JFX500-2131

Ultra-high speed UV LED printer

SG
SIGN & GRAPHICS

IP
INDUSTRIAL PRODUCTS

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MIMAKI
The world imagines... *Mimaki delivers*

the power to ▶ **create** ...

Mimaki

Ultra-high speed, high precision flatbed UV LED printer

Setting new standards in Grand Format UV Flatbed printing… The new JFX 500-2131 establishes new performance benchmarks in the sector in terms of speed, flexibility and environmental sustainability. With speeds of up to 60 m^2/h the new machine is 2.5 times faster than previous JFX printers from Mimaki and will revolutionise the world of sign and graphics and wide format display with the outstanding capability to print down to 2 point text with stunning clarity.

ENGINEERING EXCELLENCE AND CREATIVE INNOVATION

Founded in Japan in 1975, Mimaki Engineering has steadily grown by reputation and influence into a global company with large operational bases in Asia and the Pacific, United States and Europe.

Renowned for award-winning performance, peerless build quality and innovative technology, Mimaki has established itself as a leading manufacturer of wide-format inkjet printers and cutting machines for the sign and graphics, textile and apparel and industrial markets. In addition, Mimaki also provides a comprehensive range of supporting products; hardware, software and associated consumable items, such as inks and cutting blades.

From outdoor signage and billboards to interior decoration and furnishing, from packaging and labels to promotional gifts and apparel, Mimaki is committed to developing technology that sets new industry standards, producing machines and products that turn the imagination of our customers into breath-taking reality.
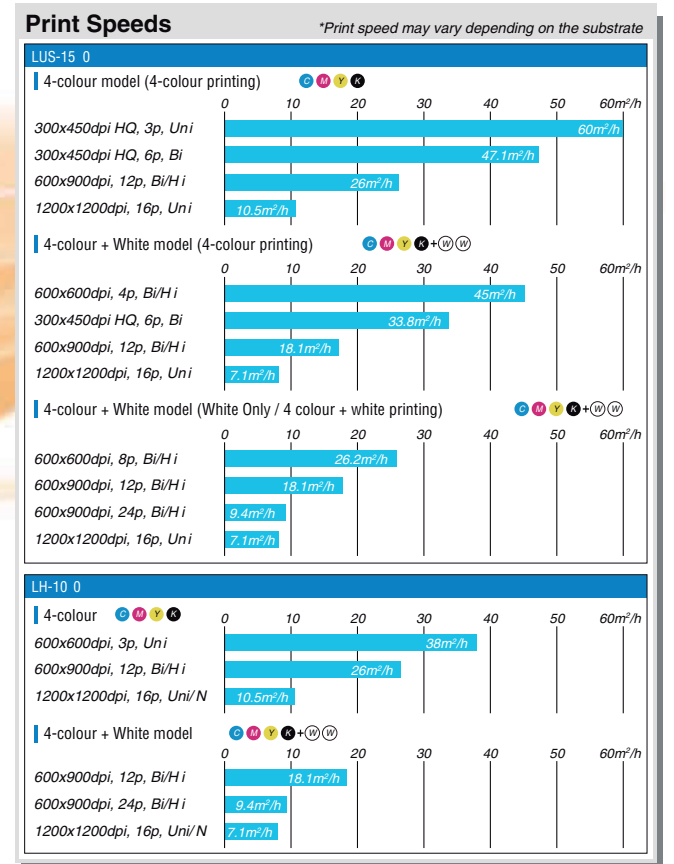
··· Mimaki delivers

JFX 500-2131 delivers ···

JFX500-2131

- Amazing print speeds up to 60 m^2/h with CMYK and 45 m^2/h with white ink printing
- Maximum print size of 2.1 x 3.1 m
- Intelligent Microstepping System (IMS) for accurate prints, even 2 pt characters can be legibly printed
- Variable dot printing with a minimum size of 4 picolitre
- Mimaki Advance Pass System reduces bandings
- Mimaki Circulation Technology prevents pigment sedimentation of white ink
- Reliable nozzle recovery function
- Vacuum unit and high performance Rasterlink RIP software included as standard

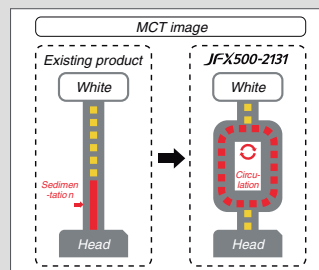|	
UV LED CURABLE	
60 m²/h MAX. PRINT SPEED	
2100 mm x 3100 mm MAX. PRINT AREA	
1200dpi MAX. RESOLUTION	
50 mm MAX. MEDIA THICKNESS	
FLEXIBLE/HARD INK OPTIONS	
4 COLOURS + WHITE / PRIMER	

