

Coding & Marking Solutions

Inkjet Printer

UX Series





For over 40 years, Hitachi has developed and produced high-performance ink jet printers based on the well-proven Continuous InkJet (CIJ) principle for industrial marking.

Hitachi Industrial IJ printers are high-speed printers adopting a non-contact printing method, ideal for a wide range of applications. They are capable of applying best before dates, logos, barcodes, lot numbers and data matrix codes, which makes the new UX-Series the perfect solution for both complex and standard applications.

The UX-Series is a global model with highly evolved “Reliability”, “Efficiency”, “Ease of Use” and even “Eco-friendly” performance.

About the UX Series

High reliability

Hitachi Products are renowned for being extremely reliable in harsh environments. All functionally critical parts are manufactured in-house. The use of Hitachi's own components reinforces the high quality levels, reliability and excellent value for money.

Cost-effective

The new economical ink recovery technique achieves industry-leading levels of make-up consumption and the very low maintenance costs minimise the total cost of ownership.

Global sales & service network

Are you looking for a proven global company that can work with you at a local level? Hitachi offers a global sales and service network when marking, coding and traceability challenges demand a coordinated answer. For each of your locations, and across your entire organization we will champion your goals by providing international consistency, global perspective, broad expertise and coordinated service with dedicated contacts. Our global team applies its worldwide technical expertise to your unique challenges in a



consistent way. Tangible deliverables and proven solutions are results of our business analysis and project implementation. Mechanical integration supported by 3D CAD design, electrical schematics, customized circuits, application specifications and customized documents. In addition, cross-border project management and coordination between suppliers, OEM's and end-users are part of our deliveries. You gain more visibility and save time and money.



Simplicity

Mess-free, Mistake-proof Fluid Refills



Intelligent fluid cartridges reduce the possibility of hazardous fluid spills during refill. Shaped differently, the Ink and Make-up cartridges are easily identifiable as well as sized to fit in each respective receptacle.

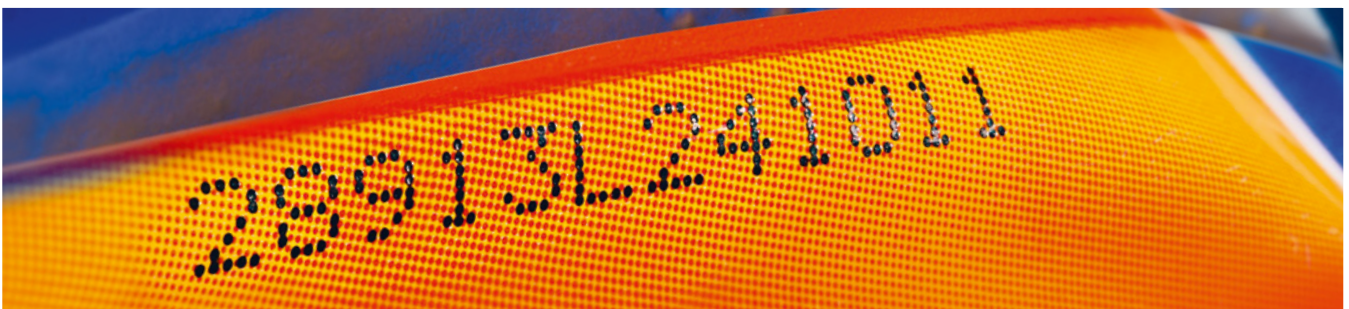


RFID Recognition



Error reduction is key to increased uptime and that's why the UX Series now features RFID* Recognition for ink and make-up replacement. A quick scan of each bottle allows the system to identify the fluid in question and instruct the operator based on compatibility.

*Some geographic areas are excluded.
Hitachi Industrial Equipment Systems Co. Ltd, declares that the IC tag reader is in compliance with the essential requirements and other relevant provisions of the FDD Part 15 subpart C, EN 301 489 1/3, EN 300 330-1/2

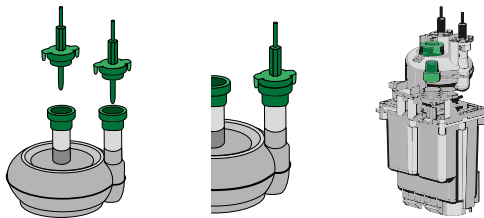


Tool-less Filter Replacement



Ink filters can be replaced without the use of tools or a technician, resulting in virtually zero downtime for easy maintenance. No more mandatory, timebased failure due to machine operation.

(Original Hitachi patent: EP 226 1037 A1 / EP 230 5470 A1)



IC Card with RFID function



With the new Hitachi IC Card any login information and print data can be managed fast, easy, and safely.

