

HX Ultra

Uninterrupted production with cost-efficient printing



SUBAR TECH
www.subartech.com



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HXUltra



SUBAR TECH

Manufacturing and Selling Industrial
Inkjet Printers, Consumables, and
After-Sales Services

Coding & Marking Solutions



Why is **HX** Ultra with TIJ Technology a Smart Choice?

- **High Clarity & Clean Printing**

Sharper than CIJ with higher resolution

Cleaner than DOD with superior permanence

- **Easy Operation**

Simple to use with minimal training and no technical expertise required



- **Optimized Operating Costs**

Affordable purchase, operation, and maintenance costs (Low TCO)

Cost-efficient printing with minimal consumables

No need for expensive consumables or rare spare parts

No use of MEK

- **Fast and Accurate Printing**

Printing speed up to 240 meters per minute

Ideal for production lines with both constant and variable speeds

- **Environmentally Friendly**

Free from VOC emissions and unpleasant odors

- **Suitable for All Environments**

Resistant in dusty and humid industrial conditions

- **High-Quality, Non-Contact Printing**

Clean and precise printing on all material types

Supports print heights up to 12.7 mm

- **Continuous, Uninterrupted Printing**

Equipped with a black-cartridge system

No downtime during cartridge replacement

Automatic Ink Supply system (AIS) for stable printing performance

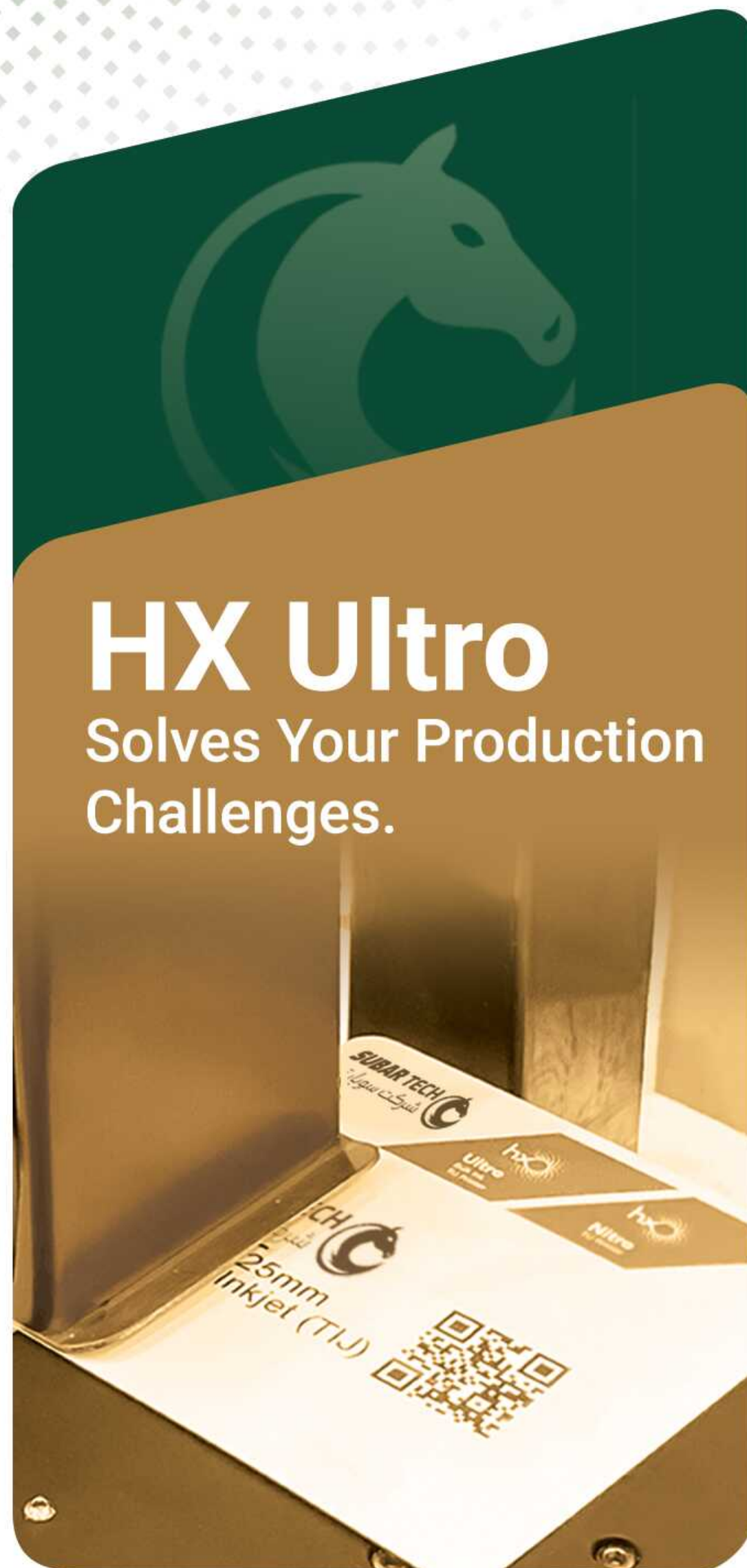
- **Product Detection Sensor Equipped**

Automatic product detection and signal triggering

Ensures accurate and consistent printing on the production line

HX Ultra

The HX Ultra printer is the new generation of industrial Thermal Inkjet (TIJ) printers, designed for product and roll-to-roll production lines. This compact, lightweight, and reliable device—powered by bulk ink system technology and a remote controller—offers a modern and innovative solution for high-precision data printing on high-speed or variable-speed production lines. Using its advanced bulk ink delivery system, HX Ultra enables efficient, cost-effective printing without the need for frequent cartridge replacement or downtime. The printer is supported by customized software, giving you features such as message design, multi-printer management, and full device control via IP and Wi-Fi networks.



HX Ultro Solves Your Production Challenges.

Production Manager

Challenges:

- High maintenance costs and periodic service expenses
- Lack of awareness about potential device issues
- Uninformed downtime due to technical faults or component complexity
- Product underprint or misprint caused by print errors
- No visibility into product status (track & trace)
- Lack of updated reports on production volume and printed outputs
- Difficulty coordinating between printing equipment and production lines
- Incompatibility between multiple printers in a single factory
- Scheduling difficulties when devices stop working (e.g., power outages)

Solutions:

- Affordable maintenance costs and reduced need for servicing, thanks to the device's simple and user-friendly design
- Equipped with Health Check for rapid diagnostics and user-level printer health monitoring
- Ability to generate hourly and daily print reports with Daily Report
- Lower operating costs due to long throw distance and highly accurate printing supported by advanced software
- Custom barcode printing for each product to enable traceability throughout the production line
- Accurate production statistics and precise coding at the end of the line, even when the printer is installed at long distances
- Full integration with PLC, networks, and production software
- Easy message creation and editing through the device's software
- Ability to run new consumables and updated hardware with the software platform

Benefits:

