

XpertJet **1682UR**

Product Guide

Faster and more versatile! MUTOH's enhanced next-generation UV printer

XpertJet 1682UR

1625 mm Roll to Roll UV LED
Printer



Media width
Max.1625mm



CMYK



CMYK
White, Varnish



Target applications

XpertJet 1682UR

Wallpaper



Exhibition & Event displays



Floorgraphics



Specialty Menu Boards



Soft signage



In-store advertising

Signboards



Window graphics



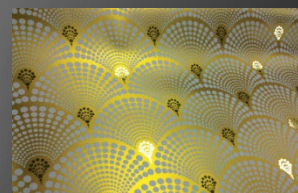
Indoor banners



Product decorations



Backlit signs



Stickers



Fine art prints



Retail posters



Compatible with a wide range of applications and media
"Faster and more versatile"

Key features



63 % print speed increase vs. VJ-1638UR MKII

- Maximum draft mode print speed of 27.3 m²/h



Up to 5-layer printing in one pass

- As a standard feature!



Greatly expanded application versatility

- Highly flexible layer selection without pullback
- White → colour / colour → white, same quality and productivity in either order



Environmentally responsible & safe UV LED inks

- MUTOH US61 inks



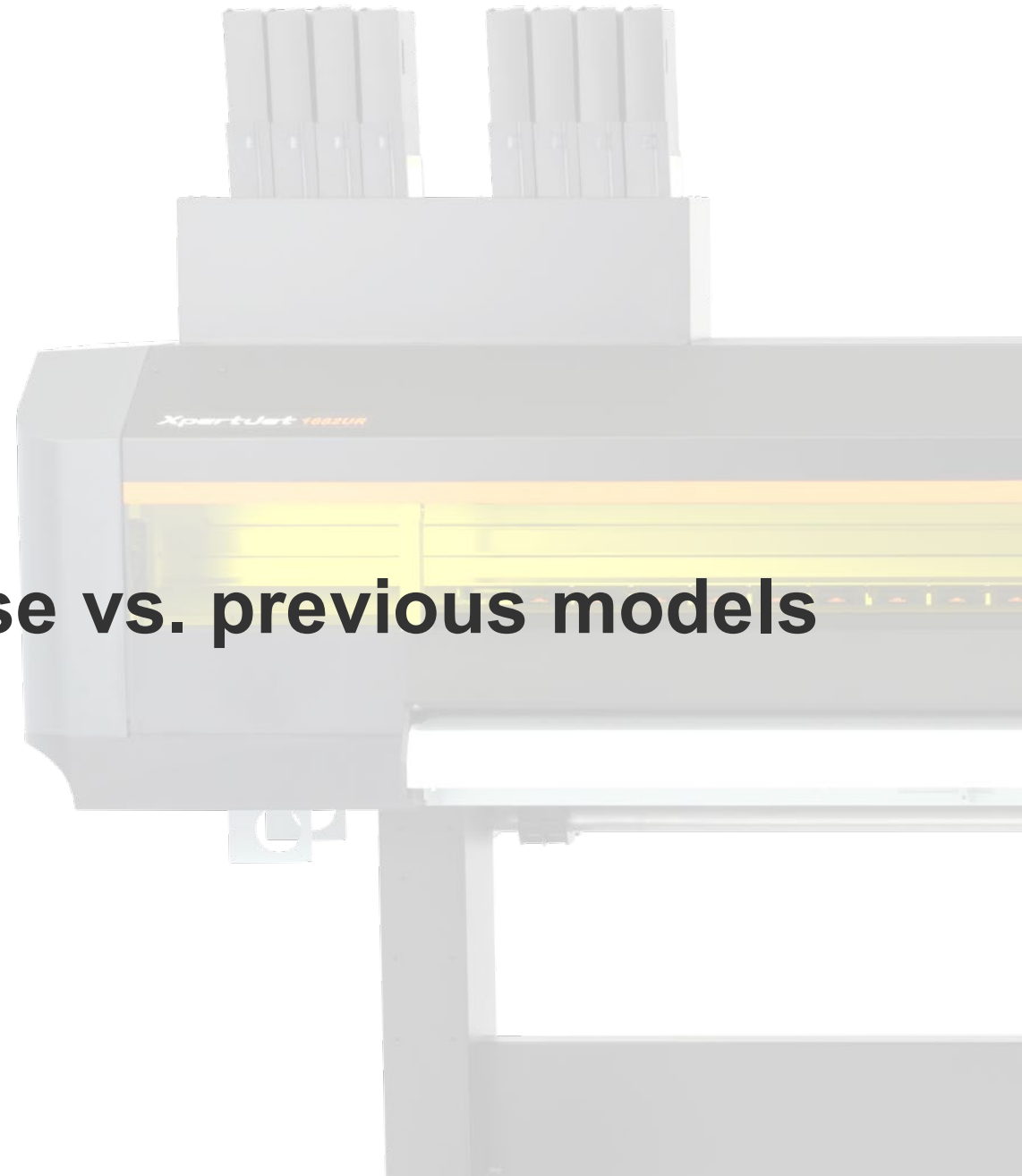
High level of user comfort

- Automatic Bi-Directional adjustment (DropMaster 2)
- Automatic media feed adjustment (FEED MASTER)
- Media roll balance management (Media Tracker)
- One-touch print head height adjustment
- Printer-linked 30 kg take-up system
- Automatic nozzle checking unit and nozzle selection function for uninterrupted printing





