PRODUCT GUIDE

JV400-130/160LX Latex Inkjet Printer

Mimaki™

Features

Latex ink covers a wide range of applications

- Latex ink can print on uncoated media that is unsuitable for solvent ink

- White ink makes 3 layer printing on transparent media easy

- Latex ink is odorless, has high scratch resistance and can be used for indoor and outdoor applications
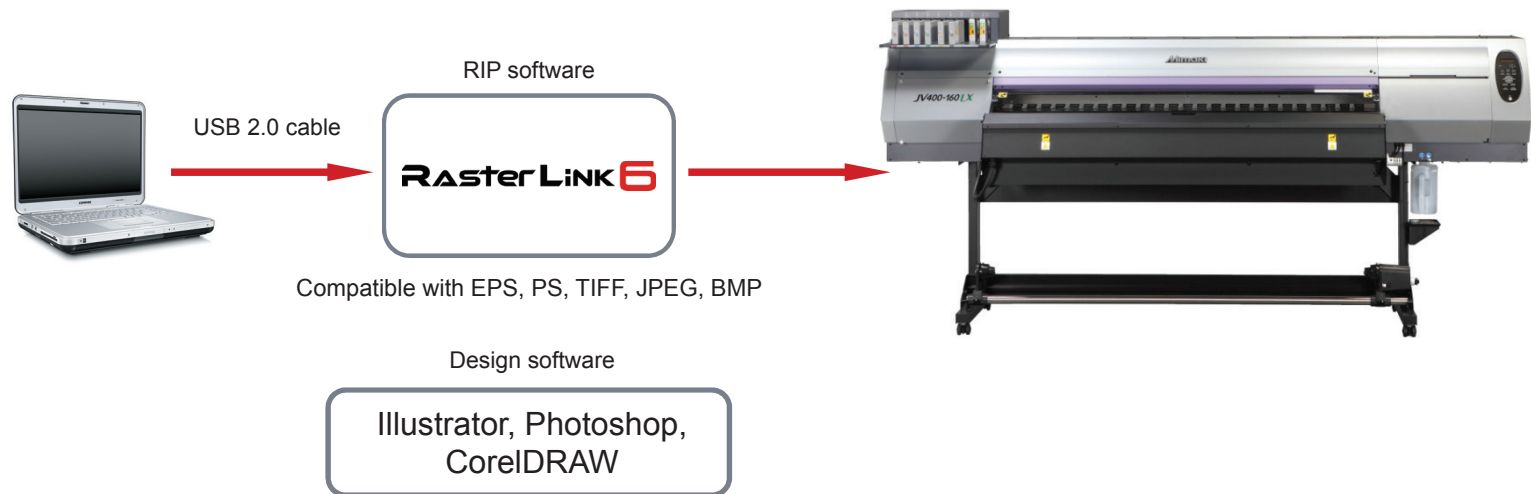
A wider color gamut is created using new Orange and Green inks

- Food/POP posters
- Reproduction of corporate colors
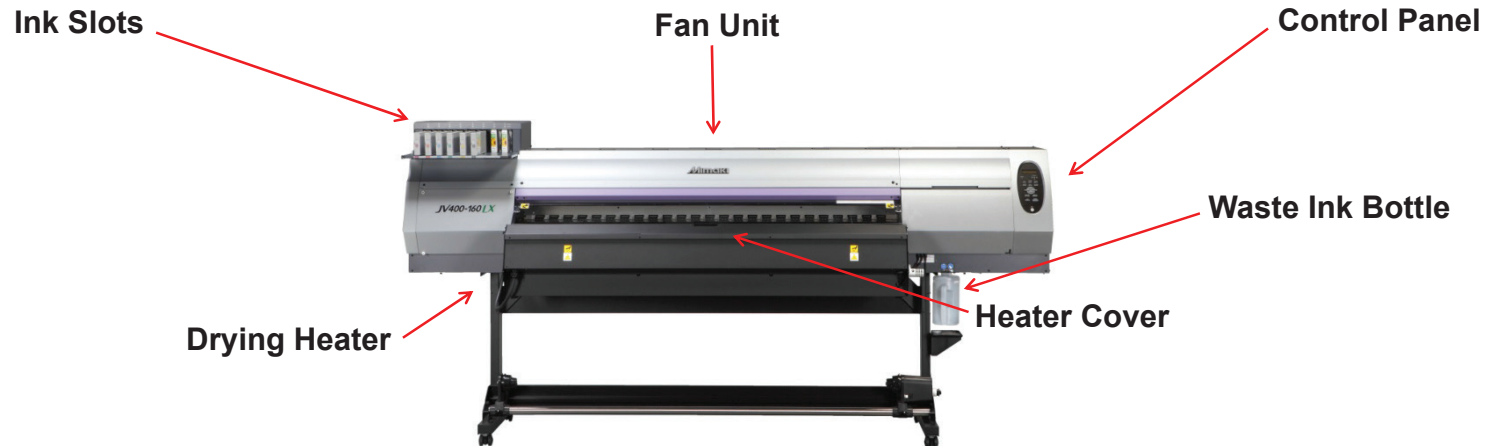- Package and label proofs that use spot colors