- Reduced operational costs by lowering initial expenses, maintenance, and consumable usage
- Increased production line efficiency through minimized downtime
- Reduced printing errors with advanced control and monitoring software
- High-quality and durable printing performance

Quality Control Manager /Technical Manager

Challenges:

- Illegible or misaligned printing
- Surface smudging caused by direct contact between the printer and the product
- Product misplacement leading to print errors
- Reduced print quality in dusty or humid environments
- Requirement for a QC operator to manually stamp approval marks on cartons

Solutions:

- High-resolution and highly accurate printing
- No physical contact between the printer and the product
- Preventing product misplacement with the **Print Fault Mode** system
- Reduced printing errors through advanced production line monitoring software
- Consistent, high-quality printing in all environments and across Iranian climate zones (up to **55°C temperature** and **80% humidity**)
- Transforming QC approval stamps into a dedicated digital barcode

Benefits:

- High-quality printing with long-lasting durability
- Reduced product misplacement and incorrect positioning
- Decreased printing errors
- Lower labor costs

Warehouse, Logistics & Procurement Manager

Challenges:

- High cost of purchasing spare parts
- Increased warehouse expenses for storing MEK, ink, and related components

Solutions:

- Manufacturing and supplying spare parts through SubarTech's after-sales service team
- No need for MEK, extensive storage space, or large inventories of ink and components

Benefits:

- Reduced operational and hidden warehouse costs
- Elimination of hazardous materials, improving warehouse staff safety

Production Line Operator & Supervisor

Challenges:

- Frequent downtime for cartridge replacement and refilling
- Manual adjustment of the printer or difficulty synchronizing printing speed with the production line
- Complicated and time-consuming software operation
- Insufficient time for message setup during production and increased risk of design errors
- Unrestricted system access leading to human error
- Handling hazardous materials such as MEK and dealing with their irreversible damage

Solutions:

- No need for cartridge replacement or production line stoppage
- Automatic speed synchronization with the production line
- User-friendly software designed for easy operator training
- Message creation and storage with ready-to-use message templates
- Access control based on user roles (**User Access Level**)
- No MEK usage and prevention of solvent evaporation through a closed-loop ink system

Benefits:

- Improved operator convenience
- Increased production line efficiency
- Reduced human error
- Fast use of pre-designed message template

CEO & Factory Manager

Challenges:

- High costs for purchasing and maintaining equipment (TCO)
- Reduced productivity due to frequent downtime
- Lack of monitoring, control, and production line reporting
- No integrated data flow between printers and management systems
- High upfront investment for purchasing equipment

Solutions:

- Reduced purchase costs, lower consumable expenses, and decreased cost per print (TCO)
- No production line stoppage, even during cartridge replacement with the bulk ink system
- **HX Console** software with an easy-to-use interface for monitoring, controlling, and editing print operations on the production line—ideal for senior managers
- Full system integration through connectivity with **PLC, ERP**, and production management software, enabling automated transfer of production data

Benefits:

- Reduced Total Cost of Ownership (TCO)
- Improved control and management over factory performance

Applications of HX Ultro

Which Companies Is This Printer Best Suited For?