Create ··· Large format signage & graphics where the highest quality image definition is the main priority, including exhibition graphics, interior decor panels, creative displays and much more…

Print Speeds
Print speed may vary depending on the substrate

LUS-15 0

4-colour model (4-colour printing)
- 300x450dpi HQ, 3p, Uni — 60m²/h
- 300x450dpi HQ, 6p, Bi — 47.1m²/h
- 600x900dpi, 12p, Bi/H i — 26m²/h
- 1200x1200dpi, 16p, Uni — 10.5m²/h

4-colour + White model (4-colour printing)
- 600x600dpi, 4p, Bi/H i — 45m²/h
- 300x450dpi HQ, 6p, Bi — 33.8m²/h
- 600x900dpi, 12p, Bi/H i — 18.1m²/h
- 1200x1200dpi, 16p, Uni — 7.1m²/h

4-colour + White model (White Only / 4 colour + white printing)
- 600x600dpi, 8p, Bi/H i — 26.2m²/h
- 600x900dpi, 12p, Bi/H i — 18.1m²/h
- 600x900dpi, 24p, Bi/H i — 9.4m²/h
- 1200x1200dpi, 16p, Uni — 7.1m²/h

LH-10 0

4-colour
- 600x600dpi, 3p, Uni — 38m²/h
- 600x900dpi, 12p, Bi/H i — 26m²/h
- 1200x1200dpi, 16p, Uni/N — 10.5m²/h

4-colour + White model
- 600x900dpi, 12p, Bi/H i — 18.1m²/h
- 600x900dpi, 24p, Bi/H i — 9.4m²/h
- 1200x1200dpi, 16p, Uni/N — 7.1m²/h

KEY TECHNICAL FEATURES ···

Easy Maintenance

- **Mimaki Circulation Technology;** prevents pigment sedimentation of white ink and provides stable ink-jetting. Thus, it also contributes to reduction of ink waste, supporting environmentally friendly applications.

- **Nozzle recovery function;** even when nozzle washing has no effect on troubled nozzle, the print image quality can be recovered temporarily.

* Nozzle Recovery Function is a temporary failure averting function and its recoverability is limited.

MCT image

Existing product | JFX500-2131
White | White
Sedimentation | Circulation
Head | Head

Multiple ink options

The newly formulated LUS-150 ink offers improved curing times resulting in a less tactile sticky feeling and it is flexible up to 150%. The JFX500-2131 also operates with Mimaki's LH-100 inks.

Type	4-colour High Speed Ink **LUS-150**	4-colour Vivid Ink **LH-100**
Color	C M Y K +W	C M Y K +W
Features	Newly developed UV ink offers a 150% flexibility while providing a lower operational costs during high-speed UV printing.	Hard UV ink with higher scratch and chemical resistance as well as colour reproduction.
Flexibility	Good	None

*1 LUS = LED UV Stretchable ink
*2 Ink flexibility of LUS-150 may vary according to the substrate, please test your substrate in advance.
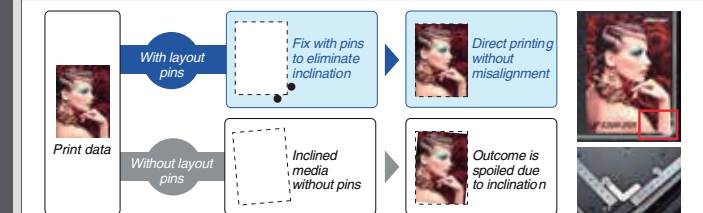
Mimaki Advanced Pass Systems (MAPS)

This facility applies a gradational mask pattern to the printing process ensuring that UV curing is performed more gradually, thereby reducing 'banding'
*when using MAPS – print speed is reduced by approx. 10%

Normal pattern | MAPS

Easy operations
Layout pins eliminate alignment problems

The machine is equipped with pins and a scale to ensure accurate substrate alignment on the flatbed. By fixing the substrate to the pins, checking the placement against the scale and then editing the design data or printer setting accordingly, all alignment problems are eliminated.

Print data | With layout pins → Fix with pins to eliminate inclination → Direct printing without misalignment
Without layout pins → Inclined media without pins → Outcome is spoiled due to inclination

Sophisticated RIP software maximizes the performance of JFX 500-2131

RasterLink6

User friendly RIP key features

- **Easy to follow icons enable intuitive and user-friendly operation**
- **Related settings feature in one window to simplify RIP operations, with 'Register as Favourite' option available for regularly used layouts**
- **Printing progress can be monitored on the main screen**

Supports Web update function. Supports the Web update function that has been well-received in RasterLinkPro5. Program update and profile download can be easily performed via internet.

Additional useful functions

1. Three ink layers in one pass print function
A three-layer print of colour, white and colour can be performed at one time. Printing a base layer 'underlay' of white ink allows perfect reproduction of beautiful natural colours when printing on transparent media. Window graphics can be printed with high precision and no multi-pass colour registration shift.

