



Markoprint

WE MAKE IT WORK

Product overview

markoprint.com



ART OF CODING

The Markoprint brand offers you marking solutions that are precisely tailored to your requirements – with more than 50 years of experience.

Starting with the Jetpen, which used thermal inkjet technology, a large character printer with a piezoelectric print module soon followed, enabling both small and large characters to be printed.

In the years that followed, the technologies were continuously developed in collaboration with our partners. An important milestone was the introduction of the iJET, an intelligent printer capable of handling highly complex marking requirements such as variable 2D barcodes. For the pharmaceutical industry or shipping applications with up to 50 variable codes per second.

Due to the increasingly complex network requirements of modern industrial plants, the focus is shifting from simple surface markings to independently networked systems with intelligent control. The current generation of Markoprint printing systems meets these new requirements with high-speed printing, serial printing of complex data sets, support for TrueType fonts, and Unicode character sets.

At Markoprint, development is continuously driven forward so that you can rely on the integration of new technologies – such as UPC/EAN codes or full access via mobile devices – to always get the best solution for your industrial marking needs.



**The Jetpen from 1991
based on thermal inkjet
technology**

MISSION STATEMENT

The core of our business is the development of innovative marking solutions, customer-oriented service, and cooperation with a global network of high-performance partners.

HIGH QUALITY, MADE IN GERMANY

The best materials, the most innovative ideas – that's „Made in Germany.“ Aluminum is our preferred product material – manufactured from a single piece wherever possible – and stands for durability and sustainability.



Andreas Bluhm,
Vice President

“With our wide range of printing systems and technologies, Markoprint coding solutions meet every system environment and customer requirement. Whether large or small fonts, high-speed Applications in the pharmaceutical or automotive industries or harsh industrial environments—we offer the right system for every application.”

Our projects result in first-class, highly complex solutions that are nevertheless easy to use. To achieve this goal, the Markoprint team is part of a strong global community. We do not focus solely on the German market: our worldwide network of distributors and trading partners is the foundation of all past and future developments. They are the key to the dynamic implementation of market requirements and a central component of our product development program.



Contact us or visit us at
www.weber-marking.com/mop

The Markoprint integra Coreflex is the flexible heart of the coding system: it controls up to four print heads, supports various inkjet technologies, and enables simultaneous operation on two production lines.



STATE OF THE ART

Which printing technology would you like to use? Wherever high-quality printing is required, reliable printing technology must always be used.

The „Made in Germany“ printhead design

Markoprint is the only manufacturer worldwide that can centrally control five printing technologies. The flexible and future-proof printing technologies of the HP Class, LX Class, MX Class, XR Class, and PP Class offer complete consumption control and ensure a perfect print image on almost all products.

THERMAL INKJET TECHNOLOGY

- Clean
 - New print head with every cartridge
 - No maintenance
- Intelligent ink cartridges
 - Small, compact print heads
 - Flexible and variable in application

HP CLASS

- Print heights from 1.5 to 108 mm with up to 1200 dpi
- 180 m/min at 300 dpi
- Click'n Print cartridge holder
- Wide range of inks
- Bulk/large volume ink support



HP 12.5 mm



HP 108 mm

LX CLASS

- Print heights up to 25.4 mm with up to 600 dpi
- High printing speeds up to 240 m/min at 300 dpi
- Up to 10 mm print distance to the product
- Excellent print quality



LX 25.4 mm



LX 12.5 mm

PIEZO TECHNOLOGY

- Non-stop printing integrated
 - Efficient thanks to large ink tank
 - IQ Supplies
- Optimized maintenance intervals
 - High speed
 - Printing on different materials

PP CLASS

- Top quality printing of barcodes, small fonts (from 1.5 mm) and detailed logos
- Print heights from 1.5 to 108 mm with up to 360 dpi
- Recirculating ink system in the integra PP 108 for uncomplicated use



XR CLASS

- Optimized for many applications
- Print heights up to 71 mm with up to 180 dpi
- Optimized for larger barcode and text printing
- Perfect for detailed logo printing

MX CLASS

- Print heights up to 50/100 mm with up to 192 dpi
- The standard for industrial PIEZO marking
- Optimized for larger barcodes and text prints



Intelligent consumables

INK 4.0

Markoprint's HP Class and LX Class printing systems use an intelligent chip that is integrated into the consumable. This enables the printing system and the consumable to communicate with each other.