- Large-scale factories with continuous production
- High-volume manufacturing workshops
- Export and import companies (especially those requiring product traceability)

HX Ultro

In Which Industries Is HX Ultro Most Commonly Used?



1. Food & Consumer Goods Packaging Industry

For printing production dates, expiry dates, barcodes, or traceability codes on various types of food packaging, including:

- Yogurt, dairy, beverages, and juice packaging
- Cake, chocolate, and snack packaging
- Plastic containers, metal cans, rolls, and flexible food packaging



2. Pharmaceutical, Cosmetic & Personal Care Industry

For printing sensitive information such as batch numbers, manufacturing dates, expiry dates, authenticity barcodes, and traceability codes on:

- Tubes and pharmaceutical/cream packaging
- Medicine bottles and glass containers
- Packaging for soap, shampoo, and personal care product



3. PET & Glass Beverage Bottles

- Direct printing on beverage bottles such as soft drinks, mineral water, malt drinks, energy drinks, and fruit juices



4. Small-Size Rigid Packaging

- Small cans, disposable chemical containers
- Adhesive packaging, small resin packs, and industrial detergent sachets



5. Other Primary Packaging Industries

- Electronic components (printing on antistatic packaging)
- Herbal medicines and supplements
- Tobacco products (printing information on cigarette foils or small tobacco packs)



The Choice Is Yours!

SubarTech software can connect directly to your internal systems

For viewing, managing, and editing print data, you have two options:

► Using SubarTech's dedicated software

1

Using **Hx Manager** and **Hx Console** web-based platforms, you can access and control your devices directly through a browser—without needing to install any application. You can view reports, monitor device performance, and apply necessary adjustments to your production processes. These software solutions are also equipped with **BI (Business Intelligence)** and **BA (Business Analytics)** tools, allowing you to see what has happened, why it happened, and what to do next to optimize your production decisions.

