



KONICA MINOLTA

JETVARNISH3D Web400
One Pass Digital Spot UV Varnish & Hot Foil Stamping

IGNITE YOUR PRINT POTENTIAL

**BRING LABELS AND FLEXIBLE
PACKAGING TO LIFE WITH SPOT
UV VARNISH AND HOT FOIL STAMPING**



Giving Shape to Ideas

EMBRACE SUSTAINABILITY, SCALABILITY, AND SIMPLICITY

Introducing the 100% Web-Fed Digital Embellishment Solution, the JETvarnish 3D Web 400, that seamlessly integrates Spot UV Varnish, Hot Foil Stamping, and Variable Data Printing in a single pass. Experience superior digital roll-to-roll embellishment technology that's user-friendly, environmentally conscious, easily scalable, and adds high value to your brand.

Tailored for the evolving needs of the self-adhesive label and flexible packaging sectors, the JETvarnish 3D Web 400 stands as the ultimate solution meeting demands for heightened responsiveness, superior quality, and increased value. It enables converters and printers to reduce their customers' time-to-market, while transforming the impact of their labels and packaging on the shelf, in full compliance with their environmental strategies.



The versatile JETvarnish 3D Web 400 meets the most varied requirements for short, medium and long runs, by enhancing basic four-color production with digital spot UV varnish and hot foil stamping in fixed or variable data, flat or embossed, facilitating multi-runs and versioning.

HIGH QUALITY 100% DIGITAL

The JETvarnish 3D Web 400 enables inkjet application of Spot UV varnishes, from 7 to 232* microns, for the most beautiful flat or relief renderings, with an unrivalled level of quality and stability, on all types of substrate, open, closed and synthetic. Its on-the-fly registration, controlled by the artificial intelligence of its AIS Scanner, offers perfect, stable registration throughout the print run, whatever the skew, stretch or contraction of the printed web. Hot foil stamping is applied to an inkjet-printed adhesive varnish, using the same methods as for UV varnish, guaranteeing a high level of quality.

PRODUCTIVITY, RESPONSIVENESS AND SPEED OF IMPLEMENTATION

Equipped with one or two inkjet print engines, the JETvarnish 3D Web 400 applies Spot UV varnish and hot foil stamping in a single pass, at up to 42m/minute. Its on-the-fly makeready system makes it easy to run back-to-back prints one after the other. Its automatic cleaning system takes just minutes a day, so you can concentrate on production.

SUSTAINABILITY & DE-INKABILITY

The JETvarnish 3D Web 400's 100% digital process eliminates the need for conventional intermediate consumables (cliches, plates and screens) and solvents, which are particularly polluting and generate subcontracting, transport and packaging waste. Its small footprint and low power consumption immediately reduce CO2 emissions. Its automatic on-the-fly makeready eliminates waste, optimizing raw material consumption.

In parallel, JETvarnish 3D Web 400 UV Varnishes and Foils also meet the Ingede 11 de-inkability standard for certain substrates, allowing printed paper to be recycled in the interest of a circular economy.



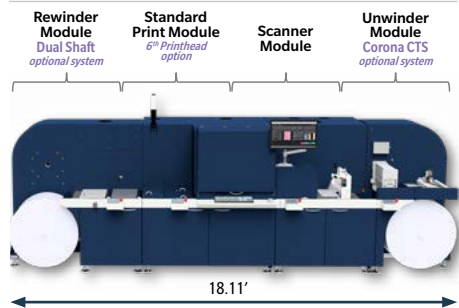
- Enhanced UV protection with lower energy consumption than traditional UV systems
- No make-ready, no plates (offset), no screens (silkscreen), no dies (hot foiling), no waste (electricity, paper, varnish, and time)
- No cleaning steps between jobs (automatic inkjet head cleaning system)
- Reduction of consumables (elimination of many plastics)

NEW MODULAR CONFIGURATION:

