Presstek 75DI®

6-Page Format Digital Offset Printing

▸ DI PERFORMANCE ▸ CAPABILITIES
▸ BUSINESS ADVANTAGES ▸ SPECIFICATIONS

- Highly automated digital offset presses
- 31.02" × 23.62" maximum sheet size
- 4-color to 10-color models
- Aqueous coating option
- Chemistry-free on-press imaging
- High quality waterless offset printing
- Six minute job-to-job turnover
- Affordable short-run and fast turnaround printing
- Environmental benefits

PRESSTEK
A SMARTER WAY TO PRINT

More Jobs, Higher Volume, Fewest Steps

The Presstek 75DI delivers true offset performance in an all-digital workflow

As a print service provider, you are experiencing demand for shorter run lengths, faster turnaround, and lower cost printed products. Presstek DI digital offset presses are known worldwide for meeting today's most difficult market conditions and demands.

Industry studies indicate that gross profit numbers for DI presses are approaching twice that of conventional offset. Growth in DI-enabled print businesses is also ahead of conventional offset shops. Furthermore, studies show that most run lengths in today's market are between 500 and 20,000 sheets—the "sweet spot" for DI printing where profitability is highest.

The Presstek 75DI is an ideal solution for print service providers looking for higher efficiency, business growth and increased profitability. The Presstek 75DI can help you capture and produce the high quality, short-run and quick turnaround jobs that you may now be losing to competitors, turning away, outsourcing, or producing at no profit to your business.

PRESSTEK 75DI

A New Dimension

Presstek DI presses are highly advanced sheetfed offset presses that combine all imaging and printing processes in one automated and integrated system. With on-press imaging and automated makereadies, they provide the speed and efficiency of digital printing while delivering the versatility of offset printing.

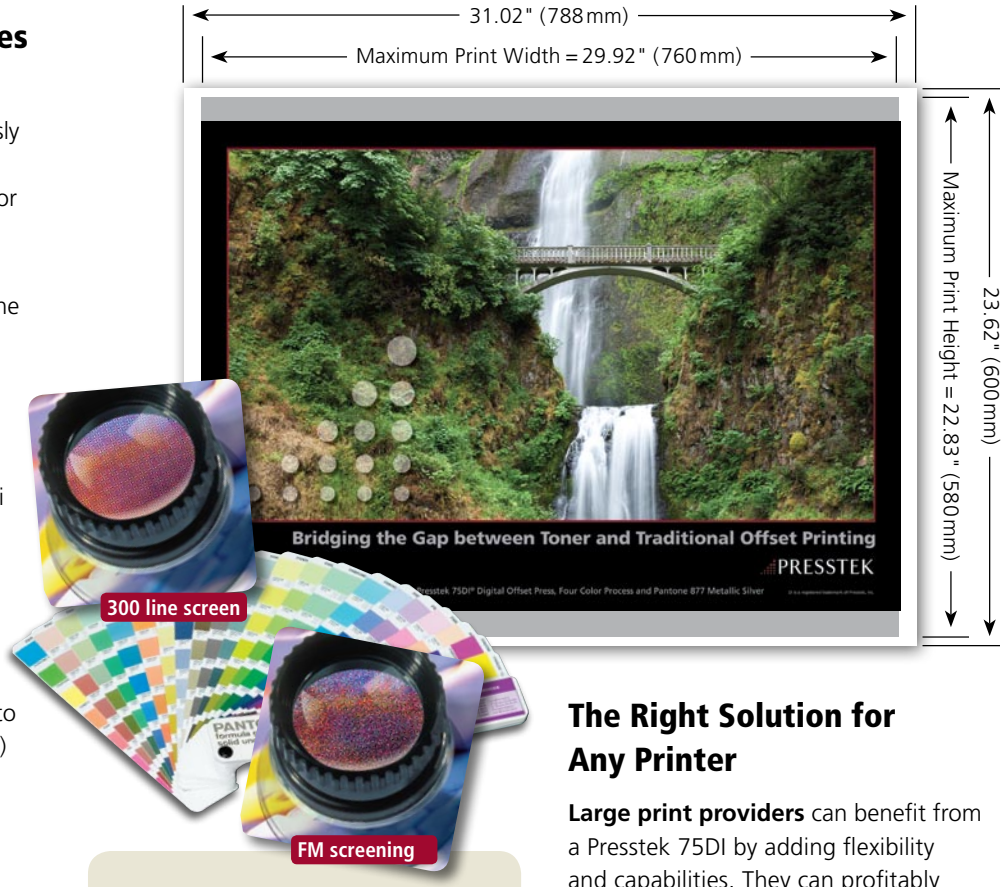
The Presstek 75DI brings a whole new dimension to DI printing and your business. With fast, streamlined job change-overs and no off-press platemaking issues, you'll print more jobs every shift and profitably deliver short-run, fast turnaround printing. Compared to similarly sized inkjet presses, the Presstek 75DI's multi-tower configurations and versatile offset printing accommodate a wider range of ink, varnish, stock specifications, publication sizes and page counts. The Presstek 75DI is designed to maximize profitability on run lengths from 500 to 20,000 sheets.