User Login

By scanning the IC Card, only the registered user can login quickly without entering a password. Each user operation can be limited to prevent human error.


Print data selection

By scanning the IC Card the print data can be quickly called up. Prevent calling up incorrect data which may happen with manual operation.




Intuitive Machine Interface

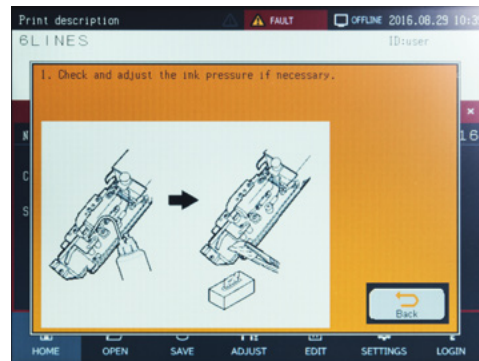
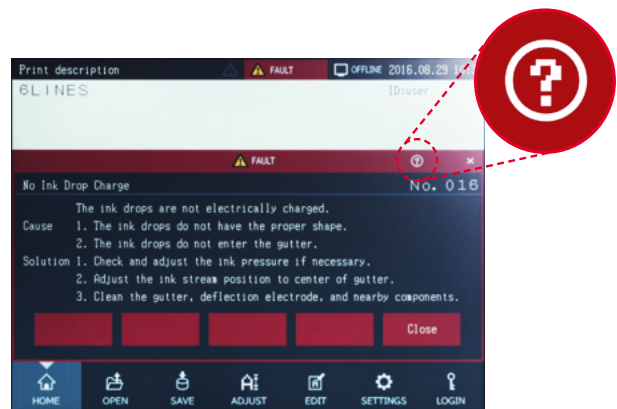
Intuitive User Interface

 A 10.4-inch TFT LCD touch-panel screen provides a wide, easy-to-see viewing angle and intuitive operation. In addition, when changing print messages, a preview function allows the operator to verify on-screen what message will be changed to help avoid erroneous printing.



On-Screen Guidance

 The UX Series features an integrated, easy to access troubleshooting guide, helping operators easily find answers to common issues and reducing downtime due to simple problems.

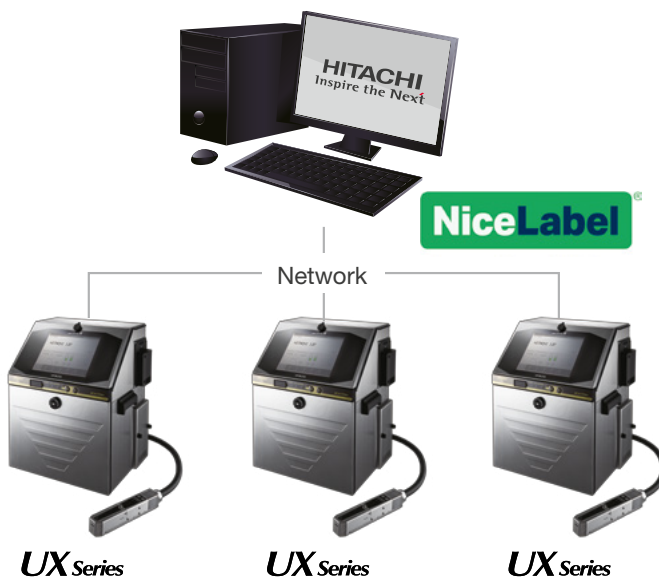


Convenient Remote Management



Ethernet is a standard feature on UX machines.* In addition, open network is supported, allowing easier system integration. Collective management via a host system enables two or more devices to be easily networked.

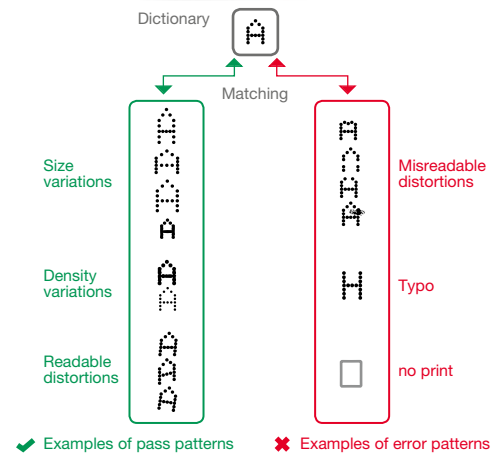
*UX-B excluded



Print Error Recognition



The Hitachi Vision System has been optimised to work with Ink Jet typical dot matrix characters. It verifies the content of each printed message instantaneously while allowing for typical CIJ character variations, assuring an optimal level of print quality.