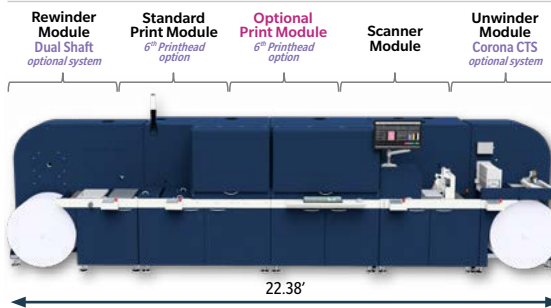
ONE TECHNOLOGY, FOUR CONFIGURATIONS, ALL UPGRADEABLE ON DEMAND

Totally upgradeable, the JETvarnish 3D Web 400 is made up of modules that enable printers and converters to easily upgrade it as their finishing business grows. Available in 4 configurations - with one or two inkjet engines and with or without hot foil unit - the JETvarnish 3D Web 400 caters to diverse needs and budgets.

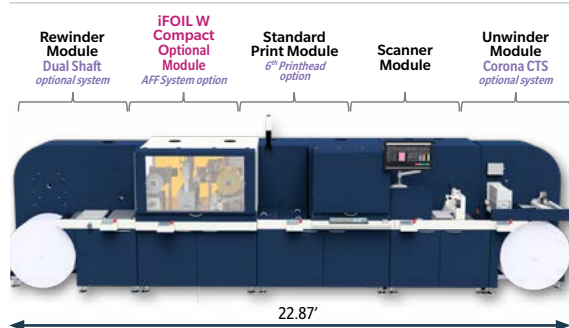
CONFIGURATION #1 ENTRY (varnish only)



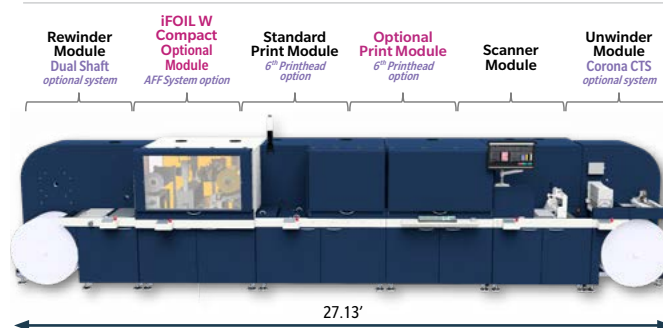
CONFIGURATION #3 (two print modules)



CONFIGURATION #2 (varnish + foil)

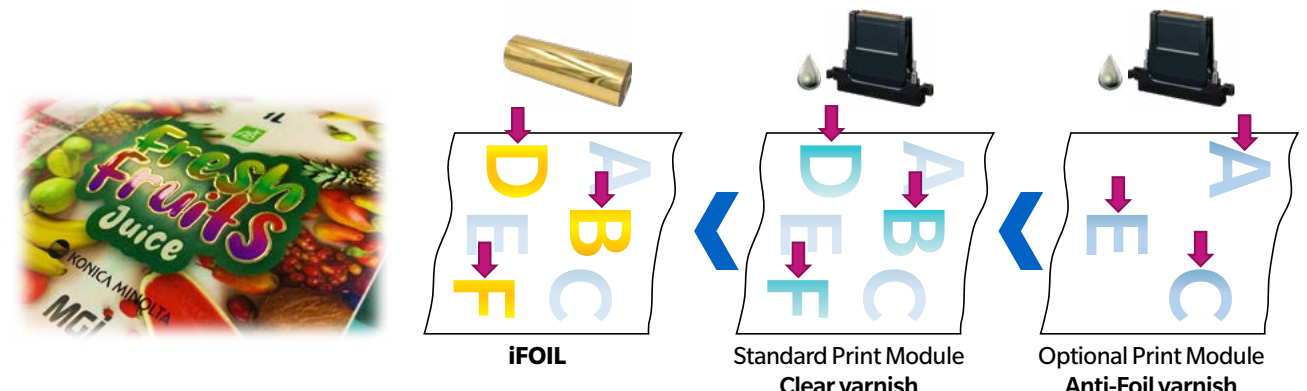


CONFIGURATION #4 FULL (two print modules + foil)



LIMITLESS POTENTIAL WITH ONE PASS EMBELLISHMENT

Discover the possibilities with One Pass Embellishment, which requires both the optional Printer #2 as well as the optional iFOIL W400. Unlike past JETvarnish models, the JETvarnish 3D Web 400, when equipped with these two options, effortlessly delivers pure Spot Coated areas next to pure foiled areas, all in just One Pass!