Presstek 75DI Press Features

- On-press chemistry-free digital plate imaging—all plates are simultaneously imaged in register, cleaned and prepared for printing with no operator intervention
- Smart inking presets ink keys and supplies the right amount of ink to the rollers to match the image
- Automated imaging and makeready
- Superior waterless printing with less dot gain and a broader color gamut
- High resolution printing up to 300 lpi and FM (stochastic) screening
- Print on any offset stock, including onion skin, cover stock up to 0.024" (0.6 mm) thick, foils, synthetic paper, and plastics
- 6-page press handles sheet sizes up to 31.02" × 23.62" (788 mm × 600 mm)
- Multi-tower models provide in-line printing of spot colors and varnishes
- Additional press automation options facilitate nearly hands-off job changes and daily maintenance routines
- Aqueous coating option
- Precision manufacturing and durability for reliable long-term performance

Business Advantages

- Low cost per page for the most frequent run lengths in today's market
- Exceptionally high throughput with no duty cycle for 24/7/365 operation
- Greater profitability than conventional offset on short and medium run lengths
- Easily make last minute changes and print rush jobs
- Eliminates all the labor, equipment, steps and variables associated with off-press platemaking and processing
- Minimal prep time; more printing time
- Consistent, easy-to-achieve high quality offset output
- Accommodates nearly any job in the marketplace, regardless of size, page count, run length, inks, or stock
- Environmental benefits



Bridging the Gap

Today, 80 percent of all print runs are less than 5,000,[1] while the number of long runs is declining.

To address this change, many shops have both digital toner and conventional offset presses. But there is often a need to bridge a production gap between those devices to more cost-effectively produce runs in the 250 to 20,000 range, the fastest growing segment of the printing market. In this segment, printers are finding Presstek DI presses are the most suitable technology to meet their needs.

Printers responding to an InfoTrends survey[2] reported that their DI presses were the best choice of equipment for runs between 500 and 20,000 sheets, and they are still a profitable solution for jobs with as few as 250 sheets.

[1] Strategies for Commercial Print 2010

[2] InfoTrends, *Presstek DI Printing Study: Bridging the Gap Between Digital Toner and Conventional Offset*

