

HP Indigo press ws4500

Productive, cost-effective, versatile printing solution for label and package printing

Approximately 65% of label jobs around the world are produced in print runs of less than 50,000 labels, or under 2,000 metres (See Fig 1)

Fact! Label and packaging print jobs are continuing to become shorter!

Fact! Customers are demanding shorter lead times and faster turnaround!

Fact! Conventional printing processes are prohibitively expensive for low volume orders and result in shrinking profit margins!

How do you adapt to these changing market trends, satisfy exacting customer demands and, at the same time, sustain a profitable printing business?

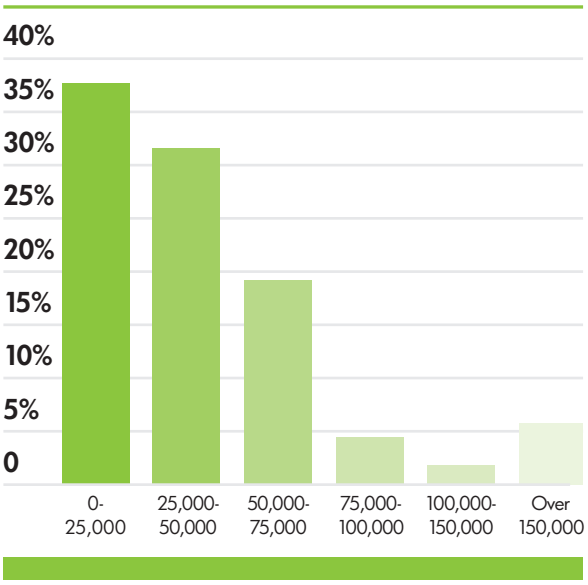
The HP Indigo press ws4500 provides a complete end-to-end solution from pre-press to finishing and lowers production costs immediately in several key areas:

- It eliminates the expense of films, plates or chemistry
- It generates little or no waste
- It requires far less set-up time than conventional printing.

For runs up to 2,000 metres, the HP Indigo press ws4500 significantly lowers your costs. And it integrates easily within your existing printing environment to complement the capabilities of your current equipment.

"Since we started with digital printing technology from HP, we've really repositioned the company because we are now able to give the customer so many solutions that were not available before – so, a lot of openings for new business."
Peter Overbeek,
Managing Director,
Eshuis,
The Netherlands

Fig 1: Run length types (# of 5 x 10 cm labels)
Source: Labels & Labelling
The increase in small order quantities – and the decrease in long runs – has created new opportunities and higher profit margins for the label converter and printer.





Be labelled 'premium provider' with the HP Indigo press ws4500

The HP Indigo press ws4500 solution allows marketers to respond rapidly and cost effectively to shorter product life-cycles and ever-changing retail needs. It allows for highly targeted labelling and packaging – applications that would be expensive or impossible with a traditional press. These include: versioned products, event marketing, private labels, regional and seasonal packaging and test markets.

The flexible production offerings, rapid response times and the liquid ink quality of the HP Indigo press ws4500, complement conventional printing capabilities to expand your service options. This allows you to allocate jobs to your most suitable, cost-efficient press while consistently maintaining the offset quality your customers are used to. This way, you can optimise your productivity, ensure repeatable colours and maximise your profitability on every job.



Expand your arsenal of services

The HP Indigo press ws4500 can help you grow your business and transform you into an indispensable, one-stop partner for your customers. It lets you build an arsenal of new services for the production of labels, shrink sleeves and flexible packaging:

- Provide your customers with instant proofs identical to their required jobs.
- Print runs as few as one, or up to 50,000 labels in fast turnaround time, exactly when required and help customers get their jobs to market quickly.
- Supply small, medium and large quantities to your customers to precisely meet their needs and help them manage their supply chain effectively, thereby saving them inventory costs.
- Provide exceptional print quality, to ensure your customers' brands stand out in the marketplace.
- Print spot colours to meet your customers' corporate branding requirements.
- Offer virtually limitless substrate compatibility and cater to a wider range of packaging needs.
- Use variable data printing to provide complete, full-colour product personalisation, as well as ticketing and game pieces.
- Use numbering and security features to enable product track and trace and help your customers protect their assets.

