ML-13000

Monna Lisa 13000
Direct to Fabric Printing, Simplified

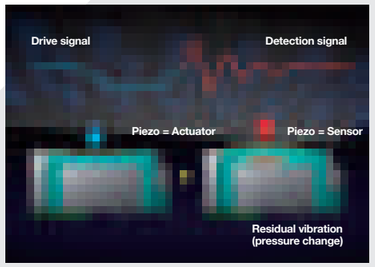
EPSON®

High reliability and easy operation with purpose-built technology

Technologies to minimize customer downtime and ensure stable operation.

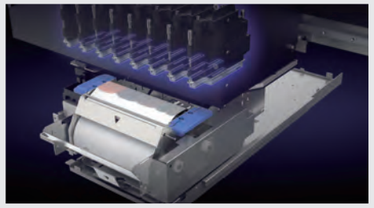
Nozzle verification technology and advanced cleaning mechanisms

Nozzle verification technology detects missing dots that indicate nozzle clogging, and adjusts ink delivery to maintain image quality and reduce printing errors. A fluff blower system removes fluff from the fabric surface before it enters the printing area, and an ink mist extraction system helps reduce nozzle clogging problems.



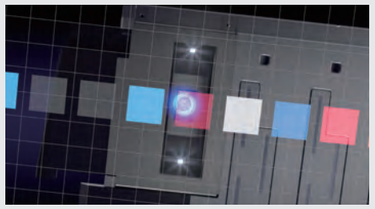
Auto nozzle cleaning by fabric wiper reduces daily manual maintenance work

An easy-to-replace cloth wiper roll continuously wipes the printhead nozzles clean to remove dust that can cause nozzle clogging.



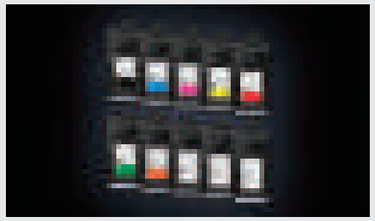
High-accuracy head alignment technology and built-in RGB camera for easy printhead replacement

High-precision positioning pins and holes on the printhead and carriage enable to replace printheads quickly. To minimize downtime after printhead replacement, a built-in RGB camera automatically analyzes reference patterns and recalibrates printer settings to prevent dot misalignment, banding, and color shift.



Hot-swappable ink supply for uninterrupted production

Dual 1.6 liter vacuum-packed degassed ink packs are hot-swappable, enabling continuous printing.



10.1-inch LCD touch panel for at-a-glance operating ease

In addition to displaying the current printer status and operating instructions, the convenient touch panel also shows information about ink and fabric, temperature and humidity, platen gap, and regular maintenance procedures.

Rely on Epson every step of the way

Epson service, support and software create an enhanced and comprehensive digital fabric printing solution.

Epson Edge Print PRO X RIP software maximises performance

Epson Edge Print PRO X is designed to maximize the performance of PrecisionCore MicroTFP printheads and GENESTA inks. It is easy to use with an intuitive interface. Epson Edge Print PRO X series software supports Adobe PDF Print Engine (APPE) - the industry's leading technology and new 16-bit rendering. The feature-rich software includes step and repeat, hot folders, print cost analysis tool and color adjustment for matching spot colors. The user interface is offered in 13 languages.

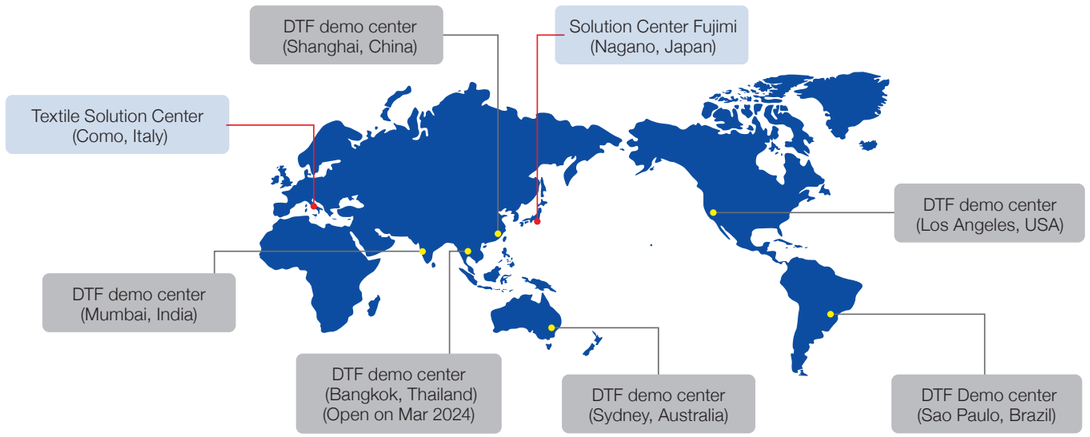
Remote monitoring platform for production printers

Take control of your printer fleet and achieve next-level productivity with Epson Cloud Solution PORT - a breakthrough platform for easy remote monitoring of Epson production printers. Designed with simplicity and security in mind, the Epson Cloud Solution PORT provides a live view of your printer fleet production*1, equipment utilization, and service information to better manage efficiency and optimize your Epson printing workflow.

