Technical specifications

PRODUCT SPECIFICATIONS - JETVARNISH 3DS

Printing technology	MGI's exclusive inkjet engine technology Drop-on-Demand (DoD) technology Piezoelectric printheads,developed and manufactured by Konica Minolta Single pass printing Flexible & scalable printing architecture
Coating thicknesses	Depending on your file, the inks used and the type of surface of your sheet, the coating thickness can vary. On laminated and aqueous coating: 21 µm – 232 µm* for 3D raised effects and tactile finish. On toner and coated paper: 30 µm – 116 µm/232* µm for 3D raised effects and a tactile finish
Production speed	**In 2D/flat mode:** Up to 2,077 A3 sheets per hour (with 21 µm) **In 3D/raised mode:** Up to 1,468 A3 sheets per hour (with 43 µm) Up to 547 A3 sheets per hour (with 116 micron)
Registration	SmartScanner coupled with Artificial Intelligence (AIS) for fully real-time automated sheet-to-sheet registration process. No crop mark required.
Formats	Min. 21 x 30 cm / 8 x 11.8" Max. 36.4 x 102 cm / 14.33 x 40.15" Max. Printable Width 35.5 cm
Substrate thickness	Min: 135 gsm and not less than 150 µm or 6 mil before printing & lamination Max: 450 gsm and not more than 450 µm or 18 mil before printing & lamination Motorized height-adjustment print heads
Substrates**	Printing on most matte or glossy laminated surfaces, with or without aqueous coating, layered paper, plastic, PVC and other coated materials.
Varnish on toner	Spot 3DS coat directly onto most digital prints with no lamination or coating required.
UV coatings and capacity	3D varnish delivered with a 10-litre tank capacity
High capacity Automatic feeder	Feeder able to handle a paper pile up to 30 cm 3,000 sheets at 135 gsm
High pile output stacker	Stacker able to handle a paper pile up to 30 cm 3,000 sheets at 135 gsm
Paper path	100 % flat paper path; Vacuum feed system Air feed system; Automatic double sheet detection In-line LED dryer "On-the-fly" drying & curing via integrated LED Spot Coated sheets can be immediately finished or handled, no additional drying time required
Front end system	Dedicated PC; CPU + touch-screen + keyboard/mouse Ethernet connection 10/100/1000 BT (RJ 45) Built-in Application Software Suite Comprehensive job queue management Predictive printing cost calculator (coating consumption) Dedicated image editor to do local and fast image editing prior to production
Maintenance & remote technical support	Daily maintenance completed in less than 10 minutes Majority of procedures are automated Automatic cleaning system From cold start to production in less than 10 minutes Remote troubleshooting & support via included video/ web camera (high speed internet connection required)
Operator panel	Integrated user-friendly LCD touch-screen
Options	**Twin option (available soon):** 2nd print engine to increase 3D print speed and coating thickness, up to 232 µm variable data option. **Variable data option:** Complete system including RIP, barcode reader and MGI software to automatize the association between a pre-printed barcode and its specific spot coating file
Dimensions (L x W x H)	4.26 (5.47*) x 1.14 x 1.80 meter (with the longest paper extensions installed) 1 metre clearance required on all 4 sides
Weight	± 1,400 kg
Electrical requirements	7.5 kW (32 A) at 220–240 V; 2 plug CEE/IP44 32A (1P+N+E)
Operating	Temperature: 18 to 30°C Environment Relative humidity: between 30 and 50% (no condensation)
Respecting the environment	Eliminates resource waste (wasted electricity, paper and varnish) No plates (offset) or screens (screen printing) No cleanup or preparation between jobs Drastic reduction in amount of consumables and use of bulk packaging. Coating without volatile solvent.

The default sheet format is A3, unless otherwise stated
1) with an additional option installed
2) speed will vary according to printing parameter used
3) confirm substrate/toner compability with KM
* With the Twin Bar
** The used substrate needs to be either coated or laminated. Otherwise the media is absorbing the
   varnish and the desired effect might get lost.