The auto setup function enables automatic adjustment of the various ink parameters. Additional advantages of the consumables

– IQ Supplies include:

- Automatic detection of ink type
- Real-time ink level monitoring
- Guaranteed consistent print quality

Integrated RFID chips enable the latest generation of piezoelectric printing systems — such as the integra PP 108 and the integra PP RAZR — to automatically recognize the ink.



www.weber-marking.com/mop-ink



NONSTOPPRINTING

Made possible by intelligent print heads.

NonStopPrinting offers a solution with no downtime for maximum system availability.

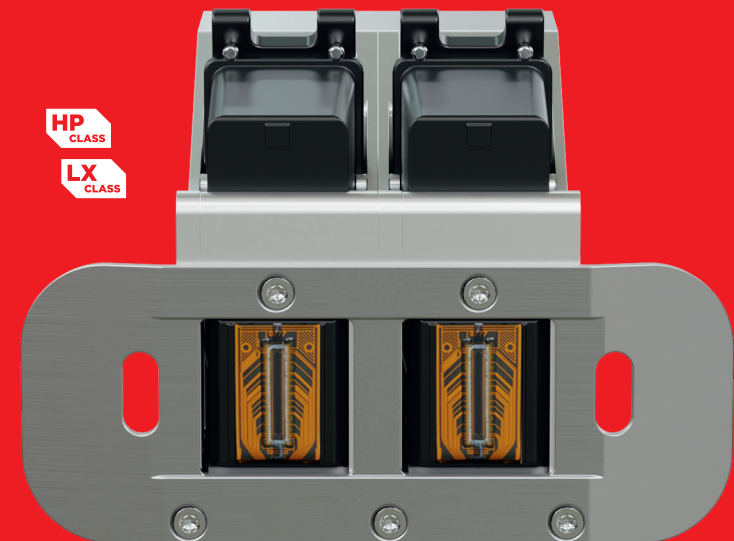
Thermal inkjet

Continuous, uninterrupted printing in demanding 24/7 industrial environments. An intelligent algorithm ensures that the cartridges are always ready for use.

Even two-color prints up to a print height of 25,4 mm are possible with the NonStopPrinting print head. With water- and solvent-based inks from the HP and LX classes, company logos or warning symbols can be applied to absorbent and non-absorbent packaging without contact.

Piezo inkjet

All piezo inkjets are equipped with an integrated „nonstop“ function. RFID and large ink tanks enable consumables to be refilled while the system is in operation.



WE MAKE IT WORK

Systems for industrial applications – ready for any challenge. The focus in the development of our systems was based on:

- Intelligent printing systems, compact and highly integrated
- High speed and modularity
- Protection class IP65 – splash and dust protection optionally available
- High-performance data management with up to 80 variable codes per second

LX
CLASS



Markoprint
PREMIUM PARTNER
HIGH QUALITY MADE IN GERMANY

INTEGRA ONE IP LX

The proven washdown technology (IP protection class) is also available for systems with LX cartridges for harsh production environments. Complex and demanding applications with high print speeds and a nozzle distance of up to 10 mm from the product can be implemented without any problems. Many innovations, such as the patented mechanism for attaching the ink cartridge and print head, will impress you!

INTEGRA ONE HP INTEGRA ONE IP HP

- Highly integrated HP Class printing system
- Developed for system integration
- Intelligent consumables are supported
- Operation via iLogik with OLED display
- integra One: Integrated photosensor for automatic print triggering
- IP65 protection class optional



HP
CLASS



HP
CLASS



HP
CLASS



IPJET MK3

- Designed for use in wet areas and dusty environments (IP65)
- Compact, robust system for easy integration into production lines
- Optimized for vertical form, fill, and seal machines (VFFS)



Inkjet Technology
Licensee

Markoprint

HP
CLASS



INTEGRA ULTIMATE

- Advancement in production:
Patented nozzle shutter head
with integrated cleaning function
- Certified to protection class IP65
- Print heights up to 1" (25.4 mm)

FLEXIBLE IN APPLICATION, PRECISE IN RESULTS

INTEGRA GO

Flexibility meets precision

- Print head and print controller in one housing
- Compact design / low space requirement
- Integrated photocell for product detection
- 1-inch cartridges enable print heights of up to 25.4 mm
- Flexible use thanks to WiFi
- Water- or solvent-based inks for perfect results on all materials /
for absorbent and non-absorbent surfaces

NEW!



