

PRODUCT GUIDE

Mimaki



UJV100-160 Plus

ENTRY LEVEL LED UV ROLL TO ROLL PRINTER

25-sep-2023

V1.0EU

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CONCEPT

- The UJV100-160Plus is the definitive entry model for sustainable sign and graphic printing, with low running costs, versatile expression and ease of printing for everyone.
- It has the basic functions of the conventional “UJV100-160” with three additional functions to expand the range of applications for reduce running costs and improve work efficiency for more additional value.
- The UJV100-160Plus uses GREENGUARD GOLD-certified UV-curable inks that generate almost no VOCs (Volatile Organic Compounds). No heater for ink drying is required as the ink cures instantly, reducing power consumption during printing.

plus Multi-layer printing up to 3 layers for a wide range of applications

Pull-back printing function enables multi-layer printing unaffected by the order of the inkset. The range of printing expression is greatly expanded.

plus Easy operation reduces ink consumption while maintaining natural gradations

Pull-back UJV100-160Plus supports the ink saving added in RasterLink7.3.10. It reduces ink consumption by up to approximately 50% while maintaining the natural colour gradation of illustrations. This results in lower running costs.

plus Direct output from RasterLink7 to CG-AR for improved usability

This eliminates the need to start up separate software and supports improved work efficiency and stress-free operation.



FEATURES AT GLANCE

• AUTOMATED PRINT PRODUCTION

- DAS for automatic bi-directional print adjustment
- NCU and NRS for stable and uninterrupted operation
- Media jam sensor preventing damage to print heads, a head strike or media jam

• PRINT

- Max. printable width 1610mm
- Max. print speed of 23m²/h on tarpaulin at 360x900dpi
- New Pull-Back printing can print up to three layers, further expanding the range of applications
- Clear ink use further expands the range of designs

• SOFTWARE

- New Ink Saving Function is the great function to reduce running costs
- New Direct Output to CG-AR is enhanced linkage between UJV100-160Plus and CG-AR
- New printer management software “Mimaki cloud technology PIC”

• HEADS

- 2 print heads arranged in stagger mode
- Resolution up to 1200dpi
- Variable dot printing, starting from 4pl droplet
- MAPS4

• INK

- UV-LED inks LUS-170, LUS-190 and LUS-210
- 1L cost-effective bottle
- CMYK, White and Clear

PRODUCT OVERVIEW

LARGE INK SUPPLY SYSTEM

- 4c ink set for fast print
- 5c or 6c including white and clear for special applications
- Available in 1L bottles

