

#### **Markoprint Printing Systems**

# Top Performance on any Surface

Product and packaging labelling using inkjet



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#### Starting line-up

The set-up decides

Speed ensures the lead

O3\_ The right team

High-speed systems

05

X41FT

X2JET plus Touch/X4JET plus Touch

O6\_XB4JET/XB8JET

07\_\_Increased performance

08 Standard systems

X1JET HP MK2

X1JET HP Premium MK2

- X1JET HP Stitch MK2

X1JET LX MK2

11\_X1JET MX
X1JET XR

iDesign: print design and management software

Excellent results

Optimal equipment

Your requirements

## The set-up decides the pole position

Innovative labelling systems for product and packaging codes have been developed and produced under the name of Markoprint for more than 40 years in close cooperation with our customers.

With the different control appliances from the Markoprint product line Bluhm Systeme is the only manufacturer worldwide who can control four printing technologies centrally.

Besides the Hewlett Packard print heads for high resolution small coding and the proven Trident print heads for large coding, we can now also use the industrial print heads from Funai Industrial Inkjet and Xaar.

Whether for high-speed or standard systems – all variations offer many possible combinations to master every printing requirement in the highest quality: fast, contact-free and for both absorbent and non-absorbent materials.

1996 1998 1999 2000 2002 2003 200 UniLine Waxmark Maxiline V3 CL 2 CL 2 Multiline 1

1991
Jetpen
with HP
Cartridge 1.0

1992 Multiline 1 with Psion Terminal 1993
Multiline 1
with Display
and keyboard

Speed &

### The right team for success



#### The big one

Perfect for text and graphic printing on absorbent surfaces.



#### The all-rounder

A print head that can be used to print in high resolution on almost any product.



#### The specialist

High resolution printing on many surfaces and at very high speed.



#### The productive one -

Excellent print quality for texts, barcodes and graphics on absorbent and low absorbency surfaces.

2009

CL 2.5 V6 /

Maxiline

2010

Multiline MX

X4JET

CUBE MK2



2007

CL 3.0

2008

2012 X1JET HP X1JET LX X1JET MX

X2JET plus

2011

CL 3.0 MK2

X4JET plus

Nozzle seal HP, Non-stop Printing, X1JET HP Premium

2013

XB4JET/XB8JET, X2JET/X4JET plus Touch, X1JET XR, X1JET HP Stitch MK2, HP MK2 Print heads, LX MK2 Print heads

