

**Markoprint print systems**

# Top performance on all substrates

**Marking products and  
packaging by inkjet**



Industrial Inkjet  
Technology by



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## The Setup determines who has Pole Position

Innovative marking systems for coding of products and packaging have been developed in close cooperation with our customers and produced under the name Markoprint for more than 50 years.

With its different control units for the Markoprint product range, Weber Systems is the only manufacturer worldwide able to centrally control three printing technologies.

Apart from the Hewlett Packard printheads for high resolution small coding and the tried and tested Trident printheads for large coding, the industrial printheads of Funai Industrial Inkjet and Xaar are also now supported.

Be it high-speed or standard systems – all variants offer many options for combination to solve any printing challenge with top results: fast, contactless and on absorbent or non-absorbent materials.

## The right team to ensure your success



### The big one

Perfect for text and graphic marking on absorbent surfaces.



### The all-rounder

A printhead suitable for high resolution marking of almost any product.

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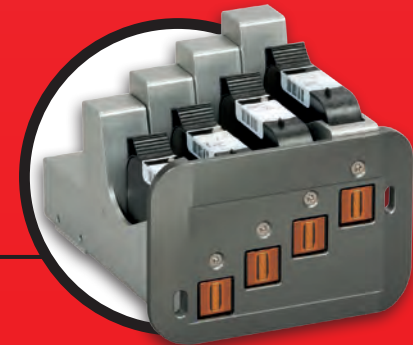
### The specialist

High resolution marking on many surfaces at very high speed.



### The productive one

Excellent print quality for text, barcodes and graphics on absorbent and slightly absorbent surfaces.



# Speed ensures your headstart





High-speed systems

## Intelligent systems for demanding applications



- Unicode support
- High data processing speeds:  
up to 50 2D codes per second
- Intelligent and compact system design
- Flexible system configuration (Advanced and Pro version)

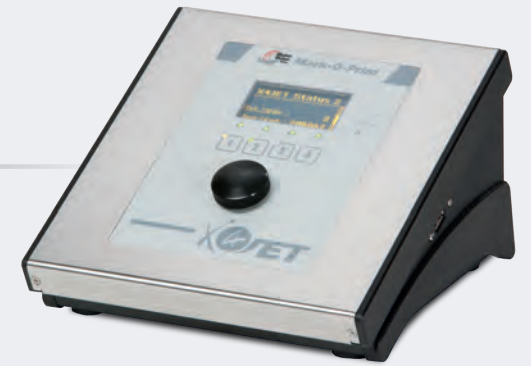
### X4JET



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- Connection of up to 4 printheads
- Connection options for HP, LX and MX printheads  
(individually or in combination)
- Stand alone system with 2.7" OLED display and iLogic input
- Layout design and creation via iDesign software
- Animated graphics for simple operation
- 2-channel version for marking packaging on two independent production  
lines with different print starts and speeds
- Own multi-tasking operating system



### X2JET plus Touch X4JET plus Touch



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- Connection of up to 2 / 4 printheads
- Connection options for HP, LX and MX printheads  
(individually or in combination)
- 5.7" touch user interface for simple operation
- Parallel operation via touch-optimised full keypad and function keys
- 2-channel version for marking packaging on two independent  
production lines with different print starts and speeds



X4JET plus Touch



iJET MK2



- Independently operating HP technology print system
- Printhead and controller as one system
- Click'n Print cartridge holder for fast cartridge change
- SmartCard function ink cartridge recognition and automatic parameter settings
- iLogic input unit for system setup and input of variables
- OLED display to show parameters and variables
- Reflex sensor integrated in the deflector
- PoE (Power over Ethernet) with M12 industrial plug connector (one plug for both power supply and data transfer)
- Display swivelling 180° for Top application
- Animated graphics for simple operation
- Innovative design
- Own multi-tasking operating system



Increased performance through digital tuning

The Markoprint systems offer you future-proof printing solutions:  
The variable configuration options make provision not only for today's coding demands, but also for those of tomorrow.