63 % print speed increase vs. previous models





**Up to 5-layer printing in
one pass**



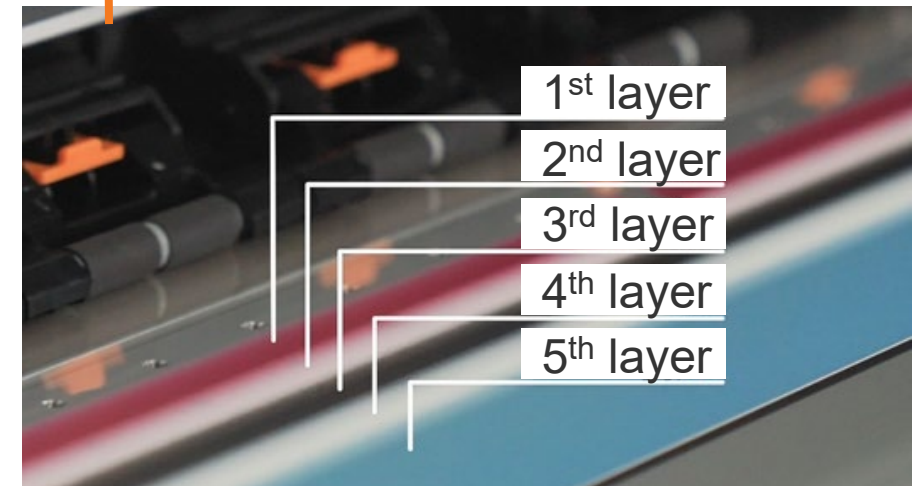
Comes standard with up to 5-layer printing

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Supports 5-layer printing as a standard
No pull back, finish printing in a single pass!

Since there is no need to retract the media...

- ◎ Reduced risk of dirt adhesion
- ◎ Eliminate misalignment among printed layers
- ◎ Multi-layer printing, even for lengths over 1 m



Comes standard with up to 5-layer printing

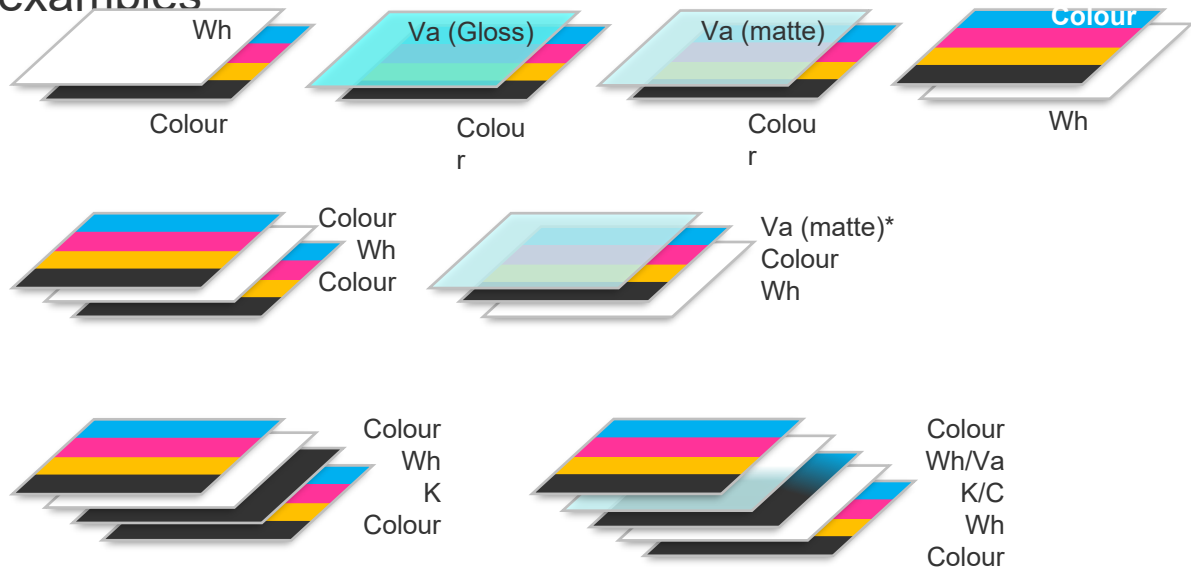
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Great versatility

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- Enables 1 to 5 layer printing in one pass
- Supports various layering orders for CMYK and white/varnish inks

Some examples



When using UJV100-160plus

- User must select the desired head configuration when the printer is installed.
- The order in which layers are stacked is restricted.