Benefit from built-in revolutionary technology

Your HP Indigo press ws4500 includes a number of uniquely competitive features:

HP ElectroInk. HP Indigo uses the unique HP ElectroInk liquid ink technology – the only colour process in digital printing that equals the quality and colour range of offset.

One-Shot Colour printing. Enables all colour separations to be laid down simultaneously on the final substrate, preventing registration issues and allowing you to print on a broad variety of substrates.

HP IndiChrome Plus. Expands colour versatility beyond CMYK by offering you: a broader colour gamut that includes CMYK + OVG (orange, violet, green) inks supported by an EskoArtwork digital front end; a closer match to the PANTONE® MATCHING SYSTEM Colours; a broader applications range; a higher analogue-to-digital transformation rate.

On-press Fast Ink Replacement (OFIR). Simple on-the-fly replacement of special/spot colours eliminates the time needed for swapping colours, making spot colour jobs simple to execute.

HP SmartStream Labels and Packaging Solutions, Powered by EskoArtwork. The user-friendly HP Indigo hardware and EskoArtwork software package enables connectivity to conventional solutions through EskoArtwork software. This front end solution 'remembers' colour settings for each substrate at the pre-press stage, simplifying colour management and allowing repeat jobs to produce identical output on whatever press you use.

Fast setup and job changeover

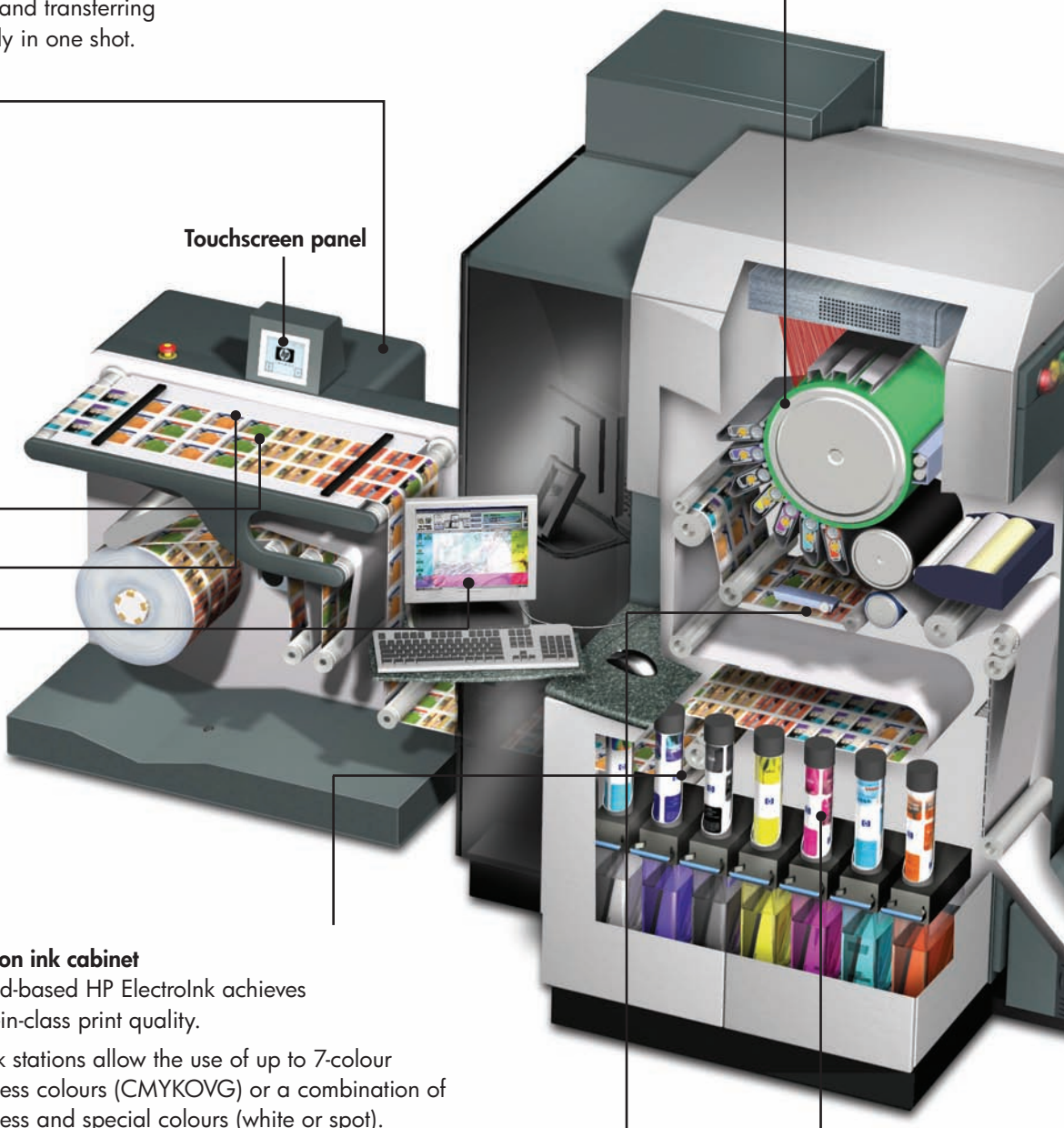
One-Shot Colour
Assures perfect registration by accumulating all image separations on the blanket and transferring them to the substrate simultaneously in one shot.

