

MAGIS DI

Digital imaging systems for flexo

High-precision imaging, superior performance and flexibility

MAGIS DI is a high-resolution, high-speed imaging system designed for imaging MAGIS F dry film as well as LAMS plates. The low energy requirement of the dry film imaging process helps extend laser lifetime while reducing maintenance and service costs. With highly automated media handling, MAGIS DI supports efficient and reliable production workflows and accommodates media sizes up to 1,270 × 2,032 mm or 50 × 80 in.

MAGIS DI is part of ECO3's fully integrated flexo prepress solution that comes complete with film, plates, screening technologies and workflow software.

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MAGIS DI – High-precision imaging with outstanding performance and flexibility

The MAGIS DI range is a high-resolution, high-speed imaging platform for imaging MAGIS F 830 dry film as well as LAMS, flexo and polyester-backed letterpress plates. Optimized for MAGIS F 830 film, it enables fast, energy-efficient imaging that helps extend laser lifetime and reduce maintenance and service costs.

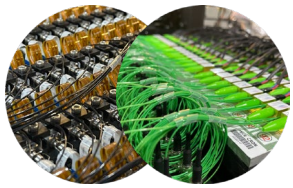
With semi-automated media handling, easy tape-free mounting and support for media sizes up to 1,270 × 2,032 mm or 50 × 80 in., MAGIS DI ensures efficient, reliable production across label, packaging and wide-web applications. Configurations with different resolutions are available: 2,000/4,000 dpi, 2,400/4,800 dpi, or 2,540/5,080 dpi. Depending on the version, 9,600 dpi support is also optionally available.

MAGIS DI integrates seamlessly with Amfortis Plate Assembler, optimizing job positioning on pre-defined plate templates, resulting in minimum flexo plate waste. With the MAGIS DI open-file technology the imager accepts 1-bit TIFF and LEN files, and as such can be integrated into any available flexo prepress workflow.

Semiconductor multiple fiber array and optical imaging technology

The laser system uses SMFO technology to enhance imaging resolution and ensure consistent output quality. Individual laser modules can be replaced or repositioned independently, significantly reducing laser maintenance costs.

The single-channel in-line modular laser array design eliminates optical path unevenness caused by attenuation in redundant laser light-valve systems. Precise temperature control maintains laser stability within ±0.5 °C, helping to extend laser lifetime and improve long-term system reliability.



Linear magnetic drive scanning system

A state-of-the-art linear magnetic drive scanning system delivers high-speed, high-precision imaging with zero-friction, maintenance-free operation. This ensures reliable and stable laser output across materials, supporting consistent quality and maximum productivity.



High-precision optics

MAGIS DI's advanced optical system delivers exceptional accuracy for the most demanding flexographic applications. The version with a true physical resolution of 4,000 dpi achieves a 6.35 µm pixel size, enabling the precise reproduction of even the finest 175 lpi screened (bitmap) elements.

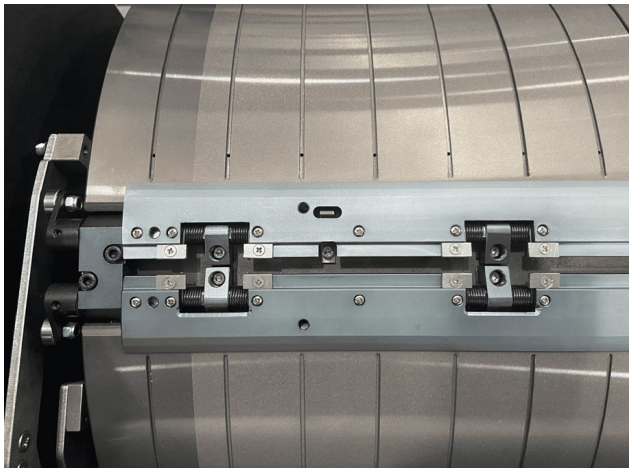
This high-resolution capability minimizes common artifacts associated with lower-resolution imaging, such as jagged edges and uneven curves, while significantly improving the reproduction of fine lines, small text and detailed graphics. It also enables smooth tonal gradations without abrupt transitions, delivering excellent highlight performance and consistent image quality. Automatic focusing adjusts to the actual plate thickness, ensuring stable dot quality and reliable imaging performance across different plate gauges.