The Right Solution for Any Printer

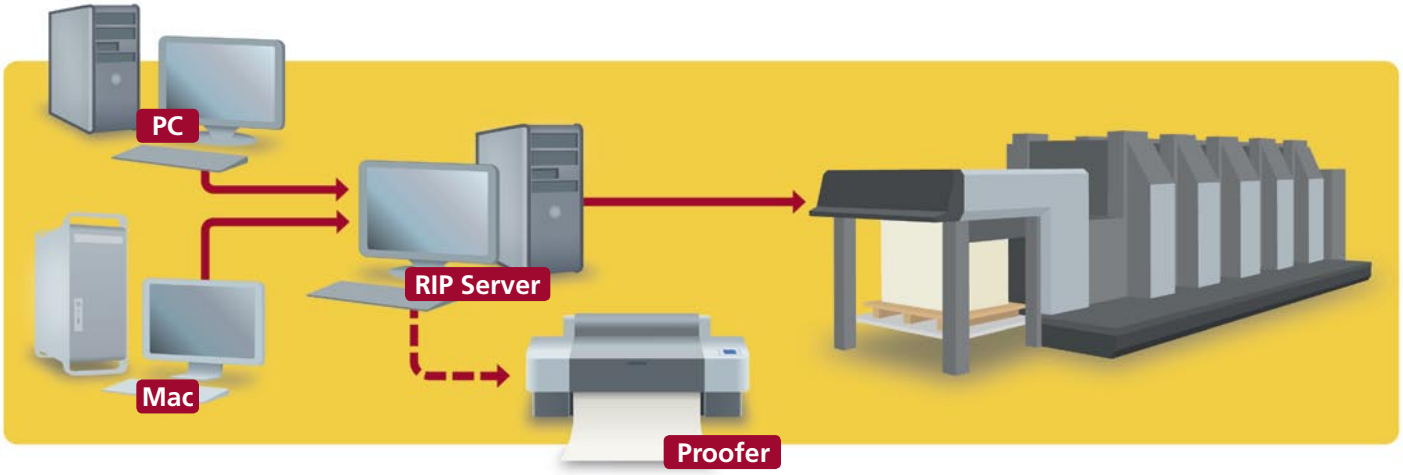
Large print providers can benefit from a Presstek 75DI by adding flexibility and capabilities. They can profitably address their customers' needs for quick turnaround, short runs, and versioned publications—without compromising the offset quality their customers are familiar with—while better utilizing their conventional sheetfed or web presses for long runs and multi-page publications.

Medium-size printers can upgrade their existing sheetfed press capabilities while gaining the advantages of on-press imaging and automated makereadies. They can profit in the short-run, on-demand markets while also cost-effectively printing longer runs on the same press. The capability and condition of existing platemaking equipment are not factors when considering the acquisition costs of a Presstek 75DI.

Small printers and other service providers can increase their capabilities and volume with a large press size, without adding or upgrading platemaking equipment. The Presstek 75DI is easy to operate and requires less infrastructure than similarly sized conventional sheetfed presses. With waterless printing, high quality results are easier to achieve with less-experienced offset operators.

Presstek Digital Offset

Platemaking and printing all in one automated system



Boost Your Productivity

What the Presstek 75DI means to your business is simple: you'll get more jobs on and off press every day. Prepress sources can now connect directly to on-press imaging on a full featured offset press, to produce superior results in the fewest steps and shortest time to completion available in 6-page format offset printing. From file to delivery pile, a Presstek 75DI can produce 2,000 full-size sheets, printed in four, five, six or more colors, in less than 15 minutes.

Digital Workflow

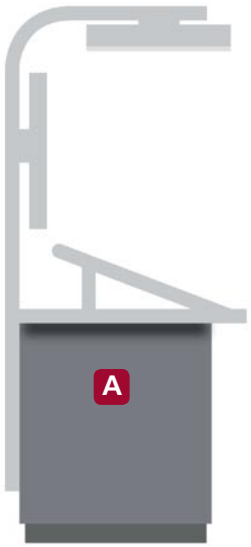
The Presstek 75DI easily integrates into your existing digital workflow. It supports Postscript and PDF files in both Macintosh and PC environments. A Presstek 75DI press can simply be positioned as a high performance output device on your network.

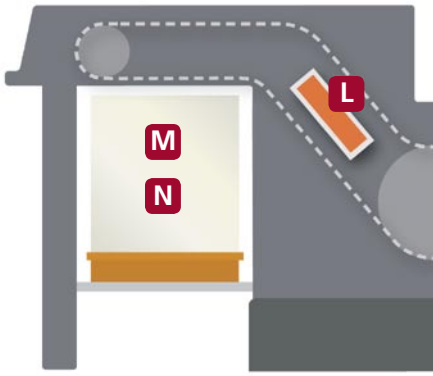
The Auto Print Mode initiates all the necessary steps for a complete print cycle. The selected job will have plates advanced and imaged and printing started without any operator intervention.