Rewinder
- An easy-to-use touchscreen panel, inspection plate and splicing table allow print quality inspection and fast roll replacement.
- Optional rewinder designed especially for flexible packaging applications with tension control and web guide.
- Multi-substrate capabilities down to 12μ films.

Inspection plate

Splicing table

Work station
- For intuitive operator control over the functioning of the press, with easy-to-use menus and guidance.
- Remote assistance to press operator via support centre.



7-station ink cabinet
- Liquid-based HP ElectroInk achieves best-in-class print quality.
- 7 ink stations allow the use of up to 7-colour process colours (CMYKOVG) or a combination of process and special colours (white or spot).
- The on-the-fly On-press Fast Ink Replacement (OFIR) system makes spot colour jobs simple to execute and increases overall press productivity.

Inline densitometer
Assures colour consistency, fidelity, dot gain compensation and accurate repeatability across jobs and allows the operator to fine-tune the press during printing.

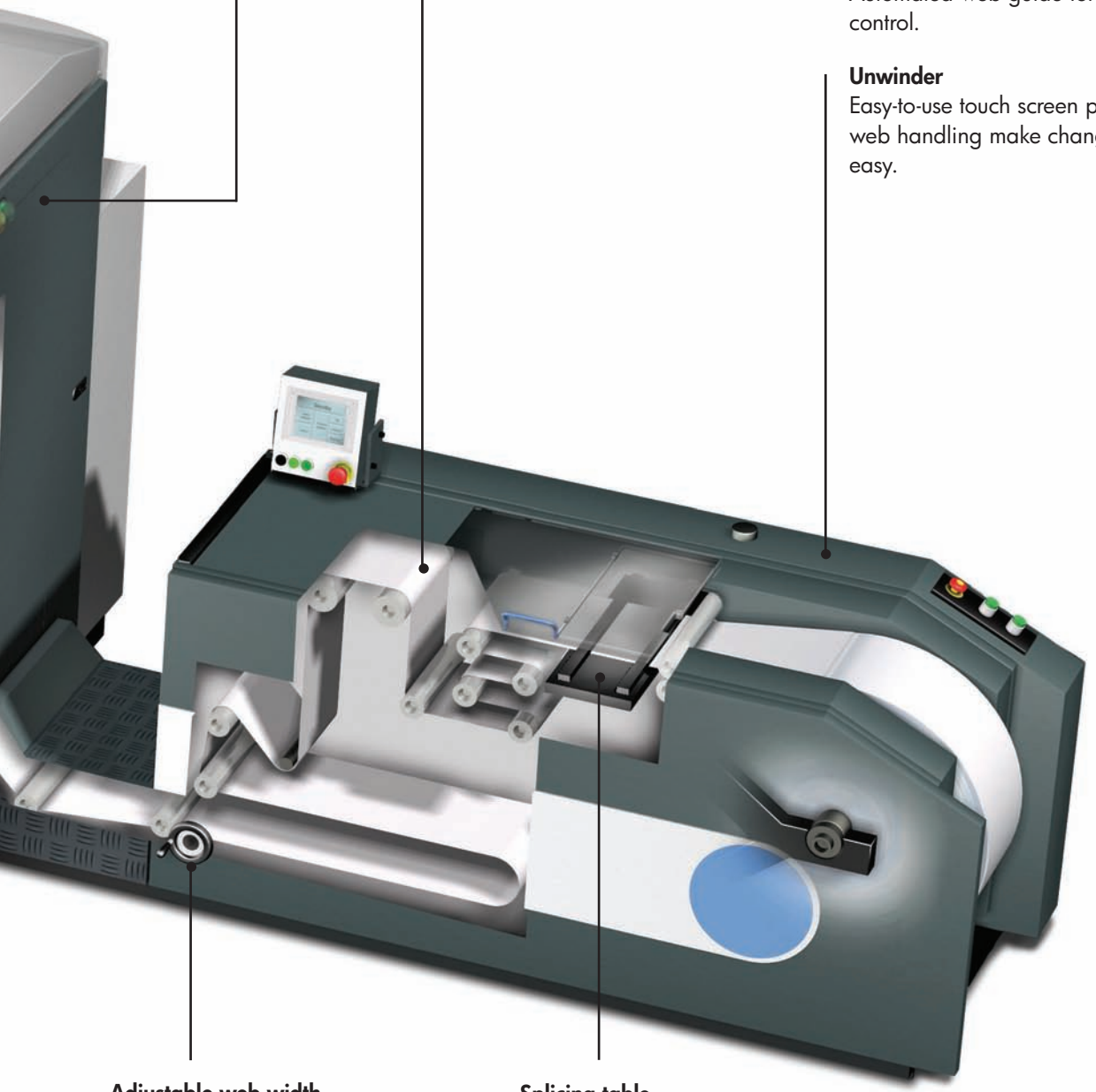
Ink cans
For easy, fast and clean ink replacement.