Versatile Durable Print Head

Versatile Tapered Print Head



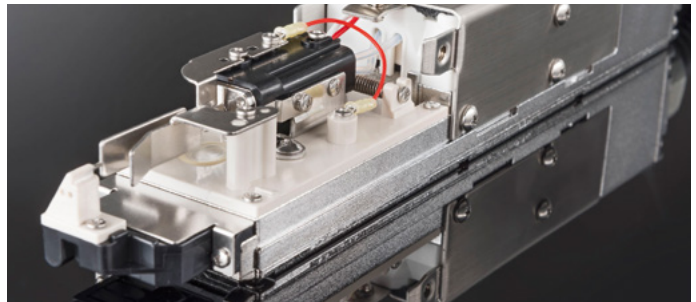
Proximity to product can be challenging using traditional print heads, but the UX's new Tapered print head technology allows for even closer printing, resulting in improved print quality.



Durable Ni-Cr Plating



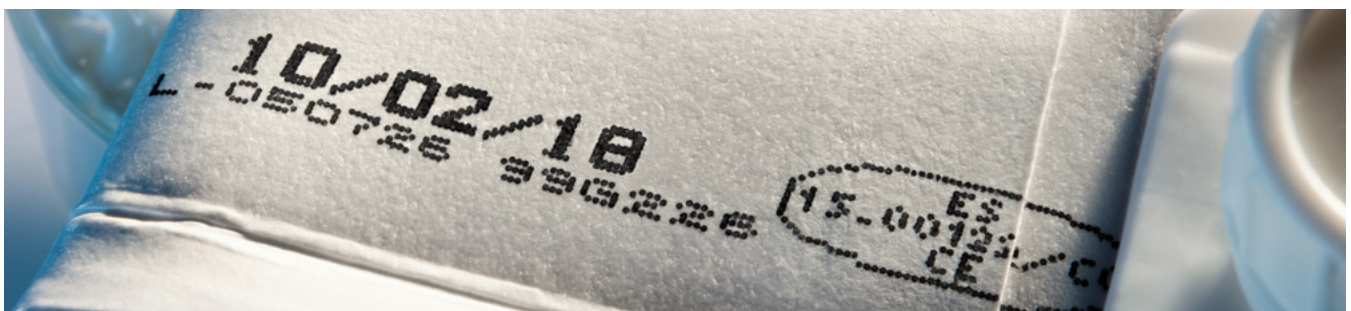
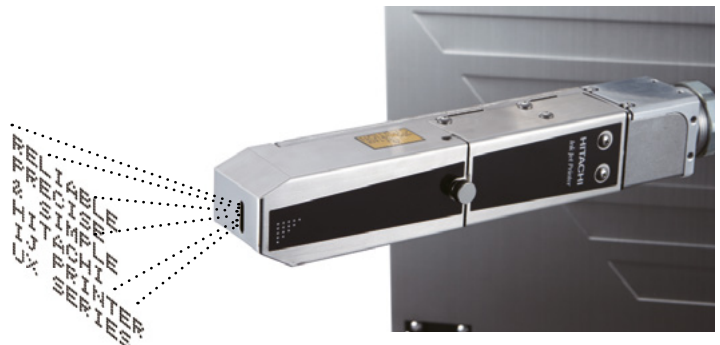
The UX-Series print head features a new Nickel-Chrome finish, giving it exceptional corrosion resistance and increasing the print head's lifespan in demanding environments like those requiring wash-down or exposure to caustic chemicals.



Up to 6-Line Print



A single UX print head can print up to six lines by employing an innovative print control system. High-speed single line printing of excellent quality is also possible. Hitachi's original interlaced-print-control-system makes each print character appear extremely clear regardless of print height.



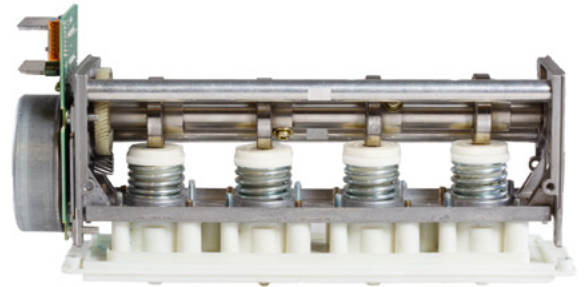
Reliability

Pump Unit (Valves and Camshaft)



At the heart of the UX Series inkjet printer is a diaphragm based circulation system. Unique to Hitachi, the UX's diaphragm system dramatically improves reliability, leading to a reduction in total cost of ownership.