the Lead

2006

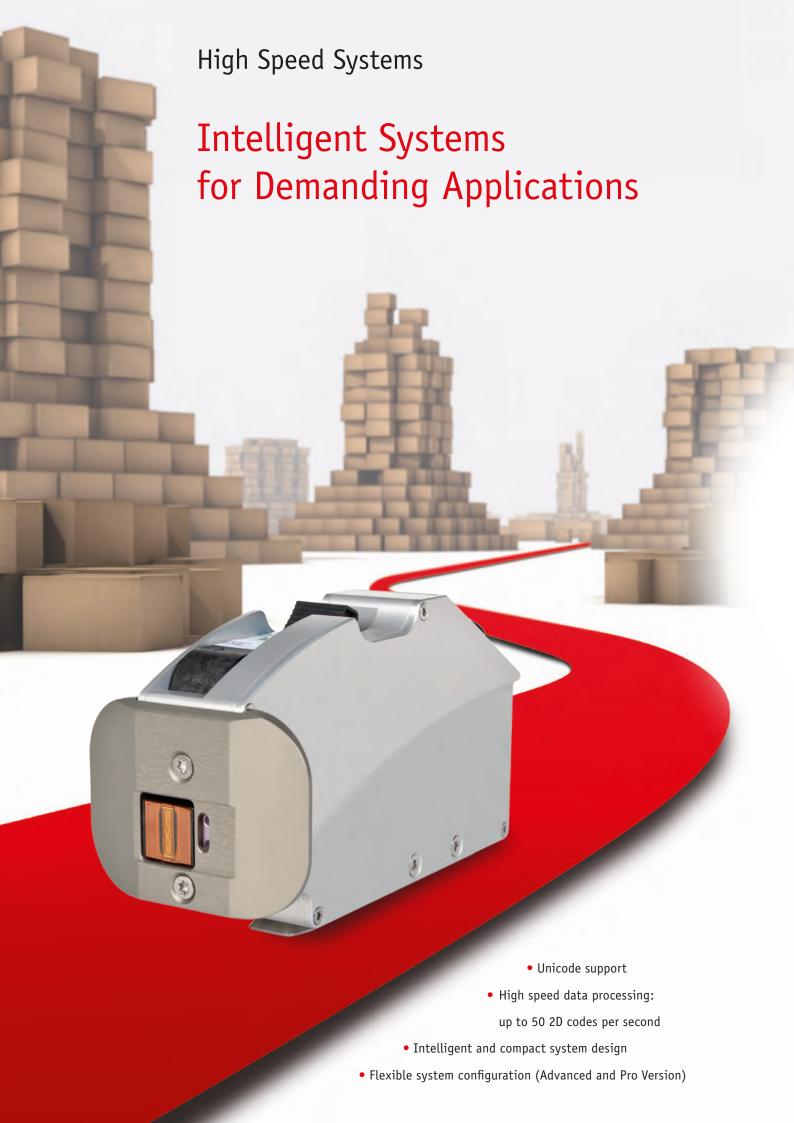
CL 1.0

CL 2.5 V5 /

Maxiline









#### X4JET







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

### X2JET/X4JET plus Touch









- Possible connection of HP, LX and MX print heads (individually or in combination)
- 5.7" touch surface for easy operation
- Parallel operation via touch-optimised full keyboard and function buttons
- 2-channel version for printing packaging on two independent production lines with different print starts and print speeds





#### XB4JET / XB8JET









- Possible connection of HP, LX and MX print heads (individually or in combination)
- Can be remote controlled via different interfaces using iDesign / iDesign Touch
- Perfectly suited to fixed installation in switch cabinets
- Printing on up to two production lines with the XB4JET and on up to four with the XB8JET
- Simultaneous printing of primary and secondary packaging with a controller



XB4Jet



XB8Jet

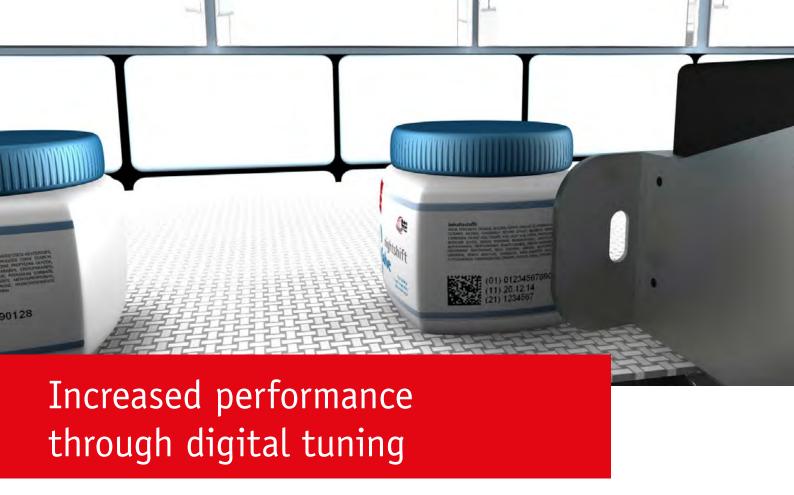


#### **iJET**



- Independent printing system on HP technology
- Print head and control device in one system
- Click'n Print cartridge holder for fast cartridge changes
- iLogik input unit for system settings and inputting variables
- OLED display for parameters and variables
- Reflex sensor integrated in deflector
- PoE (Power over Ethernet) with M12 industrial plug-in connector (only one plug for power supply and data transfer)
- Display can be turned 180° for top application
- Animated graphics for simple operation
- Innovative design
- Own multi-tasking operating system





Markoprint systems make future-proof printing solutions available to you: variable configuration possibilities mean that not only the code requirement of today can be fulfilled, but also those of tomorrow.

Each Markoprint printer is designed in such a way that it can be adjusted optimally to the relevant task. This means: only components that are actually needed are then used. The configuration can be flexibly chosen at any time in accordance with the application to be realised and then adapted again later.

