



Art Simpson | President

■ **Navistar Direct Marketing Enhances Ability to Meet Stringent Due Dates with Support of MBO America**

Navistar Direct Marketing's legacy goes back 50 years when the Maryland-based company started as an envelope printer, purchasing blank envelopes and printing them for local businesses. That work eventually led to commercial printing, producing letterhead, flyers and brochures, eventually expanding into direct mail. When Navistar first began the direct mail side of its business, it was a matter of labeling the offset-produced pieces and getting them into the mail stream. Over time, as demand for personalization grew, an offset shell would be produced that had more blank space to allow a laser/toner address and small personal message to be added to the product. The hybrid piece required a two-step process or more. The systems worked in both a sheetfed and roll fed environment.

Over the last several decades, the print industry has seen the introduction of new print technologies in an effort to enhance efficiencies. Navistar has always stayed close to production best practices and continually revised and added processes as the business grew, so, when inkjet presses were first introduced to the market, Navistar looked into early adoption.

"We investigated inkjet technology early on, in its infancy. At that time, it was somewhat grainy and didn't meet the quality needs of our customers, but given the way the equipment has evolved, today it rivals offset. As the technology advanced, we began to move our work in that direction," said Art Simpson, President of Navistar Direct Marketing.

Investments move things forward

In 2017, Navistar was purchased by the Moore Group which had its core competency in the charitable contributions and direct mail space. Their 5-plant company had quite a bit of experience with high-speed inkjet and automated systems, not to mention a similar deep relationship with MBO America and its finishing solutions. The quality and speed of new inkjet printing and finishing systems would now support the marketing and advertising sector of direct mail. The new print process, coupled with the new parent company initiatives, paved the way for Navistar to move to a full white paper digital workflow. No more shells and multi-step print processes. Time to market would decrease and efficiency would increase. New equipment was installed at the Navistar facility in 2020 and 2021, including two SCREEN Truepress 520 inkjet web presses (one HD and one ZZ) and two near-line MBO High-Speed Modular Roll Fed Finishing Systems (with letter fold and specialty product modules).



Two SCREEN Truepress Jet 520 Presses: ZZ (left), HD (right)



Two MBO High Speed Roll Fed Finishing Lines

The new process was designed to touch it only twice: once to print it and once to finish it. The presses were designed for maximum uptime with roll-to-roll printing. Nearline finishing systems were designed for high speed and to be modular for a single touch process that could be customized to meet the customer’s needs. Nearline systems were further chosen to maximize press uptime and segregate printing and finishing skillsets.

A look at the numbers

The original cutsheet shell process used offset print, guillotine cutting, toner or inkjet addressing and, finally, folding. The original web shell process used offset web print, laser/toner addressing and roll fed chop-cut folding. Both required multiple steps with a bottleneck generally created in the addressing, cutting and folding steps. To keep speeds up, these individual processes were doubled or tripled to adhere to deadlines. Each step required machinery and labor, further keeping production costs high and need for labor strong.

The new white paper digital production model required 2 steps, both occurring at high speed and requiring reduced labor. Even the finishing lines required only one operator when using the automated banding delivery. Since both steps were operated at high speeds, only one line was required to meet production requirements.

Original Process	Avg. Speed	Comment
Makeready Offset-Didde	avg. 120 min.	Units/Cassette/Roll/Color
Roll to Roll Offset Production-Didde	avg. 500 fpm	Labor = 2
Makeready Toner	avg. 10 min. x 2	Two Lines for Volume
Roll to Roll Print Toner	avg. 125 fpm x 2	Labor = 2
Makeready Roll to Fold-Bowe/MBO	20 min x 2	Two Lines for Volume
Roll to Fold Production	avg. 140 fpm x 2	Labor = 2
Offset Overrun	x	3% waste* (typical offset)

*Estimate only

New Process	Avg. Speed	Comment
Makeready Digital Print-Screen	avg. 20 min.	Roll/Start-Up
Production Roll to Roll Digital-Screen	avg. 500-800 fpm	Labor = 1
Makeready Roll to Fold-MBO	20 min.	
Production Roll to Fold-MBO	avg. 500 fpm	Labor = 1
Paper Waste	x	< 1%

If comparing similar production rates, we can see the greatly reduced labor and turn time associated with the new white paper digital production model. Labor was significantly reduced from 6 to 2 per shift, while paper waste was lowered to less than 1%.

“Customer expectations aren’t really any different today than they were when we first opened our doors, they are just more compressed,” said Simpson. “Today, it’s how quickly you can put something in the mail produced from a list that often needs to be used by a certain date.”

The new process answered Navistar’s need for speed with fewer touches and just two steps. The high-speed inkjet presses are capable of web speeds from 490 to 800 feet per minute (fpm). The nearline finishing systems are also capable of speeds from 500 to 800 fpm with common letters produced in the 600 to 700 fpm range. To convert this to a more practical value, 650 fpm on a nearline finishing system, making 8.5”x11” letters, with ½” chip-out, 2-up, translates to about 81,000 letters per hour. When produced on the new systems, the turnaround time for orders dropped from hours or days compared to the original days or weeks, meeting the demands of customers and effectively supporting the longer-run work, all with less labor. The banding/stacking deliveries used in the finishing system configurations is key to reducing labor on the high-speed line.

