#### **TECHNICAL SPECIFICATIONS**

		ML-32000	ML-16000	
PRINT	Printing technology		nkjet technology	
	Number of printheads	32	16	
		8	8	
	Number of colours			
	Maximum print resolution	1,200 x 1,200 dpi		
	Gradation process	Variable-Sized Droplet Technology		
	Max print width	1,800 mm (71") - 2,400 mm (94") - 3,400 mm (133") 1,800 mm (71") - 2,400 mm (94") - 3,400 mm (133")		
	Max print length	Unlir	mited	
	Max fabric width	1,800 mm (71") - 2,400 mm (94") - 3,400 mm (133")	1,800 mm (71") - 2,400 mm (94") - 3,400 mm (133")	
	Max fabric thickness	10	mm	
GENESTA INK	Acid	Black, Cyan, Magenta, Yellow, Grey, Red, Blue, Cobalt, Orange, Rubine, Fluorescent Pink, Fluorescent Flavine, ACROSS (Ink penetration liquid)		
<b></b>	Reactive	Black, Cyan, Magenta, Yellow, Grey, Red, Blue, Orange, Crimson, ACROSS (Ink penetration liquid)		
	Disperse	Black, Cyan, Magenta, Yellow, Grey, Red, Blue, Orange, ACROSS (Ink penetration liquid)		
	Pigment	Black, Cyan, Magenta, Yellow, Grey, Red, Green, Orange		
	Ink capacity		0 litres	
PRINT SPEED**	Maximum printing speed (m <sup>2</sup> /h)	697 (300 × 600 dpi, 1 pass)	417 (300 × 600 dpi, 1 pass)	
Square *1	Typical printing speed 1 (m <sup>2</sup> /h	423 (600 × 600 dpi, 2 pass)	236 (600 × 600 dpi, 2 pass)	
	Typical printing speed 2 (m <sup>2</sup> /h)	305 (900 × 600 dpi, 3 pass)	158 (900 × 600 dpi, 3 pass)	
	Maximum printing speed (sq ft/hr)	7,502 (300 × 600 dpi, 1 pass)	4,489 (300 × 600 dpi, 1 pass)	
	Typical printing speed 1 (sq ft/hr)	4,553 (600 × 600 dpi, 2 pass)	2,540 (600 × 600 dpi, 2 pass)	
	Typical printing speed 2 (sq ft/hr)	3,283 (900 × 600 dpi, 3 pass)	1,701 (900 × 600 dpi, 3 pass)	
PRINT SPEED**	Maximum printing speed (lmt/h)	465 (300 × 600 dpi, 1 pass)	278 (300 × 600 dpi, 1 pass)	
Linear *1	Typical printing speed 1 (lmt/h)	282 (600 × 600 dpi, 2 pass)	157 (600 × 600 dpi, 2 pass)	
	Typical printing speed 2 (Imt/h)	203 (900 × 600 dpi, 3 pass)	105 (900 × 600 dpi, 3 pass)	
	Maximum printing speed (li ft/hr)	1,524 (300 × 600 dpi, 1 pass)	912 (300 × 600 dpi, 1 pass)	
	Typical printing speed 1 (li ft/hr)	925 (600 × 600 dpi, 2 pass)	516 (600 × 600 dpi, 2 pass)	
	Typical printing speed 2 (li ft/hr)	667 (900 × 600 dpi, 3 pass)	346 (900 × 600 dpi, 3 pass)	
EARRIC HANDLING	Fabric drive			
FABRIC HANDLING		Conveyor belt with adhesive		
	Belt washing	Automatic		
STANDARD FEEDER	Fabric roll diameter	300 mm (11.8")		
	Fabric roll weight	100 kg (220 lb)		
	Fabric roll core diameter	2" or 3" (ML-32000-340 / ML-16000-340 : 3" only)		
