

# Ten Things to Consider Before Purchasing Your Next Press

*Building a Production Platform to Meet the New Market Realities*

*By Mark Sullivan, Presstek, Inc.*





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# Ten Things to Consider Before Purchasing Your Next Press

## *Building a Production Platform to Meet the New Market Realities*

In light of the dynamic change facing the printing industry, many print service providers are giving thought to how they can restructure their production platforms to align with the new market realities. Print volumes are declining, but there are opportunities within the mix for those operations that have properly designed production platforms to profitably produce applications in the growth sectors.

While marketers and other purchasers of printing services increasingly turn to electronic alternatives due to perceived cost benefits, they are not abandoning print. In fact, once they understand how print can augment the benefits of electronic communications, they are often eager to leverage these techniques to improve response rates, return on investment and contributions to the bottom line.

Whether marketers and other buyers of print turn to one-to-one printed communications, more targeted versioned materials, or simply shorter runs to better integrate printed pieces into their multi-channel communications, as they are clearly doing, they still are looking for the best value for their dollar, fast turnaround times, and no compromise in quality. While much has changed about how, when, or even whether, printing is purchased, these dynamics have remained, and in fact, the trends are accelerating.

According to Dr. Joseph Webb, Director of WhatTheyThink's Economics & Research Center, the current cost structure for many printing establishments is a function of their capital equipment installed base.

With many presses purchased in the late 1990's, there is a mismatch of the optimal use of the installed base and the nature of today's print demand.<sup>1</sup> This white paper suggests the top ten things print service providers should be considering as they look to restructure production capabilities for a profitable future. This often includes the need to bridge a production gap between conventional offset and digital toner-based production devices to more cost effectively produce runs in the 250 to 20,000 count range, the fastest growing segment of the printing market.

**There are opportunities within the mix for those operations that have properly designed production platforms to profitably produce applications in the growth sectors.**

<sup>1</sup> *How to Bridge the Gap Between Offset and Digital Toner Printing: Adjusting the Print Manufacturing Platform to Meet Today's Market Requirements*, Cary Sherburne, March 2009



# 1

## Price versus Throughput

**“The speed of set-up, accuracy and consistency of the print run on the Presstek DI more than make up for the cost of the plates in terms of time and material savings. No matter what an owner thinks, it takes an operator longer to set up a conventional four-color press, regardless of how automated it is. And, with the DI, we have sellable product in 10 minutes. That adds up to more throughput and an overall lower cost base.”**

— Bill Dister, Owner, BCT Virginia

**“The Presstek 52DI press is more economical than our 40" presses for a wide range of applications.”**

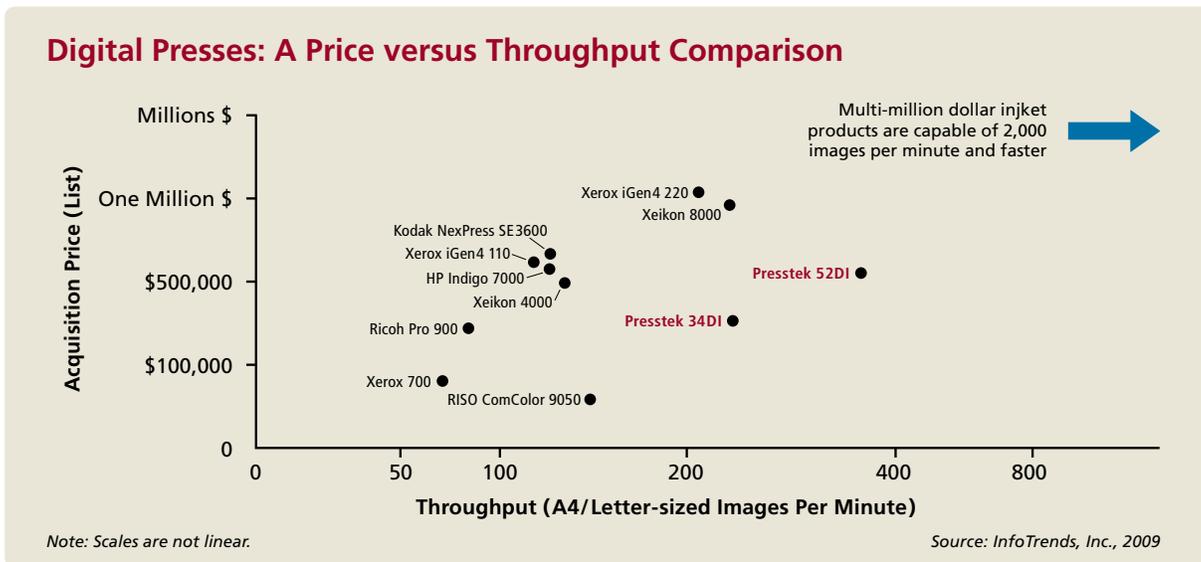
— George Platt, Co-owner, The Harty Press, Inc., New Haven, Connecticut