The 2022 production floor has changed significantly with this transformation and will certainly continue along these lines in the future.

The changes in major equipment reflect the movement to the white paper model and will allow efficient production and high output with the same labor force:

- 40” 10C Perfector
(remains for direct mail and commercial work)
- 40” 6C Perfector
(remains for direct mail and commercial work)
- Didde offset narrow web presses in 6-unit and 8-unit configurations
(was 4 before the transition)
- Toner webs
(was 6 before the transition)
- (8) MBO/Stahl folders
(was 13 before the transition)
- (6) Bowe-MBO Chop Cutter Fold Lines
(was 12 before the transition)

Labor issues addressed

Reducing labor was achieved by requiring only one press operator and one finishing operator, compared to many people and multiple machines in the original model. The chop-cutter systems alone had a running speed of about one-third that of the new high-speed finishing lines from MBO. “Five to ten years ago, it was all about doing more with less,” said Simpson. “However, with today’s labor market, it’s about doing more with what you have, how you maximize productivity with the resources you have. That’s when you realize the answer is investing in newer, faster, more efficient equipment.”

Navistar’s investment in MBO’s advanced high-speed equipment overcomes its labor challenges by making it possible to eliminate older, less efficient pieces of finishing equipment which, in turn, makes it possible for labor resources to move to other areas, resulting in productivity gains. The company also likes the modular finishing technology MBO offers because it is reconfigurable at a moment’s notice.

Multiple legacy chop-cut and fold lines

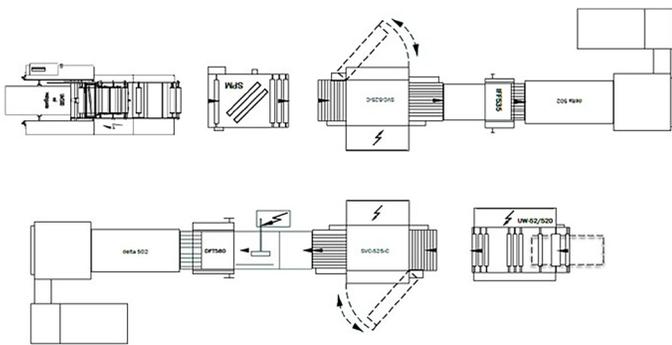


Modularity opens additional efficiencies

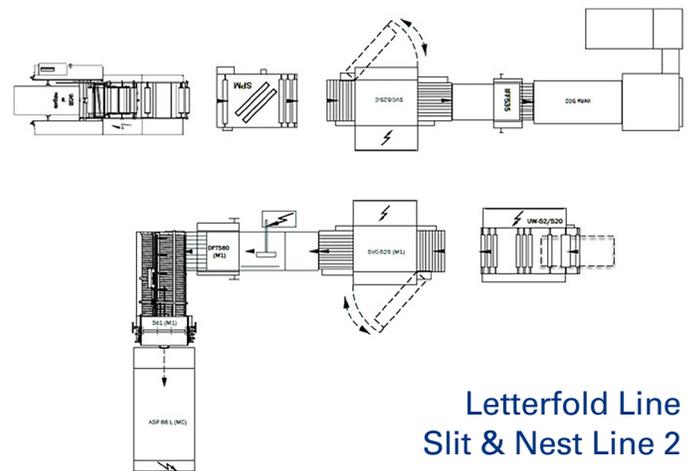
Instead of one-size-fits-all finishing solutions, MBO offers separate but compatible post-press modules that are mobile and interchangeable. Because they are not fixed solutions locked into one type of production, the modules can be quickly assembled and reassembled into whatever configuration the job requires. The result is a flexible and efficient post-press department that can align and realign equipment as needed, customizing finishing routines and doing away with many of the redundant touches that cause error and waste in conventional post-press. “We do a lot of various formats, so we are always switching machines around,” said Simpson. “MBO’s finishing machines facilitate an environment like this very easily. The efficiency of this equipment and the throughput has allowed us to take on more work because it has opened up capacity.”

An example of this is the capability to produce a unique product on the same systems that produce the most common letter-folds. The “drop-cut” mailer or “slit & nest” mailer is a common product in the direct mail business where a business return buck slip is included and nested inside the standard letter. The MBO finishing lines have a cutting module that is easily moved into place to facilitate this product. The entire base system is left alone and only a cutting module and optional shingle delivery unit is needed. The modular components are all plug and play and can be used in multiple positions.

MBO Modular Finishing



Letterfold Both Lines



Letterfold Line
Slit & Nest Line 2

A legacy of customer care

Being in business for 50 years means a lot of things. It means a company has to reinvent itself to keep pace with customer expectations, keep making investments in technology and forming partnerships that help meet those evolving customer demands. Navistar has done all three and more.

“What keeps our customers coming back? We have been doing this for a long time, so we are experienced at what we do,” said Simpson. “More importantly, we work to be an extension of our customers’ business. Quality and timeliness are a given in today’s marketplace. It is more about just being consistent, being easy to do business with and helping customers meet their needs as best we can. Our partnership with MBO supports our ability to meet these goals.”