ENVIRONMENTAL	Temperature	Operating: 20°C - 30°C (68°F - 86°F),		
CHARACTERISTICS		Recommended: 22°C - 28°C (72°F - 82°F)		
	Humidity	Operating: 40-60%RH (no condensation)		
DIMENSIONS				
DIMENSIONS	Printer	ML-32000 / ML-16000 : 4,610 (W) x 2,500 (D) x 2,070 (H) mm (181 x 98 x 81 in)		
		ML-32000-240 / ML-16000-240 : 5,260 (W) x 2,490 (D) x 1,950 (H) mm (207 x 98 x 77 in)		
		ML-32000-340 / ML-16000-340 : 6,560 (W) x 2,500 (D) x 1,940 (H) mm (258 x 98 x 76 in)		
	Control box	ML-32000 / ML-16000 : 660 (W) $\times$ 1,500 (D) $\times$ 2,290 (H) mm (26 $\times$ 59 $\times$ 90 in)		
		ML-32000-240 / ML-32000-340 / ML-16000-240 / ML-16000-340 : 660 (W) x 1,500 (D) x 2,270 (H) mm (26 x 59 x 89 in)		
WEIGHT	Printer	ML-32000 / ML-16000 : Approx. 3,900 kg (8,598 lb)		
		ML-32000-240 / ML-16000-240 : Approx. 4,300 kg (9,480 lb) ML-32000-340 / ML-16000-340 : Approx 6,000 kg (13,228 lb)		
	Control box			
		Approx. 400 kg (882 lb)		
	Ink Rack	Approx. 240 kg (529 lb)		
ELECTRICAL	Voltage	Main unit: 400V, 3 phase + Neutral + Earth, 50Hz/60Hz		
	Rated current**	Main unit: 30A		
	Apparent power (VA)**	Main unit: 20.7kVA (Operating)		
CERTIFICATIONS**		Mexico: NOM-019-SCFI-1998 section 1.2	EU, EFTAcountries, Turkey: EN ISO 12100, EN 13849-1, EN 60204-1	
		Brazil: NR12 Safety in Machinery and Equipment Work	EN 55011, EN 61000-6-2	
		EU, EFTAcountries, Turkey: EN ISO 12100, EN 13849-1, EN 60204-1,	Morocco: Order No.2573-14, Order No.2574-14	
		EN 1010-1, EN 55011, EN 61000-6-2		
			Rusia, Belarus, Kazakhstan: EN ISO 12100, EN 13849-1,	
		Morocco: Order No.2573-14, No.2574-14	EN 60204-1, EN 55011, EN 61000-6-2, EN 62311	
		Rusia, Belarus, Kazakhstan: EN ISO 12100, EN 13849-1, EN 60204-1,	Ukraine: EN 12100, EN 13849-1, EN 60204-1, EN 55011, EN 61000-	
		EN 55011, EN 61000-6-2, EN 62311	Jordan: EN ISO 12100, EN 13849-1, EN 60204-1, EN 55011,	
		Ukraine: EN 12100, EN 13849-1, EN 60204-1, EN 55011, EN 61000-6-2	EN 61000-6-2	
		Australia, Newzealand: AS CISPR11	Serbia: EN ISO 12100, EN 13849-1, EN 60204-1, EN 55011,	
		India: (HSE, Declaration) Electrics and Information Technology Goods	EN 61000-6-2	
			E1 01000 0 2	
		(Requirements for Compulsory Registration) Order, 2012 IS13252 (Part 1)		
		Korea: KS C 9811, KS C 9610-6-2		
		Jordan: EN ISO 12100, EN 13849-1, EN 60204-1, EN 55011, EN 61000-6-2		
		Serbia: EN ISO 12100, EN 13849-1, EN 60204-1, EN 55011, EN 61000-6-2		
Electromagnetic		Korea: KN11, KN61000-6-2		