The first consideration in making any investment is ensuring that you will get value for your dollar. When it comes to presses—both digital and offset—there are a wide range of choices. When considering conventional offset, it is important to examine the time, expense and footprint consumed by the entire process—from plate production, to mounting and makeready, to the first sellable sheets coming off of the press. As run lengths get shorter, it can often take longer to prepare the job for the press and get the press up to color than it actually takes to run the job. In fact, printers often comment that they are in the makeready business these days.

With a digital offset press such as the Presstek 34DI or 52DI, the makeready process is much faster since all plates are automatically imaged on press, in precise register, and the press can already be adjusting ink key settings for the next job as the current one concludes. This significantly increases throughput, as well as the number of jobs that can be completed in a shift.

The same is true of digital presses, except, of course, there are no plates to be imaged. The figure below positions the Presstek 34DI (14,000 A4/letter-sized impressions per hour) and the 52DI (20,000 A4/letter-sized impressions per hour) versus a range of digital toner-based presses in an analysis conducted by research firm InfoTrends. Throughput is calculated in terms of the number of A4 or letter-sized images that can be produced per minute by a variety of presses, mapped against the cost of the press.

This demonstrates that on a pure price/performance basis, both the Presstek 52DI and the Presstek 34DI outperform all of the toner-based digital presses. In addition, Presstek DI presses have a lower service cost compared to toner-based presses, higher reliability, no duty cycle, and no click charges. While it is not unusual to have a technician on site once a week to maintain a high-end toner-based digital press, a Presstek DI press often goes for months without needing a technician’s on-site visit.



## 2

## Hybrid Production

**“Between our new 8-color Komori and our Presstek 34DI press, we made a huge technological leap from the 20-year-old presses we had before. We might have a job that consists of both a 12-page brochure and a postcard. We put the brochure on the 40" Komori because of the page count, and run the postcard on the DI press. The two presses are very complementary.”**