- 3RD STEP** - iFOIL W400 applies foil film on the entire substrate surface. Only areas covered with regular Clear varnish in step #2 will be foiled.
- 2ND STEP** - Standard printer module applies regular Clear varnish on the areas that will require foil later on.
- 1ST STEP** - Optional printer module applies Anti-Foil varnish on surfaces that will remain as spot varnish areas.

JETVARNISH 3D WEB 400 OVERVIEW

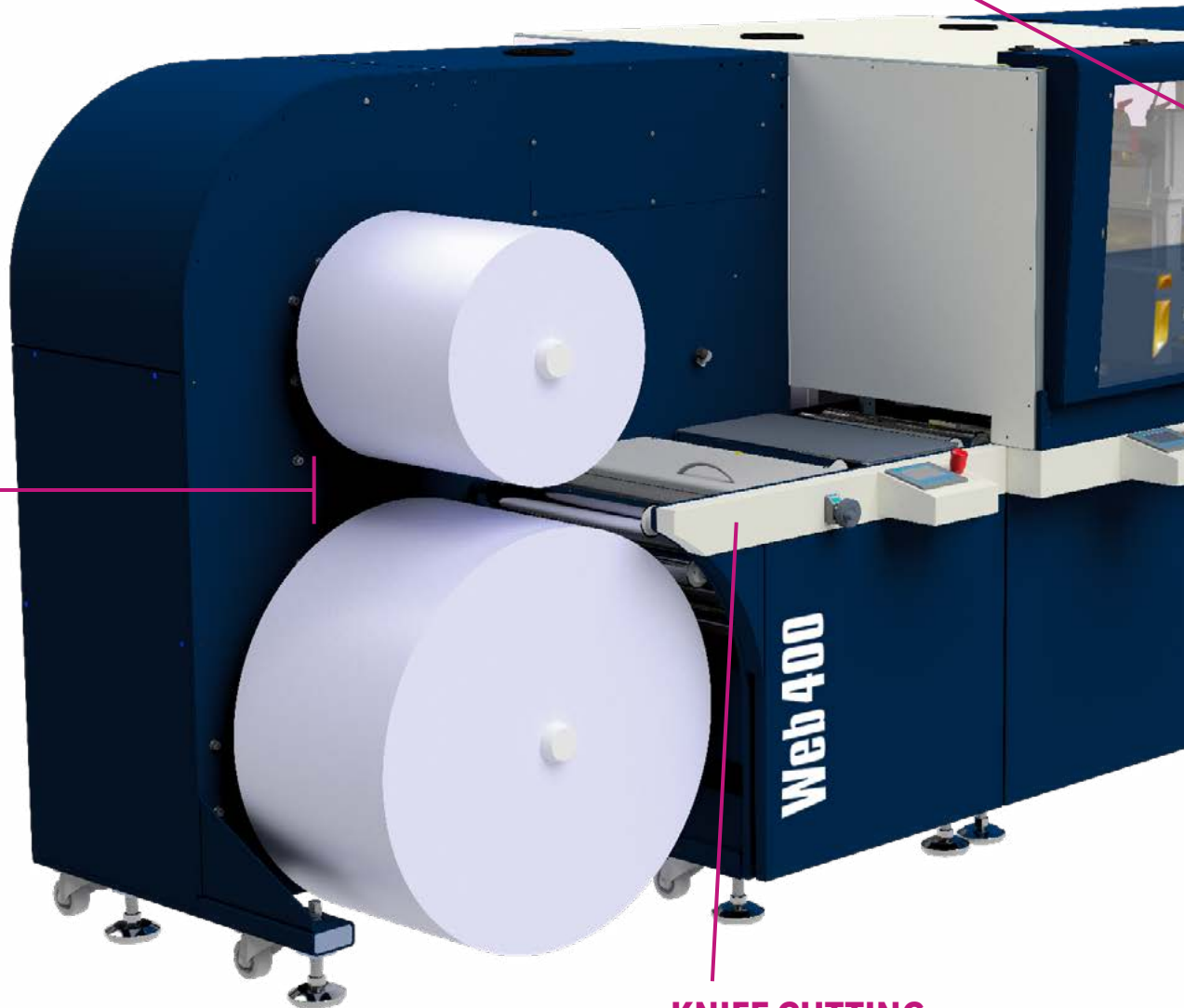
MAIN INKJET PRINT ENGINE

- Exclusive inkjet technology
- Uses Konica Minolta's genuine piezoelectric printheads
- Spot UV varnish flat or embossed
- UV varnish from 7µm to 116µm
- Maximum usable width of 350 to 400* mm

NEW iFOIL W400 GROUP GENERATION

- New digital hot foil stamping unit
- More compact and faster
- Offering improved productivity
- Compatible with 1" or 3" cores
- Features all-new heated roller

SINGLE OR DOUBLE* MOTORIZED REWINDER



KNIFE CUTTING

Rotating knife cutting module produce coils at the machine output, before transferring them to a finishing / weeding press.

OPTIONAL INKJET PRINT ENGINE

- Exclusive inkjet technology
- Uses Konica Minolta's genuine piezoelectric printheads
- Spot UV varnish flat or embossed
- UV varnish from 7µm to 116µm
- Maximum usable width of 350 to 400* mm
- New Anti Foil Varnish enables varnish + foil stamping in a single pass

PILOTING STATION

- Intuitive control station replicable on a tablet
- Enables production to be planned, launched and tracked
- OEE to be calculated and optimized in real time
- MGI Dashboard predictive maintenance management

CORONA TREATMENT SYSTEM (CTS) OPTION

- Optional in-line system enables a broader variety of media to be used
- Improves varnish adhesion and maximizes embellishment quality on digital prints

MOTORIZED FEEDING UNWINDER

- Easy-to-use module for unwinding of rolls
- Outside diameter up to 850 mm
- Reversible, rewinds rolls with precision
- Supported widths: 100-420 mm

VARIABLE DATA PRINTING (VDP)