- Pull-back printing is required in case of 2 or 3-layer printing
- Up to 3-layer printing
- UJV100-160 doesn't have pull-back printing, so only 2-layer printing is possible.

Flaws of Pull-back printing

- ➡ Misalignment of overlap position
Position may shift slightly after pulling back.
- ➡ Limitations on printing length
Recommended length within 1m.
- ➡ Risk of dust adhesion or scratching when pulling back

* Gloss finish is up to 2 layers



**Greatly expanded application
versatility**



Greatly expanded application versatility

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1 layer

1 layer (Multi-strike:2cnt)

Signage

- tarpaulin, fabric, PVC etc.
- Indoor / short term outdoor



Colour



Multi strike:2cnt

Colour



Backlit signage

Multi-strike printing can enhance the clarity & visual appearance of illuminated signs. Single layer printing with sharp results is also possible.



Transparent film

For hiding glass partitions



Varnish



Greatly expanded application versatility

2 layers 3 layers



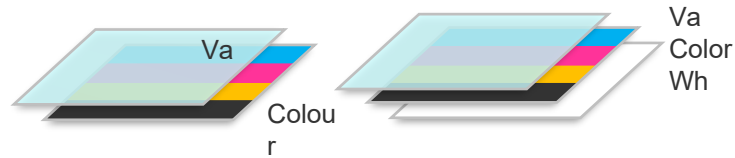
Printing on metallic, non-white media and transparent film



Window graphics



Surface texture with varnish ink (gloss/matte)



* Gloss finish is up to 2 layers

Backlit signage

Inserting a white layer between layers of the same design ensures an appealing result, whether the the backlight is on or off.



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Varnished lettering



Gloss finish*



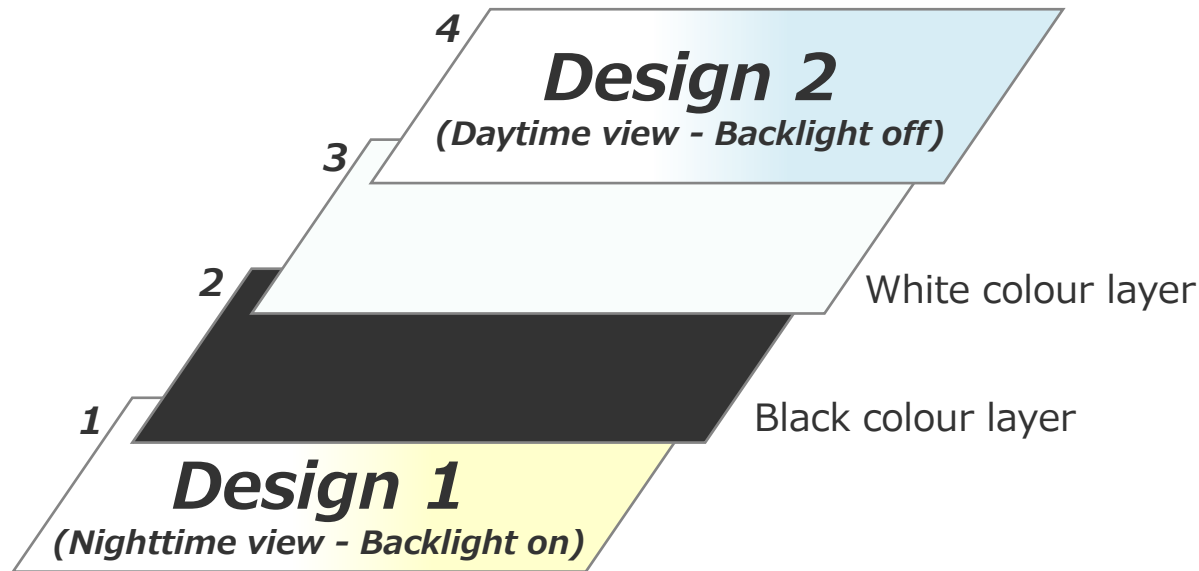
Greatly expanded application versatility

