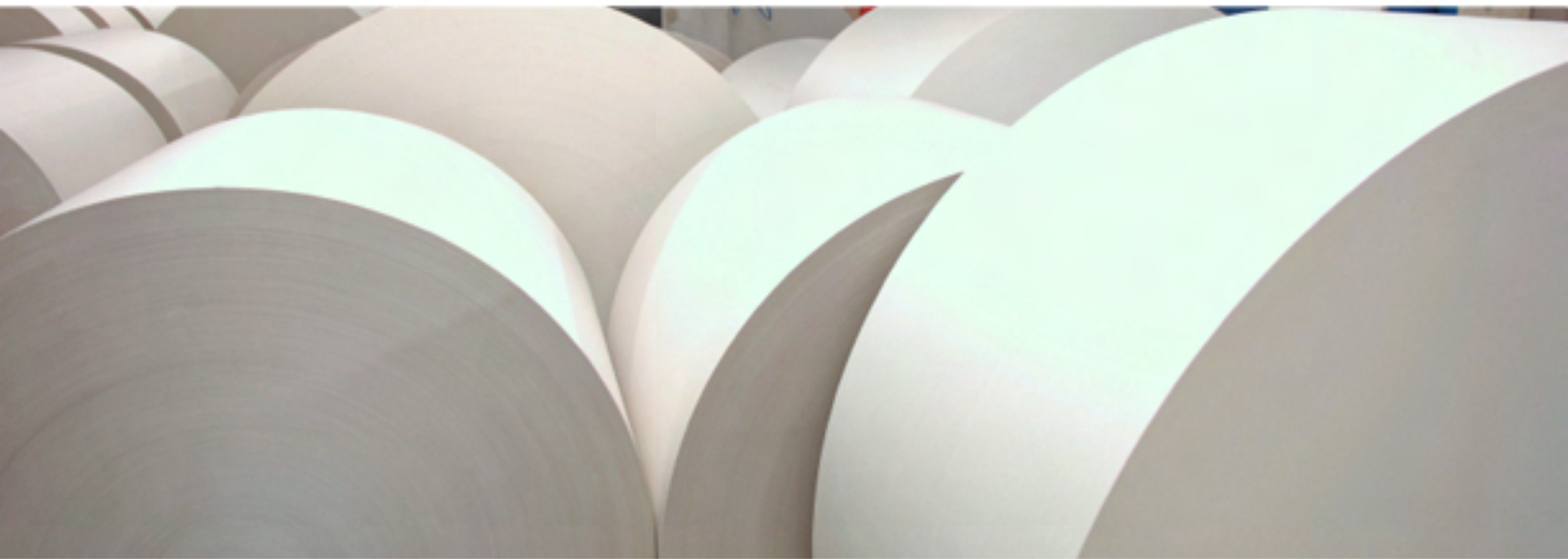




Brief



Know Your Roll: Increasing Productivity with Roll to Roll Forms

Laura Lofton

Business Development
Kern, Inc

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In today's economic climate, there is no doubt that businesses are changing their production strategies. However it is not all bad news. In the Print and Mail industry, particularly with transactional printers, we are seeing a great deal of consolidation. This shift is in fact increasing the production requirements for many companies. Other companies are trying to retain their client base by pricing jobs more competitively, while maintaining margin. The only way to accomplish that goal is to reduce costs. How can the expense of new Document Finishing on Demand equipment assist in the necessary expansion or the required decrease in operating costs? Efficiency is key to making this endeavor successful.

Many companies utilize fan feed products off the printer. Visual inspection of the web was once a primary motive for collecting the printed material in this manner. Today's technology of print verification eliminates this requirement. In analyzing the differences, it becomes clear that a variety of objectives can be met by introducing roll feeding to a company's production line.