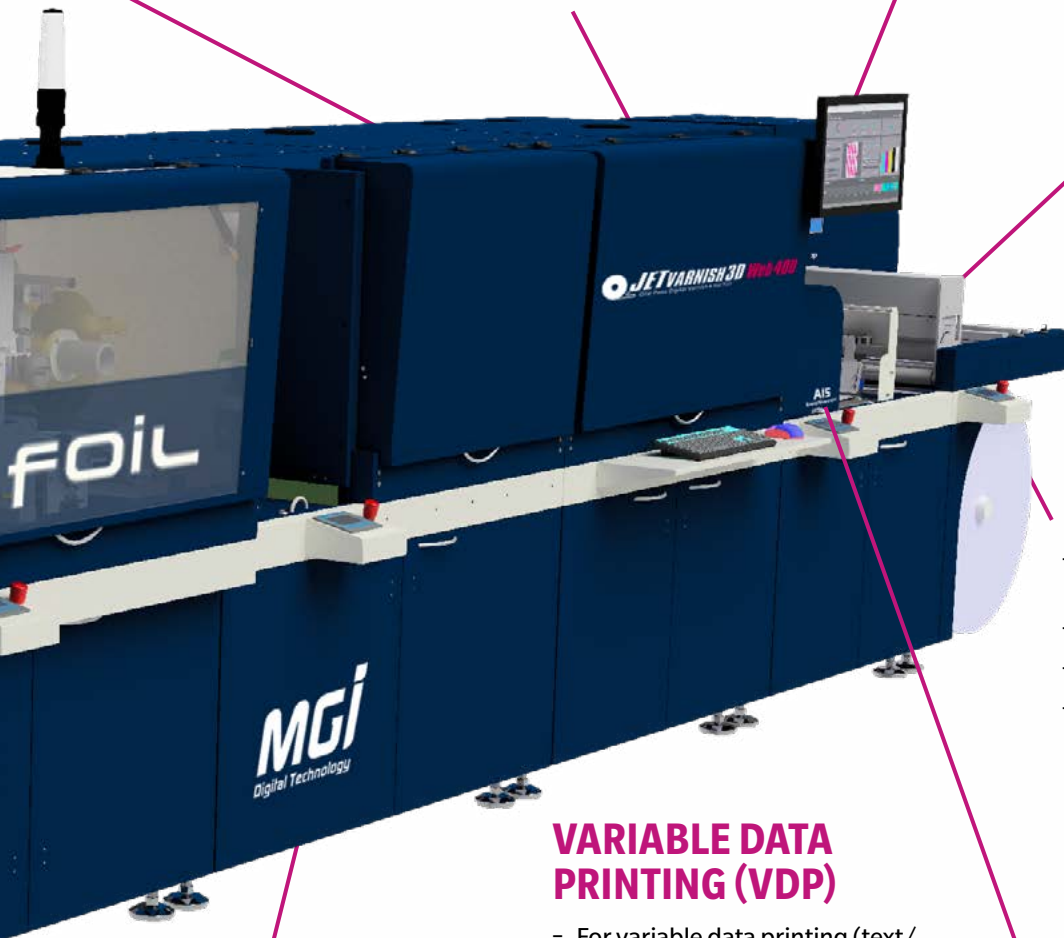
- For variable data printing (text/ graphic and image) on 2D/3D spot coating areas
- Optional VDP barcode scanner available

REVOLUTIONARY AIS REGISTRATION SYSTEM

- Automatic varnish and hot foil registration system
- Eliminates more than 80% of the setup time spent on the registration adjustment process
- No drop in speed
- Automatically calculates the need for adjustment and applies it without operator intervention

3 DRYING TECHNOLOGIES

- 3 complementary drying technologies for perfect embellishment quality
- Main print engine: LED+ IR+ UV
- Optional print engine: high-power LED



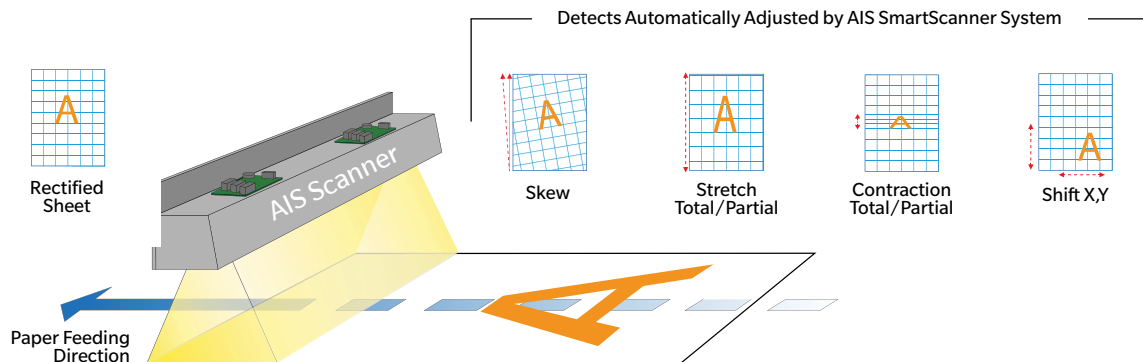
ARTIFICIAL INTELLIGENCE SMARTSCANNER (AIS)

The AIS system is a revolutionary registration development for the printing and finishing industry:

- Eliminates over 80% of operator setup time spent on registration processes
- Allows quick and seamless integration within job workflows with a “scan and register” setup process
- Supports rapid equipment amortization with increased throughput, faster job completion and greater productivity
- Removes unnecessary operator wage costs and paper make-ready waste