2. Layout function
Three ink layers or copied images are freely laid out if print conditions remain the same. This function reduces the media waste by efficient layout.

3. Multi-profile, simultaneous printing function
Several profiles that match conditions can be simultaneously printed. This is particularly useful for test output when the profile for a target image quality or colour requires multiple 'profile' test prints.
*To be supported by RasterLink6 program update.

Specifications

Item		JFX500-2131
Head		On-demand Piezo head (6 printheads with 3 staggered configuration)
Print resolution		300 dpi, 600 dpi, 900 dpi, 1200 dpi
Ink	Type	UV curable ink : LUS-150 (C, M, Y, K, W)
		UV curable ink : LH-100 (C, M, Y, K, W)
	Supply system	Supplied by 2L Ink Station
	Ink circulation (*1)	White ink circulation by MCT (Mimaki Circulation Technology)
	Ink degassing module	Equipped with MDM (Mimaki Degassing Module)
Inkjet primer		Automatically applied by PR-100
Maximum print size (W X D)		2,100 X 3,100 mm (82.7 X 122.0")
Media	Size (W X D)	2,100 X 3,100 mm (82.7 X 122.0")
	Height	Max. 50 mm (2.0")
	Weight	Less than 50 kg (110.2 lbs.) / m²
Media table		Air suction by vacuum
	Vacuum area	Vertically divided into 4 zones
Print accuracy	Absolute accuracy	± 0.3 mm (0.01") or ± 0.3% from specified print distance
	Repeatability	± 0.2 mm (0.01") or ± 0.1% from specified print distance
UV unit		Equipped with UV LED (Light Emitting Diodes)
	Lifetime (*2)	About 5,000 hours
Interface		USB2.0
Applicable standard		VCCI class A, CE Marking, CB Report, UL, RoHS Directive
Power specifications		AC 200 – 240 V, 50/60 Hz
Power consumption		Less than 2.4 kVA
Operational environment	Temperature	15 – 30 °C (59 – 86 °F)
	Humidity	35 – 65 %Rh
	Temperature accuracy	18 – 25 °C (64.4 – 77 °F)
	Temperature gradient	Less than ± 10 °C/h (18 °F)
	Dust	Equivalent to normal office level
Dimensions (W X D X H)(*3)		4,100 X 4,462 X 1,490 mm (161.4 X 175.7 X 58.7")
Weight (*3)		1,353 kg (2,982.8 lbs.)

*1 MCT works only with white ink.
*2 Reference value. There is no guarantee as to the lifetime.
*3 Ink Station is not included in the dimensions and the weight.
*4 RasterLink6 and the standard vacuum unit are bundled with the JFX500-2131.

Supplies

Item	Colour	Item No.	Remarks
LUS-150	Cyan	LUS15-C-BA	1 liter ink bottle
	Magenta	LUS15-M-BA	
	Yellow	LUS15-Y-BA	
	Black	LUS15-K-BA	
	White	LUS15-W-BA	
LH-100*	Cyan	LH100-C-BA	
	Magenta	LH100-M-BA	
	Yellow	LH100-Y-BA	
	Black	LH100-K-BA	
	White	LH100-W-BA	
Inkjet primer PR-100*		TBD	
Tungsten replacement needle for ionizer		SPA-0208	4 pcs
Air filter kit		SPA-0209	10 pcs
Ink bottle 2L BK		SPA-0210	1 pc (empty bottle)

* Delivery of LH-100 and PR-100 for JFX500-2131 TBD

- Every UV ink is sold by the liter. Please put it into the Ink Station.
- As ink flexibility of LUS-150 may vary according to the substrate, please test your substrate in advance.
- JFX500-2131 may not take full advantage of its print speed with LH-100.

Options

Item	Item No.	Remarks
Ionizer kit	OPT-J0322	For electrostatic removal
Vacuum unit (1 φ . 200)	OPT-J0217	1-phase : 200 - 240 V, 30 A, 1.9 kW
Option blower connection kit	OPT-J0330	

- Additional power source is required in order to use the vacuum unit.
- Each vacuum unit requires "Option blower connection kit (OPT-J0330)" to connect to JFX500-2131

⚠ Inks and substrates:
- Please note that properties and adhesion, weather resistance etc. of ink and substrates can vary. Therefore please test materials before printing.
- Some substrates require primer before printing. Please test materials beforehand or ask your sales representative.

⚠ Safety notice:
You are dealing with UV light sources that may harm your health.
Please follow below guidelines strictly:
- Do not look directly into the UV light source nor place your hand, or expose your skin directly to the UV light source.
- Depending upon print mode, there might occur some VOC emittance from printed parts not yet cured and hardened
- In addition, please read the instructions and guidelines of the manual carefully and follow those.