Highly refined external drum

The class-leading external drum, engineered with surface flatness within 5 µm, provides a stable foundation for precise laser focusing and exceptionally sharp dot reproduction.

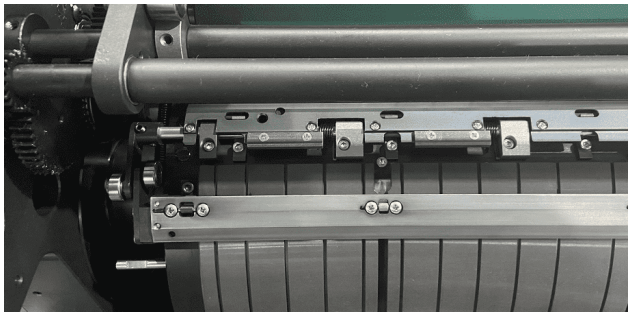
Stable vacuum suction power is maintained across all plate sizes, eliminating the need for vacuum zones or air valves and simplifying operation while ensuring consistent imaging quality.



High flexibility in format variations

MAGIS DI imaging systems are optimized for a wide range of film and plate formats, with automated media handling for secure and precise mounting on the drum. The leading and trailing edges of the consumable are fixed mechanically using dedicated head and tail clamps, ensuring stable positioning throughout the imaging process.

Depending on production requirements, the systems can be equipped with a fixed-format head and tail clamp configuration, a customer-specific clamp setup, or a fully movable head and tail clamp system. The movable configuration offers maximum flexibility by automatically adjusting to different film and plate formats.

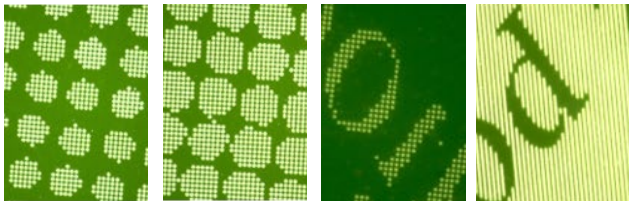


Prism Diamond: smallest-pixel support

Surface patterning in flexo platemaking improves the physical behavior of ink on the plate surface and optimizes ink laydown on the printed substrate. Software-based surface screening technologies apply micro-patterns to 1-bit TIFF files and are widely used in flexo plate imaging to enhance print quality and ink transfer.

Prism Diamond is designed to support these extremely fine surface patterns, including single-pixel structures such as Pixel+ from Esko, which require exceptionally precise and stable imaging performance.

On MAGIS DI H+ systems, Prism Diamond technology operates at 4,000 dpi with 64-beam imaging technology, enabling targeted laser power enhancement at the single-pixel level. This produces highly stable, sharply defined microstructures on both film and plate, supporting superior ink transfer, smoother solids and improved overall print consistency.





MAGIS DI 260 & 360 – the powerful solution for label printing

Perfectly suited for the label, tag and narrow-web markets, the MAGIS DI 260 and MAGIS DI 360 deliver outstanding results in digital film and LAMS plate imaging. These innovative systems increase productivity, ensure consistent output quality and raise the standard of flexographic production.



