KONICA MINOLTA

Giving Shape to Ideas

A Total Solution for Digital Spot UV Coating,
Embossing and Hot Foil Stamping

MGI JETvarnish 3DS & iFOIL S

The MGI JETvarnish 3DS and iFOIL S bring you creative capabilities that can boost your revenue and increase profit margins for your business. Add spot-varnish, embossing and hot foil stamping to your digital print offerings, all without special training, high production cost or complex setup procedure. You can offer your customers greater impact at lower cost, transforming prints into eye-catching communications with speed and simplicity that traditional printing techniques can't equal – and discovering new ways to grow your business by leveraging the power of your digital production system.

MGI
Digital Graphic Technology

MGI JETvarnish 3DS – raise your game with new creative offerings for higher creative impact.

Conventional printing is no longer enough. To attract new customers and penetrate lucrative prestige markets, you need to offer new visual and sensory effects for more powerful print communications. Adding the MGI JETvarnish 3DS to your production floor can make the difference — giving you cost-effective creative capabilities beyond the reach of traditional production techniques.

Communications Impact
Make your client's products and services stand out from the crowd with striking 3D-raised effects. Adding embossing and spot coating to printed brochures, display materials, packaging and other communications materials gives your clients attention-grabbing impact that online information and conventional printing can't deliver.

Instant Productivity
The JETvarnish 3DS lets you start fast, finish strong — no prep is required beyond creating a graphic description file for surfaces to be coated (5th layer mask). Once your file is ready, the first coated sheet is output within 5 minutes. Any sheet coming out of the JETvarnish 3DS is immediately dry and ready for handling — and your customers can OK a print proof that will be fully identical throughout production.

Digital Performance
Along with all the benefits of digital technology, you can handle paper sizes from 8-1/2" x 11" to 14.33" x 40.15" — making the JETvarnish 3DS an ideal partner for both digital and offset presses. The extreme gloss of the coating, combined with accurate camera-based registration control, will enhance your clients' digital prints. And you can always run jobs that include variable data — giving you a significant competitive advantage.

UV Inkjet Technology
For precision from first to final page. Konica Minolta's Drop-on-Demand technology uses ultra-precise piezoelectric print heads to produce extremely thin lines (0.5 mm) as well as wide solid areas. You'll also have production rates of up to 3,000 sheets per hour in 30 micron coating thickness.

Artificial Intelligence SmartScanner (AIS)
The patented AIS system uses Artificial Intelligence to create an automatic varnish and hot foil registration for inkjet heads over the preprinted sheet. 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.

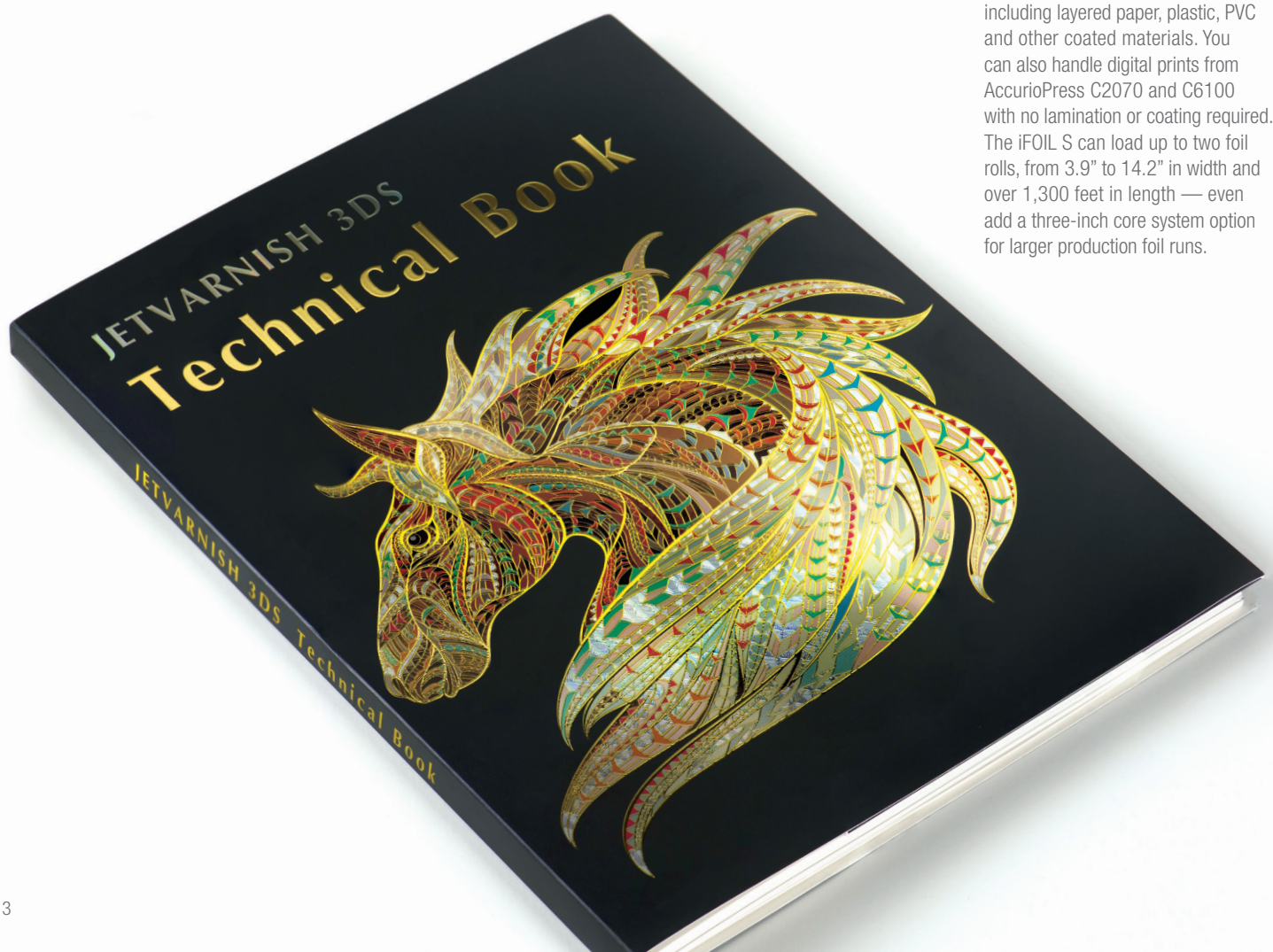
Environmentally Friendly
With less waste, less power and less noise, the JETvarnish 3DS can lower your costs and reduce your environmental impact. With no need for a plate or screen, there's no waste of materials. Closed-loop operation optimizes coverage and eliminates waste. Neither volatile solvents (VOCs) nor ozone are released. Power consumption is optimized to save energy — and noise level is below US standards, giving you a quieter workplace.