► API Access and Integration with Your Internal Software Systems

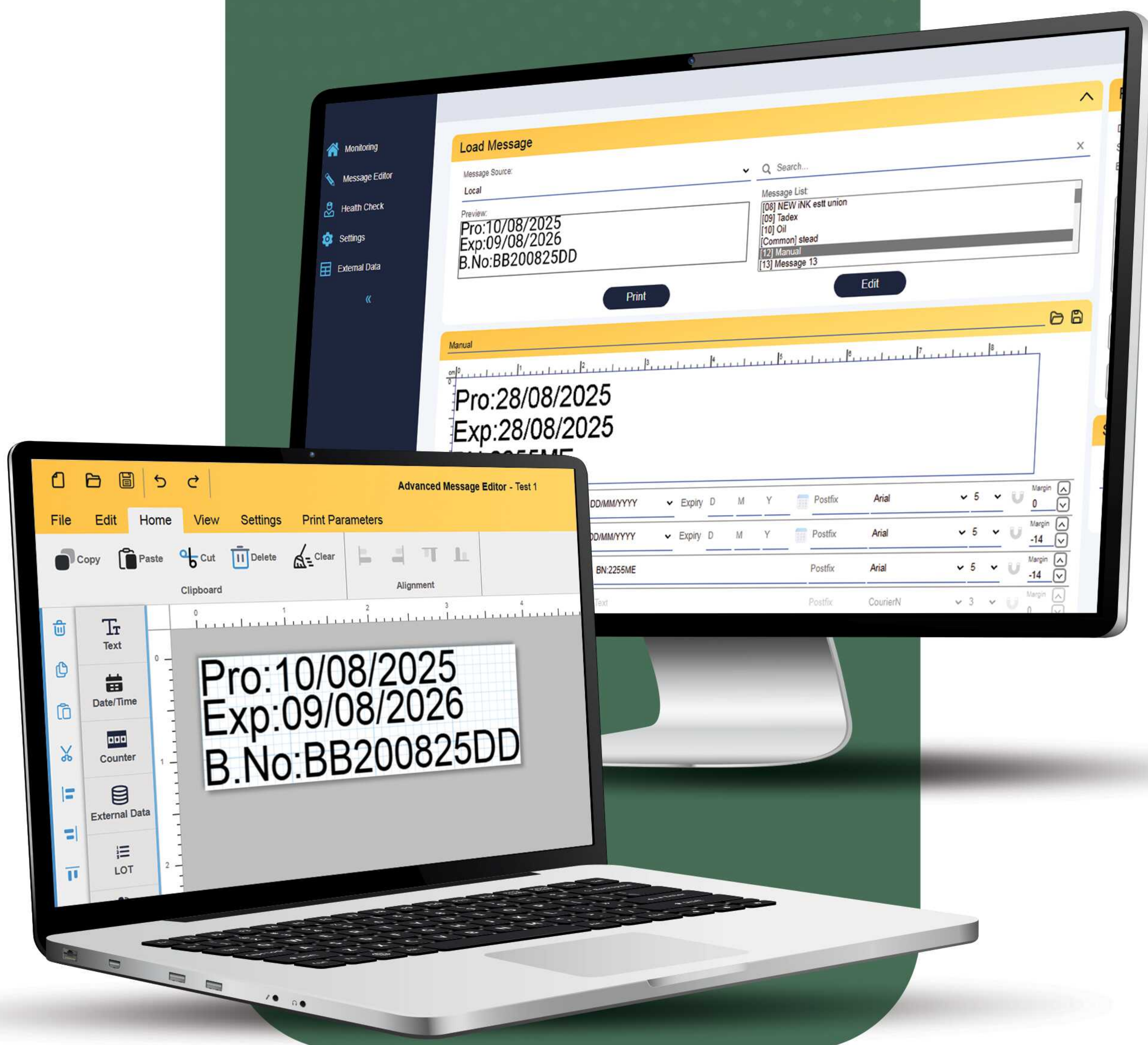
2

If you prefer the data to be sent directly into your own management or production systems (CRM, ERP, or manufacturing software), you can use SubarTech's dedicated API. This feature allows you to view and analyze printer reports and print data alongside your other business information—all in a single interface, without switching between systems.

Hx Manager Features

Message Design Modes	1. Simple Message Editor 2. Advanced Message Editor 3. Auto Pilot
Message Design	Design and edit static and variable data messages including: date, time, batch number, shift code, barcode, QR code, logo, text, external database fields, counters, authenticity barcode, and more
Message Control	Create, monitor, and manage print messages through a browser
Remote Upgrade	No specialist required for software updates
Economy Mode	Ink consumption reduced by up to %50
Daily Report	Daily Report Hourly and daily production monitoring
Health Check	Real-time printer status check to prevent production downtime
Send to Many	Design a message once and send it to multiple printers simultaneously
Auto Notify	Sends automatic alerts for events like print completion, online data updates, low ink level, etc. via selected channels such as Telegram or email
Roller Date	Set date format according to shift schedule and global time
Custom Date	Customize date formatting (RTL, LTR, and other formats)
Auto Print	Automatically prints messages based on data scanned by barcode reader—no manual configuration needed
Print Job	Configure messages based on production counts (e.g., print the total contents of a box without per-unit price)
BCD Interface	Receives categorized PLC messages and prints accordingly
Field Upgrade	Update software remotely without technician involvement
Font Recovery	Font backup in two sections and auto-switch to alternate font in case of issues
Languages	English, Persian, German, French, Japanese, Portuguese, Spanish, Thai, Turkish, Hindi, Arabic, Chinese (Other languages available upon customer request)
Static IP Address	Supported
External Database Integration	Supported

HX Manager



Introduction to HXConsole

HXConsole is a platform designed for executives and senior managers, enabling the monitoring, control, analysis, and adjustment of a network of printers simultaneously and centrally. This software can send and receive data from printers in both directions. It also provides advanced features such as creating and sending unified messages to multiple printers, sending customized messages, and exchanging XML-based requests and responses with the devices.

Business Intelligence Business and Operational Analytics	• Provides detailed print reports categorized by hour and day. • Monitors the number of active printers and their performance. • Tracks sent messages and updates them when necessary. • Monitors remaining print counts, device health status, and potential issues.
Remote Control Printer Management and Connectivity	• Manage and control printers via Wi-Fi connection. • No physical presence required near the device. • Connect to ERP or CRM production software networks. • Supports API-based integration.
Multi-Printer Support Centralized Control and Management	Enables managing and controlling multiple printers simultaneously from a single central panel.
Supported Languages	English, Persian, German, French, Japanese, Portuguese, Spanish, Thai, Turkish, Hindi, Arabic, Chinese (Other languages available upon customer request)