The patented AIS system uses Artificial Intelligence to create an automatic varnish and hot foil registration for inkjet heads over printed web rolls. It's fully compatible with Variable Data Finishing (VDF) jobs. Using print image and inkjet synchronization algorithms, the AIS system runs at more than 5 billion operations per second. Without operator intervention or a decrease in feeding speed, it makes corrections and adjustments for any defects generated by the original offset or digital printing run and lamination process. For example:

- Sheet and image skew
- Sheet and image stretch – partial or total
- Sheet and image contraction – partial or total
- Sheet and image shift on X and / or Y direction



MORE FEATURES FOR MORE ADDED VALUE

iFOIL W400 Digital Embossing and Hot Foil Stamping

The JETvarnish 3D Web 400 offers a fully integrated, in-line Hot Foiling System option. This module can be installed at the time of purchase or in a future upgrade. The scalability of foil customization and personalization enables printers and trade finishers to expand into profitable new market segments. Spectacular and unique effects are now available within a 100% digital process.

The JETvarnish 3D Web 400 and iFOIL W400 combinations create both visual and tactile excitement that print buyers, end users and brand owners are looking for, to distinguish their products in the marketplace.

Variable Data Printing (VDP)

- The JETvarnish 3D Web 400 opens a world of possibilities with its variable data printing option. Just imagine the impact it will have, pushing the limits on personalizing self-adhesive labels with varnish and hot foil variable data printing.
- You'll be able to make basic customization with standard information such as name, version, sentence, etc. Or you can realize full customization with multiple criteria such as images, text, layout, etc., to create a truly unique piece.
- Optional high-performance PC RIP with software and optional VDP camera system required.



CERTIFIED FOILS

See our full range of hot foil stamping films manufactured and certified for JETvarnish presses, guaranteeing optimum quality.
11 traditional references and 2 security references.

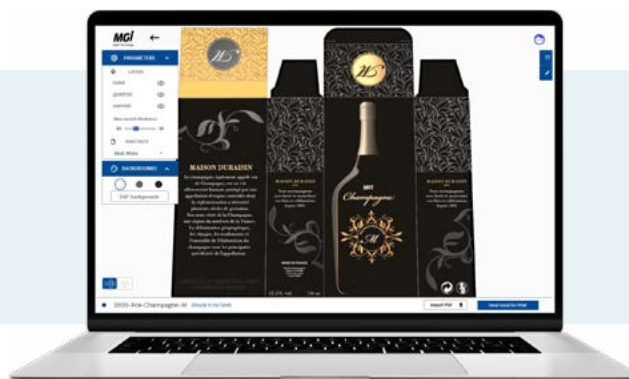
IMPROVED PRINTABILITY ON VARIOUS SUBSTRATES

The Corona Surface Treatment System (CSTS) is an optional module that works in-line with the JETvarnish 3D Web 400. It's a well-proven and simple way to modify the surface tension of a substrate to improve the printability of a variety of substrate materials, regardless of the printing process. It minimizes using the time consuming and costly lamination process. Before the corona treatment, some substrates have a low surface energy, not allowing the varnish to "wet" homogeneously to the substrate, thus creating surface defects.

The CSTS uses an electric discharge transferred on the substrate using an electrode. The surface of the substrate is modified and better prepared prior to spot coating and eventually hot foiling. CSTS really pays off by increasing the dyne level or surface energy of the material, allowing the varnish to be perfectly laid.

EASE OF USE, PREDICTIVE MAINTENANCE, COST CALCULATION AND ONLINE APPROVAL IN AUGMENTED REALITY

Controlled by a simple, intuitive interface that can be replicated on a digital tablet, the JETvarnish 3D Web 400 enables any operator to perform complex finishing operations that are impossible to achieve with conventional technologies. Its MGI Connect software suite integrates cost calculation, MGI Dashboard predictive maintenance, and MGI Approve a web-based, augmented reality proofing and online business development service, facilitating the sale of digital finishing through project visualization, interaction with customers, reduced decision time and online approval with digital signature.