— Dick Angel, Owner,  
Angel Lithographing,  
Sturtevant, Wisconsin

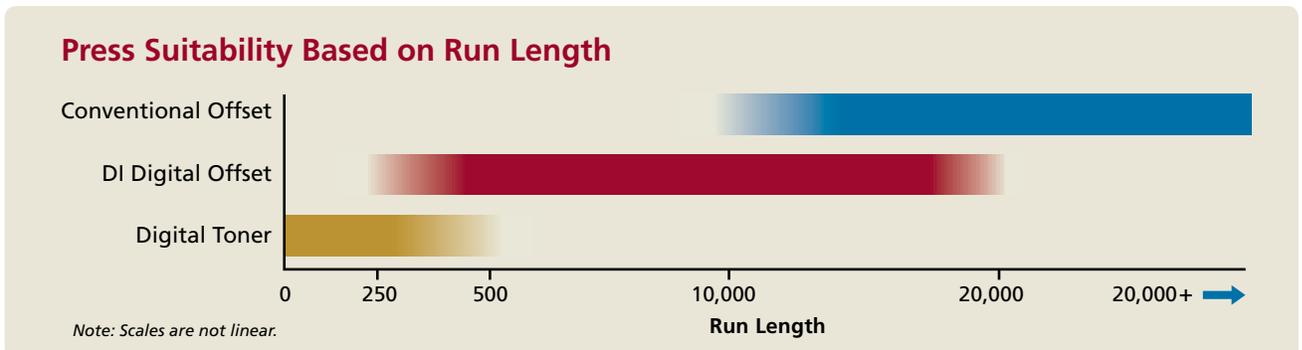
While there is some overlap in the work that can be cost-effectively produced via conventional offset, DI digital offset and digital toner-based printing, these technologies are complementary when assembled into a production portfolio that can take advantage of the strengths of each of the technologies based upon specific job or project requirements. That is why many print shops today employ a combination of these technologies to meet customer needs in what is often categorized as a hybrid production process.

With all three technologies in place, the printer has the flexibility of choosing the right platform(s) for the job. For static (versus variable) printing, most successful print service providers who employ all three technologies will utilize toner-based presses for runs of up to 250 to 500 sheets. The Presstek DI press is optimal for runs of 500 to 20,000. And conventional offset can be utilized for runs in excess of 20,000 sheets. This ensures that each press is utilized optimally, delivering the best possible price/performance and cycle times.

There are occasions when a single project requires the use of two or more of these technologies. For example, color covers for 500 books might be produced on a DI press, while a black-and-white toner-based press efficiently delivers the fully collated book blocks. Longer run direct mail pieces may be produced using a 40" conventional press, with a DI press to produce full-color envelopes. In these cases, inkjet technology is often used to overlay variable information; however, this can also be accomplished using a toner-based digital press in a true hybrid job production process.

Before adding another press or replacing a press, printers should consider the full range of capabilities already in the shop, identify the gaps in cost-effectively meeting customer needs, and acquire the appropriate technology to fill those gaps. In almost all cases, this will result in a hybrid production platform that utilizes two or more of these technologies.

Staff skills should also be taken into consideration, especially in shops that have either no offset or are running one- or two-color presses in conjunction with digital toner-based presses. A Presstek DI press can be added to the mix much more easily than a conventional press, both because it has a smaller overall footprint, and because its high level of automation makes the transition from operating a digital press to operating an offset press much simpler.



## 3

## Printing “Green”

**“The environmental aspects of the DI press were a huge consideration for us. Our shop is located in the administrative services building, and it is extremely important that we have a safe working environment in the copy center and for the offices that surround us. The Presstek DI press uses no plate chemistry and emits significantly less VOCs. Its waterless printing and fast makeready times also mean that we can turn work around quickly, and with an amazingly small amount of waste. That adds to the overall cost effectiveness and productivity of the press.”**

— John Monahan, Putnam/Northern Westchester Board of Cooperative Educational Services, Yorktown Heights, New York

**“The 52DI has eliminated the need for chemical developers. There are no toxic chemicals to store, and we have less waste to dispose of. And, the ink consumption is very reasonable.”**

— René Constantin, Co-founder and Director, J'imprime, Plérin, France

A decade ago, there was little discussion in the printing industry about green printing, sustainability, environmental impact and carbon footprint. Today, these topics dominate much of the discussion of the future of printing, causing printers to take a closer look at green initiatives, evaluating the costs and benefits for their businesses.

Whether or not your customers are asking about your sustainability practices today, more than likely they will be placing more focus on this issue in the near future. Thus, any press investment should take environmental sustainability into account.

Since its beginning more than two decades ago, Presstek has been dedicated to bringing environmentally friendly printing solutions to market, and in fact, invented chemistry-free platemaking. Since those early days, we have come a long way. Often, the environmentally friendly aspects of Presstek products are a key factor in purchase decisions.