*1 All features of this system require an active internet connection and use of a supported browser.

Rely on local Epson around the globe

Epson has sales offices, demo/solution centers and local service teams around the globe to support customers.



Key features & User benefits

High print quality

- PrecisonCore MicroTFP printhead
- Epson precision dot technology
- Multi-layer halftone technology
- Symmetrical color alignment
- Accurate belt position control technology

Easy operation

- Integrates pre and post processes within the printer
- Dual 1.6L hot-swappable vacuum-packed degassed ink packs
- 10.1 inch LCD touch panel

Minimal downtime

- Local sales/service/support
- Remote service with Epson remote monitoring system
- High-accuracy head alignment technology (easy head replacement)
- Auto calibration with built-In RGB camera

Stable operation

- Nozzle verification technology
- Auto nozzle cleaning by fabric wiper
- Production monitor with Epson Cloud Solution PORT (PC and Mobile)
- Fluff blower system
- Ink mist extraction system
- Dual head-strike sensors

Textile software

- Epson Edge Print PRO X2
- Epson's color management system

Epson technology: Advancing digital fabric printing

The result of many years of design, development and refinement, ML-13000 is built for consistency, reliability and high print quality.

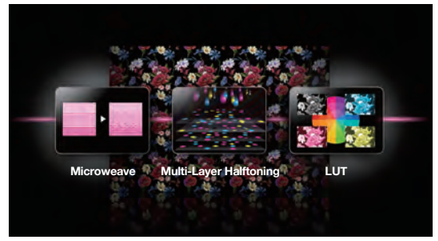
PrecisionCore MicroTFP printheads optimized for maximum productivity

The ML-13000 is equipped with 13 of Epson's latest 4.73-inch high-density PrecisionCore MicroTFP printheads that enable the printer to achieve high productivity.

Print Mode	sqm/hr
600x600dpi 2 pass*3	**131**
900x600dpi 3 pass*4	**87**
1200x600dpi 4 pass*5	**63**

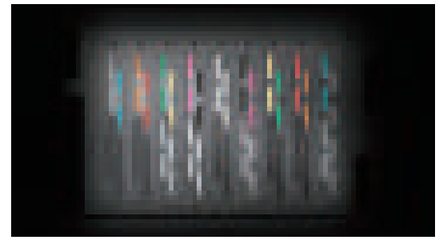
Epson precision dot technology for world-renowned image quality

Epson precision dot technologies include microweave and lookup table (LUT) technologies that reduce banding and graininess, and new, advanced Multi-layer halftone technology randomizes the halftone dot pattern to reduce image degradation caused by dot misalignment.



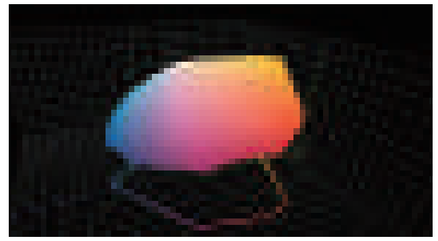
Symmetrical color alignment and accurate belt positron control technology

The ML-13000 features symmetrical color alignment for consistent color overlap order during high-speed bidirectional printing, and accurate belt position control technology for precise fabric feeding.



Wide color gamut for high quality printing with fine details

The wide color gamut enables the creation of vivid designs. Color gradations, small texts, fine details, and complex geometric patterns can be printed with high image quality.

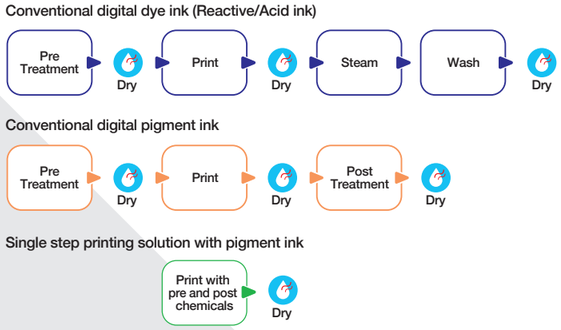


A digital fabric printing solution that integrates pre and post processes

The ML-13000 is an innovative textile printing solution that requires no additional equipment for pre and post treatment or steaming and washing.