FULL ROTARY FLEXO UV STATION

- In-line rotary flexo UV station for full or sleeve printing (used to apply a primer coat prior to finishing)
- Makes UV varnish and hot foiling finishing possible on many substrates including coated and uncoated materials, synthetics, paper, light cardboard, plastics (PVC, PETG), shrink-sleeve and laminated films (ex. beverage, cosmetics and healthcare label stocks, wine stock)

DIE CUTTING UNIT

- Optional semi-rotary die cutting unit to finish labels in-line
- 2 slitter knives as standard (10 max.)
- Standard Gap master system



All the benefits of 5.0 Factory now available

Thanks to its 100% digital integration and unified workflows, from customer's online approval in augmented reality, to real-time monitoring of production status, the JETvarnish 3D Web 400 can already deliver all the benefits of a Factory 5.0: optimal quality, reduced production costs, reduced environmental impact, job enrichment, and well-being at work.

With the JETvarnish 3D Web 400, all the benefits of 5.0 Industry become accessible, for a successful digital transformation and an immediate return on investment.



JETVARNISH 3D WEB 400

WEB-FED DIGITAL SOLUTION FOR EMBOSSED HOT FOILING AND 2D/3D SPOT UV COATING

TECHNICAL SPECIFICATIONS

Printing speeds	Up to 42m/mm (depending on application) Speed will vary according to printing parameter used	Motorized Rewinder	<ul style="list-style-type: none"> Servo-motorized unit 850 mm (33.5") maximum roll diameter capacity Standard inside core diameter: 3" Pneumatic 3" chuck Maximum supported roll weight: 120 kg (264 lbs.)
Supported web widths	From 100 mm (3.93") up to 420 mm (16.5")	Options	<p>Corona substrate treatment module: In-line system made to optimize varnish adhesion on complex printed substrates.</p> <p>UV flexo station: An integrated flexo station for full-size sleeve coating.</p> <ul style="list-style-type: none"> Apply a UV primer coating prior to finishing UV dryer included Equipped with an anilox cylinder 15 cm³/m² Additional anilox cylinders are available as upgrade options Anilox Roller compatibility from 4 to 20 cm³/m² Automatic filling of Coating/Primer from an external tank Doctor Blade system <p>Variable Data Printing:</p> <ul style="list-style-type: none"> Manage and edit files on the workstation Full variable data (text, graphic, image) for both 2D/3D spot coating and hot foiling areas Integrated barcode (1D/2D) reader system and controller Raster Image Processor (RIP) <p>400mm Printing Area Extension: Extends the printable width from 350 mm (13.8") up to 400 mm (15.7"). Engines configured with optional print engine will require two Printing Area Extension options.</p> <p>Automatic Foiling Function: This function is dedicated to the iFOIL W400. It allows to activate or deactivate the hot foiling in the middle of a production.</p> <p>Die cutting unit: A semi-rotary die cutting unit to finish labels in-line.</p> <ul style="list-style-type: none"> 21" magnetic cylinder included Automatic registering system Format in semi-rotary: 100 mm (3.93") up to 420 mm (16.5") Gap master system for die height adjustment included Two working modes: Cutting & Bypass <p>Rewinder Dual Shaft: Dual shaft motorized rewinder. Max. diameter 600mm (23.6"), 3" pneumatic chuck and max. supported weight 120 kg (264 lbs.)</p>
Finishing width	Standard image width is 350 mm (13.8") Maximum image width is 400 mm (15.7") with option	Operating environment	<p>Temperature: Min. 18° C (64° F) to Max. 30° C (86° F)</p> <p>Relative Humidity (RH): Min. 30% to Max. 50% RH</p> <p>Air Quality: Environment without dust is mandatory to preserve the varnish against particle pollution</p>