PRODUCT SPECIFICATIONS - iFOIL-S

Production speed	Up to 2,298 A3 sheet size per hour (or 20 meters/min)
Formats	Min: 21 x 29.7 cm Max: 36.4 x 102 cm
Hot foil stamping area	33.5 x 100 cm
Substrate thickness	Min: 135 gsm and not less than 150 µm/6 mil before printing and lamination Max: 450 gsm and not more than 450 µm/18 mil before printing and lamination Motorised height-adjustment print heads
Substrates	Most matte or glossy laminated surfaces, with or without aqueous coating, layered paper, plastic, PVC and other coated materials Most digital prints without any lamination or coating
Foil rolls	Standard internal core: 1 inch - Min./Max. widths: 10/36 cm 400 meter length (average) Up to 2 rolls loaded simultaneously on the same holder 3" internal core is optional
Embossing	From 21 µm to 116 µm thickness From 21 µm to 232 µm thickness (Twin Bar optional)
Compatibility	Online module that connects to all JETVARNISH 3DS
Dimensions (L x W x H)	2.09 x 1.24 x 1.80 meter
Weight	± 850 kg
Electrical requirements	7.5 kW (32 A) at 220–240 V – 50/60 Hz 2 plugs CEE/IP44 32A (1P+N+E)
Options	High capacity stacker for paper stacking up to 60 cm paper height 3" core inch foil holder

– All specifications refer to A4-size paper of 80 gsm quality.
– The support and availability of the listed specifications and functionalities varies depending on operating systems, applications and network protocols as well as network and system configurations.
– The stated life expectancy of each consumable is based on specific operating conditions such as page coverage for a particular page size (5% coverage of A4).
  The actual life of each consumable will vary depending on use and other printing variables including page coverage, page size, media type, continuous or intermittent printing, ambient temperature and humidity.
– Some of the product illustrations contain optional accessories.
– Specifications and accessories are based on the information available at the time of printing and are subject to change without notice.
– Konica Minolta does not warrant that any prices or specifications mentioned will be error-free.
– All brand and product names may be registered trademarks or trademarks of their respective holders and are hereby acknowledged.

KONICA MINOLTA

Giving Shape to Ideas

KONICA MINOLTA

PRODUCE
OUTSTANDING
FINISHING WITH
SPOT UV, DIGITAL EMBOSS,
AND HOT FOIL STAMPING
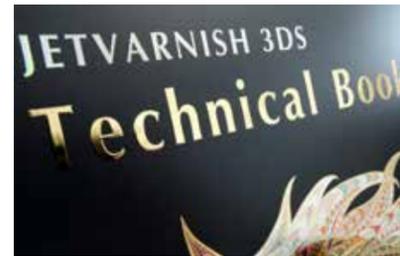
MGI Digital Technology

INNOVATION IN MOTION

FOR MORE PRODUCTIVITY

IFOIL L - PERSONALIZED EMBOSSED HOT FOILING

All of the JETvarnish 3DS models offer a fully integrated, inline option to add the award-winning iFOILS Hot Foiling System. This module can be installed at the time of purchase or in the future as a field upgrade.

Through a revolutionary digital process, the iFOIL eliminates the need for films, dies, screens and makeready. This allows quick and easy production of foil stamping jobs from one to thousands of sheets.

The JETvarnish 3DS and iFOIL S combination creates both visual and tactile excitement that print buyers, end-users and brand owners are looking for, to distinguish their products in the marketplace.

This scalability of foil customization and personalization enables printers and trade finishers to expand into profitable new markets segments.

The software suite simplifies layout mask changes on sheets ranging from 8x11.8" format to 14.33x40.15'' and on substrates ranging from 150 up to 450 microns (μm).

Spectacular and unique effects are now available within a 100% digital process:

Embossing
• Multiple colored foils applied in one pass (upto 2 colors)
• Variable data foiling (VDF) with 2D/3D UV Coating
• Foil over foil to create dramatic special effects
• Unique capability to foil and emboss on plastic (including on Polypropylene/PP)

This functionality produces digital and variable embellishments such as very fine lines, small lettering and detailed texture effects on each piece. It is both a perfect prototyping tool and a complete high-volume production solution.

