

The world of HP Indigo ElectrolInks



Infinite possibilities





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Indulge on a feast of colour

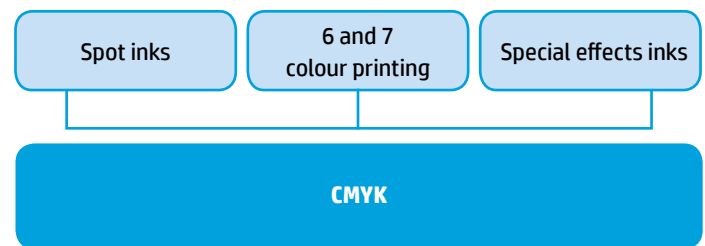
Vibrant colour prints, show-stopping metallic cards and covers, sensory textured images, decked out invitations, and solid, consistent brand colours. Wouldn't it be amazing to please and satisfy discerning customers with this spread of high-value digital colour printing applications? These appealing opportunities to deliver unique and differentiating prints to customers can be captured with HP Indigo digital colour printing presses. Today's demanding customers are hungry for colour-rich printing services with no minimum and fast turnaround. HP Indigo has the widest colour selection, and even the most particular customer order can be produced on-demand.

The exclusive capabilities of HP Indigo presses include vibrant CMYK, an extended colour gamut, spot colours, special effects, and embossed-style printing. HP Indigo digital colour printing technology makes print service providers stand out and allows customers **to experience infinite possibilities. And here's how.**

Make a sharp impression in vibrant CMYK

HP Indigo digital presses deliver outstanding colour quality in CMYK with an offset look and feel. The HP Indigo digital offset colour process is the only digital printing technology that equals the quality and colour of offset printing. This quality is enabled by HP Indigo's liquid ElectroInk whose particle size, down to 1 to 2 microns, provides high resolution, uniform gloss, sharp image edges, and very thin ink layers. This superior technology is a key enabler for immense colour printing flexibility.

The HP Indigo high-quality, high-value colour and special effects portfolio:



Deliver colour at high speed

With HP Indigo technology, colour can be delivered at high speed using Enhanced Productivity Mode (EPM), which prints 33% faster using three colour separations. In EPM, the press prints yellow, cyan, and magenta with high ink coverage, while eliminating the black separation. EPM offers the flexibility to control the balance between speed and colour. The customer benefits from overall cost reduction, while the colour gamut is reduced by 10%.

Extensive colour flexibility*

HP Indigo offers the widest colour selection in the digital printing industry. By adding more on-press colour, in addition to special effect inks, texture, and spot colours to print capabilities, printers enjoy greater differentiation for themselves and their customers. And that means greater growth opportunities for digital printing business. These unique services can be offered by using up to 7 on-press ink stations. By adding more on-press colour and special effects, the value of the page increases tremendously, benefitting both printers and customers.



Print 33% faster using Enhanced Productivity Mode (EPM), while maintaining HP Indigo's vivid colours and high print quality.

Award winning print quality

This unique offering has made HP Indigo the leader in digital colour printing. The winner of many competitions for print quality, including at the DIMA Shoot-Out, HP Indigo prints are certified by GRACoL and Fogra. HP Indigo printing is also the best digital press replacement solution for silver halide photos, with its photo prints permanence certified by Wilhelm Imaging Research for more than 200 years for album or dark storage and up to 54 years for display.

*Colour and special effects availability by press table on Page 12.

“The primary feature I liked was the unique liquid ElectroInk that could create the rich, vibrant colours required for top quality colour and productive printing.” **David Minnett, Managing Director, Group Momentum, Australia**