When considering the purchase of a new press, a primary consideration should be how it will impact your overall environmental footprint, including chemicals required for plate production and fountain solution, water and energy consumption in the platemaking and printing process, makeready waste, and waste caused by inconsistencies during the print run. Your objective should be to minimize or eliminate chemistry usage and other toxic by-products from the prepress and printing production process, including spent chemistry and chemically tainted wastewater from chemistry-based platesetting, conventional offset printing wastewater, fountain solution, roller wash and blanket wash, as well as hazardous toner-based waste materials. You should also consider the ease with which printed materials can be deinked for recycling; offset printed materials are more easily handled throughout the recycling process than toner-based printing.

An environmentally sound Presstek DI digital offset press can become the centerpiece of your environmental sustainability efforts and provide you with a new topic of discussion with customers who are increasingly interested in purchasing “green” printing. It is also built to produce short runs profitably, and it allows your customers to cost effectively print and reprint as often as necessary without the need to store large quantities in inventory that may quickly become obsolete.



## 4

## Durability and Duty Cycle

**“We are extremely pleased with the reliability of our Presstek 34DI press, having only required two service calls in the first year of operation. The press has done everything we expected. For an in-house print shop that does short to medium runs and needs quick turnaround, the Presstek DI press is the ideal solution. And Presstek has been extremely supportive. Only one service call involved down time and they were here immediately.”**

— Randall Bramlett, Manager of Printing Services, Columbus State University Print Services, Columbus, Georgia

Another important consideration in purchasing a press is how much actual operating time you will routinely achieve from the press. Most toner-based presses specify a duty cycle. The duty cycle of a machine refers to how long it can keep operating before it needs a rest, or what percentage of the time it is designed to be in use. Digital press manufacturers typically specify a duty cycle as an indication of the number of impressions you can expect to obtain from the press during a given period, normally a month. This generally does not equal the speed of the press times the number of hours your shop is in operation. Consistently exceeding the recommended duty cycle on a digital press is likely to wear the machine out more quickly and/or result in a substantially greater amount of down time and the need for technicians on site.

Many manufacturers of digital presses utilize a significant number of plastic parts, and this can contribute to an overall lack of durability, especially in a demanding production environment.

Presstek DI and conventional presses are built to print. They have no plastic parts, no specified duty cycle, and require significantly less intervention on the part of a service technician than most digital toner-based presses require.

## 5

## Bridging the Offset/Digital Production Gap

**“We saw a growing need for postcards in runs from 10,000 to 200,000 and acquired a Presstek 52DI to meet this need. We can now produce these jobs without the platemaking and other hassles associated with conventional offset. We did not want to become a conventional offset house. With the 52DI, in nine minutes we are up and running with sellable output.”**

— Tim Larson, Director of Print Operations, Catawba Print & Mail, Hickory, North Carolina

To be successful, printers must learn to manage their businesses in a manner that addresses today's market conditions. One of the challenges this presents is a reconfiguration of the print production platform to efficiently and cost effectively produce the full gamut of short run (less than 250 sheets), mid-range (250 to 20,000 sheets) and long run applications (20,000+ sheets) to meet the demands of today's buyers. While longer runs are easily handled with conventional offset presses, and ultra-short-run or personalized printing is ideal for toner-based digital print engines, it is the midrange run lengths of 250 to 20,000 that can be challenging to profitably produce. Research firm InfoTrends<sup>2</sup> pegs this volume band as the highest growth volume band, yet it represents a strategic production gap between offset and digital technologies that many printing firms are struggling to profitably bridge.

