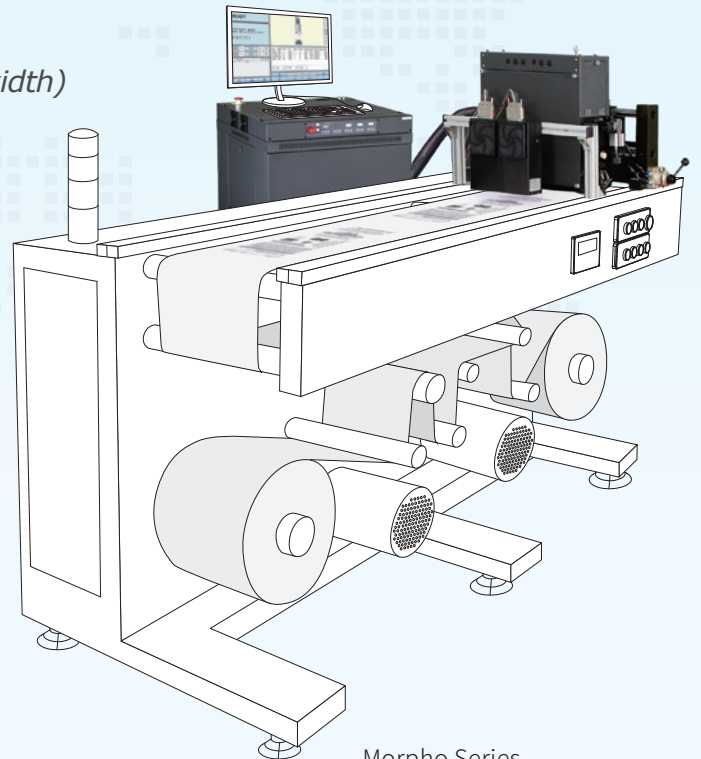


Morpho

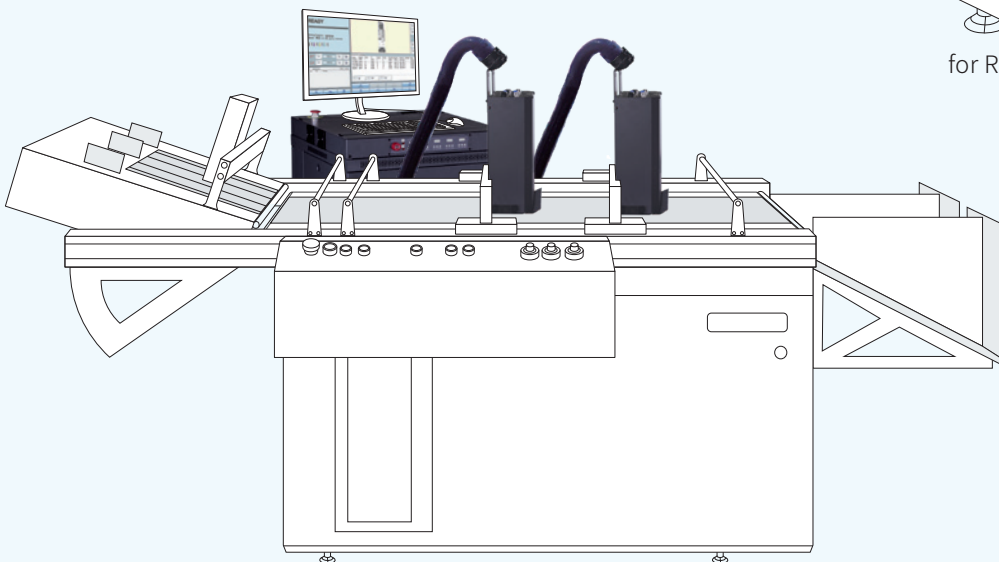
108/216/324/432/108D/216D

High Performance Inkjet Printing Engine for VDP

- *Monochrome*
- *Print Resolution up to 600dpi*
- *Max. 432mm print width (17 inches, full A2 width)*
- *Up to 400m/ min. (1312ft/ min.)*
- *Based on Kyocera KJ4 print heads*
- *UV, water-based dye, pigment, or MICR ink*
- *Involving multiple patented technologies*



Morpho Series
for Roll-to-roll & Sheet-fed Transport



Morpho Series
Supporting Multiple Print Head Modules

As a developer and manufacturer of industrial inkjet solutions established in 1988, Amica has been specializing in industrial image graphics and inkjet technologies for over 27 years. As early as 2008, Amica launched its first single-pass inkjet print engine for printing books and packaging boxes. Now Amica has been granted over 200 patents worldwide. The majority of Amica's products are compliant with CE or TUV standards carried out in Europe, or cTUVus standards in North America.