A dedicated viscometer gives a true measure of the ink's viscosity further increasing reliability and uptime.



Reduced Make-up Consumption and Running Cost



Motor Speed Control Function suppresses make-up evaporation and offers industry-leading level of make-up consumption.

The premium model UX-E achieves a consumption of only 2.5 ml/h thanks to Hitachi's latest patented Fluid Consumption Reduction System.

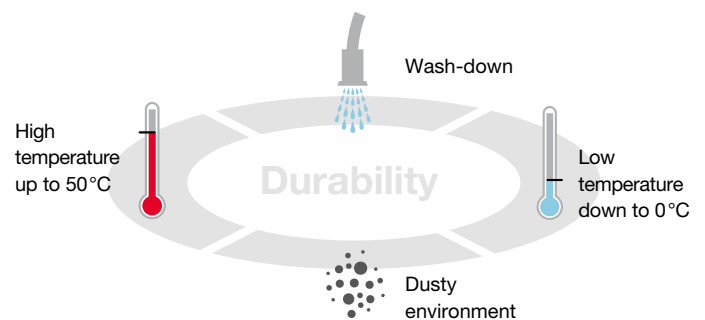
2.5 ml/h*

*Hitachi Ink 1067k at 20°C

Designed for harsh environments



The stainless steel cabinet offers IP65 and allows a wash-down with pressured water and industrial detergent, to meet any environment and hygiene requests. The UX Series with IP65 protection is the ideal choice for applications in the meat and dairy industries.



Twin Nozzle Model

Flexible 8 Line Print



The UX twin print head now offers the ability to produce 8 lines of text by combining two individual nozzles into one, compact design. In addition, by utilizing Hitachi's first on the market "interlaced" print control technique, multiple line messages are printed clearly and legibly, further reducing coding errors due to misprint.

High-speed printing



Two nozzles at one print head realizes double-speed printing, which can track even on a high-speed production line, resulting in high-quality printing regardless of the number of print lines.

Versatile 64-Dot



Hitachi's innovative design now produces 64 vertical dots of print, resulting in large, bold characters. This makes the UX twin nozzle printer ideally suited to mark company logos, UL marks, or any other pattern previously unachievable with traditional print heads.



Character Stitch Capability

A unique option in the new twin-nozzle printer is the ability to stitch both nozzles together. This results in characters that are bigger and bolder than ever, compared to those printed by individual nozzles. This is particularly useful when character recognition is needed at a distance from the product.

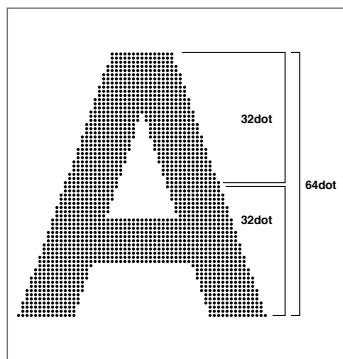


Image is for illustration purposes



UX-P For Pigmented Inks

UX-P for pigmented inks



The UX Printer is designed for high contrast marking on dark surfaces with pigmented inks at highest quality. Typical application areas include automotive parts, cables, plastic piping and electronic components.



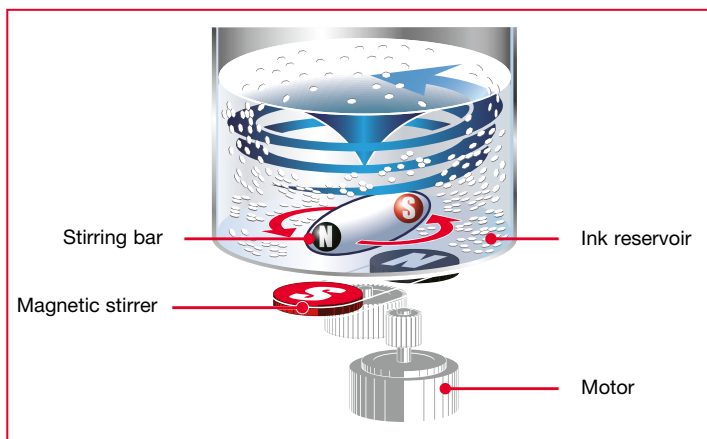
Pigmented ink stirring system



The electric stirrer system prevents the agglomeration and the setting of pigments.

In addition, the Pigment model is equipped with an "Ink circulation control" function, which allows the ink to circulate even in a standby mode to avoid the ink fixing and ensures a smooth operation during production.