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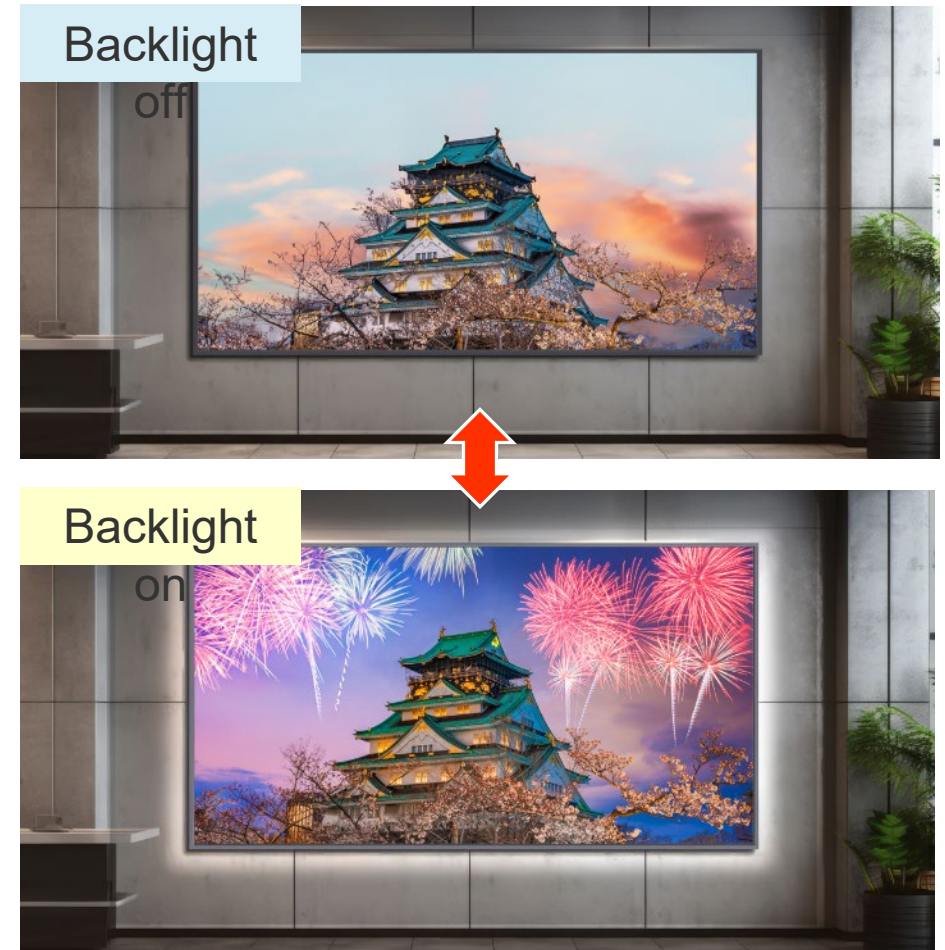
4 layers

Print backlit signs that reveal a different design when lit – frontlit/backlit combi graphics

- With the backlight off (daytime view), only the 4th or top printed layer is visible.
- When the backlight is turned on (nighttime or dimmed front light view), the first layer is revealed, allowing hidden nighttime elements to blend seamlessly with the existing daytime image.



Print image (example)

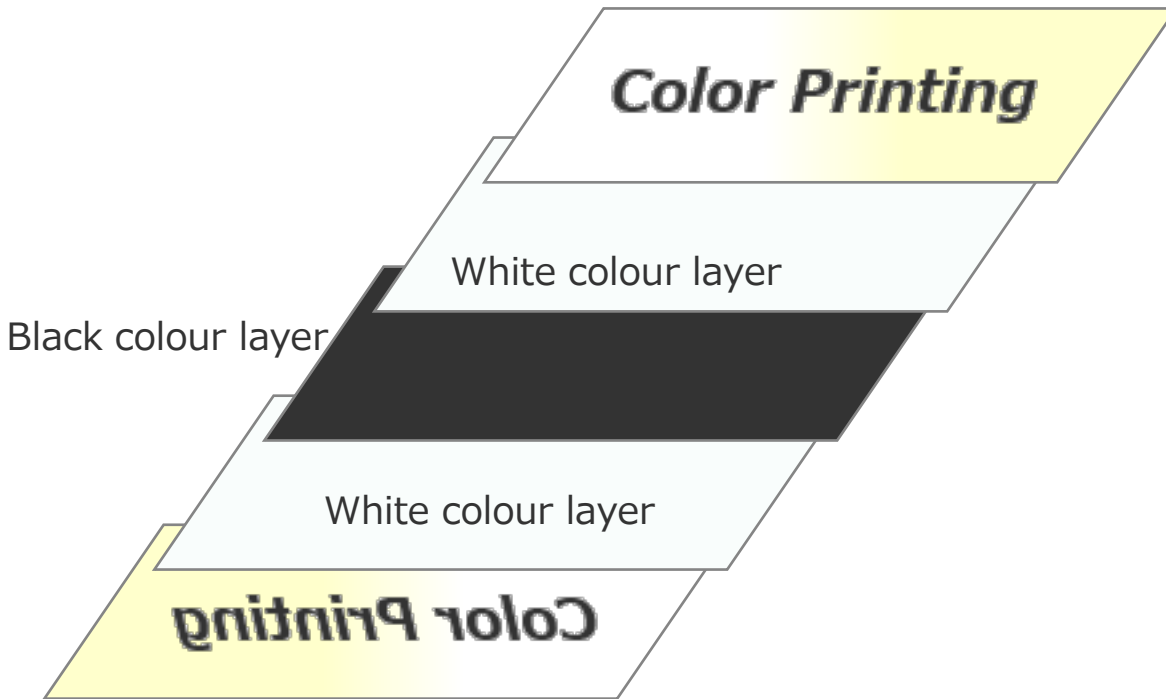


Greatly expanded application versatility

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5 layers Different designs front and back

Designs can be printed on transparent film for window graphics, making them visible from both sides. By inserting black and white layers between the 1st and 5th layers, the image on the opposite side is not visible when attached to the window.