TIJ 4.0 - INNOVATION AT THE HIGHEST LEVEL

With a maximum print height of 108 mm, the Markoprint integra Singular 108 enables high-resolution large-character printing in previously unattainable print quality. A reliable ink supply system and the latest HP printhead technology with integrated print control allow the print system to be positioned freely, making integration easy. 108 mm closed print images, up to 10 mm print distance to the product, and high print speeds guarantee flexible application options.

NEW!



Inkjet Technology
Licensee

Markoprint



INTEGRA SINGULAR 108

- Print height up to 108 mm, print resolution up to 600 dpi
- Greater distance to the product (up to 10 mm) possible
- Ink cartridge with large ink supply (750 ml)
- Robust and flexible design for industrial environments
- Ideal for absorbent surfaces, e.g., cardboard packaging



The black water-based Singular 1 ink is available for environmentally friendly product marking in the integra Singular 108. SmartCard technology enables realtime comparison of relevant consumption data, providing additional production reliability and increased efficiency through optimized printing.

HIGH PERFORMANCE

Markoprint piezo inkjet printers are modular and flexible, and can be scaled to your requirements.

Our piezo inkjet printers deliver outstanding print quality. They can handle complex marking requirements with small or large characters, barcodes, or logos with print heights of up to 108 mm. Large ink tanks, durable print heads, and optimized maintenance intervals ensure even greater efficiency and higher availability.

INTEGRA PP RAZR

- Optimized for integration into production systems
- Impressive print image resolution up to 600 dpi vertical
- Speeds of up to 90 m/min at 300 dpi
- Integrated redundancy
- Solvent ink for printing on absorbent and non-absorbent surfaces
- Print heights up to 34 mm without offset



INTEGRA PP 108 INTEGRA PP 108 BICOLOR

- Large and high-resolution marking on production lines
- Print heights up to 108 mm
- Print speeds up to 150 m/min at 360 dpi
- Recirculating ink system
- Height-independent ink system
- integra PP 108 bicolor: One system, one printhead for two-color printing
- integra PP 108 UV: UV-curing ink for printing on absorbent and non-absorbent materials



Controller

CONTROLLER

- Coreflex for operation at the production line
- integra Quadro and integra Quadro2 for integration into the production line
- 4 supported printing technologies
- Flexibly configurable for the application
- Multi-channel technology for different printing technologies with one controller
- Speed and start signal can be individually adjusted to the connected printing technology
- Hybrid operation with keyboard / iLogik or touch (resistive)

INTEGRA COREFLEX

- Optimized for use at the production line with up to 4 print heads
- The print heads can be individually adjusted to the respective requirements:
 - 1 Channel for up to 2 printheads of one printing technology
 - 2 Channel for up to 4 print heads of different printing technologies
- 5.7" touchscreen and keyboard for easy operation

NEW!

LX
CLASS
HP
CLASS
MX
CLASS
XR
CLASS



www.weber-marking.com/mop/thermal-inkjet

INTEGRA QUADRO INTEGRA QUADRO²

- Optimized for integration into the production line with up to 4/8 print heads
- Compact design for integration into control cabinets or machines
- Developed in cooperation with our machine and plant engineers
- iLogik controller and OLED display are included with the integra Quadro, the integra Quadro² is completely designed for integration
- The print heads can be individually adjusted to the respective requirements:
 - 1 Channel up to 4/8 print heads of one printing technology
 - 2 Channel for up to 4/8 print heads of different printing technologies
 - 4 channels for up to 8 print heads of different printing technologies



LX
CLASS
HP
CLASS
MX
CLASS
XR
CLASS



LX
CLASS
HP
CLASS
MX
CLASS
XR
CLASS

X1 platform

X1 - THE ALL-ROUND PLATFORM

Compact and economical, that's the X1 series from Markoprint. The print head and print controller are housed in a single unit, enabling easy integration into existing production lines.

