Monna Lisa ML-13000

The ML-13000 is an all-in-one solution that requires no additional equipment for steaming / washing or pre- / post-treatment. You can start digital direct to fabric textile printing right away and open up new business possibilities. This sustainable production process uses less water, energy and space, shortens lead time, and enables you to produce on demand to reduce waste.

Single step printing solution with pigment ink

The ML-13000 is an all-in-one solution that requires no additional equipment for steaming / washing or pre- / post-treatment, so less space is required to startup a digital direct-to-fabric textile printing business with minimal setup and training. Pre-treatment, pigment inks, over-coating, and density enhancer are symmetrically printed in-line. This combination delivers enhanced fastness properties, vivid colors, and superior image quality. By placing the pre- / post-treatment chemicals only on the printed area, it reduces fabric stiffness. The amount of pre- / post-treatment chemicals can be adjusted by RIP software, so you can achieve the required finish according to the fabric, design and application. This solution can print on natural, synthetic and blended fabrics for a wide range of applications.

Sustainable production

ML-13000 dramatically reduces water and energy consumption and enables you to produce on demand to reduce waste, resulting in a sustainable approach to direct-to-fabric printing. ML-13000 pigment inks and pre- / post-treatment chemicals meet environmental standards; ECO PASSPORT certified, bluesign® approved, ZDHC MRSL Conformance Level 3 certified, and GOTS approved by ECOCERT.

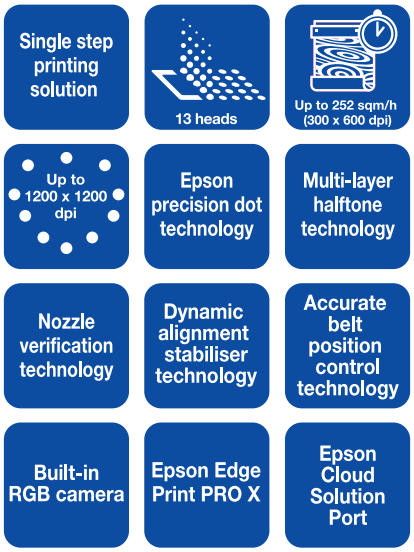
Monna Lisa Quality

The ML-13000 is equipped with 13 of Epson's latest 4.73-inch high-density PrecisionCore Micro TFP printheads that enable the printer to achieve high productivity. Epson precision dot technologies include microweave and lookup table technologies that reduce banding and graininess, and advanced multi-layer halftone technology that randomises the halftone dot pattern to reduce image degradation caused by dot misalignment. The ML-13000 also features symmetrical colour alignment for consistent colour overlap order during high-speed bidirectional printing, and accurate belt position control technology for precise fabric feeding. Epson Edge Print PRO X is genuine Epson RIP software which supports Adobe PDF Print Engine (APPE) - the industry's leading technology with 16-bit rendering. The result is optimal quality and speed, with superb reproduction of colour gradations, vivid designs, fine details, and complex geometric patterns.
Stable operation and unprecedented usability are realised by advanced cleaning mechanisms and automated adjustment functions such as a nozzle verification technology, a fluff blower system, an ink mist extraction system, and auto nozzle cleaning by fabric wiper and auto calibration by the built-in RGB camera.

Comprehensive solutions for textile and global sales and support network

The printheads, printer, ink, and software are all developed and manufactured by Epson for optimum quality with maximum reliability. Epson has sales offices, demo centers, solution centers and service sites around the globe to support customers on-site locally for any printing issues as a one-stop service. Epson Cloud Solution PORT allows to view the print status of all connected printers from a PC or mobile device, helping to maximize productivity. Epson's remote monitoring of the printer's status enables accurate failure diagnosis, which is difficult to achieve with conventional telephone support.

Datasheet



Key features

Productivity

Maximum printing speed
252 sqm/h (300 x 600 dpi, 1 pass)*2
Typical printing speed
131 sqm/h (600 x 600 dpi, 2 pass)*3
87 sqm/h (900 x 600 dpi, 3 pass)*4
63 sqm/h (1200 x 600 dpi, 4 pass)*5

High print quality

13 PrecisionCore Micro TFP printheads
Symmetrical colour alignment
Epson precision dot technology
Multi-layer halftone technology
Dynamic alignment stabilizer technology
Accurate belt position control technology

Stable operation / easy maintenance

Fluff blower system
Ink mist extraction system
Nozzle verification technology
Auto nozzle cleaning by fabric wiper
Built-in RGB camera for auto calibration
Epson Cloud Solution PORT
Epson Edge Print PRO X (Option)

Easy operation

10.1-inch LCD touch panel
Dual 1.6-litre high-capacity ink cartridges

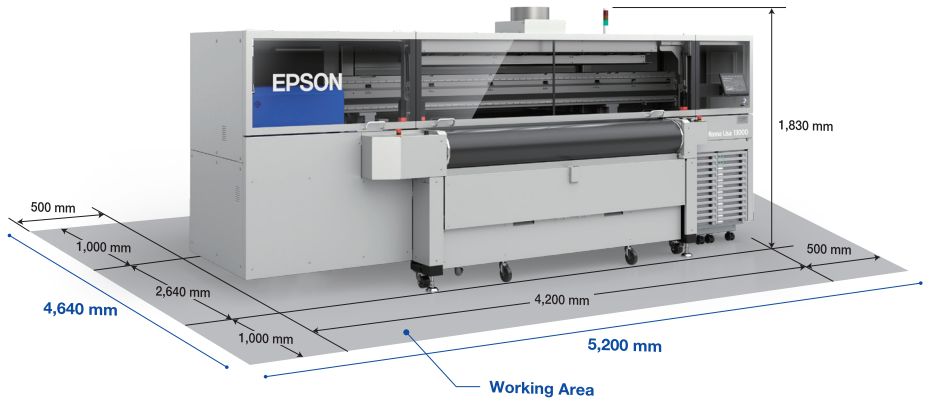
EPSON®

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
*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

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