Secure customers with the most extended PANTONE® colour matching

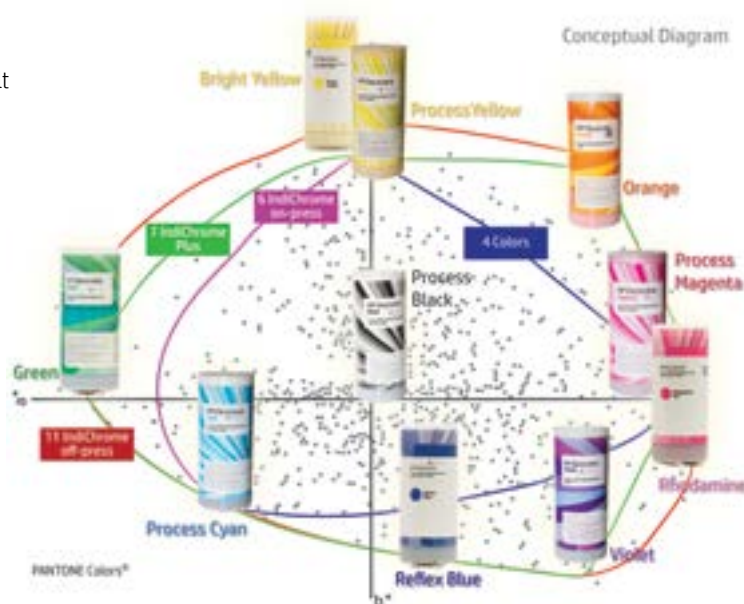
To allow print service providers the highest degree of flexibility in their offerings, HP Indigo has developed the broadest PANTONE-licensed set of solutions. HP Indigo's exclusive PANTONE-licensed toolbox makes it easy to match colours in offset quality.

Impress with the widest on-press colour gamut

The HP IndiChrome and HP IndiChrome Plus solution offering from HP Indigo are the only PANTONE-licensed 6- and 7-colour on-press solution in digital printing, offering CMYK plus orange, violet and green. Highly accurate PANTONE emulations happen on press using an extended colour gamut, saving extra work of ink preparation, replacement and wash-ups. HP Indigo on-press colour simulations support PANTONE PLUS®, PANTONE MATCHING SYSTEM®, and PANTONE Goe™.

Make the most with CMYK

CMYK can go a long way with HP Indigo digital presses. Using HP Professional PANTONE Emulation Technology, PANTONE colours are simulated on press in 4 colours at high accuracy utilising custom-built ICC profiles for specific press/media combinations.



- 4 colours (CMYK)
- HP IndiChrome on-press (CMYKOV)
- HP IndiChrome Plus (CMYKOVG)
- HP IndiChrome off-press (CMYKOVG and reflex blue, bright yellow, rhodamine red, and transparent)



Off-press spot colour mixing delivers the broadest digital colour gamut

Brand conscious customers usually require CMYK plus a specific spot colour. A unique system for HP Indigo digital presses—also standard in the offset process—delivers accurate brand colour matching (Delta E < 1). Simply specify a PANTONE colour, and HP IndiChrome off-press creates the ink with a combination of 11 base colours: CMYK, orange, violet, green, reflex blue, rhodamine red, bright yellow, and transparent. With its support for PANTONE PLUS, PANTONE MATCHING SYSTEM, and PANTONE Goe, HP IndiChrome off-press extends spot colour offerings to more than 3000, covering up to 97% of the PANTONE range.

The diagram on page 4 shows HP Indigo's extensive colour range using CMYK, HP IndiChrome on-press, HP IndiChrome Plus, and HP IndiChrome off-press.



How to create spot colours

Using the HP IndiChrome Ink Mixing System (IMS), spot colours can be made in their precise quantities and on premises. This stand-alone system features state-of-the-art colour measurement.

Together with HP Indigo's Pantone matching tools, the IMS makes spot colour creation an easy procedure. Pre-mixed colours can also be ordered from the HP IndiChrome Ink Mixing Services by specifying the colour number if a large quantity is needed for a specific colour.

Switch unlimited spots seamlessly

To help printers use a variety of spot colours—and frequently change them—HP Indigo's On-press Fast Ink Replacement (OFIR) system eliminates ink replacement downtime for replacing special and spot colours on-the-fly while printing other jobs. The system also helps increase press uptime and productivity, improving colour accuracy and reducing total cost of operation.

“Special colours have been a great success for 1st Byte. We are using the HP IndiChrome Ink Mixing System more or less every day.”

Lawrence Dalton, Managing Director, 1st Byte, UK

Added differentiation with special inks

HP Indigo's 7 ink stations enable the addition of special effect inks, in the 5th, 6th, and 7th stations, to create stunning printed products, offering outstanding differentiation to PSPs and their customers.

Enhance photos with light cyan and light magenta

When used with CMYK process colours, light cyan and light magenta provide an improved image with smoother tone transition and saturated colours, producing photos indistinguishable from silver halide. The additional inks provide a photorealistic appearance that enhances the quality of professional and photo specialty products such as photo prints, photobooks, photo calendars, greeting cards, and more.

Light black inks for professional photography

Light black inks produce high-end monochrome photographic books and professional black-and-white photo prints. Achieve superior grayscale images for black and white photography and mixed colour and black and white imagery.