Smooth supply for ink and make-up fluid
Ink and make-up fluid can be supplied at any time with no interruption



Electric stirrer





UX-E Model (Premium)

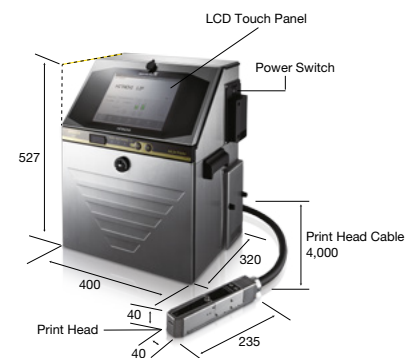
Standard Print Samples					
5 x 5	1 LINE 0123456789ABCDEFGH	2 LINE 012345678 ABCDEFGHI	3 LINE 012345678 ABCDEFGHI JKLMNOPQR	6 LINE 012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ ABCDEFGHI JKLMNOPQR STUVWXYZ ABCDEFGHI JKLMNOPQR	
5 x 7	1 LINE 0123456789ABC	2 LINE 012345678 ABCDEFGHI	3 LINE 012345678 ABCDEFGHI JKLMNOPQR	4 LINE 012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ	
7 x 10	1 LINE 0123456789	2 LINE 01234567 ABCDEFGH	3 LINE 0123456789013456 ABCDEFGHIJKLNO PQRSTUVWXYZABCDEFGHIJ		
10 x 12	1 LINE 0123456789ABC	2 LINE 0123456789 ABCDEFGHIJK			
12 x 16	1 LINE 0123456789ABC	2 LINE 0123456 01			2 LINE 012 ABC
18 x 24	1 LINE 0123456789				
24 x 32	1 LINE 0123456789ABC				
24 x 32	1 LINE 0123456789ABCDEF				
30 x 40	1 LINE 0123456789ABCDEF				
36 x 48	1 LINE 0123456789ABCDEF				



Standard Specifications

Item	UX-E160W	
Nozzle Size	65µm	
Maximum number of print lines	Up to 6 lines	
Maximum number of print characters	Up to 1,000 characters	
Font (Horizontal x Vertical)	4 x 5	✓
	5 x 5	✓
	5 x 7(8), 9 x 7(8)	✓
	7 x 10	✓
	11 x 11	✓ (Chinese only)
	10 x 12	✓
	12 x 16	✓
	18 x 24	✓
	24 x 32	✓
	30 x 40	✓
36 x 48	✓	
Character height	2 - 10 mm	
Display & input device	WYSIWYG design Display: TFT LCD (10.4" color), backlight provided Input device: Touch panel, input sound provided	
Screen language (2 languages selectable)	English, Chinese, Korean, Thai, Vietnamese, German, French, Dutch, Italian, Spanish, Portuguese, Swedish, Danish, Greek, Russian, Czech, Polish, Arabic, Serbian, Turkish, Hungarian, Bulgarian, Catalan, Romanian, Finnish, Norwegian, Slovenian	
Maximum print rate (Character per second) (Font 5x5, space 1, 1 line)	Up to 2,563	
Standard characters	Alphanumeric (A-Z, a-z, 0-9), symbols (27) and space: Total 90	
User patterns	200 patterns each for dot matrix (50 patterns for 30x40 and 36x48 fonts)	
Print functions	Calendar, Count, Font mixture, Password	
Barcode printing	code39, ITF, NW-7, EAN-13, EAN-8, UPC-A, UPC-E, code128/EAN-128, GS-1 DataBar	
2D printing	Data Matrix (Alphabet: 49 characters/Numerals: 98 characters), QR, Micro QR code	
Message storage capacity	2,000 Messages (Depends on data content)	
Input signal	Print target detection, Printing stop, Rotary encoder pulse, Reciprocative printing, Remote control (Run, Stop, High-voltage ON/OFF, Reset), (NPN/PNP Selectable)	
Output signal	Print in progress or Print complete, Online (NPN/PNP Selectable), Print ready, Fault, Warning (NPN Only)	
Data interface	RS-232C at baud rates selectable up to 115,200bps	
Ethernet (Modbus communication)	IEEE802.3, 100BASE-T	
External memory	USB for user data storage	
Printhead cable length / angle	4m (in-line/90 degrees)	
Operating temperature range	0-45°C (1067K Ink)*	
Operating humidity range	30-90% RH (no condensation)	
Power supply (Automatic voltage selection)	AC100-120/220-240V±10% 50/60Hz 120 VA	
Approval	CE, C-Tick	
Dimensions (Width x Depth x Height)	400 x 320 x 527 mm	
International protection	IP65	
Approximate weight	27kg	

* Ink types and temperature are limited.



Note: Main unit dimensions do not include any projections.

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