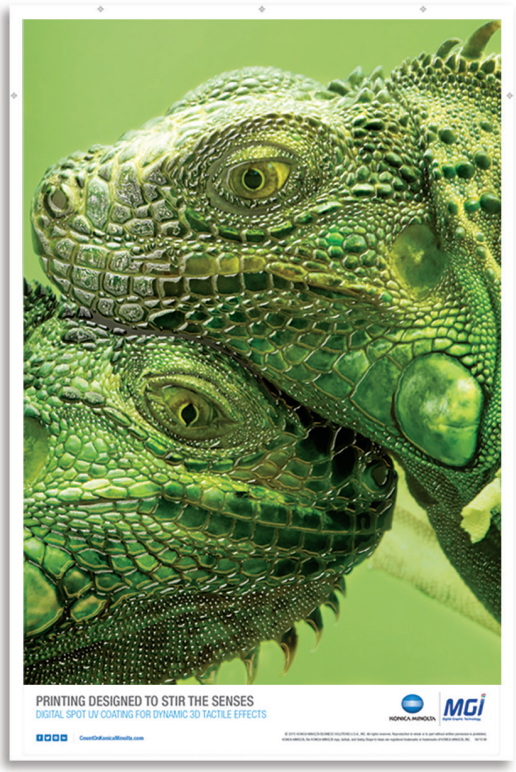
MGI JETvarnish 3DS and iFOIL S – even more value-added benefits for your business.

Do it all with digital speed and simplicity. Apply an ultra-precise spot coating on short or long press runs, vary the thickness of your coating for attractive 3D tactile effects, perform hot foil stamping in up to two simultaneous colors — providing the ability to offer a new, never-before-seen finish; the personalization of embossed hot foil stamping. You can even add a secondary row of print heads to increase your speed and keep you running smoothly for on-time delivery.

Embossed Foil with Digital Data
For traditional printers, foil has been out of reach — requiring years of experience, high cost or complex setup. The iFOIL S inline module for the JETvarnish 3DS can break through these limitations, allowing you to add foil to packaging, book jackets, promotional materials, high-end invitations and greeting cards, security materials and more — all in a seamless, 100% digital process that applies varnish, heat and pressure so foil will stick only on spot varnish areas.
Result: a brilliant gloss with high level of adhesion.

High-Speed Output, Versatile Substrates
With speed up to 2,298 A3 sheets per hour, embossed foil won't slow down your productivity. You can apply up to two simultaneous foil colors for rich creative effects, using substrates from 135 gsm to 450 gsm — on most matte or glossy laminated surfaces, with or without aqueous coating, including layered paper, plastic, PVC and other coated materials. You can also handle digital prints from AccurioPress C2070 and C6100 with no lamination or coating required. The iFOIL S can load up to two foil rolls, from 3.9" to 14.2" in width and over 1,300 feet in length — even add a three-inch core system option for larger production foil runs.