It is designed to produce brillant foil effects on jobs printed on offset, flexo and digital presses. Foil can be applied on coated/uncoated papers, synthetics, plastics, laminated films and aqueous coated surfaces.

Adding in-line digital foil adds value and profitability while reducing out sourcing costs and job completion delays.

A TECHNOLOGICAL REVOLUTION...

THE TECHNOLOGICAL REVOLUTION: ARTIFICIAL INTELLIGENCE SMARTSCANNER (AIS)

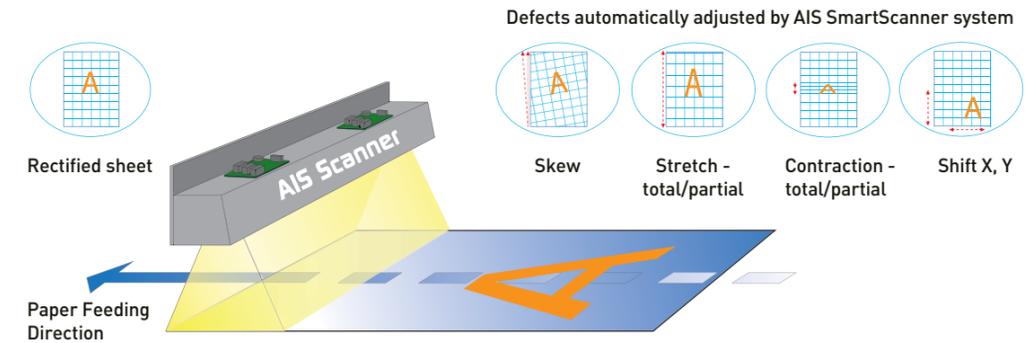**The MGI AIS system is a revolutionary registration development for the printing and finishing industry :**

• Eliminates more than 80% of operator set-up time spent on registration processes and reduces make-ready waste
• Allow quick and seamless integration within job workflows with simple, automatic "scan and register" set-up process
• Supports rapid equipment amortization with increased throughput, faster job completion and greater productivity
• Removes unnecessary operator wage costs & paper make-ready waste associated with analog set-up processes

The AIS system uses Artificial Intelligence to create an automatic varnish and hot foil registration for inkjet heads over the preprinted sheet. It is fully compatible with Variable Data Finishing (VDF) jobs. Using print image and inkjet synchronization algorithms, the exclusive and patented AIS system runs at more than 5,000 billion of 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 any lamination process.

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

"ARTIFICIAL INTELLIGENCE THAT DOES THE WORK FOR YOU."

Defects automatically adjusted by AIS SmartScanner system

Rectified sheet | AIS Scanner | Skew | Stretch - total/partial | Contraction - total/partial | Shift X, Y

Paper Feeding Direction

INVESTMENT PROTECTION AND INCREASED PRODUCTIVITY

The JETvarnish 3Ds has been designed to evolve with the growth of your business. The engine can adjust and expand according to changing business needs and new business development opportunities.

MGI 3Ds machines can be upgraded in the field with 2nd print Engine to increases 3D print Speed and coating thickness up 232 Microns .

VARIABLE DATA PRINTING (VDP)

The Variable Data Printing option adds full personalization capabilities for maximum marketing impact.
Push your documents personalization beyond the limits with varnish and hot foil stamping variable data printing.

Make basic customization with standard information as name, address, sentence, basically with text. Or realize full customization with multiple criteria such as images, texts, layout, etc, to reach an unique piece.

Optical "on-the-fly" variable data system uses camera and preprinted barcodes. With the Variable Data Printing option, a high-performance PC RIP with software and a barcode camera are included. Generate your flow directly in and let the JETvarnish 3Ds amaze you.