DI digital offset printing is a perfect solution for today's on-demand and web-to-print sales models—where output devices must produce a steady stream of digital multi-color printing with minimal steps and few interventions.

Easy to Integrate

With an all-in-one footprint, a Presstek 75DI will increase your pressroom capacity without the need for modifications in your prepress equipment or workflow. Personnel will easily transition to DI press operation. Presstek's installation and training will have your Presstek 75DI press and operators working at full potential soon after installation.





An Automated, All-In One Digital Offset System

A) Central Control

The operator easily controls all press functions at the central control console, including cleaning, ink adjustments and registration. The operator's screens and functions are easy to learn and make ramp-up very fast.

B) Auto Start Up

Twenty-three ink keys per unit are preset from the RIP file for quick and easy job setup with reduced waste. Rollers have been cleaned automatically at the end of the last job and are ready for inking.

C) Auto Plate Advance and Mounting

Spooled ProFire Digital Media is automatically dispensed and mounted on the plate cylinders. Used plates are automatically transferred to take-up spools. Each spool contains enough plate media for 23 full-size jobs.

D) On-press Imaging

The imaging units simultaneously image all plates at 2540 dpi (100 dots/mm). Multiple laser diodes are directed through a single lens for precise balance and high accuracy.

E) Simultaneous Plate Cleaning

Plates are cleaned automatically as part of the imaging process. This automated operation facilitates fast makeready and high print quality.

F) Automatic Blanket Cleaning

Blankets are automatically cleaned in parallel with imaging. These automatic operations allow the Presstek 75DI to move quickly from job to job.

G) Ink Roller Temperature Control

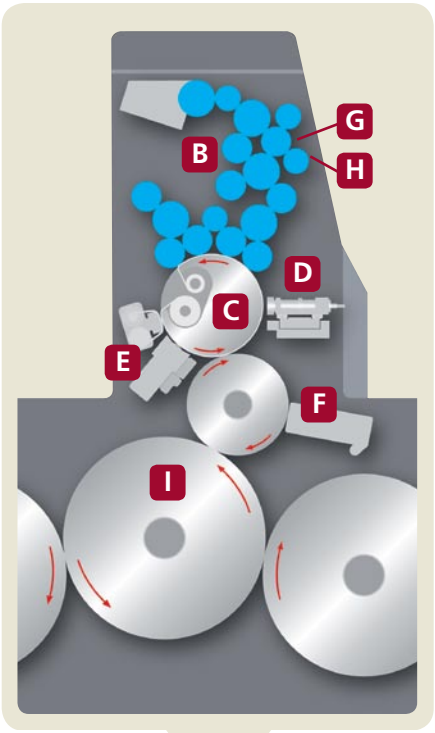
Temperatures of the ink train rollers are maintained by a controlled flow of coolant inside the rollers.

H) Waterless Printing

Waterless printing eliminates the need to maintain ink/water balance, making operation easier, reducing operator intervention and variables, and delivering fast makeready and superior inking.

I) Double-Diameter Cylinder Design

Double-diameter impression cylinders and transfer drums transport paper with minimal movement, providing stable transport of any weight stock.



J) Reliable Paper Feed

The suction tape feeder board simplifies the setting of brush and runner wheels, shortens time to change paper sizes, and accurately shuttles stock. During printing, an underswing and drop-away lay infeed maintains high registration accuracy even during high-speed operation. An ultra-sonic-type double sheet detector prevents double sheets even when printing thick cover weight papers and plastics.

K) Paper Transport

The Presstek 75DI employs strong, lightweight gripper mechanisms that offer high reliability and durability. The press also utilizes cam-closed and double sprung grippers that employ torsion bars on all gripper shafts. With reliable sheet gripping, consistent registration is maintained at any speed.