Presstek DI presses are designed to bridge this frustrating production gap. Presstek 52DI and 34DI digital offset presses deliver environmentally-friendly, high quality, short-run four-color offset printing, economical in runs as low as 250. Speed and efficiency are not the only virtues of Presstek DI presses; they are engineered to produce superior quality offset printing with minimal

<sup>2</sup> *Presstek DI Printing Study: Bridging the Gap Between Digital Toner and Conventional Offset*, InfoTrends, September 2008

**“Presstek’s 52DI-AC gives us high-quality reproduction and print-run-count flexibility features which are extremely important to our client base – with the added benefits of quick makeready and minimal waste. We envision a wide range of uses for this equipment. It will augment our manufacturing platform very well, giving our clients more ways to profit from our print capabilities.”**

— Tom Frankowski, Senior Vice  
President of Manufacturing for  
Quad/Graphics.

**“A number of customers were asking us to provide them with longer run lengths than we were able to competitively produce. We worked with Presstek’s dealer to find the best solution to address these customer requirements. The Presstek 34DI press is ideal because it is highly automated and easy to use, and it doesn’t require a separate platemaker. We immediately captured new work and expect our four-color printing revenue to double over the next year or two.”**

— Peter McCarthy, President  
and Owner, Copy Center Plus,  
Augusta, Maine

operator intervention. DI presses are highly automated and designed to deliver precise first-sheet registration. Capable of printing on a broad range of substrates from .0024" to .02" (0.06 mm to 0.5 mm) thick, the DI supports up to 300 lpi (120 lcm) and FM screening without incurring additional time or expense.

In addition, since DI presses are, in fact, digital printing devices, they can accept files directly from a Web-based order entry queue. This integrates offset printing into a digital workflow in a manner that is in line with the need to automate production of smaller, fast turn work for fewer touches, faster throughput and lower costs than can be achieved with conventional offset.

The Presstek 52DI digital offset press is also available with an inline aqueous coater (52DI-AC) that fulfills the demand for inline flood and spot aqueous coating applications for sheetfed commercial and packaging printing. When spot aqueous coating is applied it can produce a dramatic effect; with individual images and/or text appearing to literally pop off of the page. The 52DI-AC’s fast drying aqueous flood and spot coating capabilities offer a broad selection of choices for adding visual impact and durability to superior quality printing on a wide range of substrates, up to 20 point.



## Unmet Customer Needs

Customers often buy printing from several sources. In many cases, they would prefer to reduce their overall number of suppliers, but need a broad enough base to meet all of their printing needs. This means that your customers are also buying from other printers. Perhaps they are not aware of your full range of capabilities. Perhaps they are unaware of some of the technological advances the printing industry has seen, and simply think there are things that cannot be done.

To protect your competitive position in the marketplace, you should be regularly speaking with your top customers to understand the full range of their needs and to help them recognize unmet needs they didn’t even realize they had. For example, did they realize how affordably they can produce short runs and targeted versions of brochures and other materials? How about the ease of printing on 20 point board and other unique substrates? Four-color envelopes are also gaining popularity in the marketplace as mailers try to differentiate themselves amidst the clamor of marketing messages recipients are faced with every day.

Of course, your production platform must be optimized to produce these new applications, and that is where a Presstek DI fits nicely. Talk to your customers, and then talk to your Presstek sales representative. Protect your valuable customer relationships by being proactive, educating them on what’s possible, and then delivering beyond their expectations.

# 7

## Keeping Print in the Mix

**“We have deployed two very successful programs for a local cable/internet/phone provider that involves targeted mailings to an audience of 25 to 30 thousand. This sequential mailing starts with a post card that includes a personalized code recipients can enter on the web, and is followed by two subsequent and more complicated mailings. All three pieces are printed on the Presstek DI press on a 12" x 18" sheet and variable data is overprinted with the Konica Minolta. This project would have been cost-prohibitive without the DI press.”**

— Kyle Tuska, Vice President of Operations, The Hoppmann Group, Wauwatosa, Wisconsin

As more marketers and other buyers of print turn to alternative media in lieu of print for their business communications needs, they often miss an opportunity to improve the customer experience when they leave print out of the mix.