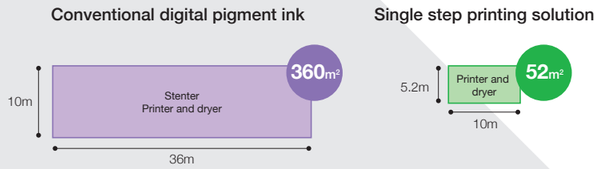
The all-in-one solution by Monna Lisa

Conventional textile printing with dye inks requires a multi step process, including pre and post treatment, steaming and washing. In conventional digital pigment ink printing, pre and post-treatment processes are done offline. ML-13000 brings these processes within the printer, enabling a more simplified fabric printing workflow.



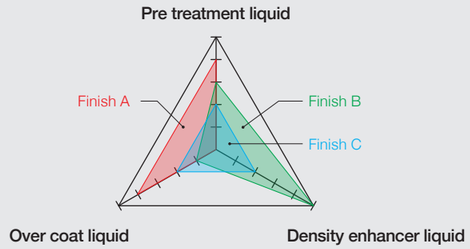
Small footprint

ML-13000 has a smaller footprint compared with conventional textile printing equipment, allowing it to be installed in distinct, more comfortable working environments.



Flexible control of pre and post treatment chemicals

An optimized and flexible combination of pre treatment, pigment inks and post treatment (over-coating, and density enhancer) delivers enhanced fastness properties, vivid colors, and superior image quality.

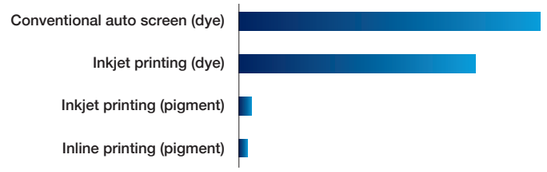


Environmental benefits

The ML-13000 uses less water, energy, shortens lead time, and enables on an demand production model to reduce waste.

Reduce water usage

The textile industry is responsible for approximately 20% of industrial wastewater worldwide*1.
The ML-13000 significantly contributes to reducing industrial wastewater. This system eliminates the pre and post processes required of conventional dye printing, reducing water consumption up to 97%*2



Produce on demand

It is estimated that 35% of all materials in the textile supply chain end up as waste.*3 Print just the right amount, on-demand to reduce dead stock and manage excess inventory.

Environmentally friendly GENESTA inks

ML-13000 pigment inks and pre and post treatment chemicals meet environmental standards; ECO PASSPORT certified, bluesign® approved, ZDHC MRSL Conformance Level 3 certified, and GOTS approved by ECOCERT.

OEKO TEX® ECO PASSPORT NEP 1612 Nissenken www.oeko-tex.com

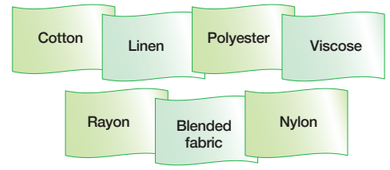
OEKO TEX® ECO PASSPORT NEP 2305 Nissenken www.oeko-tex.com

GOTS Approved Additive
Approved by Ecocert Greenlife
GOTS-ECOCERT-08-01219

bluesign® APPROVED

Wide range of fabrics

GENESTA pigment ink and pre and post processing chemicals provide flexibility to print on a variety of fabrics such as natural, synthetic and blended fabrics for a wide range of applications.



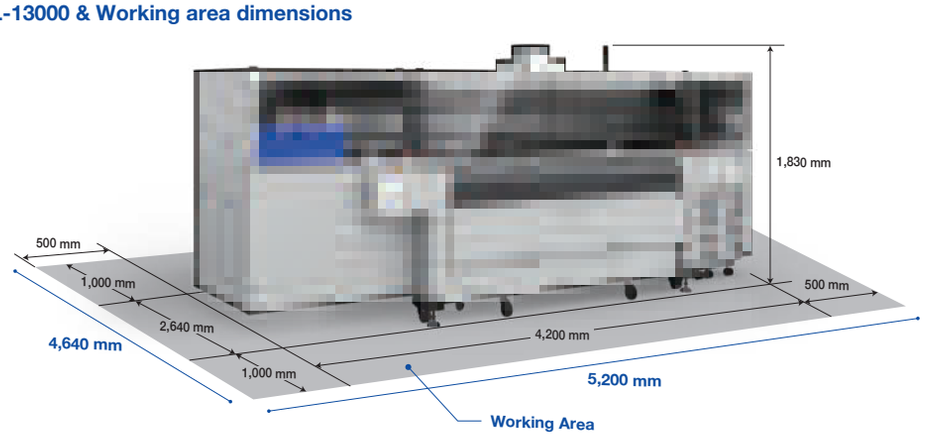
Source *1. World Bank, 2019 How Much Do Our Wardrobes Cost to the Environment?
*2 Fuluhashi Environmental Institute, 2024 "Report on Direct Water Input in Digital Textile Printing"
*3 National Library of Medicine, USA. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9983045/