L) Infrared Dryer

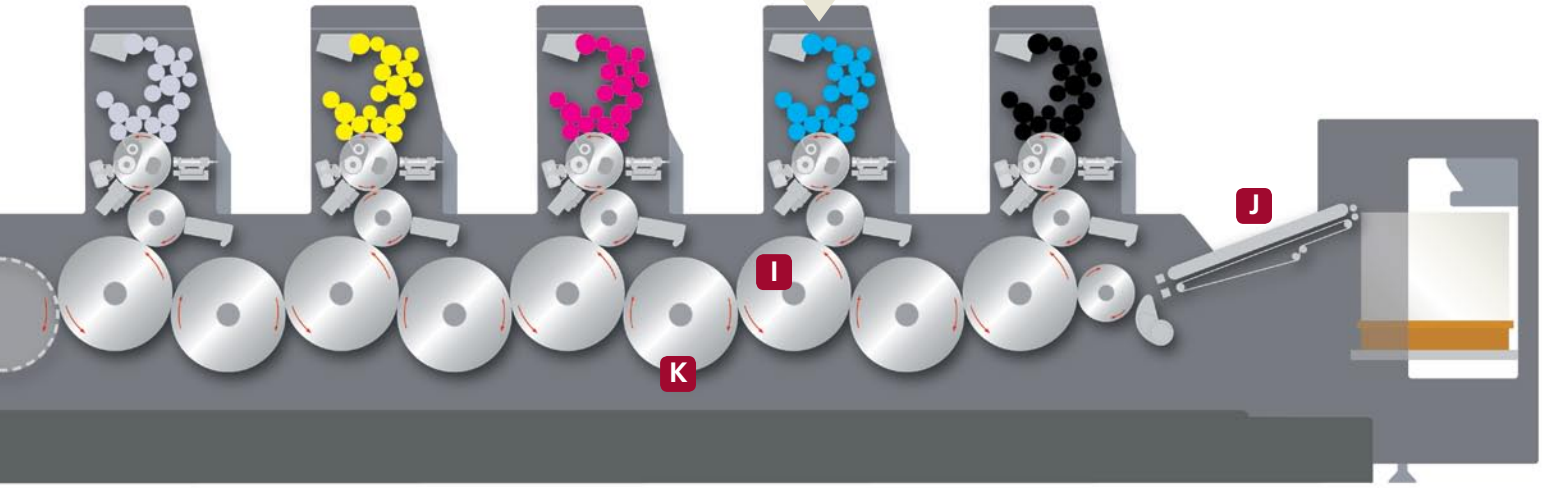
An infrared dryer expedites printing of second sides and finishing.

M) Paper Delivery

A decurling device, an air blower, and suction wheels driven by an independent motor all boost sheet piling performance.

N) Quick Job Changes

Fast makeready and printing speed up to 16,000 sheets per hour facilitate quick job completion and turnaround. At the end of printing, the autoclean cycle automatically prepares ink rollers, blankets and plate cylinders for the next form or job.



A Smarter Way to Print

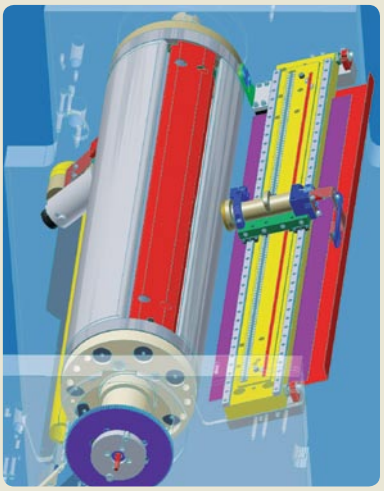
A superior printing method with benefits for your business and the environment

Optimum Performance

The exceptional efficiency and quality of DI presses are the result of three Presstek technologies—press design, laser imaging and thermal plate media—working together as a highly automated system that produces outstanding output.

High Resolution Imaging

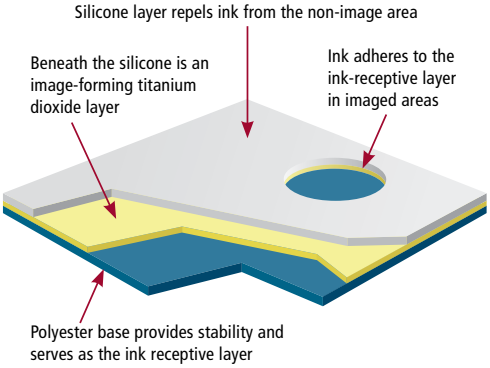
The Presstek 75DI's on-press imaging component employs multiple laser diodes deployed through a single lens. With a 16-micron beam size, Presstek 75DI imaging produces high resolution images of exceptional quality. Fine details, color fidelity, minimum screen values, subtle gradations, and large solids are all produced with results that meet the most demanding offset printing needs.