5-layer printing



Window graphics - different design at the back and front

US61 Flexible LED-UV inks



Outstanding functionality



Environmentally responsible and safe



US61 Flexible LED-UV inks : Outstanding Functionality *XpertJet 1682UR*

- **High flexibility and excellent scratch resistance, ensuring durability and reliable performance**
- **Compatible with a wide range of substrates**
- **Highly opaque white ink**
- **Compatible with UV laminates to extend outdoor durability**

US61 UV inks : safe composition and fast replacement time

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Designed with EU regulations in mind

- No substances classified as SVHC (Substances of Very High Concern)

Simple & effortless ink bag replacement

- Ink can be replaced simply by swapping the ink bag, minimizing direct contact with the ink

Good abrasion resistance and flexibility

- Compatible with flexible materials for soft signage

- 12 months shelf life
- Capacity : 800 ml



Designed with EU regulations in mind

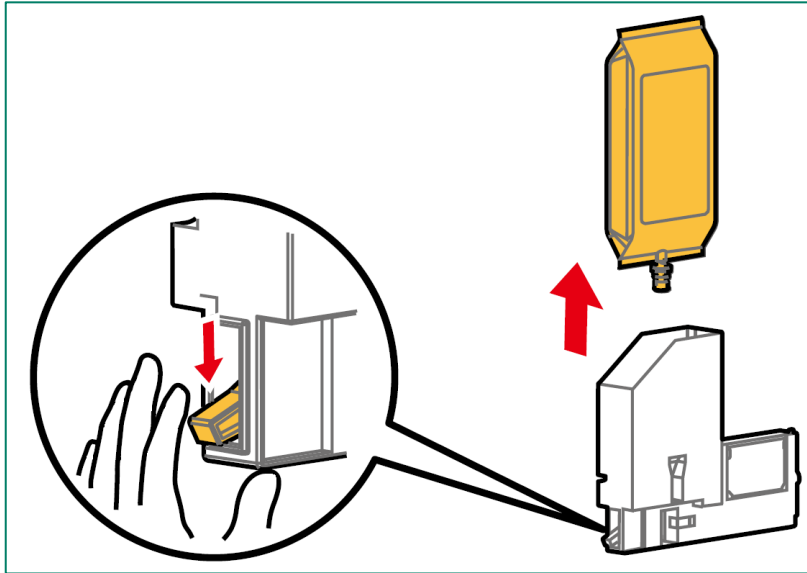
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US61 inks do not contain substances classified as SVHC (Substance of Very High Concern*1)

- Once on the SVHC list, information must be provided if containing more than 0.1 %, even for molded products.
- Once on the Authorization List, it is prohibited effectively from being placed on the market in EU member countries.
- The trend in the printer industry is to become SVHC substance-free.

Easy ink pack replacement

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- When the “Ink end” message is displayed, replace the ink pack inserted in the adapter.
- The ink inside the pack remains sealed from outside exposures, minimizing the risk of contamination.



High Level of User Comfort



High level of user comfort

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The XpertJet platform provides a wide range of support functions

◆ Automated functions and easy management



- ✓ Automated image quality adjustment for each type of media



- ✓ Barcode management of remaining media

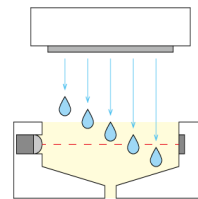


- ✓ One-touch print head height adjustment

◆ For continuous printing



- ✓ Printer-linked 30 kg take-up system



- ✓ Prevent printing problems before they occur

High level of user comfort

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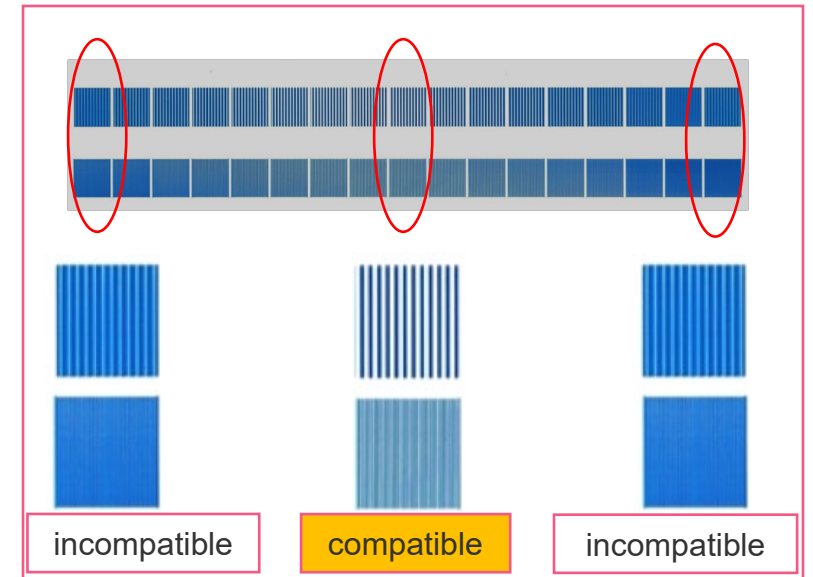
DropMaster 2

Automated bi-directional alignment through built-in colour sensor



Benefits :

- Save time : fully automated calibration¹
- Reduced waste
- No variation in adjustment among different operators



¹ : The automatic adjustment may be misleading when using an ink/substrate combination suffering from heavy cockling.
Manual calibration is always possible.