Various user-friendly solutions

- Quick drying ink enables fast production delivery times

- Reliably stable printing using advanced Mimaki technologies (MAPS / UISS / MCT/ Nozzle Recovery)

Mimaki 1

System Configuration

RIP software

USB 2.0 cable

RasterLink 6

Compatible with EPS, PS, TIFF, JPEG, BMP

Design software

Illustrator, Photoshop, CorelDRAW

JV400-160LX

Appearance and Overview

Ink Slots

Fan Unit

Control Panel

Waste Ink Bottle

Heater Cover

Drying Heater

JV400-160 LX

Eco-Friendly Latex Ink

Latex ink is a water-based ink that contains resin. This environmentally friendly ink generates very few VOCs, therefore it creates a better work environment for the operator. Because latex ink is odorless, special ventilation equipment is not required.

Ink Type

Aqueous Latex Ink: LX101
(White: LX100)

Colors

4 Color (CCMMYYKK)
6 Color (M,Or,C,G,Y,M,K,C)
7 Color (M,Or,C,G,Y,K,W,W)

Ink Capacity

600ml ink pack (220ml ink cartridge for white ink)

* The same profiles of 6C+W can be used for 6C.
* Ink should be stored in a well-ventilated, cool and dark room at a temperature under 77° F (25° C)
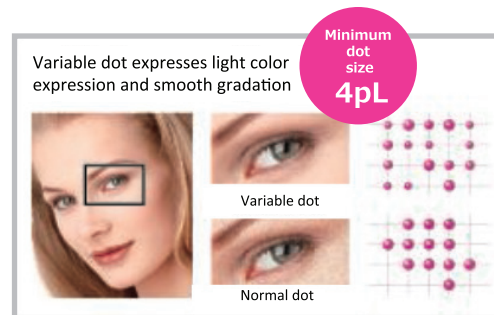* Printing by 6C / 7C corresponds with RasterLink v1.4

Newly Developed Print Heads

- 1,280 nozzles per head (320 nozzles per row x 4)
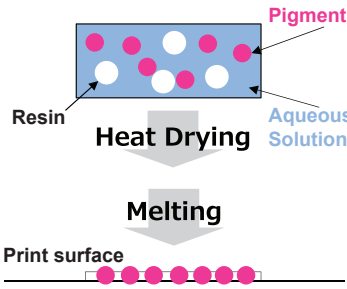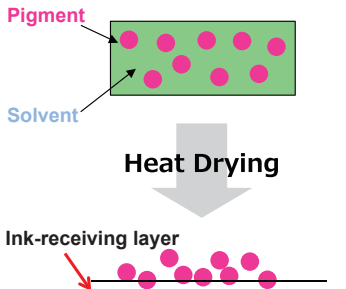- 2 print heads per printer
- Heads are arranged in-line

54.2mm
2.13 in | 320 nozzles
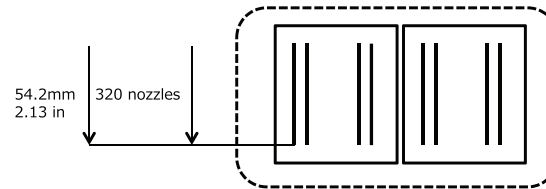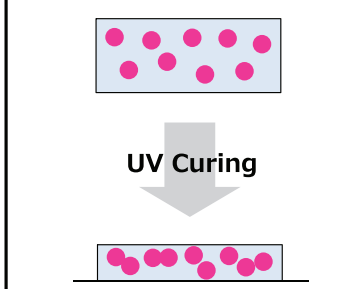
■ **Variable Dot Printing**
   High image quality is achieved by ejecting ink dots in 3 different sizes.