Use HP Indigo ElectroInk Light Cyan and HP Indigo ElectroInk Light Magenta for portraits to produce more natural skin tones.

“In photography, the quality of colours in prints is paramount. HP Indigo is extremely reliable and consistently delivers the quality that is critical to our business.” **Dr. Dhiraj Kacker, CEO, Canvera Digital Technologies Pvt. Ltd., India**

Make an impact with HP Indigo ElectrolInk White

HP Indigo is the only digital press vendor serving the sheetfed market that offers white ink, opening new opportunities to enhance creative printing capabilities and grow business. Use white ink to print high-value applications for marketing agencies and brand owners, and to bring new highlights to existing designs on a diverse range of media, including coloured, metallic, and transparent substrates.

Using white ink extends capabilities in many applications:

- Greeting cards, invitations and postcards
- Point-of-sale and special offer displays
- Signage for storefronts
- High-impact, personalised direct mail campaigns

When printing labels and packaging with HP Indigo presses, HP Indigo ElectrolInk White creates an opaque appearance and solid backing for labels, shrink sleeves, and flexible packaging applications. This enables effective use of unique, high-value substrates including clear, metallised, and coloured.



Create dramatic effects using HP Indigo ElectrolInk White, on metallic, transparent and dark substrates.

Pink is the new black

Stand out and glow with HP Indigo ElectrolInk Fluorescent Pink, offering high-value pages for greeting cards, promotional collateral, fashion applications, specialty products, publishing opportunities and more. For a wow effect, use UV lamps to make the fluorescent pink ink glow in the dark.



Offer high-value products with HP Indigo ElectrolInk Fluorescent Pink.

Digital ink priming

More than 3000 media types are certified for Indigo commercial presses. But what if you need to meet a special request or need another option?

The new on-press ElectroInk Primer is your answer. Use HP Indigo ElectroInk Primer to print on an extended range of substrates, including standard offset stock and specialty papers.

The primer is contained in a special transparent ElectroInk and delivered during the printing process through an on-press ink station. As it is applied as an ink, the DFE simply creates an additional separation that selectively applies the ElectroInk Primer only in the areas with images.

Invisible print

With HP Indigo ElectroInk Invisible Red, customers can create jobs with text or barcodes that are visible only under UV light. Create text, images, and barcodes for various applications such as cards, direct mail, and in-house processing and control.



If there is a need to print on off-the-shelf stock including paperboard and specialty papers media, this can be achieved by the application of HP Indigo ElectroInk Primer.



Outstanding special printing effects

HP Indigo offers outstanding differentiation to the print service provider with on press special effects for unique, high-value digital applications. All effects are created on-press, making the process especially attractive for short- to mid-length runs and enabling fast turnaround time. Plus, the on-press process saves on costs compared with laborious traditional methods, bringing new levels of production flexibility to commercial printers.

Textured and reverse textured effects

Patterns are impressed into the substrate from a mold created on the press using layers of ElectroInk. This gives the paper an embossed look that is created without leaving ink behind. Produce high-value invitations, business cards, greeting cards, book covers, and more.

Raised print

Create Raised effects and designs of varying heights for high-value marketing promotional materials using layers of HP Indigo ElectroInk Transparent applied directly to the substrate.

Digital watermarks

Offer customers a new digital application for corporate identity and basic security using only one layer of HP Indigo ElectroInk Transparent.



Digital matte gives a sophisticated gloss effect

HP Indigo ElectroInk Digital Matte creates a differential gloss effect to add a spot varnish look—an effect that always captures attention. Compared to offset spot varnish processes, HP Indigo ElectroInk Digital Matte is lower in cost for short runs and also requires less press time.

Graphic designers will love HP Indigo ElectroInk Digital Matte for its creative possibilities, while customers will marvel at the outstanding artistic and marketing appeal of their materials. The pieces printed with HP Indigo ElectroInk Digital Matte can also improve revenues and increase gross margins.



This sophisticated invitation was printed on an HP Indigo 7800 Digital Press with HP Indigo ElectroInk Digital Matte.

“We have a number of customers that are looking to add value to products. Anything we can do to add new features, new benefits to the products is something we are keen to take to market.” **Nick White, Product Development Director, Mimeo, UK**

Labels and Packaging inks

Inks developed especially for labels and packaging applications give you the advantage to expand HP Indigo digital applications and provide high-quality printing to your customers.