Integrated marketing uses a number of touch points to get the marketer's message across in the most effective manner, and print can be effectively used as one of those touch points. Perhaps the campaign starts with an email that encourages interested recipients to visit a personalized URL. This can go to thousands, even millions, of recipients. When interested recipients visit their personalized URL, the marketer will use an attractive offer to get recipients to provide more information about themselves. This allows the marketer to update their databases with more information, and more finely tune their communications to specific individuals or groups. To keep the dialog going, a high-quality versioned postcard can be mailed to these qualified segments with yet another offer or additional information that the recipient will find of value. This way, the marketer is using the less expensive email medium to narrow the field, and investing in high quality print for those who are likely to become sources of revenue.

Marketers may also have segmented customers by their spending levels, along the lines of airline loyalty clubs. Those who spend more receive higher quality communications, often in print.

Today's print service providers must be structured to handle this full range of communications. Higher quality, more targeted communications to highly qualified recipients often result in shorter runs. In considering your next press investment, be sure that you have this short-run capability covered.

*Presstek DI presses are able to print on any offset stock including pre-cut envelopes and plastics. The DI's waterless offset printing capabilities include printing with metallic inks, varnishes and other specialty inks. Many owners are combining this functionality with the DI's ability to efficiently produce short runs to implement a hybrid workflow. Examples include, printing catalog pages on a conventional offset press and regionalized covers on a DI; running four-color postcards on a DI, then adding personalization and addressing on a toner device; and running custom four-color envelopes to enhance response rates on marketing campaigns.*



## 8

## The Importance of Versioning

**“With the Presstek 52DI press we can now print on 20 point stock, which allows us to do some packaging and other specialty applications. One example came from Budweiser, who planned a Superbowl trip. We printed all the passes for them on heavy stock, and they were delighted.”**

— Sal Indovina, Owner,  
MacLaser Printing,  
Mississauga, Ontario, Canada

As customer and prospect databases continue to improve, marketers want to ensure that their customer and prospect communications are increasingly targeted. In an ideal world, they might wish to create communications in five, ten or more versions to meet this need, but in the past, limitations in quality and cost prevented them from effectively producing these shorter runs.

Or perhaps instead of one consolidated company brochure or catalog, buyers would prefer to produce different versions for different audiences based on regional or other differences they are able to elicit from their market research or customer databases.

With a highly automated Presstek DI in the mix, print service providers can easily help marketers achieve these objectives. Very high quality runs in quantities as low as 250 can be cost-effectively produced to increase the relevance of marketing or other communications. Sometimes creating a new version can be as simple as changing the black plate. In considering your next press investment, invest some time in exploring how important versioning capability is to your customers.

## 9

## Printing on a Wide Range of Substrates

**“We had one particularly tricky job—a brochure on 350gsm recycled silk stock with four-color process throughout and a heavy solid black background. We and any other commercial printer would have struggled to do this conventionally since we would have had to put it through twice to achieve the intensity of the black background. Imagine our delight when we were able to do it in only 15 sheets on the DI.”**

— John Popely, Director,  
Anglia Print, Beccles, Suffolk, UK

As marketers and other buyers of printed products look to differentiate themselves, they are increasingly interested in using specialty substrates to make their printed pieces stand out. In this white paper, we have already discussed the ability of the DI press to print converted envelopes for striking four-color envelopes that help break through mailbox clutter. The Presstek DI press is also able to print on very heavy stocks, such as 20 point board, opening up opportunities for new applications and new business. Because DI presses are waterless, they can even print on very lightweight substrates, such as onion skin, with an expanded color gamut.

There are a wide range of other applications that can be produced in cost-effective short runs on the DI press that are not suitable for toner-based printing. Essentially, any stock that can be run on a conventional offset press can be run on a DI press. It is ideal for printing on all types of uncoated or coated stocks, labels, plastics, and lenticular substrates. The DI press can also print on Magnecote, a magnetic substrate, for unique promotional materials. In addition, letterhead and other stationery produced on a DI press can be overprinted using a laser printer; this can often be problematic with letterhead produced on toner-based presses.