The Presstek 75DI employs thermal ablative laser imaging that eliminates the variables of exposure and chemistry. While the imaging head (at right) is working, cleaning devices (at left) simultaneously prepare the plate for inking.

ProFire Digital Media

Presstek ProFire Digital Media is manufactured specifically to optimize the performance of Presstek DI presses. The highly engineered thermal reaction of lasers and plate media results in fast imaging with extremely well defined details and halftone dots. Presstek 75DI presses easily print screen rulings up to 300 lpi and FM (stochastic) screening.



Presstek 75DI-AC

Digital offset with in-line aqueous coating

The Presstek 75DI is available with an integrated coater and extended delivery train to facilitate in-line aqueous coating of your digital offset output. Aqueous coating improves the look of a printed piece, protects it and raises its value. Aqueous coating also shortens drying time for even faster turnaround. The Presstek 75DI-AC supports flood and spot coating. A variety of finishes can be produced including matte, dull, satin and gloss.

A) Printed sheets are transported for in-line coating in one pass.

B) Anilox metering precisely measures and controls the amount of coating being applied, reducing waste, speeding delivery, and improving the quality of the printed sheet.

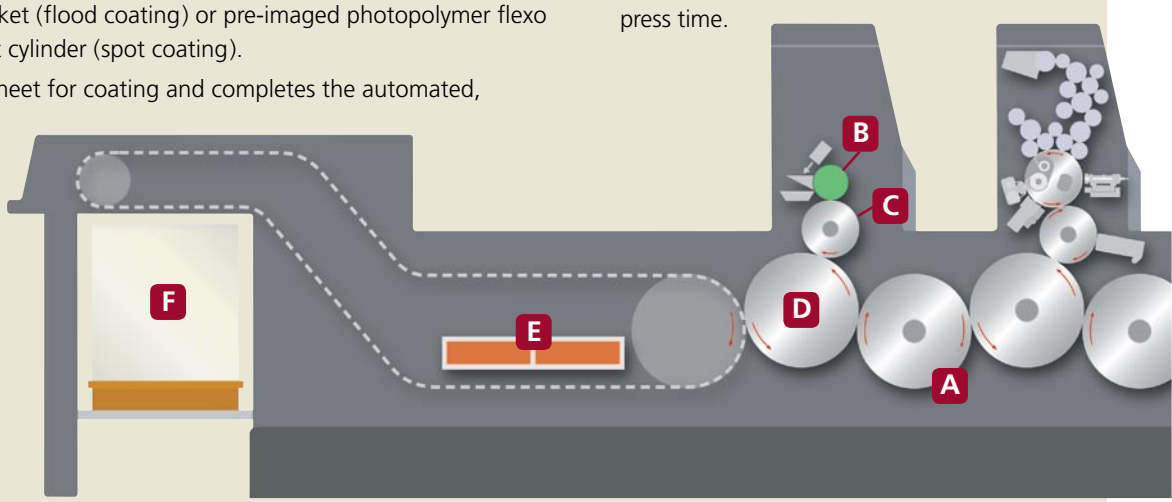
C) Coating is applied to the blanket (flood coating) or pre-imaged photopolymer flexo plate mounted on the blanket cylinder (spot coating).

D) Impression cylinder picks up sheet for coating and completes the automated, integrated printing and coating sequence.

E) Air knives and infrared drying expedite completion.

F) Aqueous coating provides excellent rub resistance to improve bindery throughput and protect finished pieces.

When the coating system is not in use, the entire coating apparatus is slid upward at the push of a button to prevent marking on sheets. When disengaged, the coating unit can be accessed while the press is printing. The coating reservoir can be refilled, the coating cylinder can be cleaned, and blankets or flexo plates mounted for the next job without losing press time.