High level of user comfort

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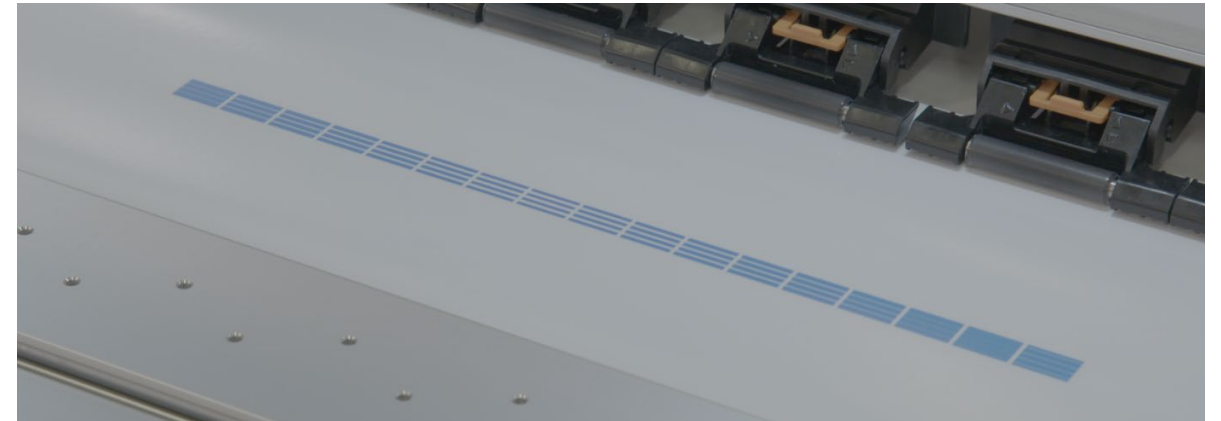
Feed Master

Automated paper feed adjustment through built-in colour sensor



Benefits :

- Fully automated calibration¹
- Reduced waste
- No variation in adjustment among different operators



¹ : Manual adjustment remains possible if it is preferred by an experienced operator.

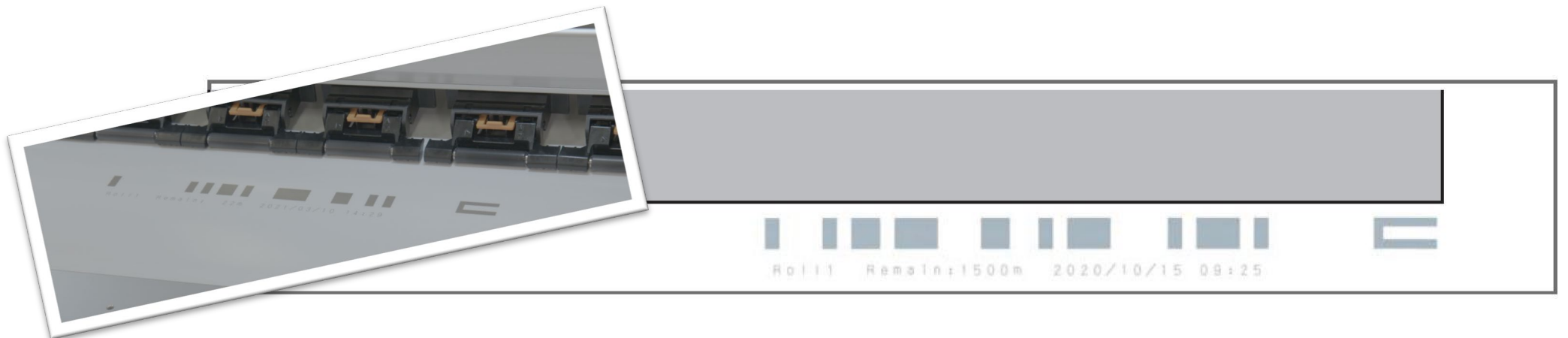
High level of user comfort

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Media Tracker



1. Enter media length upon loading new media roll
2. Print bar code before removing roll in use
3. Upon reloading roll, printer will read bar code and detect how much media is left on roll
 - no waste of media, quick start!
 - ideal for businesses with multiple operators - increased efficiency



High level of user comfort

One-touch head height adjustment

- 3 step head height adjustment
- Low 1.5 mm, Middle 2.0 mm, High 2.5 mm
- Switching is possible with the carriage in home position