- **Full control of all printers**

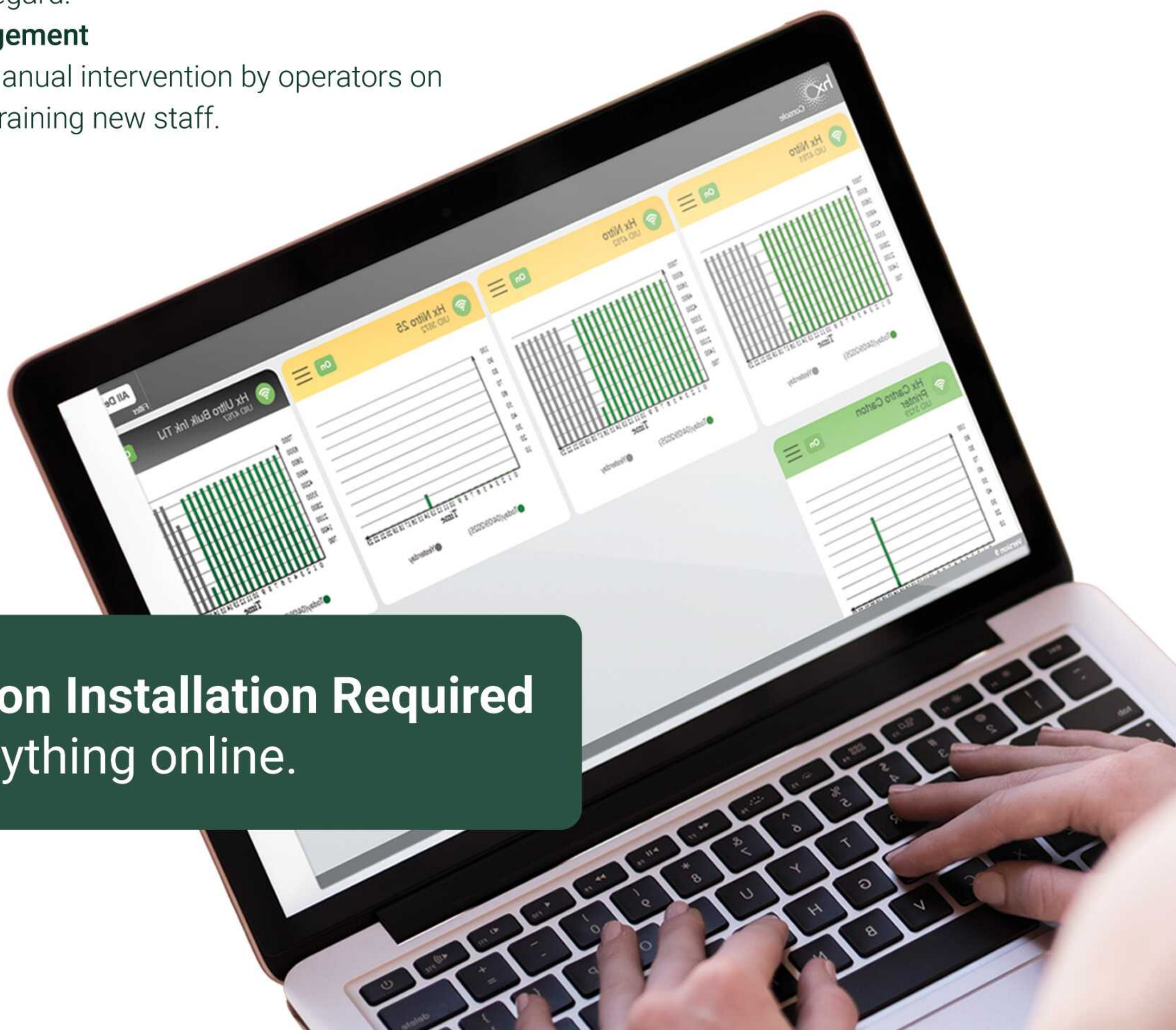
Even if you have purchased multiple printers from Subar, you can manage them without the need for installation, complex training, or major changes. Connect them all to one unified system and monitor their status and operation. This platform is designed for uniform use across all devices and can help greatly in this regard.