Configuration	X1JET HP MK2 X1JET HP Premium MK2 X1JET HP Stitch MK2 X1JET MX / X1JET LX MK2 X1JET XR	iJET	X4JET X2JET plus Touch X4JET plus Touch			
	Pro	Pro	Advanced	Pro		
Maximum printing speed m/min HP * MX ** LX * XR **	90/60 *** 90/60 *** 90/90 *** 60/60 ***	High-Speed 180/60 ***	90/60 *** 200/60 *** 90/90 ***	High-Speed 180/60 *** 200/60 *** 240/90 ***		
Maximum resolution - horizontal - vertical	50 to 900 dpi HP+LX: 300 / 600 dpi MX: 64/192 dpi XR: 180 dpi	50 to 900 dpi 300 / 600 dpi	50 to 900 dpi HP+LX: 300 / 600 dpi MX: 64/192 dpi	50 to 900 dpi HP+LX: 300 / 600 dpi MX: 64/192 dpi		
Maximum text length in m	2	6	2	6		
Text field	•	•	•	•		
Counter	•	•	•	•		
Time	•	•	•	•		
Date field	•	•	•	•		
Date - Offset	•	•	•	•		
Logo	•	•	•	•		
Variable	-	•	•	•		
Action field	•	•	•	•		
Barcode	•	•	•	•		
2D-Code	•	•	•	•		
Data transfer by USB stick	•	•	•	•		
Ethernet	•	•	•	•		
EIA232	•	-	•	•		
Password protection	_	•	-	•		
Input or output configurable	•	•	•	•		





#### X1JET HP MK2



- Independent print system with HP technology
- Small and compact
- Control system and print head in one
- Simple and intuitive 3-button operation with LED control lamps for user-friendly system control
- SmartCard function for the automatic recognition and storage of ink levels
- Cost-efficient introductory system
- Variable controls via interface
- Simple layout and parameter transfer using a USB stick

#### Ink cartridge with SmartCard function

- Cartridge is recognised automatically by the system
- · Automatic recognition and storage of ink level

#### X1JET HP Premium MK2



- Independent print system with HP technology
- Durable casing in milled and anodised aluminium
- Patented Click'n Print cartridge holder for fast and easy changing of the cartridge
- SmartCard function for the automatic recognition and storage of the ink level
- Integrated photo sensor for automatic print start







#### X1JET HP Stitch MK2



- Independent print system with HP technology
- Durable casing in milled and anodised aluminium
- Patented Click'n Print cartridge holder for fast and easy changing of the cartridge
- SmartCard function for the automatic recognition and storage of the ink level
- Electronics mounted behind the cartridge to save space
- Use in confined installation conditions
- Particularly advantageous for the installation of several printers, e.g. for multi-track thermoformed packaging systems in order to print several 12.5 mm print images simultaneously
- Up to 8 print heads can be cascaded to print an image with a height of 100 mm
- No integrated photo sensor for automatic print start





#### X1JET LX MK2



- Independent print system with LX technology
- Small and compact
- Control system and print head in one
- Simple and intuitive 3-button operation with LED control lamps for user-friendly system controls
- Integrated memory for automatic ink type recognition and storage of the ink level
- Automatic power adjustment for solvent-based ink LX NP1
- Cost-efficient introductory system
- Variable controls via interface
- Simple layout and parameter transfer using a USB stick



#### X1JET MX



- Independent print system with Trident Piezo technology
- Cleaning station integrated with print system
- All-in-one print head, ink system, cleaning station, control electronics and power supply
- Simple and intuitive 3-button operation with LED control lamps for user-friendly system controls
- Available as 50 or 100 mm print head
- As Compact, Top or Vario version
- With Scantrue ink





#### X1JET XR



- Print system based on proven XAAR Piezo technology
- Compact casing with integrated print head, ink system, cleaning station and control electronics
- Simple nozzle cleaning with integrated maintenance station
- 382 individually controllable nozzles





### Print design and management software

- Administration and creation of print labels
- Ink consumption calculator
- Unicode support: implementation of international character sets for worldwide labelling
- Clean depiction of all connected print systems
- Unlimited number of administered systems
- Control via Ethernet, USB or EIA232