SOFTWARE SUITE AND TOUCHSCREEN INTERFACE

The JETvarnish 3D Evo has an innovative software suite developed by MGI that includes management tools such as : a job cost calculator, workstation image editor, reprinting utility, AIS SmartScanner set-up and variable data controller. All job management functions operate via intuitive touchscreen interface. This software suite allows operators to manage all operations related to production and maintenance, via the workstation interface.

SPOT VARNISH EDITOR An easy to use graphical tool designed by MGI for editing job files at the workstation. This utility allows production operators to quickly modify enhancements without going back to prepress. This software saves time and allows operators to set up jobs in minutes and conduct rapid prototyping directly from the equipment workstation. Varnish and foil enhancements are designed for high production work environments.

JOB COST CALCULATOR Based on your job's image file, this powerful calculator forecasts varnish consumption costs down to the penny. This has never been possible before on traditional spot coating technologies. This powerful function automatically calculates precise production costs in advance of actual production. It is a valuable tool for managing supply costs and making accurate job estimates. This software can be also available on a PC for your pricing and sales departments.

MGI JETVARNISH 3DS WITH iFOIL S

HIGH-PILE OUTPUT STACKER
- Automatic stacking of prints to a maximum height of 30 cm
- Minimum stacking format A4 (21 x 29.7cm)
- Maximum stacking format 36.4 x 102 cm

KONICA MINOLTA PRINT HEADS
- Exclusive MGI inkjet technology
- Produce any line thickness from 0.5 mm

SOFTWARE SUITE INCLUDED
- On-the-fly job manager
- Reprint function
- Image editor
- Catalogue of different patterns
- Cost calculation and export of data
- For intuitive operation
- Saves time and money

VARIABLE DATA OPTION
- Personalise & Serialise
- Barcode reader
- Without manual intervention

DIGITAL ADVANTAGES
- Ideal for lucrative short and medium print runs
- Fast make-ready
- No plates or screens needed
- All that's required is a digital 5th colour mask
- Wide range of substrates possible

ECO-FRIENDLY IN-LINE LED DRYER
- On-the-fly drying & curing with integrated LEDs
- No additional drying time required
- Ozone-free and without heat thanks to LED technology
- Low power consumption

AIS SMARTSCANNER
- Each sheet is scanned and chcked
- No registration marks
- No make ready time wastes

HIGH PRODUCTIVITY WITH SINGLE PASS PRTINTING
- Up to 2,298 A3 sheets/hour with varnish thickness of 21μm (2D/flat mode)
- 1,624 A3 sheets/hour with varnish thickness of 42 μm (3D mode)
- 812 A3 sheets/hour with varnish thickness of 86 μm (3D mode)
- Up to 513 A3 sheets/hour with varnish thickness of 116 μm (3D mode)

VARNISH DIGITAL AND OFFSET PRINTS
- Varnishing on toner without lamination
- Varnishing on offset prints with or without lamination or aqueous coating
- Accurate sheet-to-sheet registration with AIS registration feature
- Quick and easy setup supports digital printing business model

VARIABLE VARNISH THICKNESS
- Can be adapted to individual customer needs
- Maximum 3D effect: 116 μm
- Minimum thickness (on laminated surfaces): 21μm
- Minimum thickness (directly on toner): 42 μm

ENVIRONMENTALLY FRIENDLY
- Ink is in a closed-circuit system
- No ink and varnish residues
- No cleaning in-between jobs
- No material waste between jobs
- Reduced paper, varnish and electrical consumption

MEDIA PROCESSING
- Wide range of paper weights of up to 450 gsm
- Printing on most matte or glossy laminated surfaces, with or without aqueous coating, layered paper, plastic, PVC and other closed surface materials.
- Spot 3D coating directly onto most digital prints with no lamination or coating required.

Highlights

DIGITAL SPOT UV COATING ON on different page sizes from A4 to 36,4 x 102 cm

1 SINGLE PASS printing

UP TO 116 MICRON thickness

Wide range of substrates up to **450 GSM**

Produced by MGI **EXCLUSIVELY** for **Konica Minolta**

MGi Digital Technology