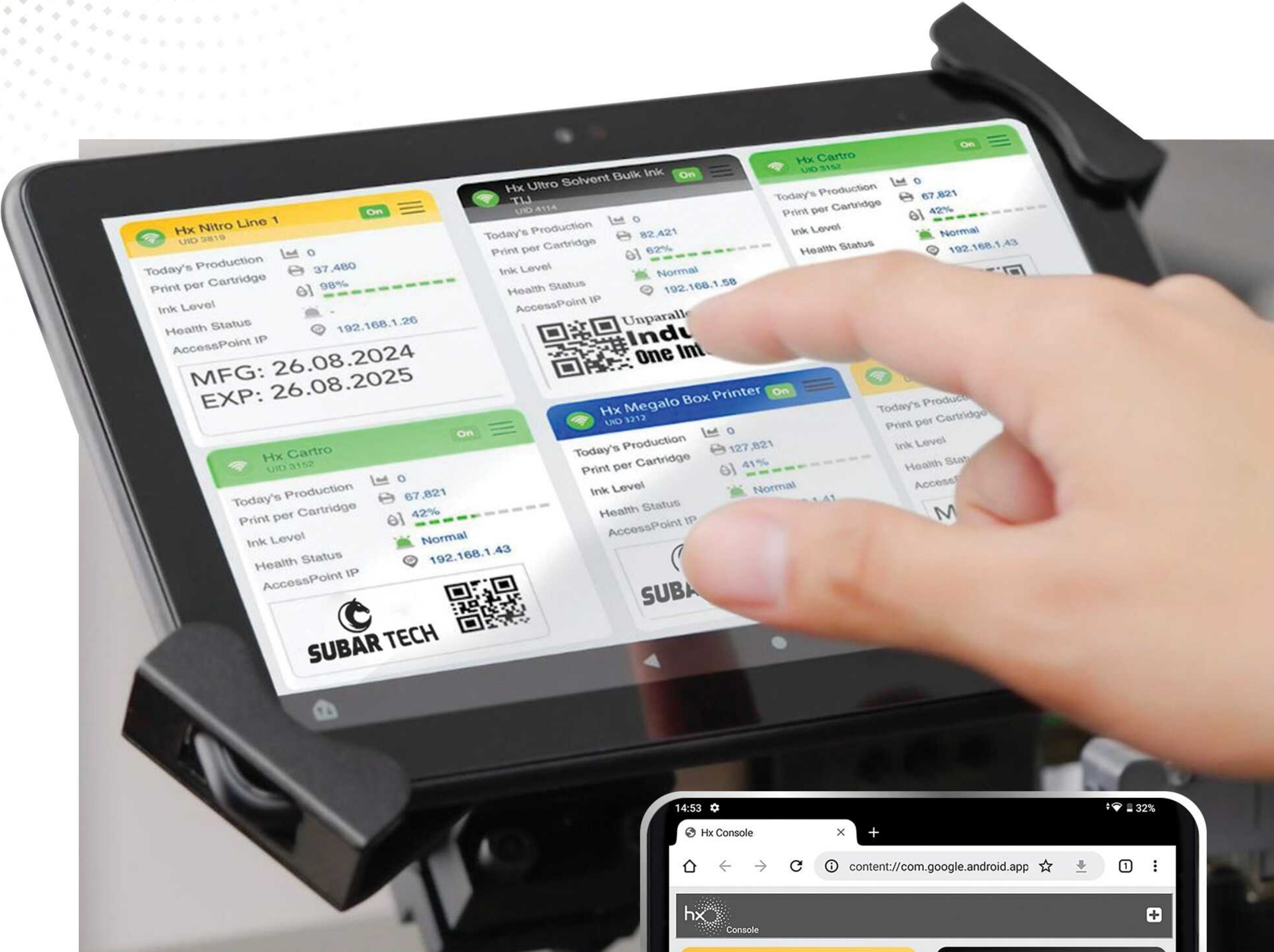
- **Human resource management**

Reducing the need for manual intervention by operators on the production line and training new staff.

- **Saving time and cost**

No Application Installation Required
Monitor everything online.





HX Console



Which materials and surfaces are compatible with the HX Ultra printer?

Ink Name	Ink Type	Color/ Volume	Suitable Surface	Application
Baxtron	Semi solvent-based	Black /160 ml	Porous & semi-porous	Paper bags, cardboard boxes, corrugated and semi-coated packaging
Aquanix	Water-based	Black /160 ml	Porous & semi-porous	Paper bags, cardboard boxes, corrugated and semi-coated packaging
Chronplast W	solvent-based	Black /160 ml	Porous & non-porous	General materials, flexible food packaging
Chronplast S	solvent-based	Black /160 ml	Non-porous	Metal, PE, PET, glossy paper
eUrex	Solvent-based (Long-throw distance)	Black /160 ml	Porous & non-porous	High-temperature and flexible food packaging; suitable for PVC, PP, PET, ABS, glassware, film, polystyrene, polyethylene
Dynaplast	solvent-based	Black /160 ml	Porous & non-porous	Flexible food packaging and common consumer packaging

Controller

Feature	Description
Message Design	Web-based and device-independent message editor
Message Capacity	Stores 54 messages in printer memory; unlimited message storage in the side controller memory
Password Protection	Yes
Alerts	Built-in buzzer, OLED display (128×64 resolution)

Printing Features

Feature	Description
Print Resolution	Up to 600 dpi
Maximum Print Speed	240 m/min
Number of Print Channels	Cartridge with 12.7 mm (0.5") print height or 25 mm (1") print height, with two independent nozzles for ink ejection
Printable Height	Vertical: up to 12.7 mm (0.5") / Horizontal: 10 mm Vertical: up to 25 mm (1") / Horizontal: 22 mm
Number of Fonts	Includes Windows default fonts and standard fonts used in TIJ printers
Ink Consumption Control System	Yes

