



Digital printing is growing in popularity—but will it be the right fit for your next project? Hear experts from CCL Industries share top considerations.



When a pharmaceutical company needed 25 mock-ups of 11 different folding cartons fast, there was only one type of printing option that could get the job done in just a week: digital printing.

"If they had relied on conventional printing methods, this project would have cost far north of \$10,000, and it would have taken three to four weeks to print all 275 pieces," says Pierre Dery, General Manager of Montreal, at CCL Healthcare, a global supplier of printed packaging and labeling.

"With digital printing, the project was able to be completed within seven days and at a third of the cost," he says. "And the quality of the pieces was identical to the commercial product that was completed later in very small runs."

Such situations certainly aren't unusual. The choice between digital printing and flexographic printing—a conventional printing method that involves the use of flexible relief plates—often determine the success of a project.

But not all decisions are as clear-cut. Below are just a few criteria that can indicate a shift to digital may be beneficial, especially for those manufacturing pharmaceuticals or other health-related items such as biotechnologies or medical devices.

Indicators Digital May Be Needed

Flexography is often used for large, standard runs. In such situations, it may be the most cost-effective option. How-ever, digital should be considered—and will often be preferred—when a project requires any of the following.

1. Fast turnaround. From beginning to end, digital eliminates many of the steps associated with conventional printing, resulting in faster completion. "Time is saved at the press because you're creating an electronic file and printing it, much like you would with a desktop printer," Dery says. "You're not taking the time to put a plate on the press and set up each and every color."



Just how much of a time difference can be expected? "With conventional printing, if you have a four-color or eight-color job, then you will need to run 200 sheets of paper. At 15 minutes per color, that's one hour of preparation for a four-color job and two hours for an eight-col-or job," notes Dery. "In contrast, digital printing requires just 5 to 10 sheets per color. So the amount of time saved can easily be an hour or two per run."

2. High-quality image control. Although speed is important to consider, quality also should weigh into decisions. Digital is the preferred option for brand owners seeking a first-generation image with each printed piece. It's also a good choice for those looking for high levels of correction control, as digital printing allows for 100 percent verification of printed material on the press itself, in regards to both color and graphics.

Such capabilities also have cost and labor implications. "If there is a defect in the printed material, a digital print process can catch it electronically—directly on the press—and automatically kick out the rejects and make the adjustment needed with no operator intervention required," says Stephane Huiber, Director of Quality, CCL Healthcare. "That's not the case with flexography. When there is an issue or defect on a conventional press, it is typically caught later in the process, and the time and effort involved in making the adjustment and getting back to printing can be burdensome."



3. Small and/or flexible quantities. Also important is project size. Digital is the most economical option for printing small runs, especially because it doesn't face the same minimum-order requirements as conventional processes. Whether the quantity will be static or require flexibility can be a factor, too.

Digital offers ease of "printing on demand." It there-fore is best suited when there is a desire to set quantity according to consumer demand at the stock-keeping unit (SKU level, or to be responsive to the packing line schedule or to simply keep inventory levels—and risk of obsolescence—in check.

4. Desire for variable cartons or labels. Another key reason brand owners may seek digital printing over flexography is the low cost and efficiency when creating slightly different images for the same carton or label, as is often needed when seeking seasonal, language or promotion-based design variation.

"With digital printing, you're not adding a plate cost to the job, as you would with flexography, and software makes it easy for users to make design changes," Huiber says. "Change outs can be performed quickly and easily and at no extra cost."

Such ease in variable printing is often leveraged by brands to target segments of their customers with different cartons or labels for purposes of market study. For example, cartons or labels can be printed with a design that varies by region to determine which version will perform best and should be rolled out nationally. Also, product coupons can be printed with unique identifiers, enabling brands to track the effectiveness of promotions.

In the healthcare industry, these opportunities for variable printing are particularly valuable.



Digital printing enables patient information inserts to be reproduced quickly and cost-efficiently and be applied directly inside a carton, potentially improving patient compliance with treatment regimens and improving information access. Using digital processes, cartons can even be printed with braille at the folding-and-gluing stage to best meet diverse market needs.

5. Serialization-friendly. The ability to quickly and efficiently produce unique identifiers also makes digital printing an ideal fit for companies in pharma seeking track-and-trace bar codes for serialization compliance with the United States Drug Quality and Security Act or other government standards. Pharma companies can determine whether they want a label solution or even preprinted cartons with coding already applied.

While many pharmaceutical companies prefer to maintain control over the serialization process—whether through online serialization, which requires a multi-million-dollar investment in equipment, documentation, training and maintenance or an offline, in-house serialization suite—some find inhouse serialization isn't feasible due to limitations in floor space or resources.