INK CIRCULATION

White ink circulation system

MAINTENANCE AREA

Easy access to cleaning area

DOT ADJUSTMENT SYSTEM, DAS

Automatic bidirectional print calibration and media feed correction adjustment

DUAL PRINT HEADS

2 heads in staggered mode for high quality print

NOZZLES MONITORING

NCU and NRS for automatic heads maintenance

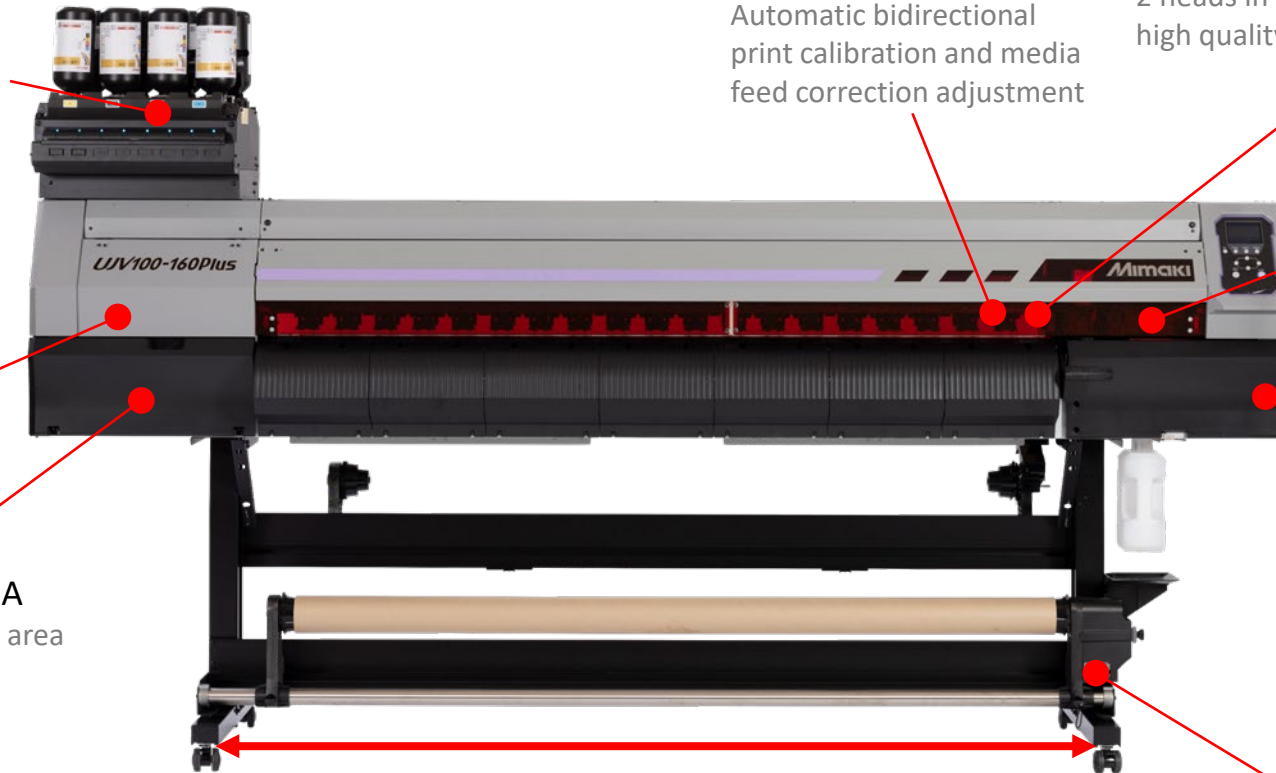
USB2.0 & ETHERNET

Multifunctional connection

Media Take-Up System

Intuitive roll-to-roll media handling with winding capacity up to 45kg

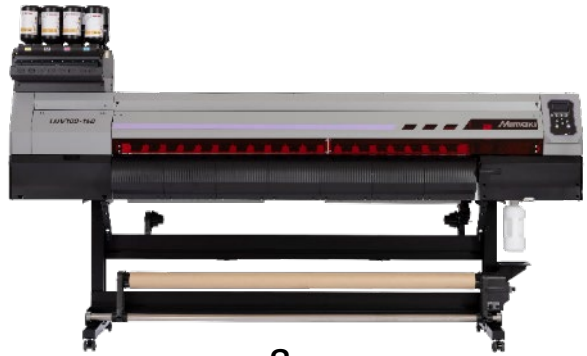
UJV100-160Plus: 162cm



SYSTEM CONFIGURATION

Standard configuration

UJV100-160Plus



&

Raster Link 7

Output / Status

USB 2.0*
Ethernet*



Minimum recommended PC configuration

CPU:	Core i5 2.8GHz
Memory:	8GB
HDD:	500GB
I/F :	USB2.0, 4 ports or more
ODD:	DVD-ROM
Network:	1000BASE-T
Compatible OS :	Windows 10 (64bit)
Monitor:	1366x768

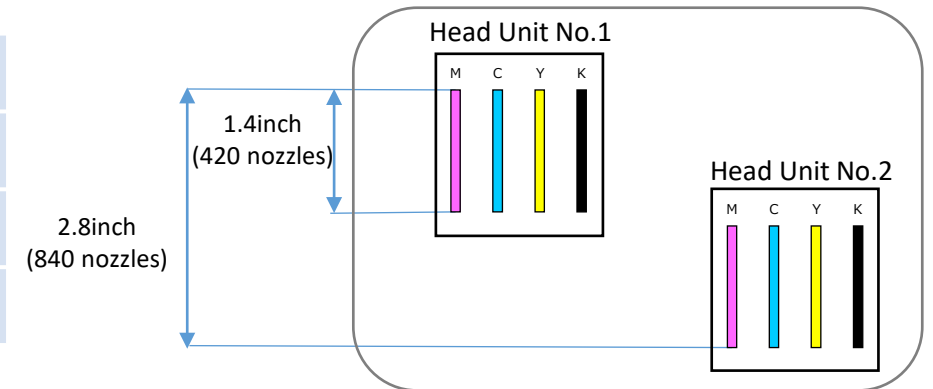


Works with: PS, EPS, TIFF, BMP, JPEG, etc.

* USB 2.0 and Ethernet cannot be used simultaneously.

PRINT HEAD TECHNOLOGY

Amount of Heads	2
Nozzle Configuration	420 nozzles arranged in 4 lines
Print Resolution	Up to 1200dpi
Droplet Size	Starting from 4pl