Connections & Communications

Feature	Description
Print Resolution	Up to 600 dpi

Physical Specifications

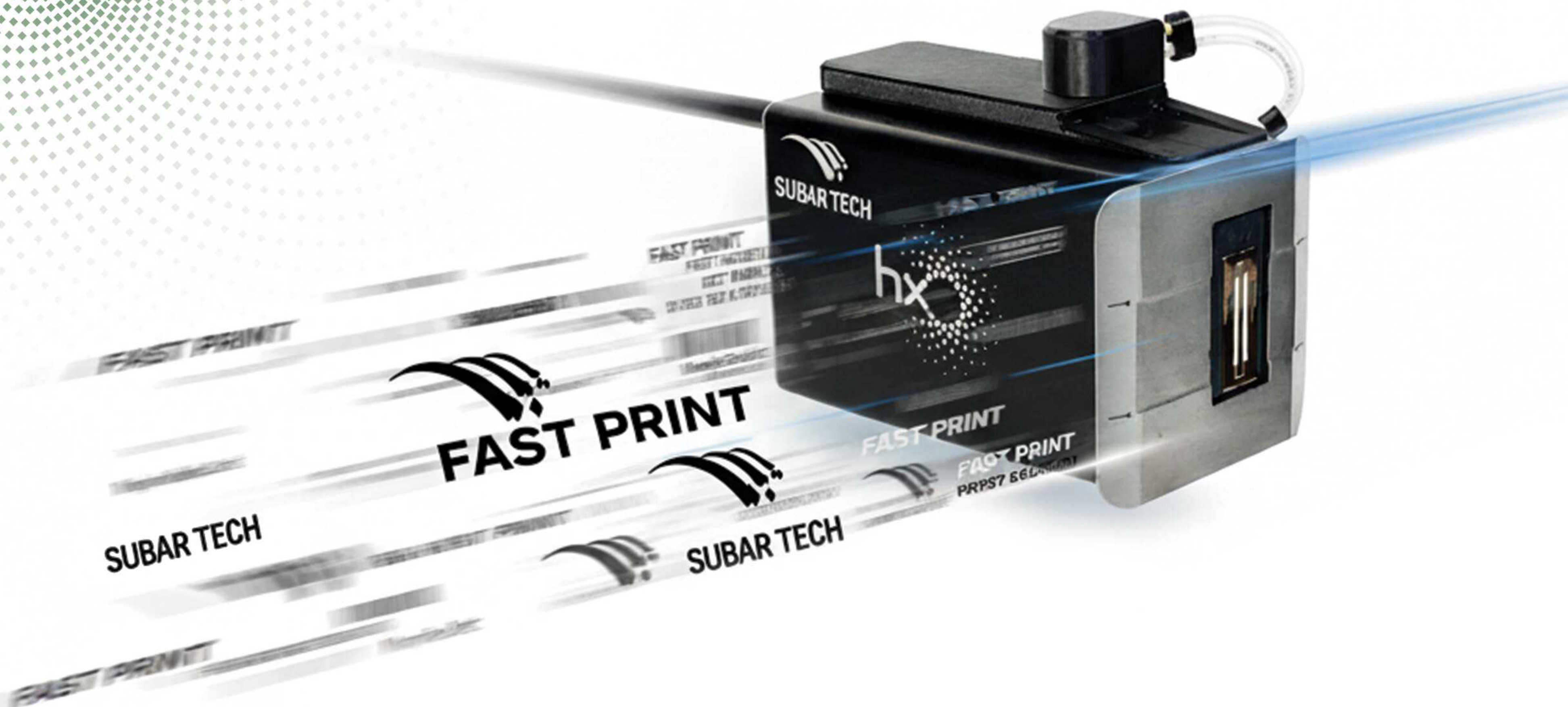
Feature	Description
Operating Voltage	Adapter: 15V to 24V
Body Material	Anodized aluminum (coated) + stainless steel
Device Weight	910g
Device Dimensions	84 × 60 × 146 mm
Environmental Conditions	Temperature: up to 50°C/Humidity: up to %80



How Many HX Ultro Models Are There?