Status



Print layout creation

- Print start/print stop with database connectivity
- Status window with display of all operating conditions with protocol function, e.g. ink level and current print label
- Work with an overview of all current print processes on individual or several appliances
- Setting of print parameters and configuration of print systems
- Online parameter administration of all networked systems
- Parameter backup
- Password protection/user administration including GAMP 5 regulations
- Optional: iDesign Touch optimised for touch-screen IPCs
- Protocol function for user actions and operating conditions
- Transfer of external data and/or activation of action fields for fast, safe data transfer
- Change of print design using XML or text files
- DB-Print for variable database printing up to over 3,000 prints per minute, for example for winning codes or addresses



**Parameters** 



# First-class results on almost any surface









# Optimal equipment for high performance

	High-speed Systems				Standard Systems			
	X4JET	X2JET Touch X4JET Touch	XB4JET XB8JET	iJET	X1JET HP/Premium /Stitch MK2	X1JET MX	X1JET LX MK2	X1JET XR
Supported print technologies	HP, MX, LX	HP, MX, LX	HP, MX, LX	НР	НР	MX	LX	XR
Maximum print height in mm HP MX LX XR	50 400 50	25/50 200/400 25/50	50/100 400/800 50/100	12,5	12,5	100	12,5	54
Maximum number of print heads	4	2/4	4/8	1	1	1	1	1
Max. number of production lines	2	2	2/4	1	1	1	1	1
Maximum print speed in m/min HP* MX** LX* XR**	180 / 60*** 200 / 60*** 240 / 90***	180 / 60*** 200 / 60*** 240 / 90***	180 / 60*** 200 / 60*** 240 / 90***	180 / 60***	90 / 60***	90 / 60***	90 / 90***	60 / 60***
Display	OLED	Touch TFT 5,7"	-	OLED	-	-	-	-
System dimensions in mm L / B / H	220 x 230 x 140	220 x 230 x 140	XB4JET: 176 x 180 x 110 XB8JET: 349 x 180 x 110	88x101x80	HP: 122 x 74 x 99 Stitch: 235 x 26 x 103	371 x 176 x 246	122 x 88 x 96	308 x 182 x 228
Weight in kg	3	3	XB4JET: 2,6 XB8JET: 5,2	0,7	HP/Premium: 0,55 Stitch: 0,5	5,5	0,6	5
Protection class	IP 40	IP 40	IP 40	IP 40	IP 40	IP 40	IP 40	IP 40
Connections:	I							
Rotary pulse encoder	•	•	•	•	•	•	•	•
Sensor	•	•	•	•	•	•	•	•
Internal sensor	_	_	_	•	●/●/—	_	•	_
Potential-free output	•	•	•	_	•	•	•	•
Status / alarm output	•	•	•	•	•	•	•	•
Ethernet	•	•	•	•	•	•	•	•
USB-Stick / USB interface	●/●	•/•	•/•	●/●	•/-	•/-	●/-	●/-
WLAN	0	0	0	0	0	0	0	0
EIA232	•	•	•	_	•	•	•	•
EIA422	_	_	_	-	_	_	_	_
Software:	1							
Multi-lingual	•	•	•	•	•	•	•	•
Unlimited fonts	•	•	•	•	•	•	•	•
Text (variable/ fixed)	•	•	•	•	•	•	•	•
Free design of print layout	0	•	0	0	0	0	0	0
Date / time	•	•	•	•	•	•	•	•
Shift code / counter	•	•	•	•	•	•	•	•
Graphics / barcodes	•	•	•	•	•	•	•	•
2D code, GS1 Data matrix code, QR code	•	•	•	•	•	•	•	•
Action fields	•	•	•	•	•	•	•	•
Ink consumption calculator	•	•	0	•	0	0	0	0
iDesign software	•	•	•	•	•	•	•	•
iDesign Touch	•	•	•	•	•	•	•	•
ODBC connection	x	x	x	•	•	•	•	•

Maximum print height per print head in mm: MX 50 oder 100 | HP 12,5 | LX 12,5

<sup>●</sup> Scope of delivery O Available as option — Not available X Depends on configuration

<sup>\*</sup> at 300 dpi \*\*\* recommended for barcode applications

<sup>\*\*</sup> Depends on the intensity



### Your requirements are our incentive

Individual labelling solutions - that is what we are here for!

Every labelling task is different. The Markoprint series makes the right system solution possible, adjusted to the requirements of our customers, the product to be labelled and the desired performance.

There are already thousands of satisfied customers all over the world who have been placing their trust in Markoprint labelling systems for many years.