Digital front end solutions
HP SmartStream Labels and Packaging Print Server, Powered by EskoArtwork digital front end that supports end-to-end workflow.

Attention lights
- Allow operator to monitor press alerts remotely.
- Allow customers with multiple presses to assign one operator to two presses.

Web guide
Automated web guide for continuous substrate control.

Unwinder
Easy-to-use touch screen panel, splicing table and web handling make changing substrates quick and easy.



Adjustable web width mechanism
For easy adjustment of substrate width.

Splicing table

Maximise results with HP Indigo partners

HP has aligned with industry-leading partners to address the most critical customer needs:

The HP SmartStream Labels and Packaging Print Server, Powered by EskoArtwork. A high-performance RIP, Digital Front-End and workflow controller, the server can reside in your pre-press environment or near the press. From its centralised location, it assures highly efficient file processing, best-in-class colour control, simple, sophisticated bar-coding, enhanced step and repeat and high quality variable data output. The server enables connectivity to central EskoArtwork workflow solutions, as well as to other workflow components, such as web-to-print and MIS solutions.

With extensive space for storing a tremendous number of jobs, the server scales to adopt system upgrades and increased workflow requirements. The solution also addresses your production needs through ICC colour management, and includes prepress tools in the native environment of Adobe® Illustrator™.

AB Graphic – www.abgint.com
ABG Digicoat: offers an affordable in-house coating solution, and can be used to apply water-based primers or optionally UV curable over varnishes.

ABG Digicon label finishing: the Series 2 Digicon range from AB Graphic International offers an unprecedented variety of options for digital print finishing – available either in-line or off-line and incorporating flexo varnishing and semi-rotary die-cutting along with the options of overlaminating, semi-rotary screen printing, hot foil blocking, and embossing, as well as an inspection system. The modular design allows for any combination of processes to be carried out in a single pass, and its sophisticated control system enables quick changeovers with minimal waste.

ABG Digilam flexible packaging finishing: the ABG Digilam is a laminator designed for flexible packaging applications, such as food-specific substrates. The equipment allows water-based adhesives to be applied via a gravure coating system. It incorporates a 4-stage high power hot air drying system, followed by a heated laminating nip roller and a single spindle rewind with pneumatic lay-on roller. A sophisticated web tension control system enables the easy handling of materials as thin as 12 microns.