LX
CLASS

LX
CLASS



X1JET LX ULTRA

Versatile and a true all-rounder, that's the new X1JET LX Ultra printing system from Markoprint. Product markings twice as large, up to 25.4 mm height, are possible thanks to the

use of a 1-inch cartridge. Simple operation, almost maintenance-free and economical operation are a matter of course.

X1JET HP STANDARD X1JET HP PREMIUM X1JET HP STITCH

- Standard: Compact all-rounder for system integration
- Premium: High-speed function and optional WiFi
- Multiple X1JET HP Stitch printheads can be flexibly cascaded. With up to eight printheads, a 100 mm high print image can be achieved.

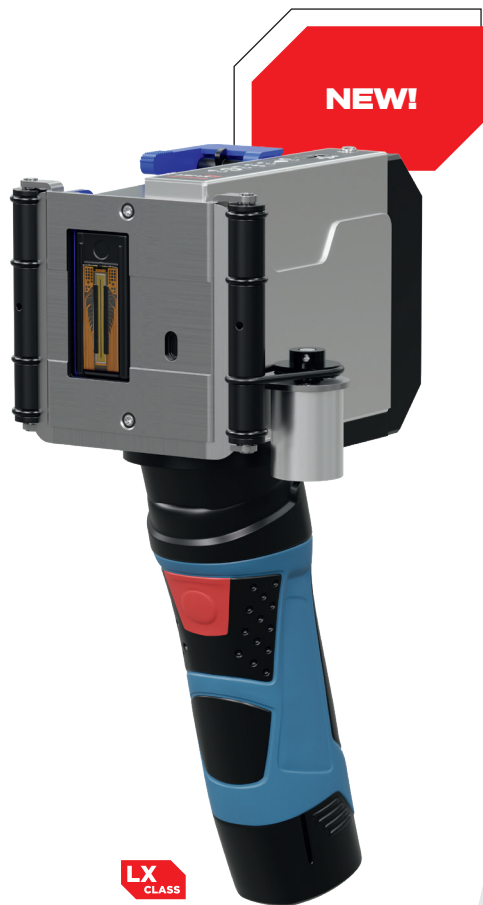


HP
CLASS

hp Inkjet Technology
Licensee
Markoprint

HANDHOLD HANDHOLD LX ULTRA

- Low weight and compact design
- Easy handling
- Mobile, location-independent product marking
- Powerful battery
- WiFi version optionally available
- HandHold print height up to 12.7 mm
- HandHold LX Ultra print height up to 25.4 mm