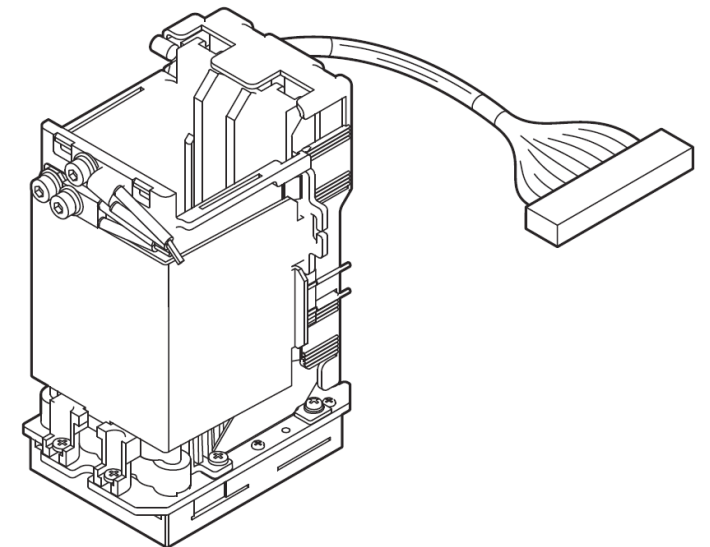


Variable Dots

- Higher Image Quality
- Low grains
- Excellent gradients

High Durability

- Industrial Graded Print Head
- Piezo technology
- Low long-term costs



plus INK CONFIGURATION

- INK TYPE: LUS-170 UV-LED INKS
- COLOUR SETS:
 - 4-C (CMYK) for productivity
 - 5-C (CMYK+W), 6-C (CMYK+CIW) for various applications

Printer	Colour	Ink type	Supply	Ink set							
UJV100-160Plus	4C	LUS-170	1000ml bottle	M	C	Y	K	M	C	Y	K
	4C+WW			M	C	Y	K	-	-	W	W
	4C+WW			W	W	-	-	M	C	Y	K
	4C+CI+W			M	C	Y	K	CI	CI	W	W



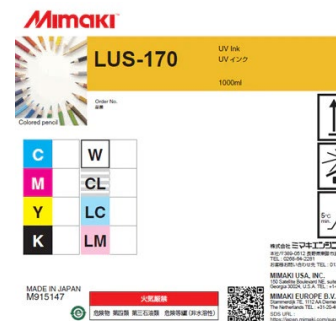
* Print order: Colour->White



* Print order: White->Colour

- * Must choose correct colour set that is mainly used at installation
- * The Pull-Back printing enables both Colour->White and White->Colour printing from the 100-160Plus

- INK SUPPLY:
 - UV ink: 1000ml bottle



Ink label



Ink bottle

plus INK CONFIGURATION

- INK TYPE: LUS-190 UV-LED INKS
- COLOUR SETS:
 - 4-C (CMYK) for productivity
 - 5-C (CMYK+W), 6-C (CMYK+CIW) for various applications

Printer	Colour	Ink type	Supply	Ink set							
UJV100-160Plus	4C	LUS-190	1000ml bottle	M	C	Y	K	M	C	Y	K
	4C+WW			M	C	Y	K	-	-	W	W
	4C+WW			W	W	-	-	M	C	Y	K
	4C+CI+W			M	C	Y	K	CI	CI	W	W



* Print order: Colour->White



* Print order: White->Colour

- INK SUPPLY:
 - UV ink: 1000ml bottle



Ink label



Ink bottle

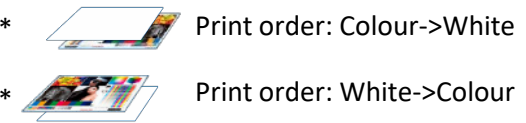
- * Must choose correct colour set that is mainly used at installation
- * The Pull-Back printing enables both Colour->White and White->Colour printing from the 100-160Plus

plus INK CONFIGURATION



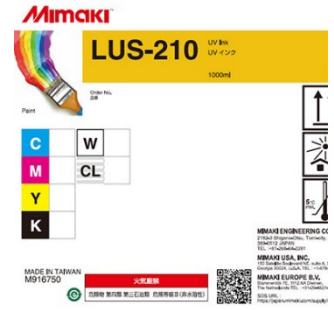
- INK TYPE: LUS-210 UV-LED INKS
- COLOUR SETS:
 - 4-C (CMYK) for productivity
 - 5-C (CMYK+W), 6-C (CMYK+CIW) for various applications

Printer	Colour	Ink type	Supply	Ink set							
UJV100-160Plus	4C	LUS-210	1000ml bottle	M	C	Y	K	M	C	Y	K
	4C+WW			M	C	Y	K	-	-	W	W
	4C+WW			W	W	-	-	M	C	Y	K
	4C+CI+W			M	C	Y	K	CI	CI	W	W



- * Must choose correct colour set that is mainly used at installation
- * The Pull-Back printing enables both Colour->White and White->Colour printing from the 100-160Plus.

- INK SUPPLY:
 - UV ink: 1000ml bottle



Ink label



Ink bottle

PRINT ORDER

- The configuration of white ink should be decided in advance
- Depending on application, the white ink would be loaded in 1st or 2nd head
- Pull-Back printing can be enabled to do flexible layer printing

Printer	Colour	Ink type	Ink set								Print Order
UJV100-160Plus	4C	LUS-170 LUS-190 LUS-210	M	C	Y	K	M	C	Y	K	①
	4C+WW		M	C	Y	K	-	-	W	W	② ③ ⑤
	4C+WW		W	W	-	-	M	C	Y	K	③ ② ⑤
	4C+CI+W		M	C	Y	K	CI	CI	W	W	① ② ③ ④ ⑤