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High level of user comfort

Take-up solutions tailored to your needs

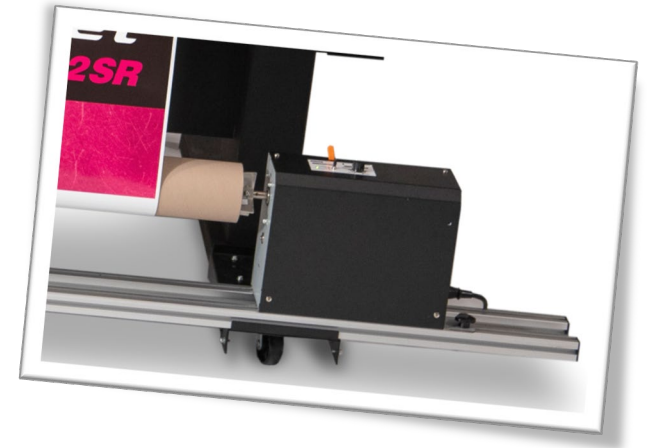
Standard Take-up : IJ-TUP30-01

- **30 kg** synchronous torque-controlled take-up system
- Maximum roll-up diameter : **Ø 150 mm**
- Gentle handling of thin media – Start/Stop linked to printing

40 kg Take-Up : VJ1619-TUP40

- **40 kg** Take-Up system – Stepless speed adjustment
3-Step Torque Setting – Power saving function
- Maximum roll-up diameter : **Ø 250 mm**
- Ideal to manage **full rolls** and/or to print **overnight**

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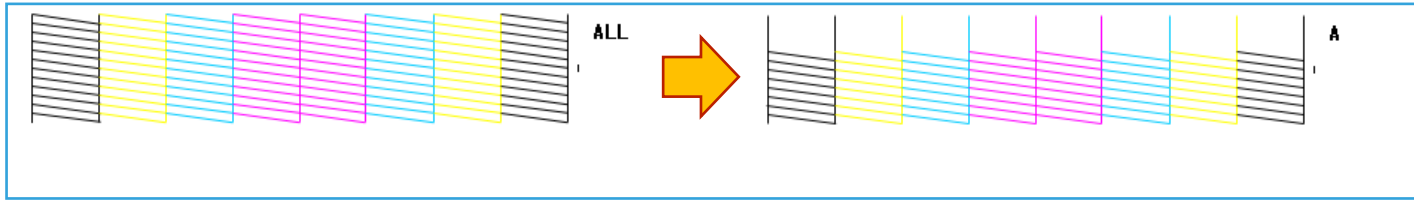


High level of user comfort

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Nozzle Area Select Function

Eliminate downtime by limiting the active nozzle blocks in the event nozzles cannot be recovered.



With Nozzle Area Select



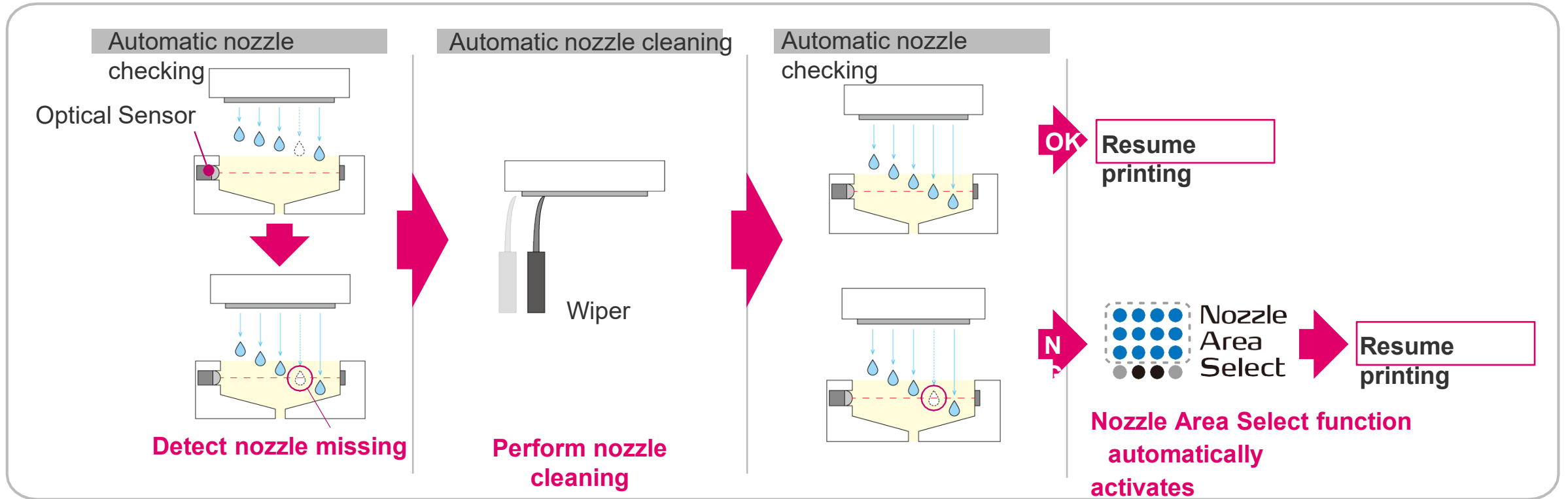
Traditional Printer



* : Reducing the amount of active nozzles will reduce the output speed to about 50 to 66 %

High level of user comfort

Automatic nozzle check unit (optional item - IJ-NZMD-01)



*This function does not guarantee perfect accuracy of detection.