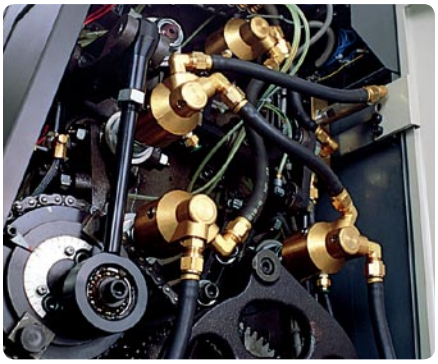


Automatic blanket cleaning

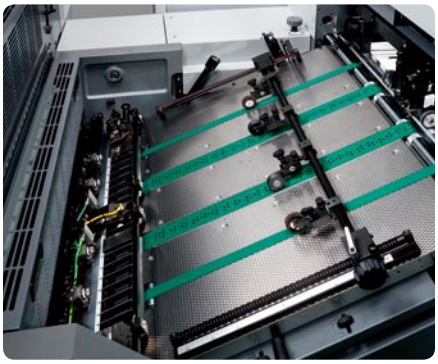
Built for the Job

From its on-press imaging systems and automated makeready features to its fast press speeds and precision printing, the Presstek 75DI is built to meet the rigors of short lead times, frequent job changes, and high throughput—day after day.

Cylinders supported by ultra-precise bearings, precision induction hardened helical gears, and heavy cast-iron side frames to support these components, ensure the highest accuracy, reliability and durability year after year.



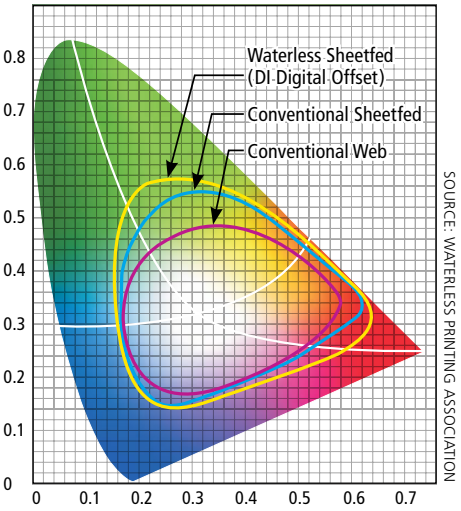
Ink roller temperature control system



Suction tape feeder board

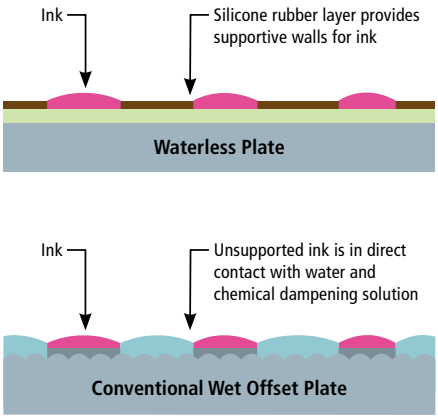
Waterless Offset Yields Higher Quality, More Accurate Color

DI waterless printing provides higher quality color with higher ink densities that expand the color gamut and produce more saturated color.



DI waterless printing provides a 20% larger color gamut than conventional printing.

When printing with a Presstek DI press, dot gain is reduced because the press eliminates the need for dampening solution. The dots are sharper and photographic shadow detail is rendered more clearly. Screen rulings of 300 lpi and FM screening are easily reproduced and the color is consistent.



A Greener Way to Print

Presstek DI environmental advantages

The same DI printing features that bring high quality, efficiency and lower cost operation to your business also bring substantial workplace and environmental benefits. These green features can be a major differentiator for your business.

- Chemistry-free on-press imaging eliminates the handling, disposal and hazards of imaging chemistry.

- The waterless printing and automation of Presstek DI presses eliminate the largest portion of a printer's VOC output—solvent-based dampening solutions and blanket wash solvents. In addition, waterless printing does not produce the chemically-tainted wastewater that results from conventional wet offset printing.
- Fast makereadies significantly reduce wastepaper, conserving resources and lowering the cost of paper on every job.