*Red number is available when you use Pull-Back printing

①

Colour



②

Colour -> White

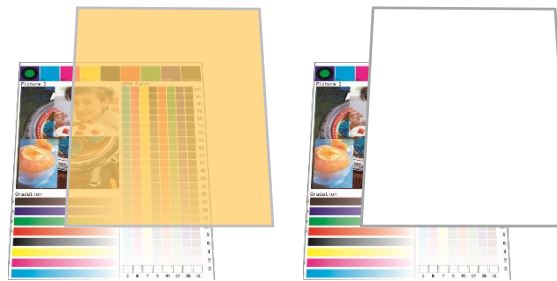


③

White -> Colour



④

Colour -> Clear
OR Colour -> White

⑤

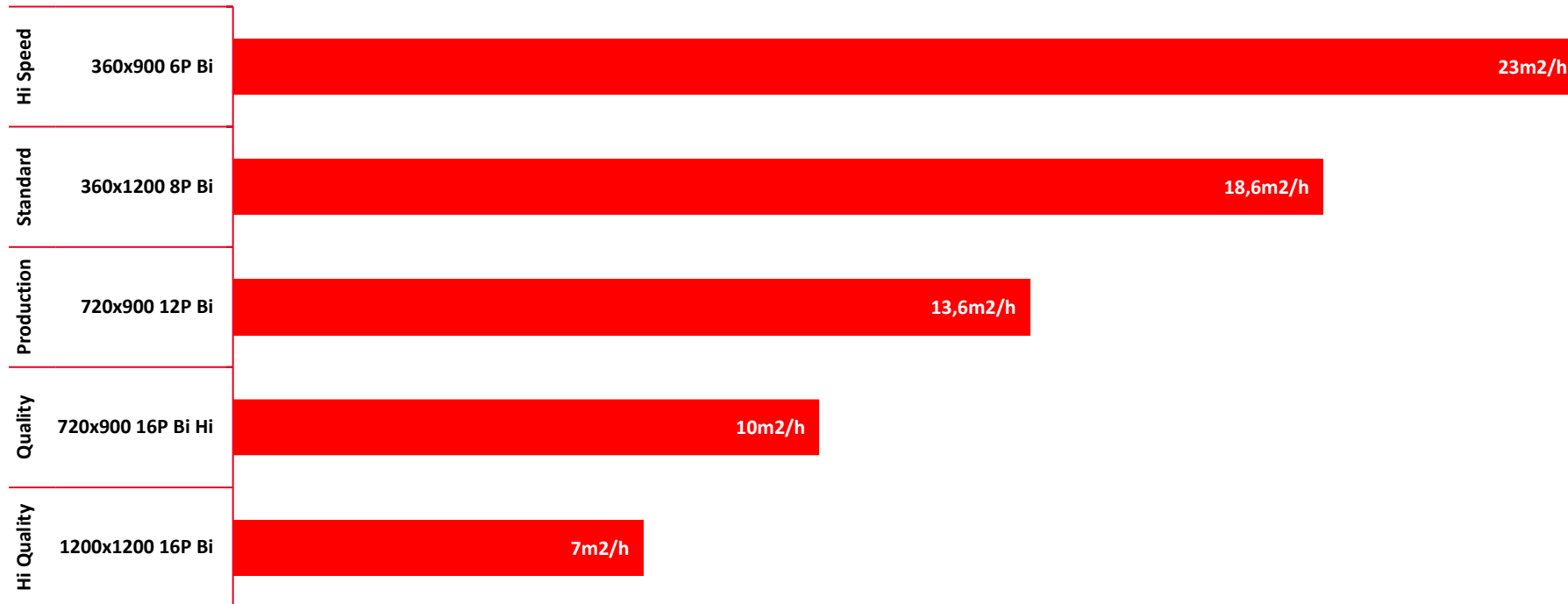
White -> Colour -> Clear
OR Colour -> White -> Colour

