

100% DIGITAL EMBELLISHMENT

SPOT UV VARNISH, HOT FOIL STAMPING & VARIABLE DATA IN A SINGLE PASS



Roll-to-roll digital embellishment technology, easy to use, eco-friendly, scalable and generator of high added value.



Technical Specification

Print speed

Up to 42m/min⁽¹⁾ (depending on application).

Supported widths

From 100 mm to 420 mm⁽¹⁾

Useful printing width

• From 350 to 400 mm⁽¹⁾ max.

Substrats⁽²⁾

From 50 to 400 microns (µm)

- Coated, uncoated or textured paper
- Transparent or metallic film
- Adhesive labels
- White or transparent synthetics, PP, PE, POPP, PET
- Flexible cardboard
- Shrink film: PVC, PETG

Printing compatibility

Compatible with all web-fed printing technologies: digital, offset and flexographic printing technologies.

Unwinder

- Max. outer diameter 850 mm
- Pneumatic chuck
3 inches (76 mm)
- Max. supported weight 120 kg

Flexographic UV station

An integrated flexo station, for flood coating. This station is used to apply a full coating prior to embellishing. The station is equipped with an anilox cylinder. This module comes with a UV dryer.

Corona treatment⁽¹⁾

Inline system dedicated to optimize varnish adhesion on complex printed and laminated substrates.

AIS Smartscanner

An artificial intelligence-driven scanner, the MGI AIS Smartscanner scans each printed image to be embellished, automatically adapting varnish application to substrate deformation (skew, partial or total stretching, partial or total contraction and X and/or Y offsets). The AIS Smartscanner enables on-the-fly set-up of the JETvarnish 3D Web 400, eliminating 80% of traditional set-up and adjustment time. The high productivity accelerates the equipment's amortisation, eliminating waste of materials and consumables.

Main inkjet motor

Inkjet print engine

This module uses MGI inkjet technology to apply spot UV varnish. A simple grayscale TIF file, designed by the prepress department, determines both the surface to be varnished and the different thicknesses of varnish to be applied to each label. This 100% digital process eliminates the need for screens.

Varnish thickness

From 7⁽²⁾ to 116⁽²⁾ µm
For flat 2D or 3D effects.

In-line drying

Integration of three complementary technologies: LED, IR, UV.

Spot UV varnish

99GU high-gloss varnish.

Optional inkjet motor

Inkjet print engine

This module uses MGI inkjet technology to apply spot UV varnish, which does not adhere to hot foil stamping. This optional module enables varnish + foil stamping in a single pass.

Varnish thickness

From 7⁽²⁾ to 116⁽²⁾ µm (for 2D or 3D effects).

In-line drying

The module is equipped with high-power LED drying technology.

Spot UV varnish

99GU high-gloss varnish..

Hot foil stamping module

The hot foil stamping module adds tremendous value to all your self adhesive labels, shrink sleeves, packaging, book covers...

A simple TIF file, designed by the prepress department, determines the surface that will receive the foil for each label. Embossing of the foil is possible, depending on the thickness of the adhesive varnish applied. This 100% digital process eliminates clichés. This module can be disengaged at any time.

Film widths from 100 to 420 mm :

- 2 cores available: 25.4 mm (1 inch) and 76 mm (3 inches)

Stamping film lengths of 400 or

2,000 meters :

- Up to 3 stamping reels on the same web.

Die-Cutting Unit

This semi-rotary die-cutting module is available as an option for in-line die-cutting, slitting and weeding of rolls and rolls finished on the JETvarnish 3D Web 400. It features a 21" magnetic cylinder as standard and an automatic registration system. It includes 2 slitting knives, as well as a rewinder for the slitting die. Format from 100 to 480mm; maximum slitting diameter 600m; 2 slitting knives as standard (up to 10 possible); Gapmaster system as standard.

Motorized rewinders

- Outside diameter 850 mm max.
- 3-inch (76mm) pneumatic chuck
- Max. supported weight 120 kg. Dual shaft motorized rewriter option. Max. diameter 700mm. Pneumatic chuck 3" (76mm) and max. supported weight 120kg.

