



**Maximizing ROI with
Production Inkjet
Label Printing**

SCREEN



Maximizing ROI with Production Inkjet Label Printing

Label printers and converters that have invested in inkjet presses share their strategies for maximizing revenue.

Capital investment in the label printing industry should not be taken lightly, as selecting the right printing equipment is imperative to the long-term viability of a business. Not only is investing in equipment that will provide high-quality results important, printers and converters must weigh the return on investment they'll achieve with any capital expenditure. As production inkjet presses continue to gain traction throughout the segment, converters are developing strategies to maximize the revenue earned from these assets and quickly achieve their ROI goals.

In this whitepaper, strategies for maximizing revenue and decreasing the time it takes to achieve ROI will be explored. Specifically, Label Solutions Inc., Alpine Packaging, and Enterprise Print Group, three label converters that invested in UV inkjet label printing platforms from Screen, share their experiences with inkjet and how it has led them to success.

Alpine Packaging of North Versailles, Pennsylvania, invested in a Screen Truepress Jet L350UV SAI S inkjet label press, which has allowed the company to expand into a variety of market segments and provide efficient short-run production.



CREDIT: ALPINE PACKAGING

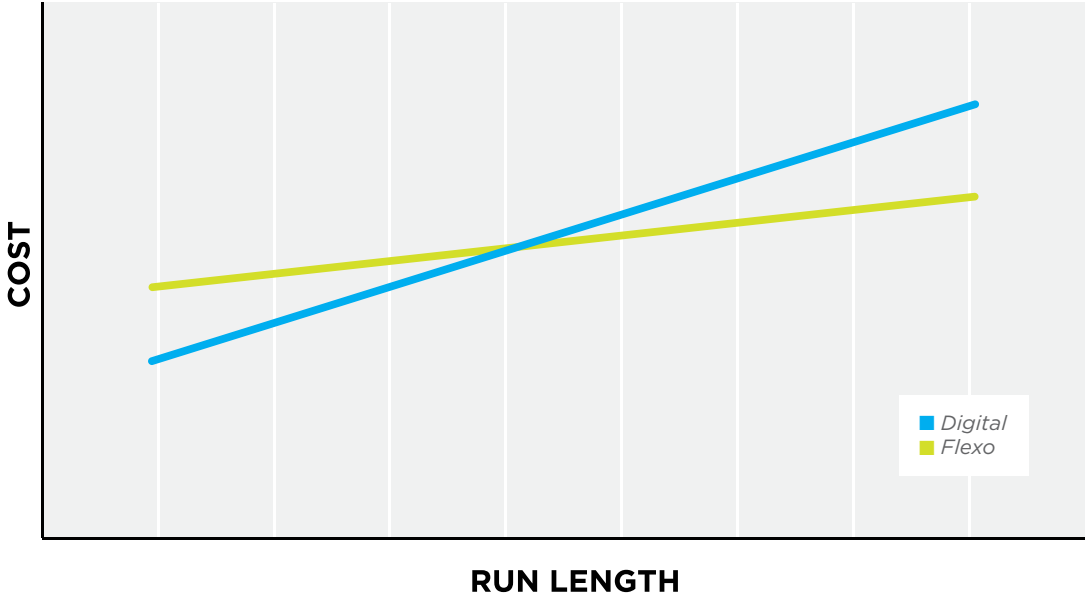
THE JUSTIFICATION FOR CHANGE: REDUCED COST; NEW REVENUE OPPORTUNITIES

Converters all have different perspectives on how they justify inkjet equipment acquisition and ROI for their respective businesses. They evaluate technology investments and transitioning work from traditional to digital by looking at several different metrics depending on the types of clients the converter serves. Key considerations in determining the ROI for a specific converter include:

1. Customer run length requirements and crossover points of traditional versus digital technology:

- Converters that utilize both flexo and digital presses will find that there is typically a crossover point where one technology is more cost-effective than the other. Generally, flexo is the better choice for long runs, which justify the plate cost, setup time, and non-sellable material generated in setup. Digital meanwhile, is often the best choice for shorter runs that may require multiple SKUs or fast turnarounds. This threshold will vary by company however, and is dependent on the specific job requirements, printing equipment, and overhead costs. For jobs that require fast turnaround times, digital often emerges as the best choice. The chart below represents a general crossover point, demonstrating that as run length increases, eventually, flexo will become more cost-effective than digital. Additionally, with shorter runs, digital is the better economic choice.

Figure 1: Flexo vs. Digital



Source: Resource Label Group

2. New revenue opportunities driven by the ability to open new markets or expand relationships with existing customers with variable data or multiple versions.