PRINT SPEED FOR TARPAULIN: UJV100-160PLUS 1-LAYER PRINTING

Media: Tarpaulin

- High speed: 23m²/h
- Production: 13,6m²/h
- High Quality: 7m²/h

1-LAYER 4 Colour Tarpaulin

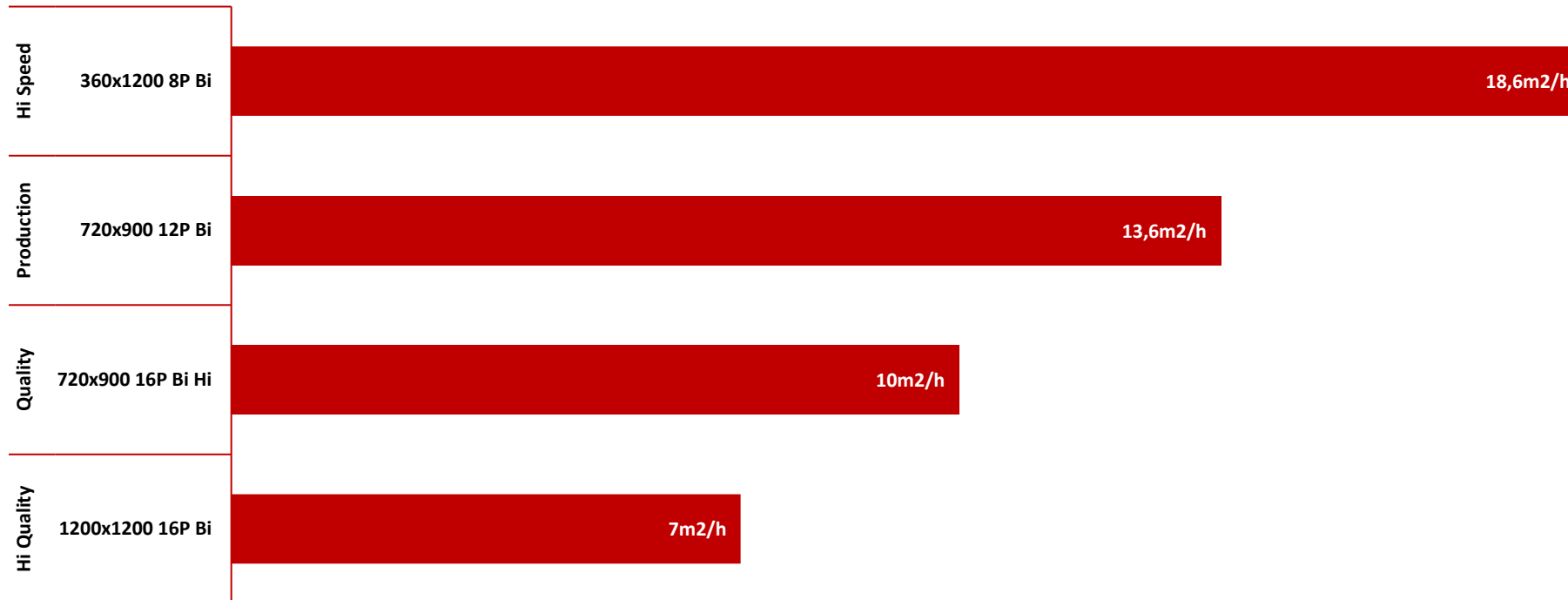


PRINT SPEED FOR PVC: UJV100-160PLUS 1-LAYER PRINTING

Media: Glossy PVC

- High speed: 18,6m²/h
- Production: 13,6m²/h
- High Quality: 7m²/h

1-LAYER 4 Colour
for Glossy PVC



PRINT SPEED FOR TRANSPARENT MEDIA : UJV100-160PLUS 2-LAYER PRINTING

Media: Transparent film

- High speed: 9,3m²/h
- Production: 6,8m²/h
- High Quality: 3,5m²/h

2-LAYER 4 Colour +White
for Transparent Media

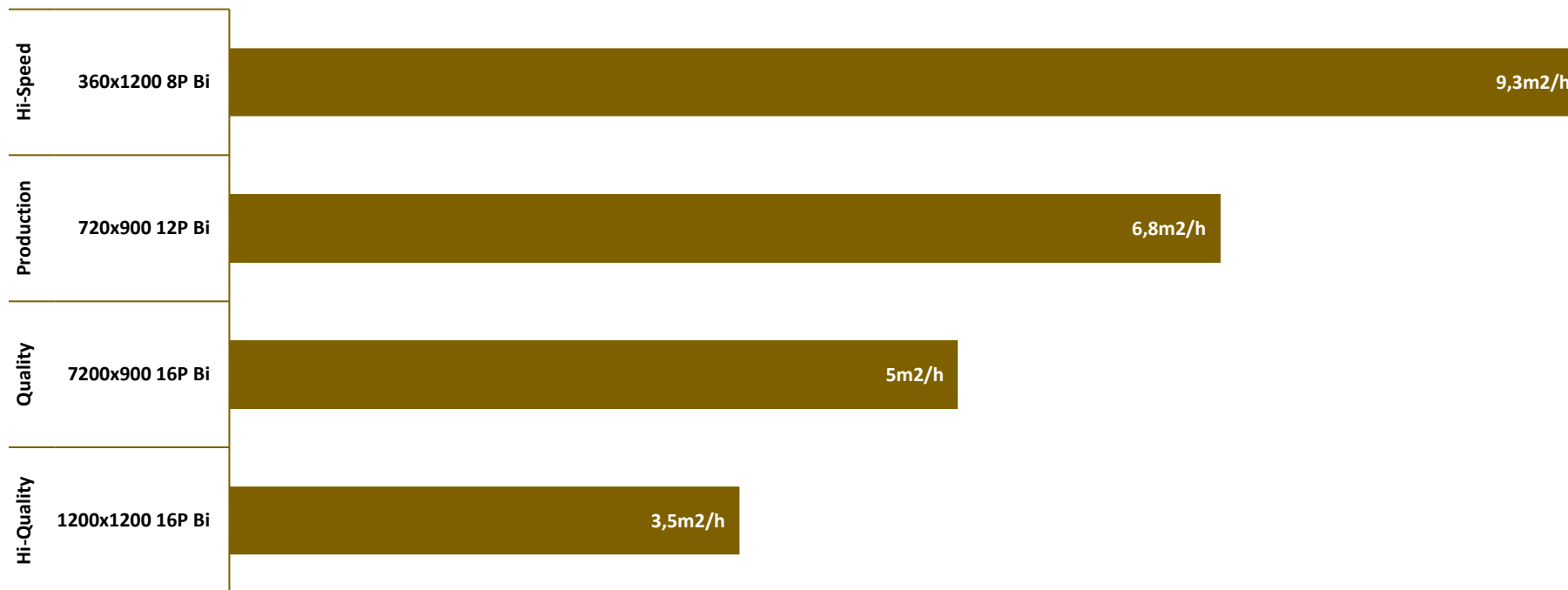
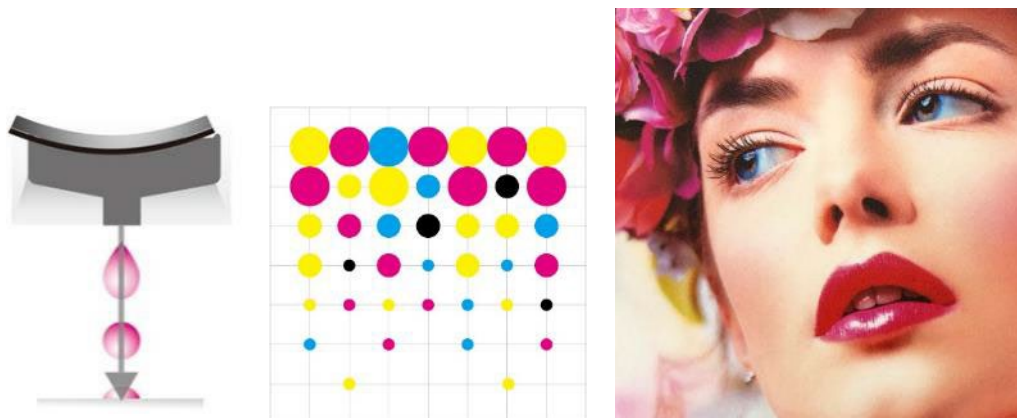


IMAGE QUALITY CONTROL : WAVEFORM CONTROL