Morpho series is available in 6 models – 108/ 108D/ 216/ 216D/ 324/ 432 – providing print widths of 108mm, 216mm, 324mm or 432mm respectively at standard or double speed. All Morpho models are monochrome inkjet printing systems for variable data printing (VDP) applications.

Utilizing Kyocera KJ4 print heads, the high speed and high resolution piezo inkjet print head technology, Morpho series meets the increasing and rigorous demands for printing barcodes, serial numbers, dates, logos, images, time, and texts on coated or uncoated substrates.

Morpho series is suitable for web printing, sheet-fed printing, and both online and offline targeted marking printing. The modular design offers greater flexibility to combine the Morpho with different technologies, such as feeding, UV curing, camera inspection, or host PC. Moreover, different head modules of Morpho and Morpho Color can be combined to make a more complicated printing system for different print widths and print positions.

Morpho series prints clear and sharp edges at a high resolution of 600 × 600dpi. Text as small as 4pt is perfectly legible.

Morpho series inkjet printing engines include:

- Data Imaging Board
- Aluminum mounting cross frame (Optional)
- Printing Control Cabinet
- MagicPage VDP Software (Optional)
- Print Head Module
- PCS Pro

Technical Specifications

Data Imaging Board

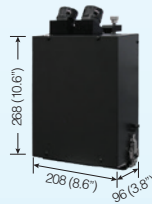
- The Data Imaging Board is installed on PC. It connects to the PC motherboard via PCIe interface.
- It supports sustained 240M Bytes/ Second from 1 to 8 heads in grayscale mode.



Data Imaging Board

Printing Control Cabinet

- Automatic ink supply system with a large 3 liters ink reservoir
- Ink Meniscus Pressure Control System with the digital display



Head Module (Morpho 108)



Ink System Controller



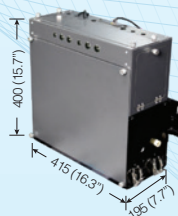
Printing Control Cabinet

Print Head Module

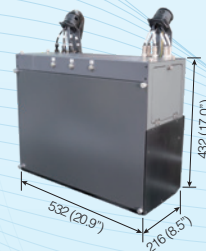
The Morpho Print head Module is available in 6 models:

Morpho 108, Morpho 216, Morpho 324, Morpho 432, Morpho 108D, and Morpho 216D.

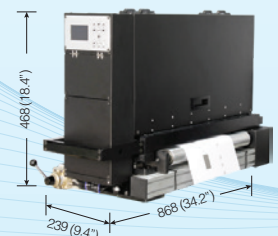
- Head power management and head temperature controller
- Intermediate ink tanks with ink level sensors
- Sub-tank with anti-overflow function



Head Module (Morpho 216)



Head Module (Morpho 324)



Head Module (Morpho 432)

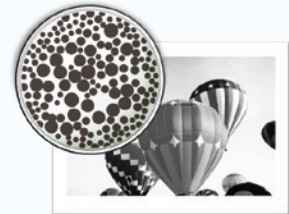
Unit: mm (inch)

Features

- The patented, multi-angle Head Module adjustment mounting bracket enables the operator to adjust the angle of the X, Y, and Z-axis directions for each print head module
- Field upgradable firmware and system software
- Automatic alarm signaling ink shortage
- Advanced variable droplet size control technology enables 1 to 3 levels of grayscale ink drop size control to improve the print quality of gradations and color
- Precise Active Meniscus Pressure Control
- Proven ink system
- Online inspection and automatic rectification system ensures accurate printing position by monitoring and analyzing pre-printed marker in real time