X1JET MX X1JET XR

The „All in One“ piezo inkjet systems X1JET MX and X1JET XR provide

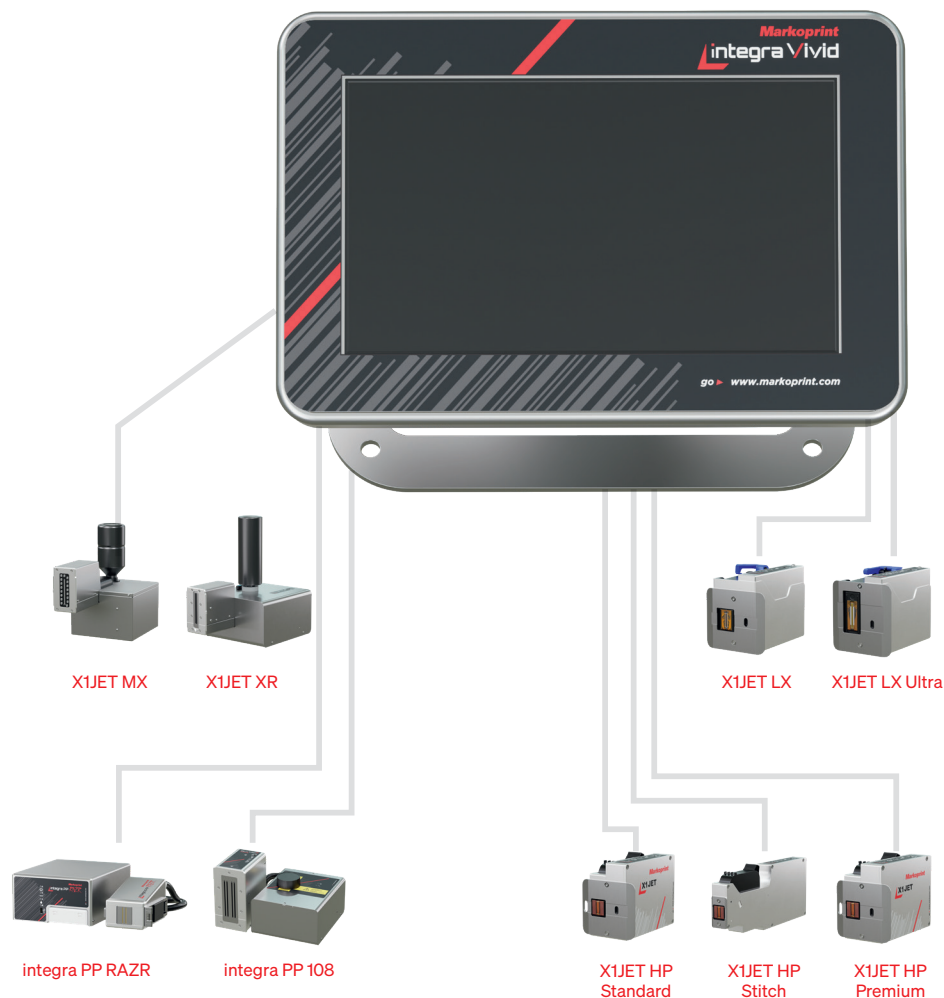
- Easy installation and maintenance of the system
- Easy commissioning and venting of the ink system by combining of print head, ink system, cleaning station, control electronics, and power supply in a one housing.

The easiest way to join the world of large character printing.





Inspired by customer requirements, the integra Vivid stands for modern touch control technology with an innovative swipe user interface. Processing print jobs and operating X1JET and PP Class printing systems is now easier than ever. The position of the 7" high-resolution HMI color display can be freely selected.



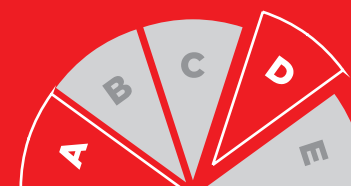
DIGITAL TUNING FOR YOUR APPLICATION

We deliver what you really need, with the security of a future-proof solution!

Thanks to years of experience and close customer dialogue, we have developed performance levels for Markoprint printing systems. These are characterized by simple, flexible, and dynamic scalability to the respective application.

To make it as individual as possible for you, we have introduced the „Coding Score.“

Performance levels of the printing systems:



CODING SCORE

A = PRINT | B = BASIC | C = ADVANCED | D = PRO | E = ULTIMATE

Every Markoprint printing system has been developed for optimal adaptation to customer requirements.

This means that with Markoprint, you are on the safe side today and in the future. The configuration of your system and your production will be perfectly coordinated. In the future, you will be able to easily add performance levels and thus meet new production and sustainability requirements without any problems.