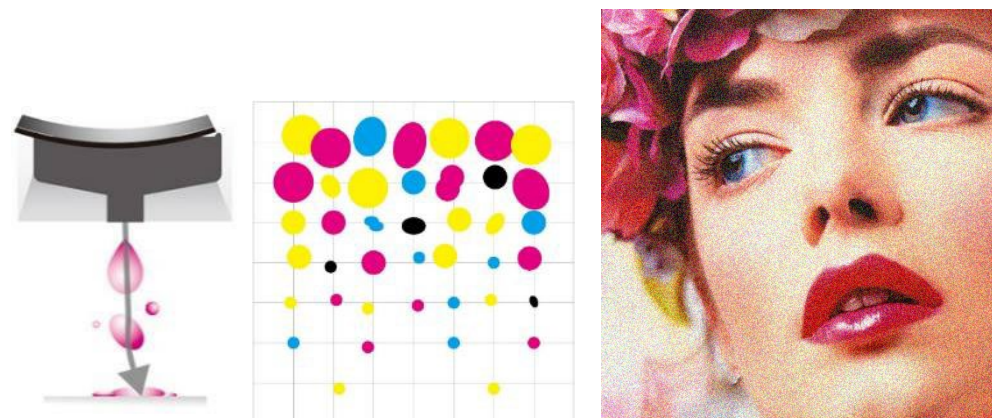
- Waveform control to achieve precise placement of ink droplets
 - The dots are optimised by tuning the frequency depending on the ink's viscosity to accurately place and shape individual ink droplets.
 - This results in sharper lines, text and images.

With waveform control
Ink droplets are jetted in as nearly perfect circles



High accuracy dot placement
↓
Sharp finish without grainy appearance

No waveform control
Ink droplets are jetted in as deformed circles

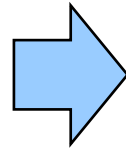


Ink dots overlap
↓
Grainy appearance with blurred edge

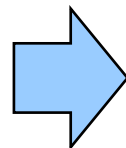
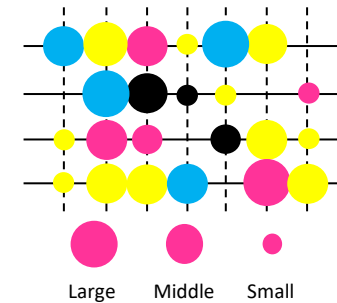
IMAGE QUALITY CONTROL : VARIABLE DOTS