Variable Data Foil — for the First time in History

Picture the pulling power of addressee names in gold! In addition to making short run embossed foil a practical and economic production choice, the JETvarnish 3DS with iFOIL S option lets you apply foil to variable data print runs — creating attention-grabbing effects with immediate appeal for a higher rate of return. No previous production process has combined the richness of foil with the targeted focus of variable data promotions and presentations.

Barcode Reading for Automated Production

You can add a barcode reaction option to your JETvarnish 3DS system, giving you high-speed throughput that automatically reads barcode printed barcodes during production. The barcode will call up the correct image to varnish, making it ideal for variable data printing in 2D varnish, 3D varnish and variable data printing with embossed foiling — a flexible system for any production need.

T2: a New Print Engine for Greater Efficiency

Add the T2 option to the JETvarnish 3DS — a new print engine with a secondary row of print heads. Field upgradable for simple installation, the T2 can improve 3D linear output speed, increase the thickness of 3D effects, and provide production backup that keeps your system in operation with long-run reliability.

Streamlined production – with powerful software and simple touchscreen control.

Getting the job done is easier than ever. Along with rugged design for demanding production output, the JETvarnish 3DS comes with a powerful software package that includes three main modules: 3DS HubManager, Spot Varnish Editor and Production Cost Analyzer. They're all controlled from a large graphic touchscreen that makes everything simple, even for operators without special training.

3DS HubManager
With simple touchscreen control, the 3DS HubManager lets you monitor your ongoing jobs, manage the queue, create job tickets, launch reprints and adjust the AIS system. You can easily export detailed production data for internal cost analysis or quick integration to your MIS system.

Spot Varnish Editor
Why waste time running back and forth between production and prepress? User-friendly Spot Varnish Editor software lets your JETvarnish 3DS operator perform final touch-up of graphic files (5th layer mask) — speeding response time and increasing throughput to help turn jobs around more quickly.

Production Cost Analyzer
For each file that is spot-coated, this powerful calculator can anticipate the exact quantity of varnish required and the cost of the upcoming production run — an immediate benefit not possible with conventional technology. Ensuring accurate quotes, you can closely control profit margins.

More JETvarnish 3DS Production Features:

Rugged Design
The JETvarnish 3DS is a true professional — built to stand up to the most rigorous production applications, maintaining the high quality output your customers demand — with reliability and cost-efficiency that makes your bottom line look better than ever.

No Plates or Screens
With 100% digital performance, the JETvarnish 3DS eliminates the need for expensive and time-consuming plates, screens or setups.

High-Gloss Coating
Using a new high-gloss coating formula, the JETvarnish 3DS delivers a gloss level of 99% (G.U.) — beyond the reach of traditional analog technology.

Inkjet Technology
Precise piezo (drop-on-demand) print heads enable the JETvarnish 3DS to create lines as small as 0.5mm or as wide as a full 14" sheet — and you'll be able to switch from one job to another with no equipment cleaning required.

High-Capacity Tank
For high-volume production demands, the JETvarnish 3DS features a high-capacity tank containing ten liters of coating — which means less reloading time to interrupt your output.

Flat & 3D Effects
There's no need to choose between traditional flat spot coating or 3D raised effects, because the JETvarnish 3DS can do them both on the same sheet.

Fast Output
With throughput speeds up to 2,298 A3 size sheets per hour, spot varnish application won't compromise your productivity. From short to long runs, JETvarnish 3DS gets the job done better and faster.

Greater Versatility
Ideal for spot coating needs including both large flat areas and ultra-fine details, JETvarnish 3DS is designed to handle the creative requirements of virtually any print job.

Extended Formats
For larger originals like book covers with multiple flaps, the JETvarnish 3DS can cover sheets up to 14.3" wide and 40.15" long — another unique feature to increase your production opportunities.