IQ SYSTEM-ADD-ONS

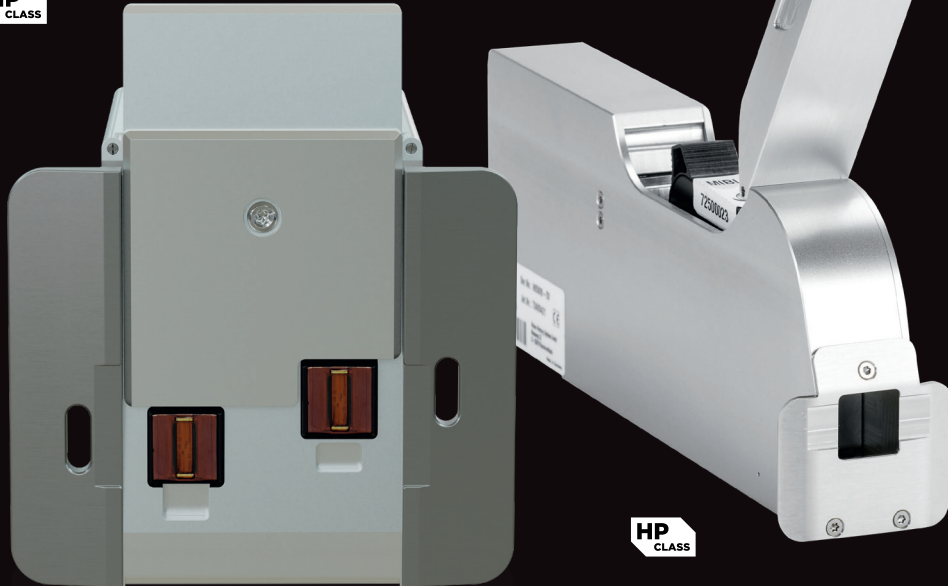
Do you need clean reprinting behavior, even after a long period of downtime?

Printing systems such as Coreflex and integra Quadro / integra Quadro², which have proven themselves in industry over many years, have been extended with

additional components. We react to the specific requirements of the food, wood, pharmaceutical, automotive, and beverage industries with innovative products designed to increase and secure product quality.



Markoprint



INTEGRA ULTIMATE

is certified to protection class IP65. This patented print head is the first to enable automatic cleaning during operation. This significantly improves the reprinting performance and thus the availability. The „integra Ultimate“ can print images up to 1“ (25.4 mm).

SHUTTER

The „Shutter print head“ complies with the IP40 standard and does not require a cleaning function. Thanks to its special design, it is ideal for use in pharmaceutical industries.



ZTV HP MK2 - BULK SYSTEM

The central HP ink supply guarantees high availability and cost savings in equal parts. Innovative technology, such as the integration of intelligent Markoprint „IQ“ consumables, in combination with our printing systems,

- integra Quadro / integra Quadro²
- integra One
- integra Coreflex

ensures maximum reliability and maximum productivity. Cost savings of up to 75% are possible. The print cartridges, which actively communicate with the ZTV HP MK2, have been specially developed for use with the 400 ml bulk system. Markoprint has been a certified partner for this technology since 2017.



LET'S MAKE IT WORK, EASY

Simple, intuitive, and intelligent—that's **integra Command software** from Markoprint.

In modern production environments, precise, efficient, and flexible control of printing processes is essential. Markoprint integra Command was developed specifically to realize these requirements. The powerful software solution helps you manage your Markoprint printer, intuitively design print images, organize them centrally, and reliably control the printing process.

The software provides you with a comprehensive tool designed for maximum efficiency and userfriendliness. It is included free of charge with every Markoprint system.



KEY FEATURES

- **Print image management**
With Markoprint integra Command, you can easily create and manage print images for your Markoprint printers.
- **International symbol sets**
The software supports Unicode and TrueType fonts to enable the implementation of international symbol sets for global marking.
- **Real-time monitoring**
The software shows you the operating status of your printers in real time, enabling you to respond quickly to any problems.
- **Connectivity**
Your printers can be connected and controlled via Ethernet, USB, or EIA232.
- **Security**
Use password protection and user management in accordance with GAMP 5 regulations to ensure the security and integrity of your printing processes.
- **Data integration**
The software enables fast and secure data transfer via HTTP web servers with REST API according to the OpenAPI standard.

ADVANTAGES

- **Flexibility**
Markoprint integra Command offers flexible management of your Markoprint printing systems, regardless of your location. This is particularly advantageous for companies with multiple production sites.
- **User**
The intuitive user interface makes it easy to operate and manage your printing systems, even without extensive IT knowledge.
- **Security features**
Markoprint integra Command offers password protection and user management, including compliance with GAMP 5 regulations, to ensure the security and integrity of your printing processes.
- **Efficiency**
Real-time monitoring and comprehensive print image management enable you to increase the efficiency of your printing processes and minimize unplanned downtime.
- **Multilingual support**
The software is multilingual, enabling it to be used in different regions and making it easy for international teams to use.



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