- Variable dots: Grainy appearance reduction system

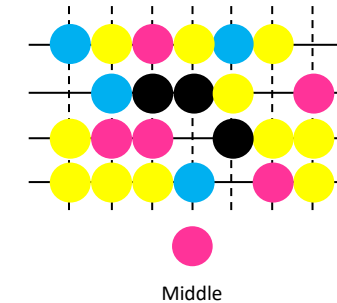
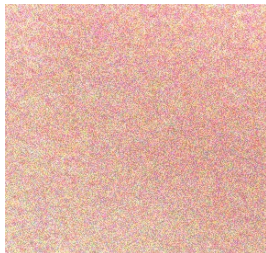
- To reduce a grainy appearance, the 3 most optimum drop sizes (4pl minimum) are automatically selected, depending on the print mode.
- Grainy appearance is also reduced by using the 1200x1200dpi high resolution print mode available for high quality printing.



Variable dots



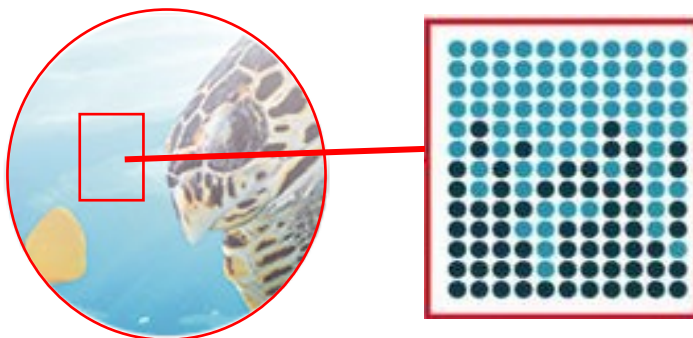
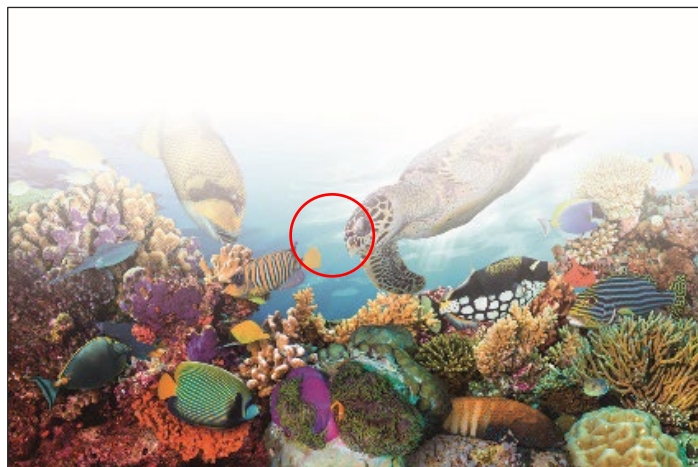
Normal dots



MAPS4 : HIGH IMAGE QUALITY

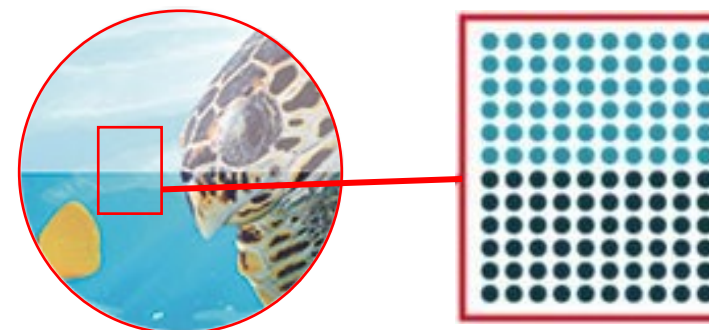
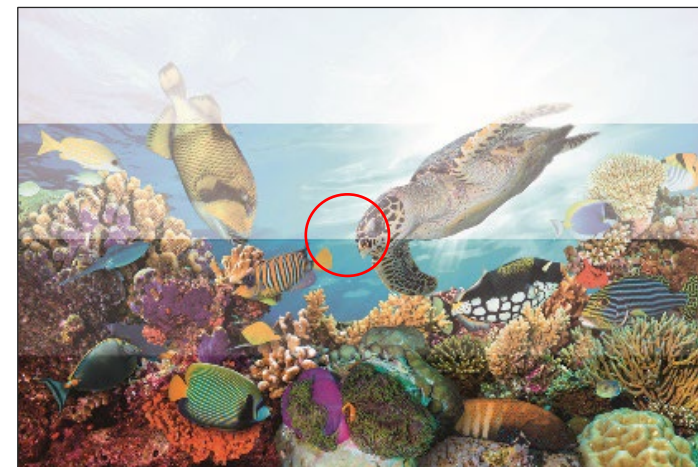
- MAPS4 for printing without banding

- The potential for banding and uneven colour is greatly reduced with the 4th generation of Mimaki's Advanced Pass System, MAPS4.
- MAPS4 incorporates an advanced algorithm for printing boundaries between passes producing quality prints with a uniform appearance.



