

# Presstek 52DI<sup>®</sup>

52cm Landscape Format Digital Offset Printing

- Highly automated four-color digital offset press
- On-press chemistry-free plate imaging
- High resolution printing
- Streamline workflow
- Affordable short-run and fast turnaround printing
- Compact footprint
- Environmental benefits



# Highest Quality Offset Printing— Fast, Efficient, and Profitable

The Presstek 52DI press combines the highest quality offset printing with the ease-of-use, automation and efficiency of digital printing. Whether you aim to expand your business or produce existing color jobs more profitably, the Presstek 52DI is a smarter way to print.

The entire printing operation is automated—from plate advancing to imaging, printing and cleaning—in one compact, easy-to-use system. High quality results are easy to achieve, and you can print higher volume and more jobs every shift.

## PRESSTEK 52DI



### Presstek 52DI Press Design

■ The Presstek 52DI is designed to deliver precise registration from the first sheet to the last. The design features a central impression cylinder and Presstek's Zero Transfer Printing (ZTP) process. All four colors are laid down without sheet transfer between grippers.

■ The 52cm landscape format features 16 ink keys for each color. Since each ink fountain covers a shorter distance, the inking characteristics of the 52DI are stronger than portrait-format presses.

■ Waterless printing eliminates the need to control ink/water balance. It reproduces a larger range of color and sharper, better defined images than other processes, with minimal dot gain during printing.

### On-press Imaging with Presstek ProFire Excel

■ All four plates are simultaneously imaged on press in precise register.

■ Thermal, chemistry-free imaging eliminates the variables of processing and exposure.

■ 16-micron lasers produce sharp, well defined dots and easily support up to 300 lpi and FM screening.

### Auto Print Mode

■ The Presstek 52DI's Auto Print feature advances and images plates and begins printing at the push of a button. It automatically cleans blankets at the end of the run and prepares the press for the next job.

■ Smart Inking automatically pre-sets ink keys, supplying the right amount of ink to the rollers to match the image. At the end of printing, the ink rollers automatically restore to an even state.

■ With automation and user friendliness, the Presstek 52DI fits any printing business. Even operators with little offset experience can achieve high quality results.



### Advanced Quality Control and Color Matching

The Printing Density Control System (PDS-E) enables operators to easily match printed output and keep color consistent from run to run. The optional PDS-ProE spectrophotometer extends the benefits with a color profile setter, quickly and accurately producing ICC profiles by taking colorimetric measurements from printed sheets and proofs.

### Key Features and Benefits of the Presstek 52DI

- All-digital workflow efficiency
- Highest quality four-color offset printing
- 300 lpi and stochastic (FM) screening
- Print on a wide range of stocks from heavy card stock to onion skin
- Automated set-up and printing with 10-minute makeready, including imaging
- Versatile 52cm landscape format
- Waterless printing for superior color range and image definition
- Lowest cost per page for runs of 500 to 20,000
- Eliminates the equipment, labor, materials and costs of off-press platemaking
- Small footprint and streamlined, chemistry-free workflow fits any production workplace
- Environmentally friendly

## The Presstek 52DI is the Right Solution for:

- Printers that need to profitably bridge the gap between digital toner and conventional offset printing solutions
- Digital printers that need the capability to print on a wider range of stocks and compete on longer runs
- Printers who cannot easily schedule or profitably print fast turnaround, short-run jobs with their large four-color presses
- Printers who need to gain operational efficiencies and increase productivity by automating their offset printing
- Print shops that need to upgrade their offset equipment to compete in the four-color market
- In-plant printers who need to retain or bring four-color printing in-house
- Printers with limited operating space
- Any operation that wants a more environmentally friendly and cleaner printing method



## High Resolution Printing

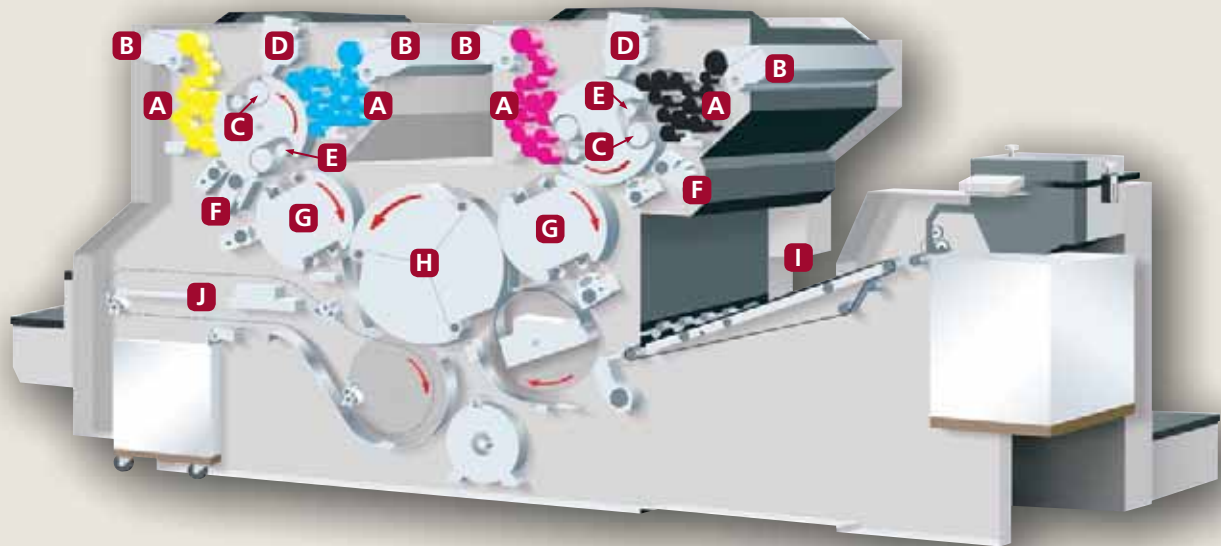
10 multibeam laser diodes on each of two ProFire modules produce consistent and high resolution imaging on Presstek ProFire Digital Media. Waterless offset printing yields a broader color gamut than conventional printing, with higher density, less dot gain, and sharper details.