Variable data

- Managing and modifying files on the operator interface
- Complete variable data (text, graphics, image) for areas with spot UV varnish and foil stamping.
- Integrated barcode reader (1D / 2D)
- Optional Raster image Processor (RIP)

Press compatibility list d'impression

Narrow web printing presses

- Digital
Konica Minolta, HP Indigo, Epson, Xeikon, EFI, Durst, etc.
- Offset
All manufacturers and technologies: UV, H2O or waterless
- Flexo
All manufacturers and technologies: UV or water-based

Dimensions

From 5.52m to 8.275 x 1.91 x 2.13 m. Clearance required: 1 meter on all 4 sides.

Technical specifications

400 V - 3Ph

240 V - 1Ph

Oil-free dry air 8 bar - 400 L/mn

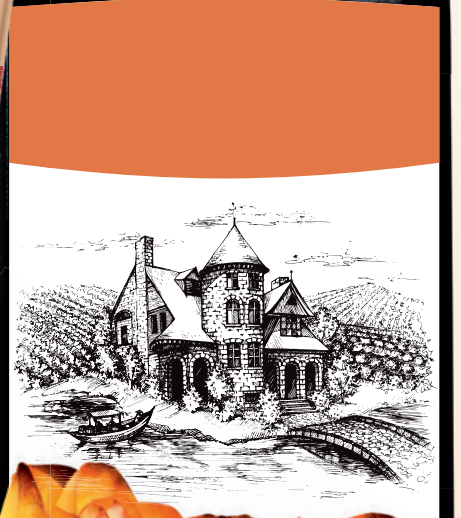
All speeds are nominal.

⁽¹⁾ speed varies according to parameters used.

⁽²⁾ contact MGI to check substrate compatibility.

^(*) optional





RUSSIAN TRADITION
LUXURY FOOD

RUSSIAN TRADITION
LUXURY FOOD

Spot or total application of a flat or embossed UV varnish, on a maximum usable width of 350 to 400 mm. UV varnishes from 7 to 116 microns

INKJET PRINT ENGINE

Intuitive control station, replicable on a tablet, enabling production to be planned, launched and tracked, OEE to be calculated and optimized in real time, and print data from all productions stored in the cloud to be accessed at any time. MGI Dashboard predictive maintenance management.

PILOTING STATION



Corona module modifies surface tension and facilitates varnish application on certain toner / inkjet digital prints. It increases press versatility by expanding the range of substrates that can be processed.

MODULE CORONA^(*)

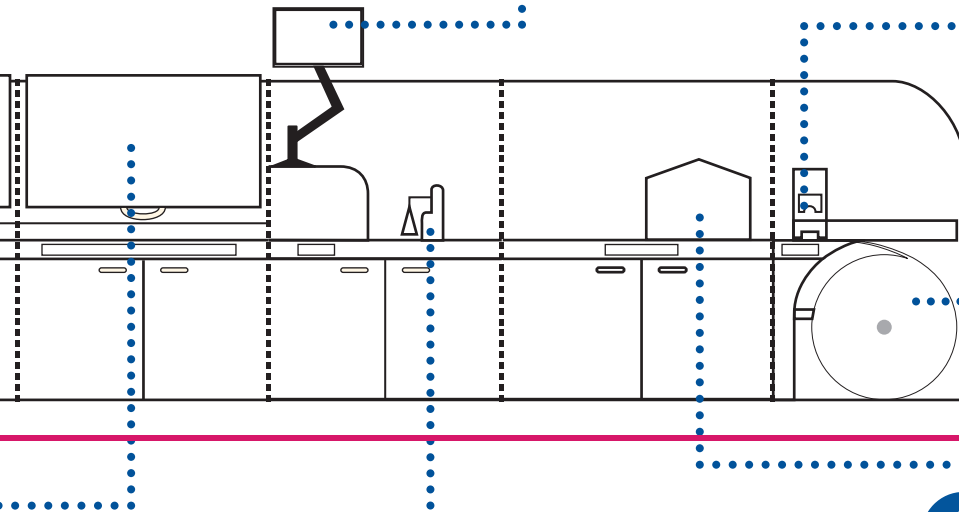
Easy-to-use module for even unwinding of rolls up to 850 mm in diameter. Reversible, it rewinds the substrate web with precision. Supported widths: 100 - 420 mm