Relying on outside expertise, such as a printer that can produce pre-serialized labels, literature and cartons may be the answer, as it provides savings around manpower, resources, turnaround time and floor space as well as access to compliance expertise.

6. Security features. Digital printing can also allow for the addition of covert or overt security features. "At CCL, we can print images in color-shifting ink or with micro-print that is impossible to reproduce," Dery says. Also useful in protecting against counterfeiting are special varnishes that can be scratched off, revealing a message that guarantees the package is the true product.

7. Financial considerations. Aside from decisions dictated by the digital print indicators just listed, when

Why CCL?

CCL Health focuses on the needs of the world's healthcare, pharmaceutical, medical device and other highly regulated industries where secure, accurate, on-product labeling and instructional compliance is a strategic imperative.

CCL offers:

- A global network of state-of-the-art facilities
- Best-in-class converting solutions
- 100% digital quality assurance systems

CCL's global customers recognize the value of sourcing their various requirements from one accredited vendor backed by sophisticated quality assurance and security control systems. This has made CCL the trusted partner for many of the world's foremost pharmaceutical and chemical companies.



does it make financial sense to print digitally versus conventionally? The business case can depend on many factors, such as:

- Label size, as generally the smaller the label the more cost-efficient to print with digital
- Number of SKUs or colors, with greater numbers being least expensive digitally
- Substrate costs, as less material is typically used with digital
- Overhead, press rates and labor which vary by project
- Type of job (reprint with changes or simple reprint, given digital's efficiency with managing variation).

Asking printers to assist in ROI calculation can aid effective decision-making. The right printer will work with you to identify costs and explain the financial impact of all decisions while also taking into account the project's entire goals, which helps make the optimal business case for print strategy. As noted, financial as well as quality and other value-driving components should be a part of any project's print decision process.





Getting Started

Lastly, when manufacturers pursue a digital print strategy, CCL recommends keeping the following five tips in mind.

Challenge suppliers with a sample. "Show the printer a model or an image you would like to match," Huiber suggests. "You shouldn't need to provide a file that is different from what would be supplied to a conventional printer. A digital printer should be able to provide an exact rendering. At CCL, when we create a digitally printed model or image for a client, it is nearly identical—if not identical—to the final product."

For pharma companies looking to insert patient information as part of the printing process, they should ask for a sample of this aspect of the project as well. "When you look at the insert, check to make sure it's accurate: Is it the right one? Is it in the right position? Because it needs to be placed relatively precisely," Huiber says

Get references. Verify the quality and consistency of the printer's work by asking to talk with at least two of its customers—preferably customers whose needs are similar to yours.

Request a sample run. Make sure the quality of the

product is consistent from start to finish—from the color to the cut and fold of the piece to the coding. "At CCL, we provide runs of 500 output samples to the client and assist them in making the case for change from conventional to digital printing," Dery says.

Ensure the printer has the capability to meet serialization requirements—and a proven record of performance. As serialization continues to gain industry attention, many printers look to get in on the action. Therefore, when weighing an arrangement, be sure to ask about the level of experience. Companies such as CCL, which has been focused on serialization for 5 years, can offer not only printing assistance but also serialization consultation, ensuring seamless handoffs.

Be not only informed about but also open to, the options. Pursing a conventional printing process simply because it's what's always been done is never a good idea. "Change can sometimes seem scary, but going with whichever printing process is in place simply for convenience is never a good idea," adds Huiber. "Brand managers will best position their projects for success by weighing print needs in their entirety and choosing the option that best meets the total need."

CCL Healthcare Worldwide Digital Presses	
Montreal, Can	Paris, France
Hightstown NJ	Copenhagen, Denmark
Toronto, Can	Randers, Denmark
Raleigh, NC	Milan, Italy
Sioux Falls, SD	Lyon, France
Upland, CA	Dublin, Ireland
Sabana Grande, PR	Melbourne, Australia
OSS, Netherlands	Tianjin, China



About CCL

A global specialty packaging pioneer, CCL is the largest label company in the world and provides innovative solutions to the Home & Personal Care, Premium Food & Beverage, Healthcare & Specialty, Automotive & Durables and Consumer markets worldwide.

Free Digital Printing Consultancy Service

CCL Healthcare is the leader in digital printing for the pharmaceutical and life sciences industries, with more than 13 digital printing facilities (and growing) worldwide utilizing digital printing under cGMP. Conveniently located all over the globe, CCL works with companies of all sizes to develop digital printing strategies that lower cost and increase revenue.

Contact a digital printing specialist for a free 30-minute consultation to learn more about digital printing or print-on-demand.

eGMP.



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