Variable dot expresses light color expression and smooth gradation

Minimum dot size **4pL**

Variable dot

Normal dot

Expanded Print Media Options

In many cases, solvent and aqueous ink can only be printed onto coated media, which tends to be expensive. Latex ink can be printed onto lower-priced media that does not have a special ink-receptive layer.

### Ink curing properties enable printing on many different media types

LX101	Solvent Ink	UV Ink
Pigment, Resin, Aqueous Solution	Pigment, Solvent	
Heat Drying	**Heat Drying**	**UV Curing**
Melting	Ink-receiving layer	
Print surface		
Latex ink forms a film by heating resins in the ink, which fixes the pigment. LX101 forms the film at a relatively low temperature, which saves power and money.	Solvent ink fixes pigment by volatilizing solvent. Solvent ink uses resin which can be dissolved into solvent so the scratch resistance tends to be high.	UV ink cures when exposed to UV light. The ink dries immediately after exposed to UV light. The printed surface is slightly uneven and diffused.

2 and 3 Layer Printing on Transparent Media with White Ink

By printing white ink as a foundation for layers of color, full color printing on transparent media is easy. 3 Layer printing, which prints white ink between color layers, shows images on both sides of the media.
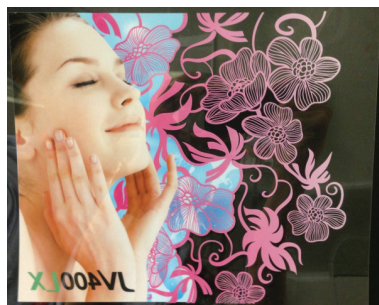
3 Layer Printing on Clear Backlit Media

Front
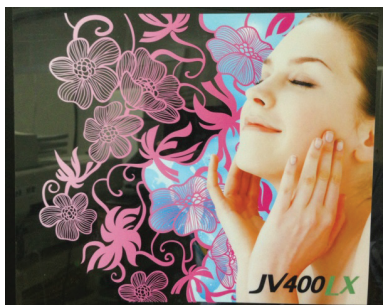
Back

Lighting

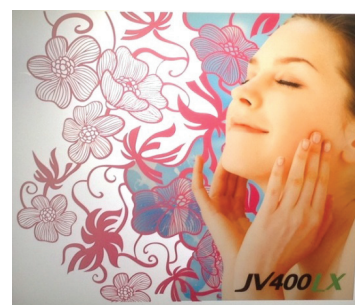By using white ink as a foundation, the original color of the ink is achieved on clear media.
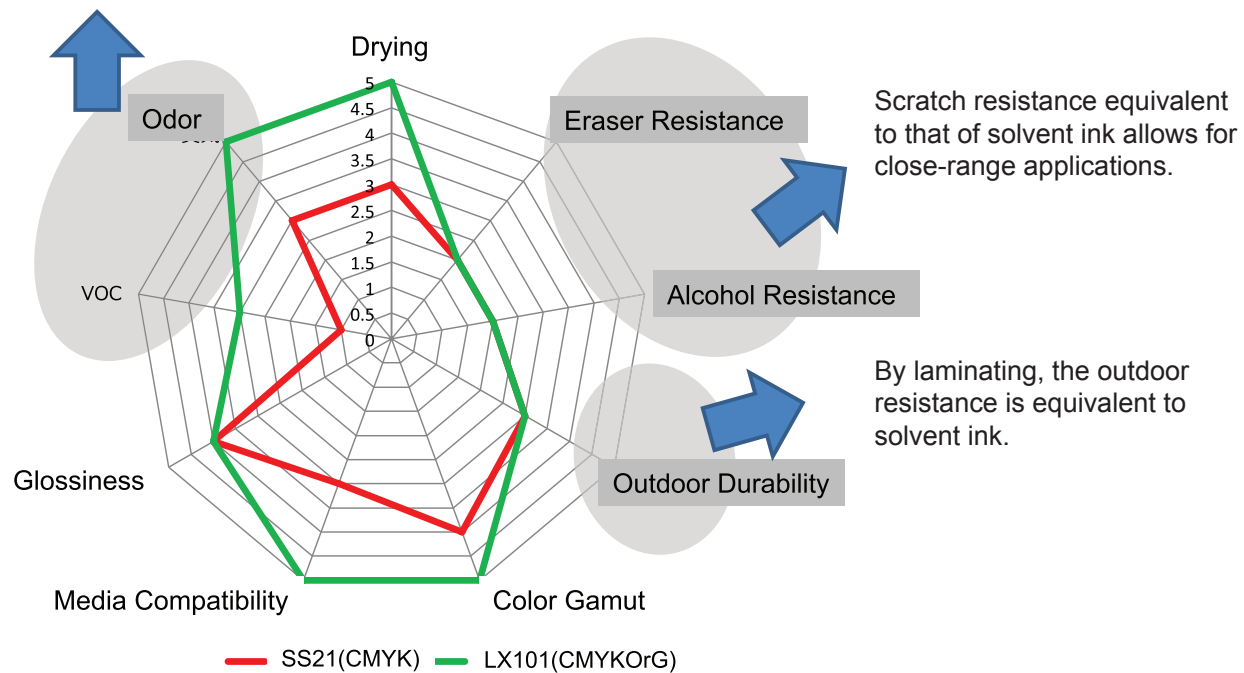
The same image can be seen from the front and the back.