IMAGING SYSTEM	MAGIS DI 260 S	MAGIS DI 360 S	MAGIS DI 360 H+
Laser head channels	32 at 830 nm	32 at 830 nm	48 at 830 nm
Max. media size	588 × 670 mm (23.1 × 26.3″)	675 × 920 mm (26.5 × 33″)	
Min. media size	100 × 130 mm (3.9 × 5.1″)	100 × 130 mm (3.9 × 5.1″)	
Max. imaging area	573 × 670 mm (22.56 × 26.3″)	660 × 920 mm (26 × 36.2″)	
Clamp area	7 mm head clamp, 8 mm tail clamp, movable tail clamp		
Supported materials	Thermal dry film, ablative film, digital flexo plates, polyester letterpress plates		
Supported thickness	0.11 to 3.94 mm		
Imaging resolutions	2,400–4,800 dpi (9,600 dpi optional) or 2,000 & 4,000 dpi; optical or physical 4,000 dpi (8,000 dpi optional) or 2,540 & 5,080 dpi		
Estimated max. productivity	Dry Film (1,000 mJ): 5.6 m^2/hour at 2,400 dpi 4.5 m^2/hour at 4,800 dpi LAMS (4,000 mJ): 1.8 m^2/hour at 4,800 dpi	Dry Film (1,000 mJ): 6.1 m^2/hour at 2,400 dpi 4.5 m^2/hour at 4,800 dpi LAMS (4,000 mJ): 1.9 m^2/hour at 4,800 dpi	Dry Film (1,000 mJ): 9.2 m^2/hour at 2,400 dpi 6.9 m^2/hour at 4,800 dpi LAMS (4,000 mJ): 3.9 m^2/hour at 4,800 dpi
Loading system	Semi-automatic (automatic movable tail clamp)		
Net weight	650 kg (imager) 70 kg (external dust remover)	740 kg (imager) 80 kg (external dust remover)	
Dimensions (Imager)	1,410 × 1,175 × 1,050 mm 55.5 × 46.36 × 41.3″ (L × W × H)	1,650 × 1,300 × 1,100 mm 65 × 51.2 × 43.3″ (L × W × H)	
Dimensions (Dust remover)	485 × 485 × 850 mm 19.1 × 19.1 × 33.5″ (L × W × H)		
Power supply and rated power	220 V ± 5%, 50/60 Hz 5.1 kW	220 V ± 5%, 50/60 Hz 5.6 kW	
Environment	18 to 28 °C 40 to 60% RH		
Software	Laboo 3.0 software included PC platform required		

MAGIS DI 470 – the all-round solution for flexible applications

Designed for mid-format flexible packaging applications, the MAGIS DI 470 delivers exceptional performance in digital film and LAMS plate imaging. As a high-resolution, high-speed imaging system, MAGIS DI supports efficient, precise and consistent flexographic plate production. Its optional movable tail clamp offers maximum flexibility for handling a wide range of plate formats in daily operation.



IMAGING SYSTEM	MAGIS DI 470 H	MAGIS DI 470 H+
Laser head channels	48 at 830 nm	64 at 830 nm
Max. media size	1,270 × 1,000 mm (50 × 39.4″)	
Min. media size	350 × 200 mm (14 × 8″) 501 × 350 mm (19.7 × 13.8″) with movable tail clamp option	
Max. imaging area	1,245 × 1,000 mm (49 × 39.4″)	
Clamp area	12 mm head clamp, 13 mm tail clamp	
Supported materials	Thermal dry film, ablative film, digital flexo plates, polyester letterpress plates	
Supported thickness	0.11 to 7 mm	
Imaging resolutions	2,400–4,800 dpi (9,600 dpi optional) or 2,000 & 4,000 dpi; optical or physical 4,000 dpi (8,000 dpi optional) or 2,540 & 5,080 dpi	
Pixel boost Prism Diamond option	Not available	4,000 dpi physical supports Prism Diamond option
Estimated max. productivity	Dry Film (1,000 mJ): 12.4 m^2/hour at 2,400 dpi 8.8 m^2/hour at 4,800 dpi LAMS (4,000 mJ): 3.9 m^2/hour at 4,800 dpi	Dry Film (1,000 mJ): 16.9 m^2/hour at 2,400 dpi 11.8 m^2/hour at 4,800 dpi LAMS (4,000 mJ): 5.2 m^2/hour at 4,800 dpi
Loading system	Semi-automatic with fixed head and tail clamp distance Optional: Custom fixed tail clamp; movable tail clamp	
Net weight	1,450 kg (imager) 200/278 kg (external dust remover)	
Dimensions (Imager)	2,310 × 1,400 × 1,140 mm 90.9 × 55.1 × 44.9″ (L × W × H)	
Dimensions (Dust remover)	1,050 × 700 × 900 mm 41.33 × 27.55 × 35.43″ (L × W × H)	
Power supply and rated power	220 V ± 5%, 50/60 Hz 8.5 kW	
Environment	18 to 28 °C 40 to 60% RH	
Software	Laboo 3.0 software and PC platform included	