Every Markoprint printer is designed to optimally adapt to the demands of a specific task.  
This means: Only those components that are actually necessary are in use. The configuration is flexible, at all times allowing adaptation to the specific requirements of the application.

Ink cartridge with SmartCard function

- Cartridge is automatically detected by the system
- Automatic detection and storage of the ink filling level
- Automatic setting of the ink parameters
- Ink content, droplet size, jet voltage and firing time are stored in the cartridge
- Current ink type displayed
- iDesign display of ink item number for easy reordering
- Warning message with expired shelf life – system continues to print
- Warning message if cartridge is open for too long (installed life) – system continues to print



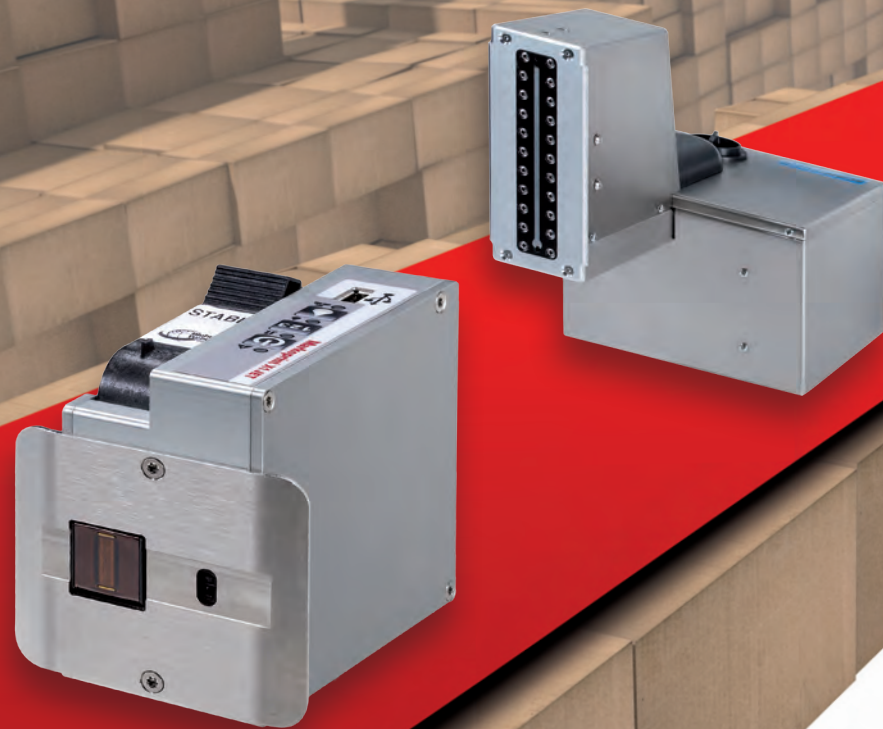
Configuration	X1JET HP MK2 / X1JET LX MK2 / X1JET MX / X1JET XR				iJET MK2				X2JET plus Touch / X4JET X4JET plus Touch	
	Print	Basic	Advanced	Pro	Print	Basic	Advanced	Pro/HiSpeed	Advanced	Pro/HiSpeed
Max. printing speed [m/min]										
HP (Hewlett Packard) 300 dpi	30	30	60	90	60	30	90	90/180	90	90/180
LX (Funai) 300 dpi	30	30	60	90					90	90/240
MX (Trident) 200 dpi	30	30	60	90					90	90
XR (XAAR) 180 dpi	30	30	60	100						
Max. resolution -horizontal	50-900 dpi	50-900 dpi	50-900 dpi	50-900 dpi	50-900 dpi	50-900 dpi	50-900 dpi	50-900 dpi	50-900 dpi	50-900 dpi
-vertical HP (Hewlett Packard)	300 dpi	300 dpi	300/600 dpi	300/600 dpi	300/600 dpi	300/600 dpi	300/600 dpi	300/600 dpi	300/600 dpi	300/600 dpi
LX (Funai)	300 dpi	300 dpi	300/600 dpi	300/600 dpi					300/600 dpi	300/600 dpi
MX (Trident)	64/192 dpi	64/192 dpi	64/192 dpi	64/192 dpi					64/192 dpi	64/192 dpi
XR (XAAR)	180 dpi	180 dpi	180 dpi	180 dpi						
Max. text length in m at 300 dpi	1	1	1	2	2	2	2	6	1	3
Text field	+	+	+	+	+	+	+	+	+	+
Counter	-	-	+	+	+	-	+	+	+	+
Time	-	+	+	+	+	+	+	+	+	+
Date field	-	+	+	+	+	+	+	+	+	+
Date offset	-	-	+	+	+	-	+	+	+	+
Logo	+	+	+	+	+	+	+	+	+	+
Variable	-	-	-	-	+	-	+	+	+	+
Action fields	-	-	+	+	-	-	+	+	+	+
Barcode	-	-	+	+	-	-	+	+	+	+
2D-Code	-	-	-	+	-	-	+	+	+	+
Data transfer per USB-Stick	+	+	+	+	+	+	+	+	+	+
Ethernet	+	+	+	+	-	+	+	+	+	+
EIA232	+	+	+	+	-	-	-	-	+	+
Password protection	-	-	-	-	-	-	-	+	-	+
Configurable inputs or outputs	+	+	+	+	-	-	-	+	+	+
DB-Print	-	-	-	+	-	-	-	+	-	+