MOTORIZED FEEDING UNWINDER

MGI APPROVE; ONLINE 5.0 PROOFING



A unique online approval solution, in 3D and augmented reality, enabling customers to remotely visualize the real impact of digital finishing on their project.



AI SCANNER

AI Scanner controlled by artificial intelligence, ensuring perfect registration in the fly, adapting varnish mask according to the print to be embellished and substrate deformation. It ensures perfect register and minimizes waste.

OPTIONAL FLEXO PRINTING MODULE

Inline flexo module for UV primer and full coating application. Integral surface treatment for optimum varnish and hot foil stamping on most uncoated substrates.

SPOT UV 2 ENGINES



setup #2 : main print engine + optional Printer
Unwinder / Scanner / Main Printer Engine / Optional Printer / Rewinder

SPOT UV + IFOIL



setup #3 : main print engine + foil
Unwinder / Scanner / Main Printer Engine / ifoil / Rewinder

SINGLE PASS



setup #4 : single pass digital varnish + foil
Unwinder / Scanner / Main Printer Engine / Optional Print Engine / ifoil / Rewinder

Digital Embellishment Solution for self-adhesive labels and flexible packaging



CERTIFIED MGI FOILS

MGI manufactures a range of hot foil stamping films in France, certified on its JETvarnish technology, guaranteeing optimum quality every day. 11 traditional references and 2 security references.

SINGLE OR DOUBLE^(*) MOTORIZED REWINDER

Single or double motorized rewriter

KNIFE CUTTING^(*)

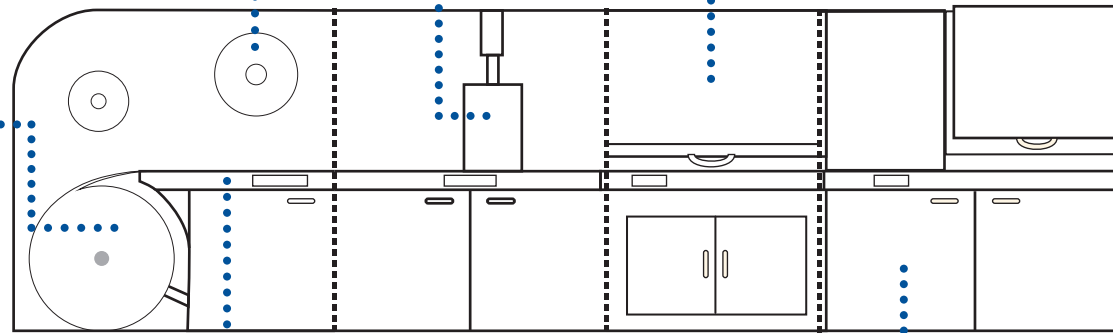
Knife cutting module to produce rolls at the machine output, before transferring them to a finishing / weeding press.

Semi-rotary die-cutting slitting and weeding unit for in-line production of ready-to-deliver rolls. 2 slitting knives are available as standard (up to 10 possible as an option), and a Gapmaster kiss-cut adjustment system is standard. This unit can be coupled with a dual shaft rewriter.

DIE-CUTTING AND WEEDING MODULE

New digital hot foil stamping unit, more compact and faster, offering improved productivity, compatible with 1' or 3' cores and featuring an all-new heated roller.

NEW IFOIL GROUP GENERATION^(*)



3 TECHNOLOGIES FOR DRYING

3 complementary drying technologies for perfect finishing quality.