Vivid color is achieved when the image is lit from behind. The signage is especially eye-catching at night.

Great For Indoor and Outdoor Use

Latex ink generates no odor, has low VOC* emission, and is free of hazardous air pollutants.

Scratch resistance equivalent to that of solvent ink allows for close-range applications.

By laminating, the outdoor resistance is equivalent to solvent ink.

SS21(CMYK)   LX101(CMYKOrG)

Orange and Green Inks as Process Colors

Orange and Green Inks as Process Colors

Adding orange and green ink as process colors achieves a wider color gamut than CMYK alone.

*Orange and green ink can also be used as spot color.

Orange and green inks broaden the application options and are great for:

Colorful POP/Posters for fresh food advertisement

Vivid orange and green, and vibrant pastel colors are produced.

**Signage that requires corporate color**

A gamut that exceeds that of CMYK and even CMYKLcLm is created. This enables the reproduction of corporate color for logos.

Package proofs that require spot colors

Spot color reproducibility is expanded over that of CMYK-only process colors.

Orange and Green Ink Create a Wider Color Gamut

- Six-color process printing with orange and green reproduces bright oranges, greens and blues which cannot be achieved using only CMYK or 4 color plus light magenta and light cyan.

- About 93% of the PANTONE color chart is reproducible.

Color Gamut Comparison
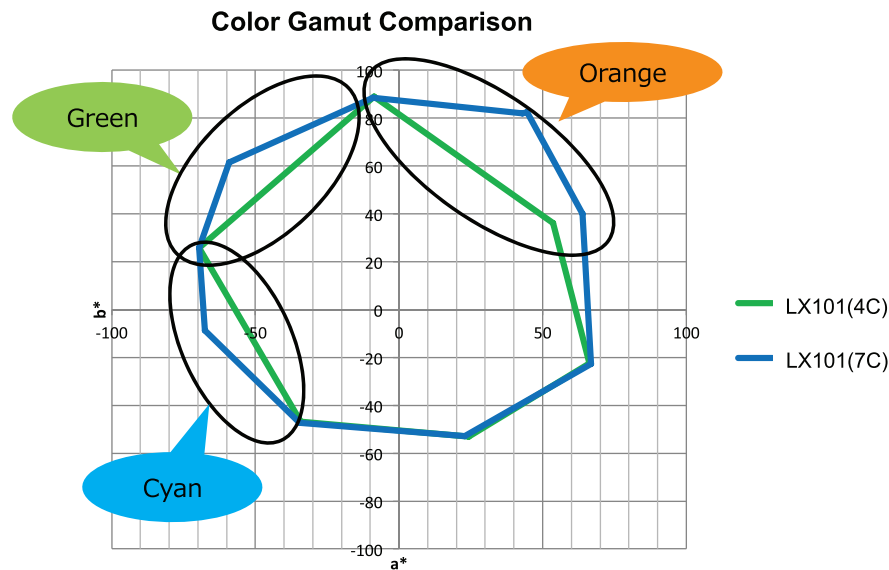
New Input Profile for a Wider Color Gamut