+ incl. in delivery - not available



## Standard systems

# Entry point to professional marking



- Innovative print systems
- Diverse options for application
- Simple operation
- Compact system for simple integration

## X1JET HP MK2

- Independently operating HP technology print system
- Small and compact
- Controller and printhead all in one
- Simple and intuitive 3-button operation with LED indicator lamps for user-friendly system control
- SmartCard function ink cartridge recognition and automatic parameter settings
- Cost-effective entry system
- Variable control via interface
- Simple layout and parameter transfer by USB stick



## X1JET HP Premium MK2

- Durable case made of milled and anodised aluminium
- Patented Click'n Print cartridge holder for quick and easy cartridge replacement
- Integrated photo sensor for automatic print trigger
- SmartCard function ink cartridge recognition and automatic parameter settings



## X1JET LX MK2

- Independently operating LX technology print system
- Small and compact
- Controller and printhead all in one
- Simple and intuitive 3-button operation with LED indicator lamps for user-friendly system control
- Integrated memory for automatic ink type detection and ink filling level storage
- Automatic voltage adjustment for solvent ink LX NP1
- Cost-effective entry system
- Variable control via interface
- Simple layout and parameter transfer by USB stick





# Software for design and management of printed images

## X1JET MX

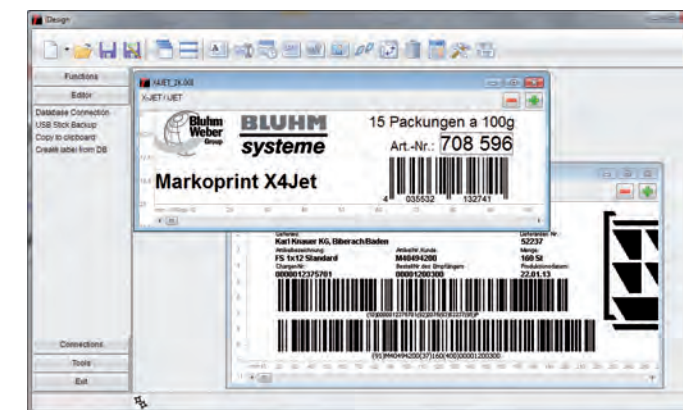
- Independently operating Trident Piezo technology print system
- Maintenance station integrated in the print system
- All in One – printhead, ink system, maintenance station, control electronics and mains unit
- Simple and intuitive 3-button operation with LED indicator lamps for user-friendly system control
- Available with 50 or 100 mm printhead
- In the Compact, Top or Vario version
- With Scantrue ink