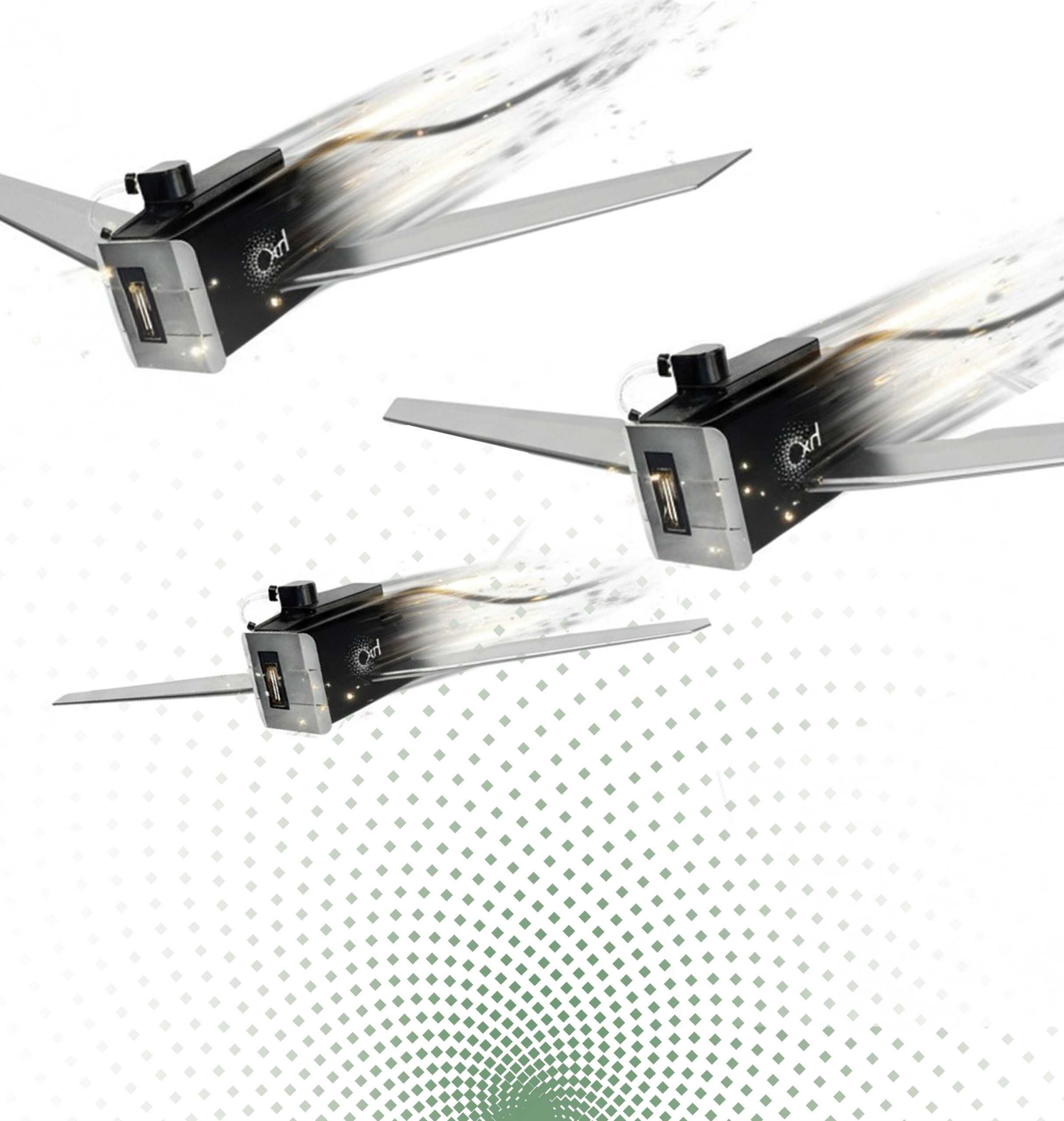
Model	HX Ultro 600w	HX Ultro CodeMax	HX Ultro 300s	HX Ultro 600s	HX Ultro 25w
Ink Type	Water-based	Solvent-based / Water-based	Solvent-based	Solvent-based	Water-based
Print Height	12.7 mm	12.7 mm	12.7 mm	12.7 mm	25 mm
Surface Compatibility	Non-porous	Non-porous	Non-porous (Fast drying)	Non-porous / Semi-porous	Porous
Key Feature	Ultra-clear high-resolution printing	Specialized bracket seamless integration	Long-throw printing distance (10–8 mm)	High clarity for glossy surfaces	Larger character printing for branding & readability
Best Suitable For	Crisp, clean prints on flexible film and glossy film	Clean & sharp printing on flexible film and glossy film	Printing on smooth surfaces	High-quality & precise carton / corrugated printing	Large logos, branding data, and product information





Advanced Features

Section	Description
Auto Notification	Sends automatic alerts for events such as low ink level. Receives online data through standard protocols such as USB, RS232, or Wi-Fi (HTTP) and notifies your team in real time.
AUTO PILOT	Allows the device to perform external control and monitoring operations. Each printer can work independently or receive commands from another device or PLC.
Daily Production Report	Provides daily print reports to display overall production status.
Eco Mode	Reduces ink consumption by up to %50 while maintaining print quality.
External Data	Easy integration with external systems such as PLC for variable data printing.
Estimated Ink Calculator	Provides an estimate of ink consumption based on the selected message and parameters.
Printer Health Check	Detects errors and helps prevent unexpected stoppages.
Print Scheduling	Easy time and date scheduling based on company needs.
Signal Lock Connection	Easy connection to the main system for immediate signal sending. Helps the device remain ready and responsive to events such as error detection.



Coding & Marking Solutions

For more information or to request product details, you can contact us through the following channels:

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