

# Morpho

High Performance Inkjet Printing System for VDP

- Monochrome
- Max. 432mm print width (17 inches, full A2 width)
- Up to 400m/min (1312ft/min)
- Based on Kyocera KJ4 print head
- UV, water-based dye, pigment, or MICR ink

600DPI  
HIGH SPEED  
RELIABLE & FLEXIBLE



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

Utilizing Kyocera KJ4 print head, the world's fastest and highest resolution piezo inkjet print head technology, Morpho meets the increasing and rigorous demands for printing barcodes, serial numbers, dates, logos, images, times, and text on coated and uncoated substrates.

Morpho 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 prints clear and sharp edges at the high resolution of 600X600dpi. Text as small as 4pt is perfectly legible. Since Drupa 2008, Morpho's underlying technology has been proven commercially in use worldwide.

Morpho inkjet printing system includes:

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

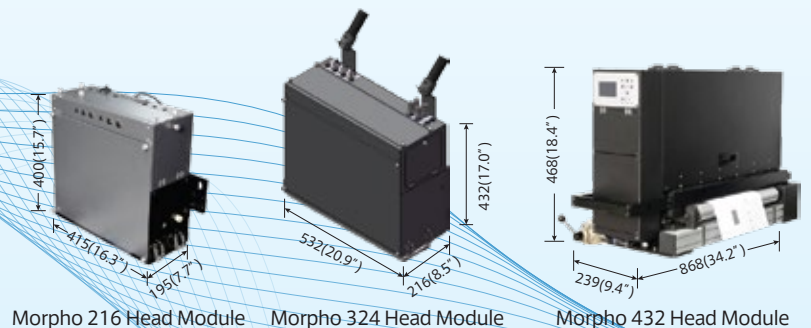
### Ink System Controller

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

### Print Head Module

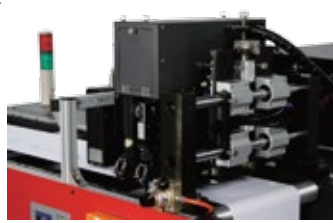
The Print head Module is available in 6 models: Morpho 108, Morpho 216, Morpho 324, Morpho 432, Morpho 108D, and Morpho 216D.

- Head power management and head temperature controller
- Intermediate ink tanks with ink level sensor

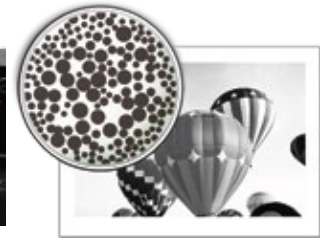


## Features

- 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

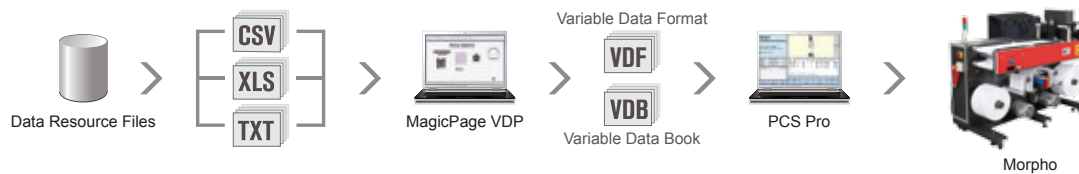


Morpho 216 Head Module with Aluminum Mounting Cross Frame



Variable Droplet Size Control

## Efficient Workflow



As a comprehensive monochrome VDP inkjet printing system, 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.

### MagicPage supports monochrome fonts and barcodes:

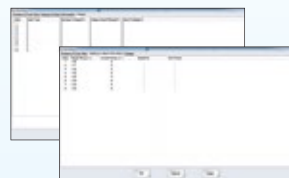
- Single-line, multi-line, numeric codes, time, and serial numbers
- Character, True Type, Type-1 support
- 1-D Barcodes include EAN-13, EAN-8, Code 39, Code 128, Codabar, GS1 DataBar-14, IATA 2 of 5, Interleaved 2 of 5, JAN-13, UPC-A, POSTNET
- 2-D Barcodes include PDF417 and QR Code

### MICR standard support available for check printing:

- E-13B and CMC-7 font



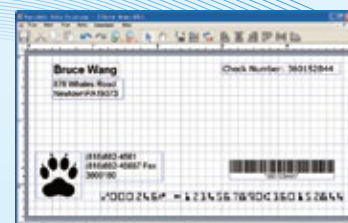
PCS Pro Main Window



Voltage and Temperature (PCS Pro)



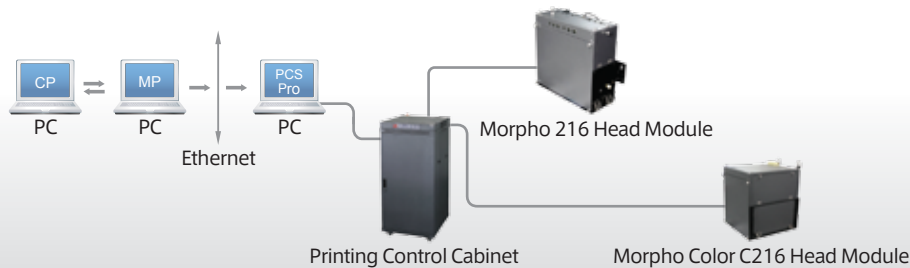
MagicPage RIP Window



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, text, serial numbers, barcodes, dates, time, MICR Fonts etc					
<b>Print Productivity</b>		Standard/ High Speed (Print Head) Unit: m/min (ft/min)				
Water-based ink	600x300 dpi	150/200 (492/656)			300/400 (984/1312)	
	600x600 dpi	75/100 (246/328)			150/200 (492/656)	
UV ink	600x300 dpi	100/150 (328/492)			200/300 (656/984)	
	600x600 dpi	50/75 (164/246)			100/150 (328/492)	

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

## Applications

Envelopes | Business Forms | Security Printing | Labels | Packaging | Tickets | Plastic Cards | Lottery/ Bingo



### AMICA SYSTEMS

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