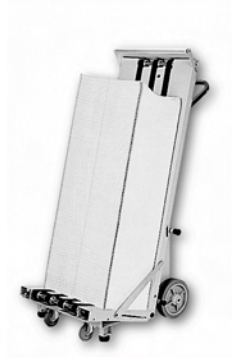
The Math

A 54' roll contains approximately 50,000 sheets. This is equivalent to (5) 10,000 sheet stacks. Replacement of a stack takes approximately 5 minutes and occurs about every 30 minutes. This is an additional 25 minutes of labor time per 50,000 sheets. In comparison, replacement of a roll takes approximately 10 minutes, a savings of 15 minutes per 50,000 sheet run. This is equal to an additional 2,250 documents being produced in the same amount of time (4.5% increase in production). In addition, fan feeding requires constant attention by an operator, whereas roll feeding frees up the operator to move on to other tasks. Thus more work is produced in the same amount of time.

The May 11, 2009 rate increase indicates flat mailers are once again getting hit with significant postage increases. It's time to take a serious look at your mailing operation to determine what can be converted from flats to letter size mail. Not only is the postage savings significant, but there will also be additional benefits in material savings of forms and envelopes.

If your operation has extra processing bandwidth, in-source. Proactively seek opportunities to bid to send the mailing out of your department instead of having it outsourced. For a large mailing the savings can be in the hundreds of thousands of dollars in postage and labor savings. Use your knowledge and skills to manage these mailings as a project plan since many different departments will need to collaborate. After the first success story the marketing team will find their way to you more frequently.

Example:



**Operator unloading new stack takes about +/- 5 min.
5 Carts = 25 minutes**



Operator unloading and reloading 1x roll +/- 10 min.

Machine uptime advantage = 15 minutes or an extra 2,250+ documents

Disadvantages of Fan Fold Forms Include:

- More operator involvement
- More time to change out stacks on printer & enclosure
- Mis-alignment of stack into inserter
- Different positions of cart system in front of inserter
- Breaking of perforation
- Splicing of the next stack
- Bad stacks, paper curl causing jams
- All equals inserter down-time

Taking a closer look at a live customer comparison, error time and inserter uptime were evaluated. The results were significant.

January	Fan Fold		June	Roll	Difference
Total Error Time	40%		Total Error Time	28%	- 12%
Machine Throughput	83.79%		Machine Throughput	90.56%	+ 6.77%

This translates to a 28% increase in mail piece production per operator/per shift.

This example demonstrates that more production can be handled with less operator time to accommodate those companies who are increasing their production volumes. When looking to reduce costs, this information can be viewed differently. While it is difficult to suggest an exact ROI without accurate application numbers, one can make a few assumptions.

In a printer to fan fold environment, 2 operators are required, one to watch the web, one to focus on the printer. With a print to roll configuration, one operator can manage both operations. Less time is required to produce the same number of documents with roll, reducing the number of labor hours. Assuming a monthly volume of 5 million documents, 25 labor hours can be saved per month. (5 Mil/50,000 docs per roll x 15 mins. saved per roll = 25 hours)

- 1 less operator160 hrs
- Reduced labor time.....25 hrs
- **185 total hours saved per month**

This assumes one shift, clearly the number rises quickly when more shifts are added. With one shift, the ROI is around 2 years, 9 months. With 2 shifts, the ROI is right at a year and a half (this assumes an hourly rate of \$16.00).

In conclusion, we may not be able to spend our way out of a tough business climate, but we can spend wisely to increase production or decrease overall costs. In the right environment, Roll to Roll clearly can accomplish this objective. There are many advantages that automation and the establishment of a continuous roll-to-roll environment can bring to your print and mail center. Kern's line of Document Finishing on Demand Products serves the specific Pre- and Post- needs of document producers and will deliver significant productivity gains and cost savings that will greatly exceed the initial automation investment. For more information on Kern's DFD solutions, go to www.kerncan.com/dfd



Laura Lofton is the Business Development Manager for Kern, Inc. If you would like any information on Kern's wide range of pre- and post- solutions from our line of Document Finishing on Demand products, you can contact her via email at llofton@kerninc.com