XPJ-1682UR Specifications

Printer Model		XPJ-1682UR
Print head	Print method	On-demand piezo drive system
	Head height	Low: 1.5 mm / Middle: 2.0 mm / High: 2.5 mm
	Number of heads	2
Media	Roll media width	Maximum 1625 mm
	Maximum media thickness	0.3 mm / 0.8 mm / 1.3 mm
	Diameter	≤ Φ 200 mm (Printer roll-off) / ≤ Φ 150 mm (with 30 kg Take-Up) / ≤ Φ 250 mm (with 40 kg Take-Up)
	Core diameter	2 or 3 inches
	Weight	30 kg or less
Maximum printable width		1615 mm
Ink	Type	UV-LED ink (US61)
	Colours	4 colours (CMYK), 6 colours (CMYKWhVa)
	Capacity	800 ml ink pack
Print resolution		Maximum 1440 dpi
Interface		Gigabit-Ethernet (1000BASE-T)
Power supply		Voltage: AC 100V~120V ± 10 %/ AC 200V~240V ± 10 % Frequency: 50/60Hz ± 1Hz
Environmental condition	Printer operation	Temperature: 20°C ~32°C Humidity: 40%~60% No condensing
	Accuracy guaranteed	Temperature: 22°C ~30°C Humidity: 40%~60% No condensing
Power consumption		During printing: AC100V~120V/AC200V~240V, 950 W or less Sleep mode: AC100V~120V/ AC200V~240V, 21 W or less
External dimensions		(W) 2770 x (D) 895 × (H) 1504 mm (with ink pack adapters mounted)
Weight		181 kg (Printer body: 149 kg, Stand: 32 kg)
RIP software		VerteLith (MUTOH genuine RIP software) included

Site Preparation for XPJ-1682UR

Packing size

W x D x H : 2900 mm x 1020 mm x 1083 mm

Weight : 259 kg

Printer size

W x D x H : 2770 mm x 895 mm x 1,504 mm

(Including large capacity ink bag adapter)

<Installation Location Requirements>

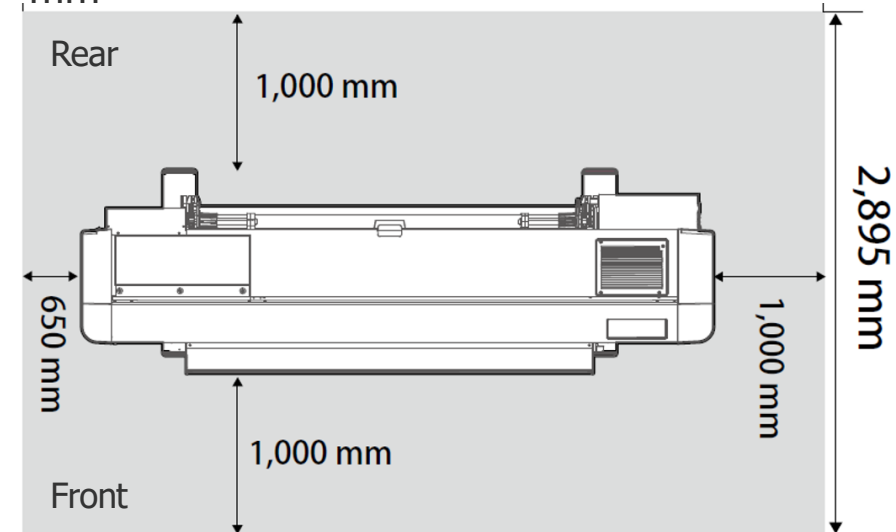
Choose the location which satisfies the requirements below.

- The floor must be level.
- Avoid vibration from the neighboring devices.
- Low humidity and free from dust.
- Less chance of temperature and humidity changes.
- Avoid direct sunlight.
- Avoid water.
- Avoid direct air blowing onto the printer.
- Low levels of electromagnetic waves.

Minimum space requirement

The following space is required for installation.

W x D x H : 4400 mm x 2895 mm x 1760 mm



CAUTION

- Choose a surface that can safely support the weight of this product.
If the location does not have sufficient load capacity, it can lead to injury from fall.
- Keep the work area well ventilated while operating.
Ink odour may cause health problem such as headache, dizziness or fatigue.
If you experience these symptoms, stop printer operation and move to fresh air.
Seek medical attention in case of vomiting.

МУТОН