MAGIS DI 600 & 800 – powerful solutions for flexible and corrugated applications

Engineered for mid- and wide-web applications up to 50 × 80 in., MAGIS DI 600 and MAGIS DI 800 systems deliver outstanding performance in digital film and LAMS plate imaging. These advanced imaging systems help increase productivity, maintain consistent output quality and improve overall production performance.



IMAGING SYSTEM	MAGIS DI 600 H	MAGIS DI 600 H+	MAGIS DI 800 H+
Laser head channels	48 at 830 nm	64 at 830 nm	64 at 830 nm
Max. media size	1,270 × 1,554 mm (50 × 61.18″)		1,274 × 2,045 mm (50.5 × 80.5″)
Min. media size	350 × 200 mm (14 × 8″) 501 × 350 mm (19.7 × 13.8″) with movable tail clamp option		
Max. imaging area	1,245 × 1,524 mm (49 × 60″)		1,245 × 2,032 mm (49 × 80″)
Clamp area	12 mm head clamp, 13 mm tail clamp; customized fixed or movable tail clamp as option		12 mm head clamp, 13 mm tail clamp; fixed or movable tail clamp as option
Supported materials	Thermal dry film, ablative film, digital flexo plates, polyester letterpress plates		
Supported thickness	0.11 to 7 mm		
Imaging resolutions	2,400–4,800 dpi (9,600 dpi optional) or 2,000 & 4,000 dpi; optical or physical 4,000 dpi (8,000 dpi optional) or 2,540 & 5,080 dpi		
Pixel boost Prism Diamond option	Not available	4,000 dpi physical supports Prism Diamond option	4,000 dpi physical supports Prism Diamond option
Estimated max. productivity	Dry Film (1,000 mJ): 12.4 m^2/hour at 2,400 dpi 8.8 m^2/hour at 4,800 dpi LAMS (4,000 mJ): 3.9 m^2/hour at 4,800 dpi	Dry Film (1,000 mJ): 16.9 m^2/hour at 2,400 dpi 11.8 m^2/hour at 4,800 dpi LAMS (4,000 mJ): 5.2 m^2/hour at 4,800 dpi	Dry Film (1,000 mJ): 17.2 m^2/hour at 2,400 dpi 12.3 m^2/hour at 4,800 dpi LAMS (4,000 mJ): 5.4 m^2/hour at 4,800 dpi
Loading system	Semi-automatic with fixed head and tail clamp distance Optional: Custom fixed tail clamp; movable tail clamp option		Semi-automatic with fixed head and tail clamp distance Optional: movable tail clamp option
Net weight	1,450 kg (imager) 200/278 kg (external dust remover)		1,900 kg (imager) 200/278 kg (external dust remover)
Dimensions (Imager)	2,310 × 1,400 × 1,140 mm 90.9 × 55.1 × 44.9″ (L × W × H)		2,820 × 1,400 × 1,125 mm 111 × 55.1 × 44.3″ (L × W × H)
Dimensions (Dust remover)	1,050 × 700 × 900 mm 41.33 × 27.55 × 35.43″ (L × W × H)		
Power supply and rated power	220 V ± 5%, 50/60 Hz 8.5 kW		220 V ± 5%, 50/60 Hz 8.8 kW
Environment	18 to 28 °C 40 to 60% RH		
Software	Laboo 3.0 software and PC platform included		

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