## Easy-to-achieve, High Quality Output

Sheets move through the printing process on the central impression cylinder without gripper changes, resulting in precise registration from first sheet to last. Go from file to sellable color in as few as 20 sheets.

## Fast Turnaround

With 10-minute makeready, automated print quality controls, and printing speed up to 10,000 full size sheets per hour (333 letter size pages per minute), the Presstek 52DI will increase the volume of output and the number of jobs you complete every shift.



- A)** Waterless offset printing—Ink train has four form rollers. Three chilled rollers significantly reduce toning.
- B)** Sixteen ink keys per unit are preset based on color profiles and specific job color requirements. Auto start-up pre-inks plates.
- C)** Spooled ProFire Digital Media is automatically dispensed; press declutches to spin plate cylinders at 300 rpm during imaging.
- D)** Presstek ProFire Excel imaging unit simultaneously images all four plates at 2540 dpi in 4.5 minutes.
- E)** ProFire Digital Media spools contain enough material for 44 full size jobs; used plates are automatically transferred to take-up spools.
- F)** After imaging, plates are automatically cleaned, a vacuum removes any remaining debris, and plates are ready for inking.
- G)** DI press design features double-plate and double-blanket cylinders.
- H)** Central impression cylinder holds three sheets. A sheet picks up four colors in two revolutions without gripper changes, eliminating the potential for misregistration.
- I)** Register board with vacuum pull guide and suction tape handles a wide range of stock and weights, including envelopes.
- J)** Infrared dryer expedites curing of inks. The autoclean cycle prepares ink rollers, blankets, and plate cylinders for the next form/job.

## Presstek 52DI Specifications

<b>Printing Speed</b>	
Maximum Printing Speed*	10,000 full size sheets per hour; 333 letter size pages per minute
<b>Printing Stock</b>	
Thickness	0.0024" – 0.02" (0.06–0.5 mm)
Sheet Size	Max. 20.47" × 14.76" (520 mm × 375 mm); Min. 4.33" × 3.94" (110 mm × 100 mm)
Maximum Print Format	20.07" × 14.17" (510 mm × 360 mm) with 0.354" (9 mm) gripper margin
<b>Imaging System</b>	
ProFire Excel	2 modules
Maximum Image	Width 20.07" (510 mm)
Image Resolution	2540 dots/in. (100 dots/mm)
Imaging Time	4 minutes 30 seconds (4 plates simultaneously)
Spot Size	16 microns
<b>Printing</b>	
Automated Makeready	10 minutes (includes plate imaging and cleaning, ink presetting, and printing to sellable color)
Register Unit-to-Unit	Immediate, precise via Zero Transfer Printing process
Density Achievement	Achievable within 20 sheets
<b>Inking Unit</b>	
Inking Process	Waterless
Zones/Rollers	16 zones per unit; 15 rollers per unit
Form Rollers	4 per unit
Standard Features	Automatic pre-setting, wash-up device and temperature control
<b>Blanket Cylinder</b>	
Blanket Specs	Width 20.87" (530 mm); Thickness 0.077" (1.95 mm)
Automatic Wash-up Device	Standard
<b>Feeder</b>	
Rotary Stream Feed	Standard
Feeder Board	Suction
Pile Height Adjustment	Motorized
Double Sheet Detector	Mechanical & electrical
Register	Air pull side guide
Infeed	Underswing gripper & feed drum
Pile Capacity	19.69" (500 mm)
Pre-pile Device	Standard
<b>Delivery</b>	
Pile Height Adjustment	Motorized
Pile Capacity	15.75" (400 mm)
Standard Features	Sheet decurler, IR dryer, powder device
<b>Plate Media</b>	
Plate Material	ProFire Digital Media
Plate Dimensions	Width 20.67" (525 mm); Thickness 0.007" (0.18 mm)
Spool Length	63 ft. (19.2 m)
Plate Saver Version 2	Standard
Plate Advance	Automatic
Plates Per Roll	44 full format
Screen Ruling	Up to 300 lpi AM and FM (stochastic)
Run Length	20,000 impressions*
<b>Electro-Mechanical</b>	
Input Power	200 VAC 10% in EU
Lubrication	Automatic centralized oiling system
Recommended Operating Environment	Temp. 68–77° F (20–25° C), relative humidity 50–60%
Physical Dimensions (L×W×H)	13'2" × 10'1" × 5'6" (4009 mm × 3082 mm × 1667 mm) including catwalk and console
Weight	14,330 lbs. (6500 kg) including console
<b>Quality Control</b>	
Density Control	PDS-E
Colorimetric Control	PDS-ProE spectrophotometer (optional)

\*Actual numbers will be affected by ink and paper conditions.



## Service and Support

Presstek provides an integrated support network of field engineers, customer care representatives, technical support engineers, and on-board monitoring of digital systems—all supported by advanced information technology systems. Expert installation, training and maintenance supports your investment so it will pay dividends quickly and reliably for years to come.



## Environmental Advantages

Presstek DI is an environmentally superior process over other printing methods. Environmentally friendly features include chemistry-free imaging, reduced paper waste, and waterless printing—which eliminates waste water and significantly reduces VOC emissions.

For more information about Presstek Products:

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Product specifications are subject to change.



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