- Nutraceuticals, cannabis, and spirits labels are typically short run applications. Digital technology makes these applications viable revenue sources.
- There are more SKUs and that means versioning, but there are also clients that want labels fully customized. The demand for more versions and variable data adds incremental revenue opportunities for converters.
- There is also a need for variation of labels, especially industrial labels, that include numbers, barcodes, QR codes, images, and text.

3. Ability to reduce cost and improve operational efficiency.

- Removing plates from the printing process eliminates the associated costs stemming from platemaking and maintenance processes.
- Changing or revising existing labels can be done without the added expense of creating new plates. For converters this means the ability to quickly produce sellable labels on demand. Even for longer runs, once variables such as setup times, waste, and color consistency on non-consecutive runs are factored in, digital production can emerge as a more cost-effective approach than flexo.
- One of the biggest operational challenges printers face today is access to labor. Printing flexographically is a craft that requires a great deal of skill. With flexo, the operator is much more hands on, making sure the web remains straight and doesn't shift throughout the entire job. Digital technology requires less labor and operators can be easily trained.
- Owners of digital presses highlight the increased speed of the technology and the ability to run at up to 197 fpm with little or no down time.

4. Techniques for improving time to market/test marketing for clients looking for a competitive edge.

- Time to market is critical for new product introductions. Digital technology provides the ability to support clients with faster turnaround from initial order to print, since there are fewer steps.
- In some instances, test marketing the brand image is critical. The digital label converter can affordably offer this service to clients.

5. The ability to deliver quality without compromise.

- Production inkjet can print high resolution images that can compete with conventional and other digital technologies. The technology can produce fine gradients and vignettes, without dot drop off experienced with traditional printing processes.
- Converters and print buyers like the fact that the colors produced on digital presses are consistent and repeatable, with no variation between operators or runs. Color matching for the same labels on multiple flexo runs is challenging.

- High performance UV-curable inks associated with Screen technology bring a vibrancy to color labels. They are also highly durable in harsh environments such as high humidity, chemical or saline conditions, and have good abrasion resistance. For these reasons, UV inkjet can be preferable to toner printed labels in household and home care markets, along with industrial applications.

6. Offering a sustainable solution for labels and packaging with an ever-greener footprint and more astute environmental awareness

- Sustainability is a major consideration in the investment in digital print. The elimination of plates and press chemistry and reduced waste make the technology more environmentally friendly.
- Printing labels on inkjet presses can eliminate waste created from product obsolescence, as brand owners can print only what is needed, versus storing extensive inventories of labels that can become out of date.

The drive for opening new markets and expanding services while controlling costs and minimizing labor requirements is why firms are looking at investing in digital printing technologies as complementary printing platforms, supplementing label converters' conventional flexographic presses. While flexo remains the dominant printing technology in the label segment, converters are discovering that its use of plates and the additional time to complete set up and makeready can add to costs and downtime. When you combine that with the flexibility of production inkjet, digital often becomes a more attractive solution.

A label job in action at Label Solutions Inc., of Marshfield, Missouri. In 2022, Label Solutions installed two Screen Truepress Jet L350UV SAI S inkjet presses to replace the company's prior digital equipment.



CREDIT: LABEL SOLUTIONS INC.

LABEL SOLUTIONS INC. EXPANDING ITS DIGITAL FOOTPRINT

Label Solutions Inc., based in Marshfield, Missouri, recognized the changes taking place in the market and made the decision to enhance and expand its digital footprint. The company produces several label formats including prime labels, custom labels, multi-SKU labels, and consecutive barcode labels. Many of these are produced in short runs that lend themselves to digital production. Much of Label Solutions' work stems from production of industrial labels, with a focus on compressed gas, which accounts for half of the company's business.

Label Solutions started its digital journey to stay in compliance with the Global Harmonization System (GHS). As described by the Occupational Safety and Health Administration (OSHA), GHS "includes criteria for the classification of health, physical and environmental hazards, as well as specifying what information should be included on labels of hazardous chemicals as well as safety data sheets." As inkjet printing advanced, it has become a preferred printing technology for these applications. This drove Label Solutions to invest in a Jetrion 4900 and a Mark Andy hybrid Digital Series 2 in addition to its fleet of flexographic technology.

As the Jetrion reached its end of life and Label Solutions had requirements for more speed, improved uptime, and rapid turnaround times, it began an assessment of the latest digital production technology. In addition, the firm wanted to capitalize on the opportunity for prime labels in the nutraceutical segment. In 2022, Label Solutions installed two Truepress Jet L350UV SAI S models with the white, blue, and orange ink options to replace the Jetrion and Mark Andy devices.