Specifications

JETvarnish 3DS

Print Technology	Patented MGI proprietary inkjet technology. Drop-on-Demand (DoD) technology developed and manufactured by Konica Minolta. Piezoelectric print heads. Flexible and scalable printing system.
Coating Thickness	21 – 121 microns for a wide range of visual and tactile effects (smooth, textured, embossed). Coating thickness configurable through the coating file (5th layer mask) created in DTP and by the operator at the time of production. Thickness may vary depending on the four-color printing technology used, the surface treatment applied to the sheet and the type of paper used, up to 242 microns with T2 option.
In 2D/Flat Mode	Up to 2,298 A3 sheets per hour (21 microns).
In 3D/Raised Mode	Up to 1,624 A3 sheets per hour (43 microns).
Registration	Feedboard with left-hand adjustment allows for precision feeding of all types of jobs where the sheet's origin (0,0) is on the left side. MGI's automatic registration feature, using two ARC cameras that realign each job "on the fly" based on the registration marks printed on each sheet (X, Y and bias adjustment) ± 200 micron tolerance.
Formats	Min.: 8" x 11.8" (21 x 29.7 cm), Max.: 14.33" x 40.15" (36.4 x 102 cm).
Max. Coating Width	Up to 14"
Substrate Thickness	Minimum: 135 gsm or 150 microns before printing and lamination. Maximum: 450 gsm or 450 microns before printing and lamination. Motorized adjustment of the print heads based on the substrate. Compatible with most matte or gloss laminated surfaces, with or without acrylic varnish, coated paper, plastic, PVC and other closed surfaces. Direct coating onto output from most digital presses without lamination or surface treatment.
UV Coating	10-liter, high-capacity tank.
Paper Feeder	High-capacity feeder can accommodate a stack of paper of 30 cm or 2,500 sheets (135 gsm).
Paper Feed Mechanism	Flat paper path. Air-assisted start. Variable vacuum belt feeder.
In-Line UV Curing	Dual-sheet detection cell. Drying "on the fly" via built-in UV LED drying system. No additional drying time required. Coated sheets can be handled immediately upon exit.
Front End System	Job queue management on a dedicated PC (CPU + touchscreen + keyboard + mouse). 10/100/1000BASE-T (RJ 45) Ethernet connectivity.
Application Software	Comprehensive job queue management. Printing cost estimate calculator (quantity of varnish required). Picture touch-up software for final changes prior to production.
Maintenance & Remote Technical Support	Daily maintenance in less than 10 minutes. Most procedures are automated. Cold starting in less than 10 minutes. Automated cleaning system. Remote support and troubleshooting via built-in video camera. High-speed Internet connection required.
Operator Control	Driver/operator LCD touchscreen.
Dimensions & Weight	Dimensions: 13.98' (17.52') x 3.74' x 5.91' (length x width x height). 40" on each side of the machine is required for access and opening of doors. Weight: ± 2,42.5 lbs (1,100 kg).
Electrical Requirements	7.5 kW (32 A) @ 220/240 volts, 2 EEC/IP44 32A outlets (1L + G + N).
Operating Environment	Temperature: 65 to 85°F. Humidity: between 30 and 50% (non-condensing).

iFOIL S:

Production Speeds	Up to 2,298 A3 sheet size pages per hour (or 20 meters per minute).[1]
Formats	Min.: 8" x 11.8" (21 x 29.7 cm), Max.: 14.33" x 40.15" (36.4 x 102 cm).
Substrate Thickness	Minimum: 135 gsm and not less than 150 microns/6 mil before printing & lamination. Maximum: 450 gsm and not less than 450 microns/18 mil before printing and lamination.
Substrates	Foil finishing on most matte or glossy laminated surfaces, with or without aqueous coating, layered paper, plastic, PVC and other coated materials.
Foil Rolls	Standard 1-inch internal core. Min/Max widths: 3.9"/14.2". Length: 1,300 feet (average). Up to 2 rolls loaded simultaneously on the same holder. Optional 3-inch internal core.
Embossing	From 21 up to 121 microns in thickness. From 21 to 242[2] microns in thickness.
Compatibility	Online module that connects to all JETvarnish 3DS equipment.
Dimensions & Weight	Dimensions: 6.9' x 4.1' x 5.9' (length x width x height). Weight: 1,873 lbs (850 kg).
Electrical Requirements	7.5 kW (32 A) @ at 220/240 volts - 50/60 Hz. 2 plugs EEC/IP44 32A outlets (1L + G + N).
Options	High Capacity Stacker for paper stacking (up to 24" paper height). 3" Core Foil Holder.

[1] Speed will vary according to printing parameter used
[2] JETvarnish 3DS T2 option required (coming soon)

PARTNERSHIP

Konica Minolta can help give shape to your ideas and partner with you to achieve your corporate objectives. Contact us to realize opportunities in:

Information Management
- Enterprise Content Management (ECM)
- Document Management
- Automated Workflow Solutions
- Business Process Automation
- Security and Compliance
- Mobility

IT Services
- Application Services
- Cloud Services
- IT Security
- Managed IT Services
- IT Consulting & Projects

Technology
- Office Multifunction Business Solutions
- Commercial and Production Printers
- 3D Printers
- Wide Format Printers
- Laptops, Desktops and Computer Hardware
- Servers and Networking Equipment
- Managed Print Services (MPS)
- Facilities Management

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