SMAG – www.smag-intl.com The COMET is a basic semi-rotary label finishing system with flexo varnish, spot varnish, cold foil, laminating, die-cutting and slitting unit. The line can be equipped with a semi rotary or foil unit.
The Digital Galaxy is a well equipped label finishing line allowing minimal set-up and waste. It has a flexo varnish, spot varnish, cold foil, laminating, die-cutting and slitting unit on board as well as a turret rewinder. The line can be equipped with embossing and screen print stations.

DCM – www.dcm.fr DCM offers HP Indigo customers the most compact, easy-to-use shrink sleeve finishing solutions in the industry. The DCM Sleeve is an off-line sleeve seamer, allowing a printed roll to be folded and seamed. The DCM Babycat Unwinder is an off-line inspection system that uses a UV lamp and/or air flow to inspect seam consistency.

Michelman – www.michem.com Environmentally friendly, water-based DigiPrime coatings provide excellent HP Indigo ink adhesion on a variety of substrates.

Media partners:
Fedrigoni/Manter, UPM Raflatac, Avery Dennison, Ineos Films, Mitsubishi and Innovia offer diverse self-adhesive paper and films on rolls and sheets.

"Often, pharmaceutical companies need very short runs, and with digital printing, we can supply exactly the amount of labels they need. In this way, we can eliminate their stock and we can also eliminate our stock and manage direct supply."
Keld Thorsen, President Business Area Labels, Strålfors AB, Switzerland

Technical specifications

Print engine specifications:	**Printing speed**	16 metres per min. in 4-colour mode 32 metres per min. in 1 or 2-colour mode
	Substrate thickness	12*-350 micron (0.47*-13.8 mils)
	Substrate type	Self-adhesive label stock and films
	Printing technology	HP ElectroInk technology
	Image quality	812 x 812 dpi 812 x 1,624 dpi when printing in high resolution mode Line screens: 144 (sequin) 160, 175, 180, 230 lpi
	Image size	308 x 450 mm max.
	Web width	Max. width: 330 mm Min. width: 200 mm
Process colours	**Standard 4-colour printing**	Cyan, Magenta, Yellow, Black
PANTONE® Colours**	**HP IndiChrome on-press simulation (6-colour printing)**	Cyan, Magenta, Yellow, Black, Orange and Violet
	HP IndiChrome on-press simulation (7-colour printing)	Cyan, Magenta, Yellow, Black, Orange, Violet and Green
	HP IndiChrome off-press (mixed spot ink)	PANTONE® Colours are mixed using the HP IndiChrome Ink Mixing System or ordered via the HP Indigo Ink Mixing Services.
	White ink	Yes
Input system	Input roll max. diameter: 1,300 mm Core inside diameter: 76.2 mm (152.4 mm optional) Tension control system Air expanded shaft	Roll load/unload pneumatic device Max. roll weight: 400 kg Active web guide
Output system	Rewinder: 600 mm max. roll diameter	
Dimensions of press	Length: 680 cm Width: 370 cm Height: 220 cm	
Weight of press	5,500 kg	
HP SmartStream Labels and Packaging Print Server, Powered by EskoArtwork	**Software platform**	Microsoft® Windows XP® Professional
	Hardware platform	2.8 GHz Pentium® 4 processor, 36 GB hard drive 512 MB base memory, expandable to 4 GB 15 inch flat screen monitor DVD-RW/CD-RW Image disks - two 36 GB drives which provide 70 GB of image memory
	Network protocols	TCP/IP Profibus with WHS
	Physical network connection	10/100/1000 Base-T
	Supported formats and standards	Postscript Level 3, PDF 1.4, TIFF, JPEG, EPS, PPML 1.0, JLYT
Optional equipment/configuration:	**HP SmartStream DigitalFront-Ends**	HP SmartStream Labels and Packaging Colour Kit, powered by EskoArtwork HP SmartStream Labels and Packaging VDP Tools, powered by EskoArtwork HP SmartStream Labels and Packaging Pre/press Tools, powered by EskoArtwork
	Expanded colours capabilities	5th, 6th and 7th colour printing; HP Indigo Ink Mixing System
	Reinsertion	Optional

*Substrate testing recommended
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