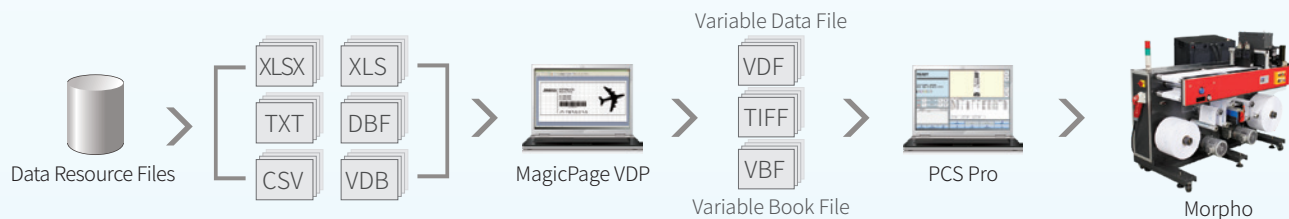


Morpho 216 Head Module with Aluminum Mounting Cross Frame



Variable Droplet Size Control

Efficient Workflow



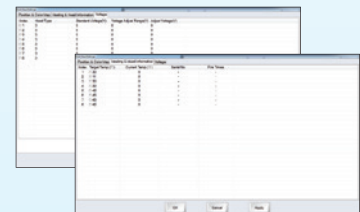
As a comprehensive monochrome VDP inkjet printing engine, Morpho works seamlessly with MagicPage and PCS Pro to achieve an efficient VDP workflow.

MagicPage also enables users to design and modify the output templates with extensive field editing tools.

Professional Printer Control Software (PCS Pro) installed on a Host PC offers friendly graphical user interface to control, set options, and monitor printer status.



PCS Pro Main Window



Voltage and Temperature (PCS Pro)

Supported fonts and barcodes:

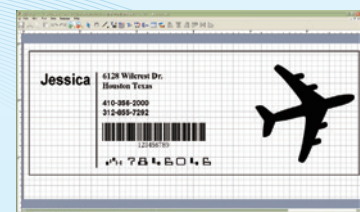
- Graphics, numeric codes, time, and serial numbers
- True Type and Open Type
- 1-D Barcodes: EAN 13, EAN 8, Code 39, Code 128, Codabar 2 Widths, GS1 DataBar (RSS-14), Interleaved 2 of 5, UPC-A, and USPS PostNet
- 2-D Barcodes: PDF417, QR-Code, and Data Matrix

MICR standard support available for check printing:

- E-13B and CMC-7 font



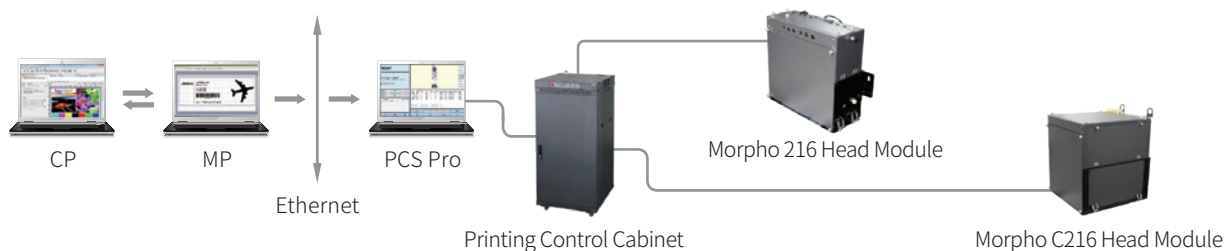
MagicPage RIP Window



MagicPage Main Window

Easily integrated into any existing press as a digital add-on module, turning it into a cost-effective digital press.

Combination of Morpho and Morpho Color System in One



Basic Specifications

	Standard Speed				Double Speed	
	Morpho 108	Morpho 216	Morpho 324	Morpho 432	Morpho 108D	Morpho 216D
Head Modules*						
Print Head Model	Kyocera KJ4					
Number of Print Heads	1	2	3	4	2	4
Printing Width	108mm (4.25")	216mm (8.5")	324mm (12.75")	432mm (17")	108mm (4.25")	216mm (8.5")
Inks	UV, water-based dye, pigment, or MICR ink					
Number of Colors	Monochrome					
Resolution	600 dpi					
Dropsize	Water-based ink	5pl, 7pl, 12pl, 18pl				
	UV ink	6pl, 7pl, 11pl, 14pl				
Print Type	Images, logos, texts, serial numbers, barcodes, dates, time, MICR Fonts, etc					
Print Productivity	Standard Print Head/ High Speed Print Head					<i>Unit: m/min. (ft/min.)</i>
Water-based ink	600 × 300 dpi	150/ 200 (492/ 656)			300/ 400 (984/ 1312)	
	600 × 600 dpi	75/ 100 (246/ 328)			150/ 200 (492/ 656)	
UV ink	600 × 300 dpi	100/ 150 (328/ 492)			200/ 300 (656/ 984)	
	600 × 600 dpi	50/ 75 (164/ 246)			100/ 150 (328/ 492)	

* Customized versions are available, including different print widths, numbers of colors, and print resolution. Please contact us to discuss your requirements.

Applications

Envelopes | Business Forms | Security Printing | Labels | Packaging | Tickets
Plastic Cards | Lotteries/ Bingos



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