The conventional input profile "WideMimakiCMYK" cannot cover the expanded gamut created with orange and green inks. To take advantage of the full gamut of CMYKOrG, a new input profile called "WideMimaki2013forSign" has been created.
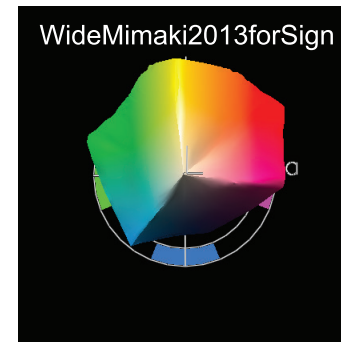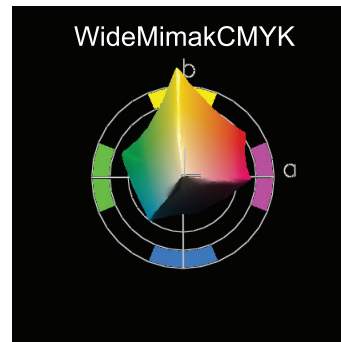
*Gamut viewer: X-Rite ProfileMaker

WideMimaki2013forSign is the developed input profile from WideMimakiCMYK, to reproduce the orange and green area. Since the whole color reproduction area is expanded, vivd color reproducibilty is attained.

*Note: Light colors, such as skin tones and pastels, also appear bright so the color reproducibility differs from WideMimakiCMYK. Please check the color beforehand.

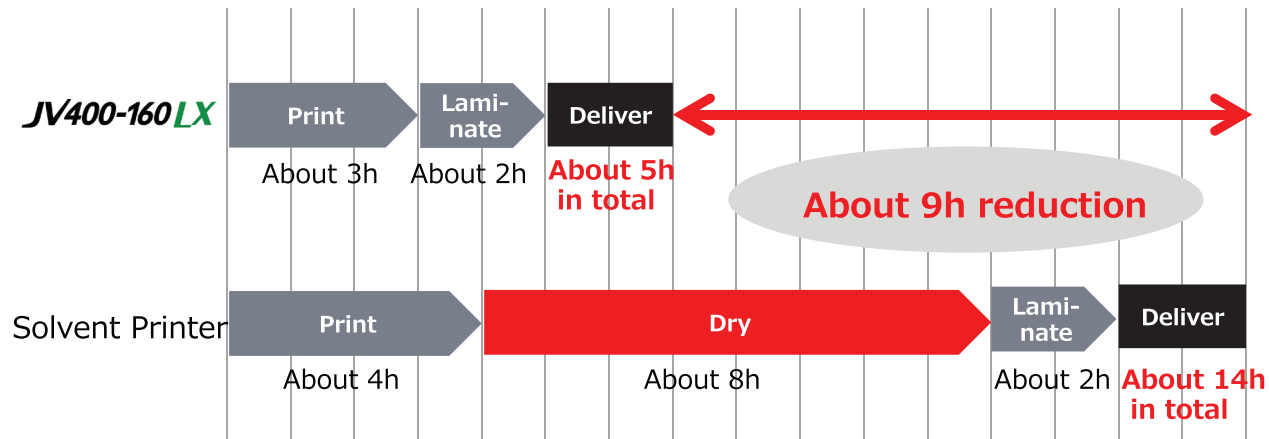## Quick Delivery - No Drying Time After Printing

Unlike solvent ink, latex ink does not require drying time to gas-out. Post-processing can be done immediately.

Comparison with solvent printing
Condition: From printing 323 ft2/hr (30㎥/h) to delivery.
JV400-160LX⇒900x900dpi,12P ,Bi ,ND（11.1m2/h)
Solvent Printer⇒720x1440,8P ,Bi, 80 ft2/hr (7.4m2/h)