- Administrating and creating print images
- Ink consumption calculator
- Unicode support: Implementation of international symbol sets for global marking
- Clear display of all connected print systems
- Unlimited number of administrated systems
- Control via Ethernet, USB or EIA232



Status



Printing layout design

- Start/stop of printing with database connectivity
- Status window with indication of all operational statuses via protocol function, e.g. ink levels and current printing label
- Working with overview of all running printing processes for one or more devices
- Set-up of printing parameters and configuration of print systems
- Online administration of parameters for all networked systems
- Parameter backup
- Password protection/user administration incl. GAMP 5 regulations
- Optional: iDesign Touch – optimised for Touchscreen IPCs

## X1JET XR

- Print system based on tried and tested XAAR Piezo technology
- Compact case with integrated printhead, ink system, maintenance station and control electronics
- Easy jet cleaning with integrated maintenance station
- 500 individually selectable jets



- Protocol function for user actions and operational statuses
- Transfer of external data, or triggering of active fields for fast and secure data transfer
- Print image change via XML or text files
- DB print for variable database printing at more than 3 000 printouts/min. of e.g. lottery codes or address labels



Parameters



Integrated solutions

## Maximum flexibility through diverse options for integration



### XB4JET / XB8JET



XB4JET

The compact and robust control units XB4JET and XB8JET serve to control ink jet printheads for product marking.

The following Markoprint printing technologies are supported:  
Hewlett-Packard, Funai, Trident.

- Simultaneous labelling of primary and secondary packaging, using one controller
- Printing on up to two production lines with the XB4JET and up to four production lines with the XB8JET
- Ideal for fixed installation in control cabinets since fully remote-controlled from different interfaces
- Printing layout design via the iDesign software supplied
- Transfer of print layouts via network connection, EIA232, USB interface or USB stick to the XB4JET and XB8JET

The **Markoprint XB4JET** is suited for connecting up to 4 printheads.  
Printing heights up to 50 mm possible with HP and LX printheads, up to 400 mm with MX.

The **Markoprint XB8JET** is suited for connecting up to 8 printheads.  
Printing heights up to 100 mm possible with HP and LX printheads, up to 800 mm with MX.



XB8JET



# NonStopPrinting



- Cartridge replacement or cleaning without interrupting production
- Ideal for continuously running systems such as deep-drawn packaging with several users
- Ink does not dry up since both cartridges print alternately on the same position
- Designed for HP and LX printheads
- Printing ratio 2:1 – at least 50% still remaining in one cartridge if the other is empty
- Maximum printing height 12.5 mm or 25 mm depending on printhead
- Option: Cartridge stops automatically if a connected camera detects misprints. Error-free printing with the second cartridge until replaced.



# Shutter Printhead HP



- Effective protection against dirt and drying of ink
- Nozzle plate closes automatically, if no printing
- If an additional light barrier detects production line start-up, the printhead cartridge is again set in printing position
- Guarantees clean write response behaviour also after being idle for several days
- Overpressure in the case prevents ingress of dust (via external compressed air connection)



# X1JET HP Stitch MK2



- Independently operating HP technology print system
- Durable case made of milled and anodised aluminium
- Patented Click'n Print cartridge holder for quick and easy cartridge replacement
- SmartCard function ink cartridge recognition and automatic parameter settings
- Space saving electronics fitted behind cartridge
- Application in confined installation conditions
- Particularly advantageous with several printers, e.g. in a multi-lane deep-drawn packaging plant, to print several 12.5 mm print images simultaneously
- Up to 8 printheads can be cascaded to print a 100 mm high print image
- No integrated photo sensor for automatic print trigger