"Over the past several years, volume has shifted to digital," Vice President Adam Szabo, says. "About 80% of our work is done on digital presses versus 20% on flexo. The drivers have been customer lead time expectations, lower costs, high awareness of digital packaging solutions, and a market shift to health and wellness products."

When asked about deciding when to use flexo technology versus digital, Graphics Manager Jeff Jaynes said, "Typically if the customer needs a million labels it goes on our flexo presses, but if the customer has a need for quick turnaround, we have run up to a quarter of a million labels on the Screen press profitably."

According to Jaynes, "To truly deliver profitability, converters need to have good workflow and uptime. The Screen devices have incredible uptimes, and we can reliably produce between 1.2 to 1.5 million linear feet per month. Our customers are delighted with the quality and turnaround times. To maximize efficiency, we use the digital presses in concert with Hybrid Software. Hybrid's workflow automation has a tight link between online proofing, workflow, and MIS/ERP systems so that the parameters for an order can be used to create the job layout and drive platemaking systems or digital presses."

Szabo continued, "The most important facet of automation in concert with digital presses is the ability to meet customer demands with the highest levels of quality, productivity, and profitability. Across both presses, we average 130 fpm, delivering cost reduction and increased revenue."

ALPINE PACKAGING GROWS BUSINESS WITH DIGITAL TECHNOLOGY

Alpine Packaging got into the production inkjet game early, installing its first digital inkjet label press in 2016. The company is run by Jan Lehigh and her sons Chase Lehigh, digital specialist, and Chad Lehigh, sales manager. In addition to its fleet of 14 flexo presses, Alpine packaging operates a Screen Truepress Jet L350UV SAI S inkjet press. Alpine specializes in label production, supplying a variety of markets including tire labels, food and beverage labels, safety, janitorial and industrial labels.

When asked about why they installed a digital press for label production, Jan Lehigh said, “Our prime label market customers started asking for more than we could offer. We were missing opportunities because we could not do short runs and realized that digital was the answer. We spent a lot of time researching alternatives. I went to Labelexpo in 2016 and looked at an array of digital technology and Screen was the right answer for us.”

Alpine wanted to get off to a fast start with its digital press.

“We wanted to get experience quickly,” Jan Lehigh says. “We moved work from a large customer initially to keep the press busy. From there, we realized the press was ideal for the beer, wine, and spirits market. Anderson & Vreeland, a Screen partner and leader in the packaging workflow space, provided consulting services and helped us with initial implementation.”

The Screen device has had major business impact. For Alpine, the payback was less than three years. Clients are delighted with the quality and the ability to do more intricate designs. Time savings are significant versus flexo.

“The technology gives us the ability to meet short turnaround times,” Jan Lehigh says. Uptime is amazing. We are rarely down and if there is an issue the service rep is here the next day or, in many instances, the same day. We just replaced our Truepress Jet L350UV with a Truepress Jet L350UV SAI S. It gives us the ability to run up to 197 fpm versus 115 fpm and has an expanded color gamut. Increased speed will mean expanded business opportunity and profit.”

ENTERPRISE PRINT GROUP: AN ALL-DIGITAL LABEL MANUFACTURER

The Enterprise Print Group (EPG) was founded by Kirk Icuss in 2018 as an all-digital manufacturer of compliant labels for an array of industries including home appliances, outdoor lawn equipment and medical products. While the business is relatively new, Icuss brings more than 30 years of experience in label manufacturing and production. In his initial business venture, Icuss started Consolidated Products with a single press and two employees producing labels for residential ranges and refrigerators. The firm grew and ultimately had seven flexo presses and was an early adopter of digital technology with the acquisition of a Jetrion 4900 and 4950 in 2009.

“It took us an entire year of gathering detailed data from every process involved in running our seven flexo machines before we could put a model together to do a full evaluation,” Icuss says of Consolidated Products’ decision to move into digital. “We analyzed the plate changes, setup times

and all the associated costs. It was tedious and, at times, frustrating. In the end, we had the numbers we needed to support a decision to move forward with what was a substantial investment. We could deliver a superior product to the customer in less time and the profit margin was actually double.”

In 2018, Icuss founded a new company, the Enterprise Print Group (EPG), with his son and daughter. This time the technology investment was all digital with a market focus on compliant labels. Based on prior experience, Icuss realized the value of digital. There was a need to be nimble and move from one job to the next quickly. In the face of COVID and disruptions in supply chains for the traditional printer, EPG was poised for growth.

Today, the firm has two digital presses producing more than 700,000 feet per month. The most recent acquisition was a Truepress Jet L350UV SAI E model. The press, equipped with additional white and orange ink, now serves as the label manufacturer’s primary source of production for durable labels ideal for electrical appliances, medical devices, and outdoor power equipment.