JV400-160LX

Print	Lami-nate	Deliver
About 3h	About 2h	**About 5h in total**

About 9h reduction

Solvent Printer

Print	Dry	Lami-nate	Deliver
About 4h	About 8h	About 2h	**About 14h in total**

3-Way Intelligent Heater

Heating the ink in 3 steps promotes ideal color development and ink fixation. The separate drying heater ensures that the ink is dry and pigment is fixed.
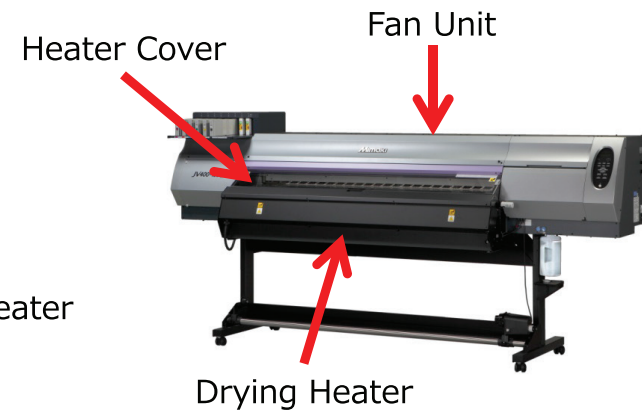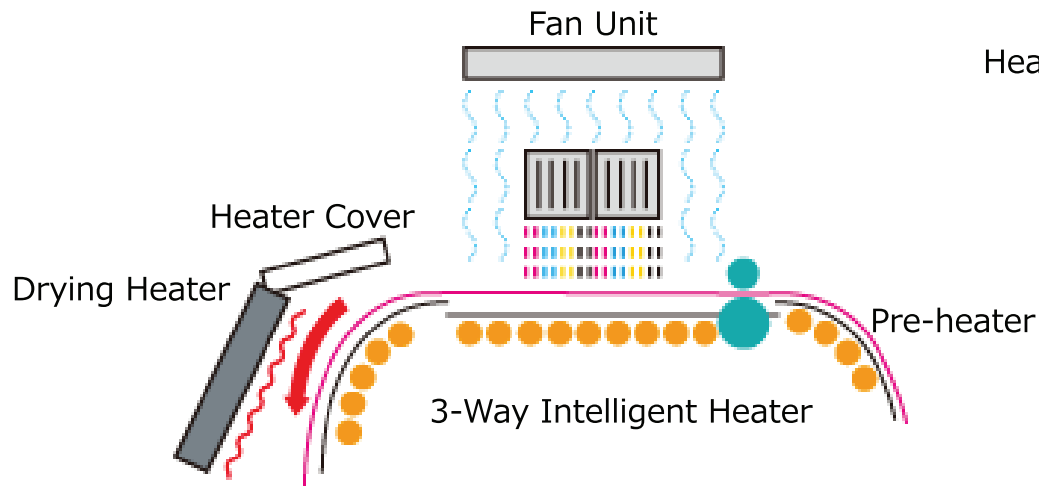
MAPS and UISS

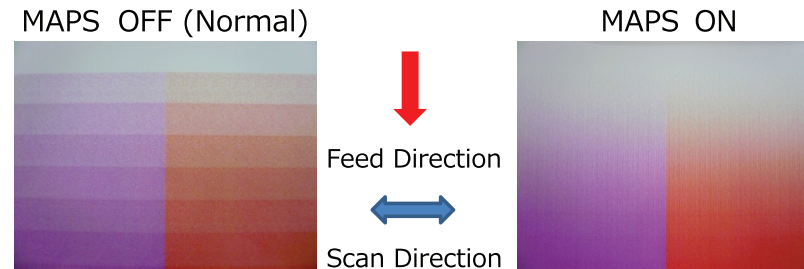### MAPS* Supports Stable Printing

*Mimaki Advanced Pass System (MAPS) eliminates banding by ejecting ink sparsely at the boundary of the pass.

MAPS OFF (Normal)   MAPS ON

Feed Direction

Scan Direction

*By setting MAPS the print speed may vary.

### UISS* for Unattended Printing

If printing in 4 color mode, when one ink cartridge runs out of ink, the system switches automatically to a second cartridge of the same color, enabling long, unattended printing.