# Optimal configurations for high performance

Configuration	Standard systems				High-speed systems			
	X1JET HP MK2 X1JET Premium MK2 X1JET Stitch MK2	X1JET LX MK2	X1JET MX	X1JET XR	iJET	X2JET plus Touch	X4JET X4JET plus Touch	XB4JET XB8JET
Supported printing technology	HP	LX	MX	XR	HP	HP, LX, MX	HP, LX, MX	HP, LX, MX
Max. number of printheads	1	1	1	1	1	2	4	4/8
Max. number of production lines	1	1	1	1	1	2	2	2/4
Max. printing height in mm								
HP (Hewlett Packard)	12,5				12,5	25	50	50/100
LX (Funai)		12,5				25	50	50/100
MX (Trident)			50 /100			200	400	400/800
XR (XAAR)				71				
Max. printing speed in m / min								
HP (Hewlett Packard) at 300 dpi	90/60*				180/60*	180/60*	180/60*	180/60*
LX (Funai) at 300 dpi		90/90*				240/90*	240/90*	240/90*
MX (Trident) at 200 dpi			90/60*			90/60*	90/60*	90/60*
XR (XAAR) at 180 dpi				100/60*				
Display	-/-/-	-	-	-	OLED	Touch TFT 5,7"	OLED/Touch TFT 5,7"	-/-
System dimensions in mm (LxWxH)	HP MK2: 122x74x99 Premium: 122x74x99 Stitch MK2: 235x26x103	122x88x96	371x176x246	308x182x228	88x101x80	220x230x140	220x230x140	XB4JET: 176x180x110 XB8JET: 349x180x110
Weight in kg	HP MK2: 0,55 Premium: 0,55 Stitch MK2: 0,5	0,6	5,5	5	0,7	3	3	XB4JET: 2,6 XB8JET: 5,2
Protection class	IP 40	IP 40	IP 40	IP 40	IP 40	IP 40	IP 40	IP 40

Connections:	X1JET HP MK2 X1JET Premium MK2 X1JET Stitch MK2	X1JET LX MK2	X1JET MX	X1JET XR	iJET	X2JET plus Touch	X4JET X4JET plus Touch	XB4JET XB8JET
External sensor	+	+	+	+	+	2x	4x	4x/8x
Internal sensor	+ / + / -	+	-	-	+	-	-	-
Rotary encoder	+	+	+	+	+	2x	2x	2x/4x
Status / alarm outputs	4x	4x	4x	4x	2x	4x	4x	4x/8x
Floating outputs	-	-	-	-	-	4x	4x	4x/8x
USB A for USB stick	+	+	+	+	+	+	+	+
USB interface	-	-	-	-	USB Mini B	USB B	USB B	USB B
Ethernet	+	+	+	+	X	+	+	+
EIA232	+	+	+	+	-	+	+	+
WLAN	-	-	-	-	-	-	-	-
EIA422	-	-	-	-	-	-	-	-

Software:	X1JET HP MK2 X1JET Premium MK2 X1JET Stitch MK2	X1JET LX MK2	X1JET MX	X1JET XR	iJET	X2JET plus Touch	X4JET X4JET plus Touch	XB4JET XB8JET
Multiple languages	+	+	+	+	+	+	+	+
Unlimited fonts	+	+	+	+	+	+	+	+
Text (variable / fixed)	X	X	X	X	X	+	+	+
Free design of print layout	iDesign	iDesign	iDesign	iDesign	iDesign	+	+	iDesign
Date / time	X	X	X	X	X	+	+	+
Shift code / counter	X	X	X	X	X	+	+	+
Graphics / barcodes	X	X	X	X	X	+	+	+
2D-Code, GS1 Datamatrix, QR code	X	X	X	X	X	+	+	+
Action fields	X	X	X	X	X	+	+	+
Ink consumption calculator	iDesign	iDesign	iDesign	iDesign	iDesign	+	+	iDesign
iDesign Software	+	+	+	+	+	+	+	+
iDesign Touch	+	+	+	+	+	+	+	+
ODBC connection	X	X	X	X	X	X	X	X