- Offset inks, including waterless inks, can generally be deinked for recycling without difficulty, while inkjet or liquid toners present challenges to deinking, according to the International Association of the Deinking Industry (INGEDE).

Presstek 75DI Specifications

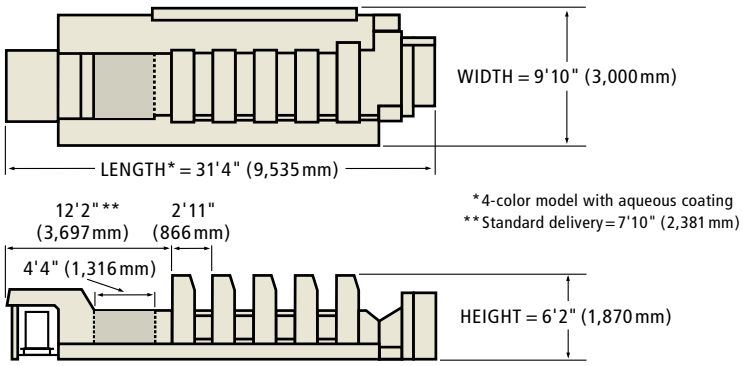
Printing Stock	
Sheet Size[1]	Maximum: 31.02" × 23.62" (788 mm × 600 mm) Minimum: 10.98" × 7.87" (279 mm × 200 mm)
Maximum Print Format	29.92" × 22.83" (760 mm × 580 mm)
Stock Thickness	0.0016"–0.024" (0.04 mm–0.6 mm); Optional 0.031" (0.8 mm)
Orientation	Landscape
Imaging System	
Laser	Multi diode, single lens / one per tower
Image Resolution	2540 dots/inch (100 dots/mm)
Spot Size	16 microns
Plate Media	
Plate Material	ProFire Digital Media
Plates Per Roll	23 full format
Screen Ruling	Up to 300 lpi AM and FM (stochastic)
Run Length[2]	20,000 impressions
Printing	
Maximum Printing Speed[2]	16,000 sheets per hour
Number of Colors (Towers)	4–10 color (tower) models
Inking Process	Waterless offset
Ink Keys/Rollers	23 ink keys per unit; 18 ink rollers per tower
Form Rollers	4 per tower
Blanket Cleaning	Automation optional
Impression Cylinder Cleaning	Automation optional
Feeder	
Feeding System	Rotary type stream feeder
Feeder Board	Suction
Feeder Pile Capacity	31.5" (800 mm)
Infeed System	Underswing gripper and feed drum
Delivery Pile Capacity	36.42" (925 mm)
Electro-Mechanical	
Input Power	3-phase 200 VAC 50/60 Hz
Lubrication	Automatic centralized oiling system

Presstek 75DI-AC Specifications

(All specifications are the same as above other than those noted below)

Maximum Coating Area	30.12" × 22.83" (765 mm × 580 mm)
Coating Device	Anilox metering
Drying	Six Infrared dryer lamps
Infrared Lamp Power	29.4 kW (4.9kW × 6)

Dimensions[3]



*4-color model with aqueous coating
**Standard delivery = 7'10" (2,381 mm)

1 Limitations may apply depending on paper types.
2 Actual numbers will be affected by ink and paper conditions.
3 Dimensions do not include console, air compressor and other peripheral devices.

Product specifications are subject to change.

Expert Service: Your Trusted Partner

Presstek provides an integrated support network of field engineers, customer care representatives, technical support engineers, and on-board monitoring of digital offset systems—all supported by advanced information sharing and technology systems.

Remote diagnostics and predictable maintenance are available for DI presses with Pressek Guardian Service. Through secure Internet communication with your DI press, Presstek monitors operating conditions and performance, logs events, and can upload software upgrades to enhance press performance.

Presstek Guardian Service facilitates predictive maintenance based on information collected from across the field and about your press model. We use the collective knowledge to be proactive in maintaining the high performance of your equipment.

Presstek provides educational services to give your organization the expertise it needs to grow. A dedicated team provides DI press and workflow training at your site. In certain regions, DI press training is available at Presstek-certified training centers.

For more information about Presstek products:

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