Image dimensions	<p>Length (feeding direction):</p> <ul style="list-style-type: none"> From 50 mm (1.96") to 980 mm (38.6") in Standard Mode (according to the substrate/shape) From 50mm (1.96") to 530 mm (21") in VDP Mode (according to the substrate/shape) <p>Width (cross direction):</p> <ul style="list-style-type: none"> Up to 350 mm (13.8") with standard configuration (according to the substrate/shape) Up to 400 mm (15.7") with optional Printing Extension Kit installed (according to the substrate/shape) 	Dimensions and weight	From 5.53 m (18') up to 8.27 m (27') x 1.91 m (6.3') x 2.13 m (7') Clearance requirements: 1 meter on all 4 sides Max. Weight: 4,220 kg (9,303 lbs.)
Substrate types	From 50 microns up to 300 microns (µm) <ul style="list-style-type: none"> Coated, uncoated and textured paper Self-adhesive labels White or transparent synthetics, PP, PE, POPP, PET Light cardboard / folding carton Shrink film: PVC, PETG 	Technical requirements	400 V - 3Ph 240 V - 1Ph Oil-free dry air 8 bar - 400 L/mn
Wide compatibility	Compatible with the overall web-to-web printing technologies, narrow web digital presses and the traditional offset or flexo narrow web presses	Printing press compatibility list	Narrow web printing presses Digital: (Konica Minolta, HP Indigo, Epson, Xeikon, EFI, Durst, etc.) Offset: All manufacturers and technologies: UV, H ₂ O or waterless Flexo: All manufacturers and technologies: UV or water-based
Unwinder	<ul style="list-style-type: none"> Maximum roll diameter capacity: 850 mm (33.5") Standard inside core diameter: 3 inches Maximum roll weight: 120 kg (264 lbs.) 	Speed will vary according to printing parameter used. <i>Confirm substrate/lamination/toner/metallic film compatibility with Konica Minolta.</i>	
AIS Smartscanner	The AIS Smartscanner an artificial intelligence-driven scanner, scans each application to be finished, automatically adapting the application of bonding varnish according to substrate deformation (skewing, partial or total stretching, partial or total contraction and X and/or Y offsets). The colour cameras bring more accuracy for job acquisition and web edge detections. Registration tolerance ± 200µm.		
Main Spot UV coating and embossing print engine	<p>This station uses exclusive DoD inkjet technology for producing Spot UV coating. Any defined label area can receive Spot UV coating with or without raised 3D texture effects. A simple grey level TIFF file designed by prepress controls the surface area and the thickness of the varnish applied over the printed roll.</p> <p>Varnish thickness: From 7µm to 116µm of varnish thickness (from 2D flat coats to 3D raised effects)</p> <p>In-line drying: Integration of three complementary technologies: LED, IR, UV</p> <p>UV varnish: Gloss varnish. 99 GU</p> <p>Varnish Canister: 18 liters</p> <p>Recommended Varnish Type: UV Clear Varnish (batch D)</p>		
Chiller station	Equipment comes with a chiller to cool down heat sensitive substrates		
Optional Spot UV coating and embossing print engine	<p>This station uses exclusive DoD inkjet technology for producing Spot UV coating, which does not adhere to hot foil stamping. This optional module enables varnish + foil stamping in a single pass.</p> <p>Varnish thickness: From 7µm to 116µm of varnish thickness (from 2D flat coats to 3D raised effects)</p> <p>In-line drying: The module is equipped with high-power LED drying technology</p> <p>UV varnish: Gloss varnish. 99 GU</p> <p>Varnish Canister: 18 liters</p> <p>Recommended Varnish Type: Anti-Foil LED Varnish</p>		
iFOIL W400 hot foiling station	<p>The hot foiling station adds luxurious effects and brand value to label and packaging products. Any defined label area can receive digitally-controlled foil with or without raised effects.</p> <p>Production Speeds: Up to 42m/mn (depending on application).</p> <p>Foil rolls:</p> <ul style="list-style-type: none"> Foil width supported: 320 mm (12.6") Foil roll core diameter: 1" and 3" as a standard feature 1" Core: Foil Films up to 400 m long 3" Core: Foil Films up to 2,000 m long 		



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