<sup>\*</sup> 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.

\*\* Please contact Epson for the specifications of ML-32000-240 / ML-32000-340 / ML-16000-240 / ML-16000-340.









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# Excellence and productivity in digital textile printing

The Monna Lisa is an industry-leading digital textile printer that represents the culmination of our expertise in ink and printhead development, image processing, and pre and post fabric treatment. The ML-32000/ML-16000 and Total Textile Solution deliver the finest print quality with the highest versatility and the highest level of customer satisfaction.

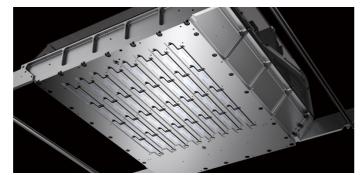
## **High Productivity**

#### **PrecisionCore Micro TFP printheads** optimized for maximum productivity

Driving the Monna Lisa is PrecisionCore Micro TFP printheads. ML-32000 is equipped with 32 printheads and ML-16000 is equipped with 16 printheads that achieve higher productivity. This, together with exceptionally high dot placement accuracy

and advanced image processing technology, enables high-quality and high-throughput.

	ML-32000	ML-16000
Maximum printing speed (300 x 600 dpi, 1 pass)	<b>697</b> sqm/h	<b>417</b> sqm/h
Typical printing speed (600 x 600 dpi, 2 pass)	<b>423</b> sqm/h	236 sqm/h

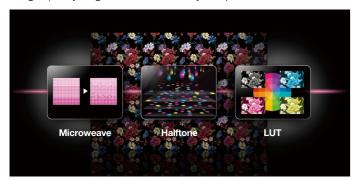


ML-32000 printheads

# **High Image Quality**

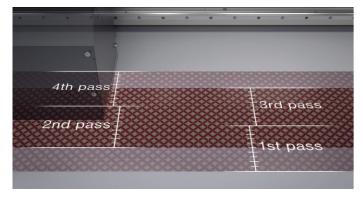
#### Epson precision dot technology for world-renowned image quality

Epson precision dot technology, refined over many years of inkjet printer development, underlies superior image quality. In addition, our exclusive Microweave, halftoning, and LUT technologies work together to reduce banding, graininess, and image quality degradation caused by dot placement errors.



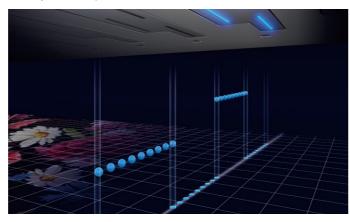
#### **Accurate Belt Position Control (ABPC)** technology for high-precision fabric feeding

The ML-32000/ML-16000 achieves high image quality with new Accurate Belt Position Control (ABPC) technology that automatically detects belt feeding distance to ensure highly accurate fabric feeding.



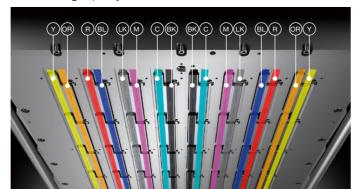
#### Dynamic Alignment Stabilizer (DAS) technology for uniform dot density

Dynamic Alignment Stabilizer (DAS) technology ensures stable print quality by controlling waveforms on printhead chip to achieve higher dot placement accuracy and more uniform dot density on each pass.



#### Symmetrical color alignment for high bidirectional printing quality

Symmetrical color alignment maintains consistent color overlap order during high-speed bidirectional low-pass printing for uniform image quality.



## **High Reliability**

#### **Dual sensor system to** prevent costly head strikes

Dual head-strike sensors detect any folds or wrinkles that may cause the fabric to come into direct contact with the printheads. If folds or wrinkles are detected, the sensors immediately stop the carriage to avert a potential head strike.



#### High-accuracy head alignment technology for highly accurate dot placement

High-precision positioning pins and holes on the printhead and carriage enable accurate dot placement for high print quality.

#### High-capacity ink supply for uninterrupted production

10-litre vacuum-packed degassed ink cartridges can be loaded for each color, and you don't need to worry about running out of ink halfway through a job because empty cartridges can be replaced while printing is in progress.



#### **Flexibility**

#### 8+8 colour channel configurations

The ML-32000 offers a choice of colour channel configurations to suit your production needs. The 8+8 color version can be loaded with two different types of ink simultaneously (e.g., Acid +Reactive), to increase the fabric types that can be printed, and is of particular value when working with limited space or a tight

The printing widths of 2,400mm and 3,400mm are also available.

## **GENESTA Inks**

#### Environmentally friendly inks to meet every need

Epson GENESTA inks are available in Acid Reactive, Disperse, and Pigment formulations. They are ECO PASSPORT certified to meet globally recognized standards for environmentally friendly textile printing. In addition, our Acid ink is bluesign® approved, and our Reactive and Pigment inks are GOTS approved by ECOCERT.\*



# **Software for Digital Textile Printing**

## Epson Edge Print PRO X for easy, high-quality printing

Our original RIP software, Epson Edge Print PRO X, was specifically developed to maximize the performance of PrecisionCore Micro TFP printheads and GENESTA inks. It features an intuitive interface for easy, 3-step, left-to-right operation, as well as step & repeat, hot folders, color

features. In addition, the ML-32000/ML-16000 are supported by other major textile RIP software. giving you the flexibility to use the RIP solution of your choice.



# Full-service support at global

**Epson Textile Solution Centers** 

# **Epson Textile Solution Centers**

Experts at Epson Textile Solution Centers in Italy and Japan are ready to assist and advise you whenever the need arises. From equipment demos and sample production, to advice on pre and post processing techniques, we provide full-service support for every stage of the textile printing process.

\*Genesta RF-N Reactive inks (except Grey RE-N) and Genesta PG-2 Pigment inks



# Monna Lisa 32000



ColorBlend software for colorways and ink penetration control

ColorBlend is preprocessing software for Epson Edge Print PRO X. ColorBlend lets you create color variations (colorways) from channel-separated images (PSD, PSB, etc.), control ink penetration to achieve visual equivalence on both sides of fabric, generate ICC profiles, and perform other preprocessing tasks.