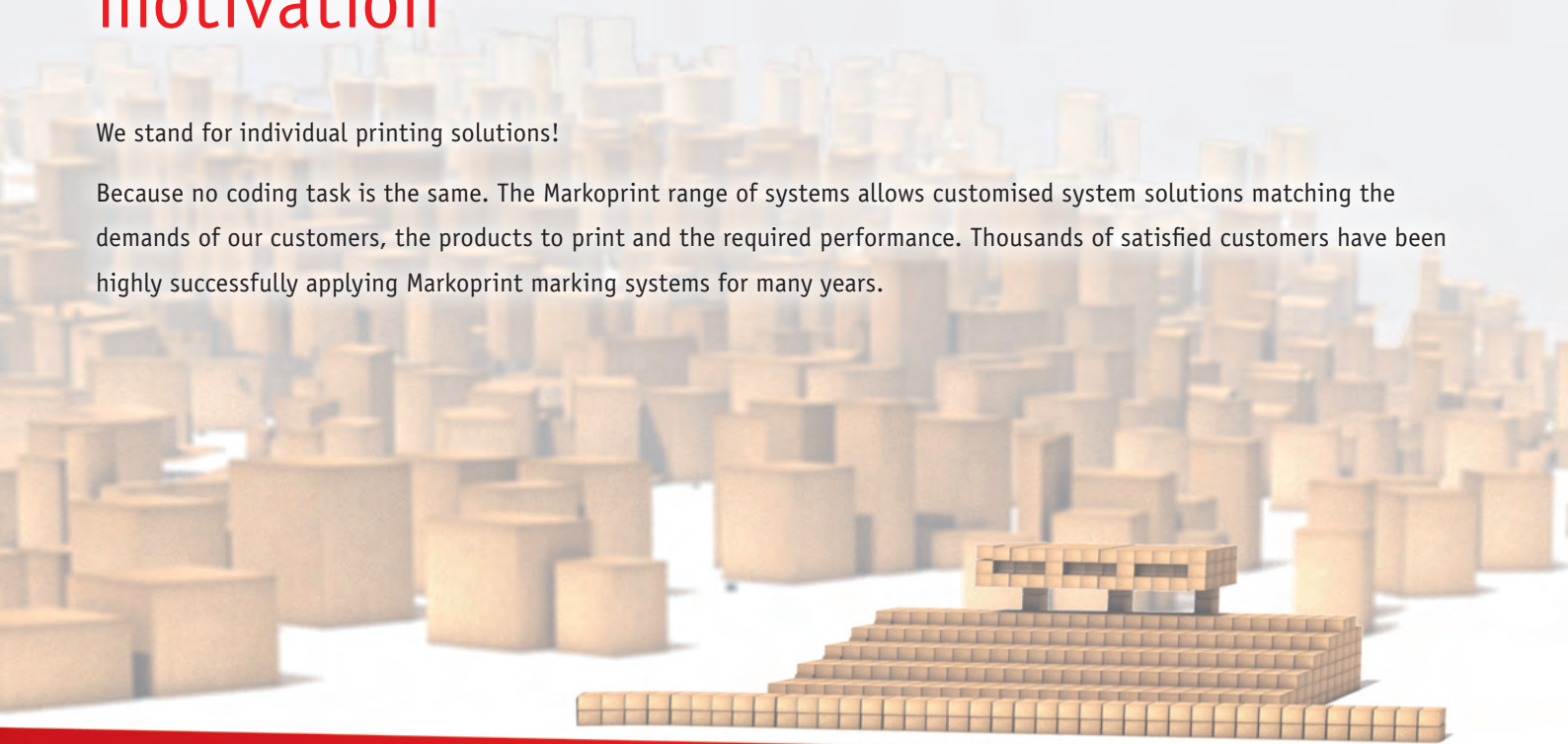
\* recommended for barcode applications      + incl. in delivery      - not available      X depending on configuration  
All information subject to technical changes.



# Your demand is our motivation

We stand for individual printing solutions!

Because no coding task is the same. The Markoprint range of systems allows customised system solutions matching the demands of our customers, the products to print and the required performance. Thousands of satisfied customers have been highly successfully applying Markoprint marking systems for many years.



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