- main print engine : LED + IR + UV
- optional print engine: high-power LED

INKJET OPTIONAL PRINT ENGINE^(*)

Spot or total application of flat or embossed varnish on a 350 to 400 mm working width. Application of a UV varnish that does not adhere with hot foil for: varnish + foil or varnish + foil + braille production in a single pass.

FULL SCALABILITY AT ANY TIME

Upgradeable, the MGI JETvarnish 3D Web 400 is available in 4 different configurations, to best meet individual customer needs and budgets. You can upgrade your JETvarnish 3D Web 400 at any time, as your digital embellishment business grows.

SPOT UV



setup #1 : main print engine
Unwinder / Scanner / Main Printer Engine / Rewinder

The JETvarnish 3D Web 400 is the latest generation of roll-to-roll digital embellishing presses from MGI Digital Technology.

It enables single-pass spot UV varnishing and hot foil stamping, following a 100% digital workflow, on coated, uncoated and synthetic substrates, on top of offset, flexo and digital printing technologies (toner and inkjet).

Dedicated to the self-adhesive label, flexible packaging and folding carton applications, the JETvarnish 3D Web 400 is the most usable to brands' need for reactivity, quality and high added 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, and fully respecting their environmental strategies. The versatile JETvarnish 3D Web 400 meets the most varied requirements for short, medium and long runs, enhancing basic four-color production, with digital varnish and hot foil stamping, applied in fixed or variable data, flat or raised, facilitating multi-stretching and versioning.

High-Quality 100% digital

The JETvarnish 3D Web 400 enables inkjet application of spot UV varnish, from 7 to 116 microns, for the most beautiful flat or relief renderings, with an unrivalled level of quality and stability, on all types of substrate, coated, uncoated 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.

No screens, no plates

100% digital, the JETvarnish 3D Web 400 can apply spot UV varnish and hot foil stamping without the need for plates, screens, dies / clichés and any single-use consumables, thanks to its inkjet technology.

Productivity, responsiveness and speed of implementation

Equipped with one or two MGI inkjet engines, the JETvarnish 3D Web 400 applies spot UV varnish and hot foil stamping in a single pass, up to 42m / minute. Its on-the-fly makeready makes it easy to sequence prints one after the other. Its automatic cleaning system takes just 10 minutes a day, so one operator can concentrate on production.

Low-migration, desencrability & sustainability

The JETvarnish 3D Web 400's 100% digital process eliminates the conventional tooling (plates, screens and dies / clichés) and solvents, which are particularly polluting and generate subcontracting, transport and packaging waste. Its small footprint and low electrical consumption immediately reduce

CO2 emissions. Its automatic on-the-fly setting eliminates waste, optimizing raw material consumption. Available in a low-migration(*) version, according to the SQTS standard for indirect food contact, and de-inkable on certain substrates according to Ingede 11, the only reference standard on the market, the UV varnish - and MGI hot foil stamping - of the JETvarnish 3D Web 400 make finishing rhyme with eco responsible production.



100% upgradeable solution

Totally upgradeable, the JETvarnish 3D Web 400 is made up of modules that enable printers and converters to easily upgrade it as their added value jobs business grows. The JETvarnish 3D Web 400 is available in 4 configurations - with one or two inkjet engines and with or without hot foil stamping unit - to suit all needs and budgets, and can be equipped with optional flexo and semi-rotary die-cutting modules.

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 carry out 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 augmented reality remote Proofing for prime contractors. Hosted in a secure Cloud, MGI Connect can be deployed immediately, both within the print shop and with its customers.



All the benefits of Factory 5.0 now available

Thanks to its integration and unified 100% digital workflow, from the customer's approval in augmented reality, to real-time monitoring of production status, the JETvarnish 3D Web 400 is already making it possible to benefit from all the advantages of a 5.0 factory: optimum quality, productivity, print run versatility, production customization, reduced production and personnel costs, reduced environmental impact, job enrichment and well-being at work.

With the MGI JETvarnish 3D Web 400, all the benefits of Industry 5.0 are finally within reach, for a successful digital transformation and an immediate return on investment.