* Uninterrupted Ink Supply System

Ink Circulation System - MCT

MCT* Mimaki Circulation Technology

By circulating white ink in the line, pigments are prevented from settling in the damper.
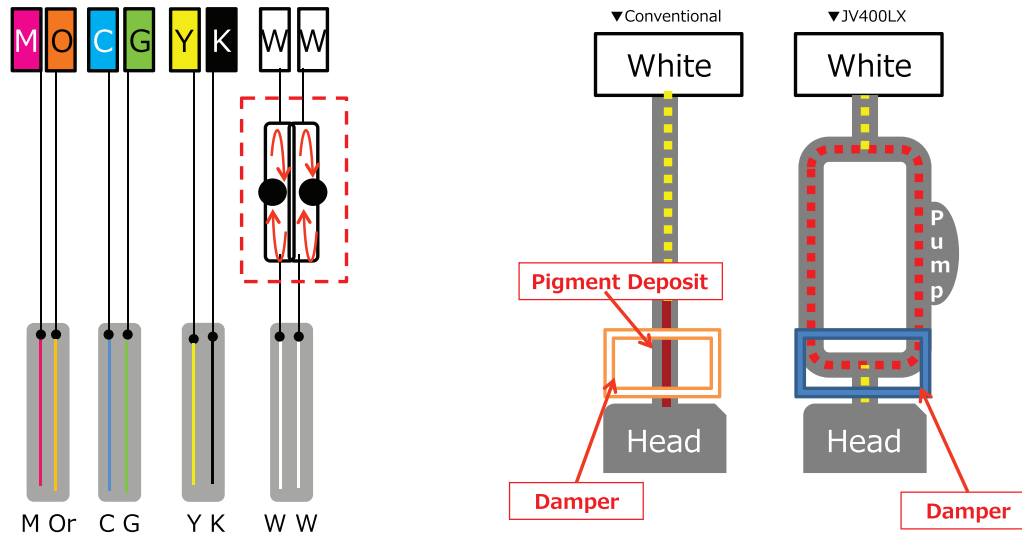
*This system does not work in the ink slot, so please shake the cartridge before printing.
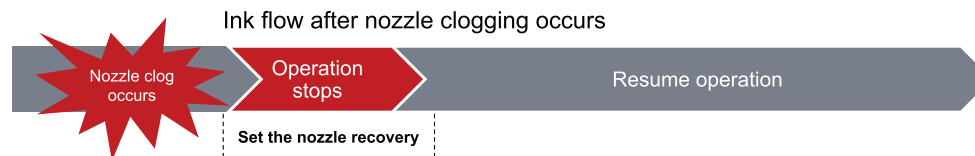
Nozzle Recovery System

Nozzle Recovery System

If a clogged nozzle is not improved using maintenance functions, continuous print operation without losing image quality is possible by using the other nozzles to compensate.

Example of registering clogged nozzles

Nozzle clogging No.184

Nozzle clogging No.128

Nozzle clogging No.16
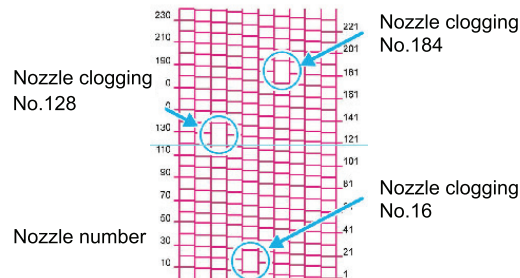
Nozzle number

Registration number	The number of the nozzle to be recovered	State
1	16	Recovered
2	128	Recovered
3	184	Recovered
4	OFF	Unregistered
5	OFF	Unregistered

Ink flow after nozzle clogging occurs

Nozzle clog occurs
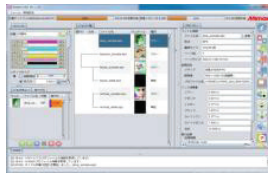
Operation stops

Resume operation

Set the nozzle recovery

* 10 nozzles can be registered per 1 nozzle line.
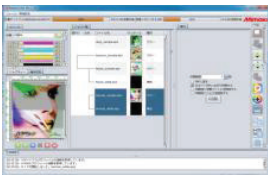* The nozzle recovery system does not have influence on the print speed

RIP Software

■ The easy intuitive operation

Basic configuration settings are displayed with icons, enabling intuitive manipulation.

Related settings are gathered in one screen. This leads to easy operation without confusion, because changing the pages is not necessary. Also, modes that will be used often can be registered in the software to save time when sending files to print.