Opaque white

HP Indigo ElectroInk Premium White is a versatile, opaque white, delivering up to silk screen white opacity for label printing in single print process with a thin white layer, fully dried and cured on impact. Achieve the widest range of opacity, from 59% to 81%, in a single print process. For flexible packaging applications, Premium White delivers gravure-matching white.

Slip on your sleeves

The high-slip HP Indigo ElectroInk White for Sleeves improves efficiency in the converting of shrink sleeves by reducing the coefficient of friction (CoF).

- The only one-pass digital process for shrink sleeve printing
- CoF level stabilises below 0.25 (dynamic) within 24 hours of printing
- Wax-based additives - does not contain silicon
- No extra processes are required for CoF level stabilisation; the roll can be slit and seamed during this time
- The ink maintains the same appearance as HP Indigo ElectroInk White for WS6000 series presses and the HP Indigo 20000 Digital Press.

"HP Indigo White for Sleeves ink streamlines our production process in terms of time and labor by eliminating the need to apply a high-slip varnish. That gain, between 25 and 30% in productivity, means our customers receive the printed shrink sleeves that much earlier and also minimizes hold-ups in production at the bottling factory." **Francesco Lorusso, digital department manager, Eurostampa**

Go outdoors!

HP Indigo ElectroInk Fade Resistant Yellow and HP Indigo ElectroInk Fade Resistant Magenta are an ink set for expanding the addressability of applications that require a high level of lightfastness in outdoor conditions.

Violet for Packaging

Developed specifically for food packaging applications, HP ElectroInk Violet for Packaging is designed to ensure that HP Indigo customers can meet specific regulatory specifications for food and pharmaceutical applications. The ink uses only the substances listed in the Swiss regulations and its positive list, considered the international standard of food packaging safety regulation.



Exceptional quality, largest selection of digital colours

HP Indigo has the solutions to meet your customers' needs to deliver unique, differentiating prints.

HP Indigo ElectroInk CMYK process colours
PANTONE PLUS®, PANTONE MATCHING SYSTEM®, and PANTONE Goe™

Widest digital on-press colour gamut system

HP IndiChrome on-press
& HP IndiChrome Plus*

Achieve a broad colour gamut using
6 or 7 colours:

CMYK + Orange
Violet } IndiChrome on-press

CMYK + Orange
Violet
Green } IndiChrome Plus

Spot inks for accurate brand colour matching

HP IndiChrome off-press

Achieve precise spot colours via the
Ink Mixing System by mixing the
following inks:

Orange
Violet
Green
CMYK + Reflex blue
Rhodamine red
Bright yellow
Transparent

cover up to
97% of the
PANTONE
colour range

Differentiation through special inks

Achieve superb print quality and
expanded application range by
using special effect inks*:

White, Premium white,
White for sleeves
Transparent
Light cyan, Light magenta
Digital matte, Primer Ink
Light black
Invisible red
Fluorescent pink
Fade resistant yellow/magenta

PANTONE PLUS, PANTONE MATCHING SYSTEM *availability
depends on specific press and print server

PANTONE PLUS, PANTONE MATCHING SYSTEM, and
PANTONE Goe

*availability depends on specific press

HP Indigo ElectroInk availability by press

	CMYKOVG	Spot colours	Light cyan/ light magenta Light black/ light light black	White	Digital matte	Invisible red	Fluorescent pink	Fade resistant	Special effects printing	Primer Ink
Commercial Presses										
HP Indigo 12000 and HP Indigo 10000	√	√	LC/LM only	√			√ (10000*)			√ (10000*)
HP Indigo 7900 and HP Indigo 7000 Series	√	√	√	√	√	√	√		√	√ (7800/7600 7500/7r)
HP Indigo 5900 and HP Indigo 5000 Series	√	√	√	√	√	(5900/5600 5500/5r)	(5900/5600 5500/5r)		Watermarks (5900/5600 5500/5r)	√ (5600/5500/5r)
HP Indigo 3600 and HP Indigo 3000 Series	CMYK	√								
HP Indigo W7250	√	√								
HP Indigo WS6800p	√	√	LC/LM	√						
Labels and Packaging Presses										
HP Indigo 30000	√ +Violet for packaging	√		√						
HP Indigo 20000	√ +Violet for packaging	√		White, Premium White*, White for Sleeves						
HP Indigo 8000	√ +Violet for packaging	√		White, Premium White*, White for Sleeves			√	√		
HP Indigo WS6800 and HP Indigo WS6000 Series	√ +Violet for packaging	√		White, Premium White, (WS6800, WS6600, 6r) White for Sleeves			√	√		

* Available 2017

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