Technical specifications

Print	Product name	ML-13000
	Printing technology	PrecisionCore inkjet technology
	Number of print head	13
	Number of color	7
	Maximum print resolution	1,200 x 1,200 dpi
	Gradation process	Variable-sized droplet technology
	Max print width (mm)	1,850
	Max print width (inch)	72.8"
	Max print length (mm)	Unlimited
	Max fabric width (mm)	1,850
	Max fabric width (inch)	72.8"
	Max fabric thickness (mm)	5
Ink	GENESTA pigment ink	Black, cyan, magenta, yellow, red, green, orange, pre treatment liquid, over-coating liquid, density enhancer liquid
	Ink capacity	1.6 liters
Print speed (square)*1	Maximum printing speed (m^2/h)	252 (300×600 dpi, 1 pass) *2
	Typical printing speed 1 (m^2/h)	131 (600×600 dpi, 2 pass) *3
	Typical printing speed 2 (m^2/h)	87 (900×600 dpi, 3 pass) *4
	Typical printing speed 3 (m^2/h)	63 (1200×600 dpi, 4 pass) *5
	Maximum printing speed (sq ft/hr)	2713 (300×600 dpi, 1 pass) *2
	Typical printing speed 1 (sq ft/hr)	1410 (600×600 dpi, 2 pass) *3
	Typical printing speed 2 (sq ft/hr)	936 (900×600 dpi, 3 pass) *4
	Typical printing speed 3 (sq ft/hr)	678 (1200×600 dpi, 4 pass) *5
Print speed (linear)*1	Maximum printing speed (lmt/h)	168 (300×600 dpi, 1 pass) *2
	Typical printing speed 1 (lmt/h)	87 (600×600 dpi, 2 pass) *3
	Typical printing speed 2 (lmt/h)	58 (900×600 dpi, 3 pass) *4
	Typical printing speed 3 (lmt/h)	42 (1200×600 dpi, 4 pass) *5
	Maximum printing speed (li ft/hr)	551 (300×600 dpi, 1 pass) *2
	Typical printing speed 1 (li ft/hr)	287 (600×600 dpi, 2 pass) *3
	Typical printing speed 2 (li ft/hr)	190 (900×600 dpi, 3 pass) *4
	Typical printing speed 3 (li ft/hr)	138 (1200×600 dpi, 4 pass) *5
Fabric handling	Fabric drive	Conveyor belt with thermoplastic adhesive
	Belt washing	Automatic
Standard feeder	Fabric roll diameter (mm)	400 (2" or 3" shaft) or 200 (1" shaft)
	Fabric roll weight (kg)	100 (2" or 3" shaft) or 20 (1" shaft)
	Fabric roll core diameter (inch)	1" or 2" or 3"
	Fabric roll diameter (inch)	15.7" (2" or 3" shaft) or 7.9" (1" shaft)
	Fabric roll weight (lb)	220 (2" or 3" shaft) or 44 (1" shaft)
Environmental characteristics	Temperature (C)	Operating: 20°C — 35°C, recommended: 22°C — 28°C
	Temperature (F)	Operating: 68˚F — 95˚F, recommended: 72˚F — 82˚F
	Humidity	Operating: 40 — 60%RH (no condensation)
Dimensions	Printer (mm)	4,200(W) x 2,640(D) x 1,830(H)
	Printer (inch)	165(W) x 104(D) x 72(H)
Weight	Printer (kg)	Approx. 2,350 kg Not include ink
	Printer (lb)	Approx. 5,180 lb Not include ink
Electrical	Voltage	380 – 415V, 3phase+Neutral+Earth, 50 Hz/ 60 Hz
	Rated current	14 A
	Power consumption (operating)	2.2 kw
Certifications	Safety/Electromagnetic	Canada: CSA, ICES U.S.A: UL, FCC Brazil: NR12 EU, EFTA countries, Turkey, UK: Machinery Directive, EMC Directive (CE/UKCA) Morocco: Safety & EMC regulation (CP) Ukraine: Safety & EMC regulation (Ukraine conformity mark) Australia: Australia EMC framework (RCM) Korea: MSIP regulation (KC)
Network	Transmission speed	USB 3.0 / Ethernet 1000BASE-T

*1: Printing width: 1500mm, printing mode: bidirectional. Printing speeds vary depending on such factors as image printed, firmware version, operating state of PC and print settings.
*2: With 300x300dpi 2 half tone layers
*3: With 300x300dpi 4 half tone layers
*4: With 300x300dpi 6 half tone layers
*5: With 300x300dpi 8 half tone layers

ML-13000 & Working area dimensions



PRECISIONCORE PRINTHEAD

EPSON®