The progress of the job is visually confirmable on the main screen.
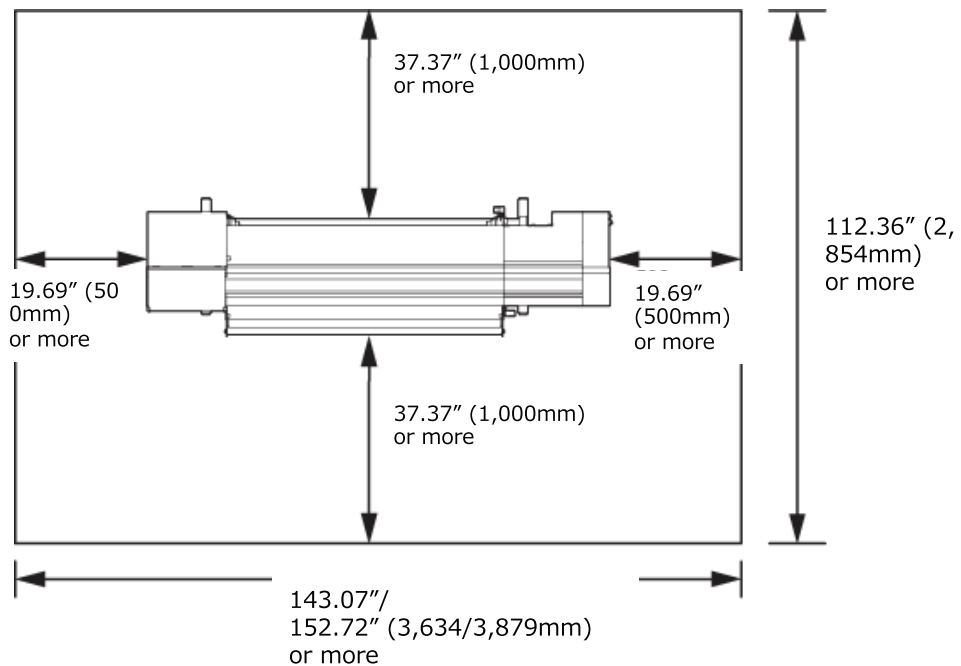
■ New useful features

・ The Merge Print function, corresponding to variable data.

・ 3 layer printing (Color→White→Color)

・ Email Notification

Keeps you aware of ink usage and estimated print times.

■ Corresponds with the Web Update

A web update is available which allows online program updates and profile downloads.

	JV400-130LX	JV400-160LX
Price	$23,500 (Effective 9/1/13)	$25,000 (Effective 9/1/13)
Print Head	Piezo head (2 heads, In-line arrangement)	
Resolution	600, 900,1200dpi	
Minimum Drop Size	4pL	
Print Speed *4 Color Mode	Draft 195.9 ft2/h (18.2㎡/h) 1200x900, ND, 6 pass, Bi High Speed 148.5 ft2/h (13.8㎡/h) 1200x1200, ND, 8 pass, Bi Standard 118.4 ft2/h (11.0㎡/h) 900x900, VD, 12 pass, Bi, Hi High Quality: 71.4 ft2/h (6.6㎡/h) 1200x1200, VD, 16 pass, Bi, Hi	
Head height	1.8/2.3/2.8mm	
Ink	Aqueous Latex LX101 (White ink: LX100)	
Colors	4C (CMYK)/7C (CMYKOrG+W)	
Ink Supply	600mL (LX100 220mL for white)	
Maximum Print Width	53.58" (1,361mm)	63.38" (1,610mm)
Maximum Media Width	53.97" (1,371mm)	63.78" (1,620mm)
Media Thickness	0.3mm or less	
UISS	Available in 4 Color Mode	
Maximum Roll Weight	55lbs (25kg)	
Dimensions	103.7" x 33.62" x 56.5" (2,634 x 854 x 1,435mm)	113.35" x 33.62" x 56.5" (2,879 x 854 x 1,435mm)
Crated Dimensions	107.28" x 29.92" x 42.72" (2,725 x 760 x 1,085mm)	117.13" x 29.92" x 42.72" (2,975 x 760 x 1,085mm)
Weight	476lbs (216kg)	509lbs (231kg)
Power Supply	AC100～240V±10%、50/60Hz±1Hz	
Power Consumption	100~120V:1,440Wx2 , 200~240V:1,800Wx2	

Machine	Width	Depth	Height	Weight
JV400-130LX	103.7" (2,634mm)	33.6" (854mm)	56.5" (1435mm)	476.2lbs (216kg)
JV400-160LX	113.4" (2,879mm)	33.6" (854mm)	56.5" (1435mm)	509.3 lbs (231kg)

37.37" (1,000mm) or more

19.69" (500mm) or more

19.69" (500mm) or more

112.36" (2,854mm) or more

37.37" (1,000mm) or more

143.07"/ 152.72" (3,634/3,879mm) or more

Precautions for Installation Space

1. Do not install on a weak floor.

2. Make sure to use in a ventilated environment. Environmental temperature shall be 15-30 degrees C (59-86 degrees F)

3. Do not install on carpets as they are easily charged. This can negatively affect print quality.

mimakiusa.com | **ATL** 888-530-3988 **BOS** 888-530-3986 **CHI** 888-530-3985 **LA** 888-530-3987 **NJ** 855-897-2254 **TEX** 847-714-6790

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