Another unique way to increase the array of specialty substrates is to introduce UV-curable printing into your production platform. Presstek 52DI and 34DI presses are now available as UV digital offset presses. In addition, previously installed Presstek 34DI and 52DI presses are field upgradeable to UV versions.

## 10 Optimizing the Production Portfolio

**“Now is the time for print businesses to take a critical look at their production platforms. The market is changing, and the production platform must change as well. The successful printing business of the future will most likely consist of a hybrid platform —leveraging the individual benefits of conventional offset, digital offset and digital-toner-based presses to meet a growing range of customer needs and to bridge the strategic production gap that exists today between offset and digital toner-based technologies. This will ensure a stronger, more profitable business that is well-positioned to retain existing customers and gain new ones.”**

— Dr. Joe Webb, Director,  
Economics and Research Center,  
WhatTheyThink

This white paper has extensively discussed the importance of optimizing your production portfolio to meet today’s new market realities. According to Dr. Joe Webb, Director of WhatTheyThink’s Economics & Research Center, print businesses must continually adapt their offerings to the changes in the buying community in order to compete in the market. He points out that no two printing businesses are exactly the same. They have different histories, installed equipment, financial capital, and client bases and will make different equipment decisions. But there are three basic categories that provide a basis for considering a change in press technology:

- **Accommodation Work:** Right Tool, Right Job. Rather than purchase a new large press, the business can often be better served by off loading work that is marginally profitable using conventional offset or digital toner-based technologies to a smaller press with the latest controls and automation. In this way, each press is being used for the work for which it is best suited from a cost, profit, and turnaround perspective.
- **Growth or Change in Business Mix:** In this situation, a business is growing and needs to offer quality color work while minimizing its overhead burden. In order to take full advantage of the trend toward shorter runs, digital media and digital workflows, a business in this position can augment its production portfolio with a fully automated Presstek DI press. Especially for businesses that have previously had digital toner production only, are migrating from two-color to four-color work, or wish to bring in shorter run work that cannot be cost effectively produced on larger conventional presses, a Presstek DI press is an ideal solution.
- **Adapting to Market Changes:** There are times when a company’s client base and client needs have changed to the extent that the capabilities on the existing shop floor no longer meet those needs. Rather than retain equipment with makeready and other costs that impair profitability, it is often a better choice to divest that aged equipment and reinvent the business with new workflows and new equipment. This can be painful and difficult, but it can be the right choice when it is clear that the market will never be what it once was, and that there’s no such thing as “business as usual.”

### Making the Decision

This white paper has provided ten important considerations for your next press investment. It encapsulates the changes that are occurring in the printing market and provides deep insight into how printing businesses must think about the future.

For more information about how a Presstek DI digital offset press can round out your production platform, call 603-595-7000 ext. 3599, email [info@presstek.com](mailto:info@presstek.com), or visit [www.presstek.com](http://www.presstek.com).



Additional white papers and  
DI press case studies are  
available at [www.presstek.com](http://www.presstek.com).



### About the Author

Mark Sullivan is the Product Director, Digital Printing, for Presstek, Inc. He joined Presstek in 2006 and has over 20 years of graphic arts industry experience. He has held management positions in business development and marketing at several companies, including Creo, Shira, and Scitex.

## Presstek DI® Bridges the Gap Between Digital Toner Printers and Conventional Offset



Presstek DI presses are the optimum solution for bridging the gap between toner-based and conventional offset printing. The majority of printers surveyed in a recent InfoTrends study consider their DI press to be complementary to their conventional offset and toner-based printing capabilities. This is a key finding in the study, indicating that print providers are seeking a range of flexible solutions that meet the increasingly complex requirements of their customers.

Download the complete InfoTrends study at [www.presstek.com](http://www.presstek.com)

For information about Presstek digital solutions, visit:

[www.presstek.com](http://www.presstek.com)

call 1-603-595-7000 ext. 3435

or email [info@presstek.com](mailto:info@presstek.com)