To streamline operations, EPG invested in a SEI Labelmaster in addition to a Grafotronic diecutter. The SEI Labelmaster allows a fully digital workflow from the beginning to the end: from the “PDF” file to delivery, providing a fluid workflow.

The business impact of “being digital” for EPG has been tremendous. According to Icuss, “Digital technology has enabled us to grow quickly and profitably. The payback period on the press will be less than 20 months. 20% of our business is trade work and 80% is direct to customers. Our digital investment has positioned us not to compete on price. Our customers need compliant labels to get their product out the door. We deliver the quality and speed that customers in this market segment need.”

DIGITAL TECHNOLOGY DELIVERS

In discussions with Label Solutions Inc., Alpine Packaging, and EPG about the investment in digital label production, they acknowledged the payback period had to be reasonable and there needed to be a clear path to profitability.

Szabo and Jaynes provided some advice for those looking to invest in digital technology for label production.

- 1. Do your research.** Label Solutions Inc. made an initial investment in toner technology. Given its business model, it could not operate the technology profitably based on the consumable cost.
- 2. Vendor support is an important part of the decision.** Label Solutions made multiple trips to Chicago to meet with Screen to fully understand all facets of the press and how it would operate effectively in their environment.
- 3. Market focus is important for business growth.** Label Solutions is focused on a limited number of markets, but they are growth market segments. The need for industrial labels is stable and there is substantial opportunity in segments like nutraceuticals. It makes production and the sales process more efficient.
- 4. Automation is key.** Streamlining workflow from order entry through proofing and production and finishing has been integral to Label Solutions’ success as well as driving profitability.

When discussing recommendations about investing in digital technology, Jan Lehigh highlighted the following.

- 1. The future is digital.** Alpine Packaging was initially hesitant about UV ink cost, but the cost is decreasing. While Alpine may replace a flexo press at some point, it will not add an additional one, as the firm views the future of label printing as digital.
- 2. Variable data has opened new doors.** Alpine had one of their larger customers decide to do their own labeling in-house, leaving a big gap in revenue. The digital press made it easy for Alpine to pivot into new markets like grocery labels, beer, wine and spirits and truly diversify the business.
- 3. Embracing new technology is critical to delivering efficiency and profitability.** With labor shortages and demands for speed to market, the only logical choice is to invest in the right technology. The Screen digital printing device eliminates the need for makereadies, saving hours of production time. Alpine is focused on investments that deliver efficiency and profitability.



At Alpine Packaging, customers have been thrilled with the print quality and intricate designs produced on the Screen digital press.

In wrapping up, Icuss made the following recommendations.

- 1. Understand your book of business and what can be produced digitally.** EPG understood the industrial label market and knew that the clients it wanted would be more than satisfied with digital production and more importantly had the need for unparalleled turnaround.
- 2. Customer service is paramount.** EPG strives to deliver a business model that is positive, relationship based, and customer focused. It works with clients to identify cost reduction opportunities as well as implement process changes that drive value for client organizations.
- 3. Work with the right partners.** Put your trust in the right people and create mutually beneficial partnerships that last for years. Icuss feels Screen has been that partner with benchmark service and support.

Ongoing progress in technology innovation, early adopter successes, process simplification, brand owner creativity, and competitive drive are all forces removing former adoption obstacles, positioning digital printing of packaging for mainstream use. For today's converters, it is delivering increased business opportunity, reduced cost, and bottom-line profits. If you haven't considered production inkjet technology, now is the time.

WHO WE ARE

SCREEN

SCREEN provides pioneering inkjet solutions across a variety of graphics and print markets including label and packaging as well as direct mail, commercial print, and publishing. Our flagship Truepress Jet L350UV Series label press heads a growing portfolio for the label and packaging markets, including new solutions for flexible packaging, paper pouches, and small folding cartons. SCREEN first introduced high speed continuous feed inkjet printing in 2007 and our combination of robust engineering and simplified cost and service models drives the lowest operating costs and highest uptimes in the industry.



WHO WE ARE

NAPCORESEARCH

NAPCO Research crafts custom data-centric solutions that leverage our highly engaged audiences across the markets in which we operate, our industry subject matter experts and in-house research expertise. We partner with our clients to identify their unique business problem and create solutions that enable deeply informed decision-making.

NAPCO Research can help with:

- Business goal prioritization
- Opportunity discovery
- Market segmentation
- Landscape insight
- User needs and wants
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- Sales strategy and tactics
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- Industry trends
- Brand awareness

Contact research@napco.com to talk with our analysts to find out how we can help you with your research needs.