With MAPS4

Smooth and invisible boundaries between passes



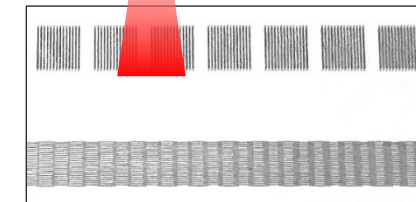
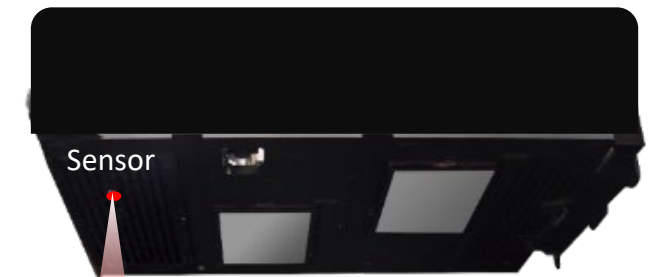
Without MAPS

Visible boundaries between passes

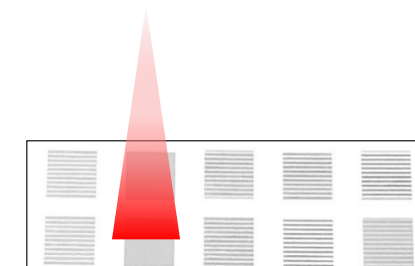
DAS : DOT ADJUSTMENT SYSTEM 1

PRINTING AUTOMATION WITH DOT ADJUSTMENT SYSTEM

- Automatic bi-directional print adjustment
 - Always optimal bidirectional quality regardless of the thickness of the media or printing speed
 - Assures the highest dot placement accuracy bi-directionally
 - Eliminates the need for manual adjustments per individual media type
 - Automatically recalculates and adjusts the drop landing position depending on distance between the print heads and the media surface
- Automatic media feed adjustment
 - Always use optimal media feed to prevent horizontal colour banding
 - Assures highest print quality
 - Eliminates manual feed correction and improves overall productivity



Bidirectional Adjustment.
Time: approx. 12-minutes



Feed Compensation Adjustment.
Time: approx. 6-minutes

DAS : DOT ADJUSTMENT SYSTEM 2

• DAS AVAILABLE FUNCTIONS

Function	Description
All	Execute both drop position and feed corrections
Feed Comp	Execute only Feed compensation
Drop.PosCorrect	Execute only Drop position correction (for Bi-Directional print)

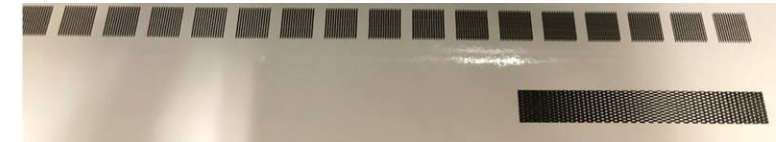
• Important notices when using DAS

- Coloured, transparent media is not supported
- Embossed media such as canvas may not be corrected properly
- Media on which ink can bleed may not be corrected properly

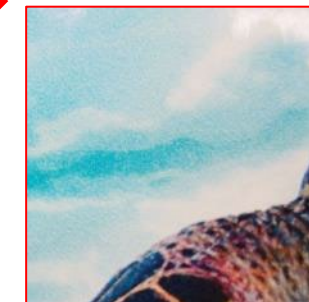
Feed correction pattern



Drop position correction pattern



Before DAS execution



After DAS execution

UV-LED PRINT: MULTI PURPOSE

- Multi purpose use for indoor and outdoor applications by UV-LED printing

Indoor sign



Poster (Blue back paper)



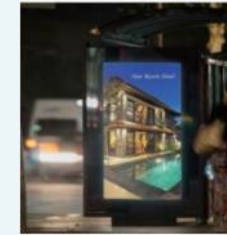
Backlit (Colton)



Fabric sign



Banner



Backlit (FF)

Outdoor sign



Building materials (Dynock)



Window decoration (Clear PET)



POP



Label/Sticker

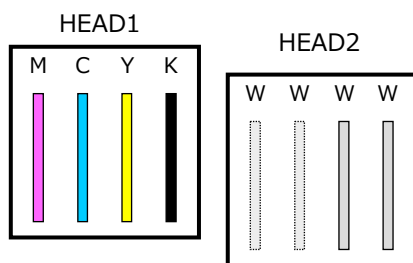
POP and Label

plus PULL-BACK PRINTING EXPANDS MULTILAYER PRINTING

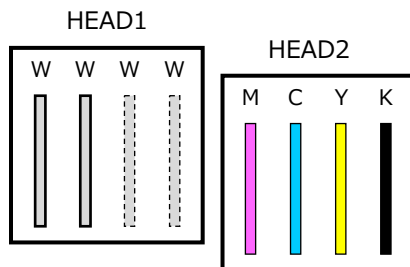


- Pull-Back printing enables more multi-layer printing
- 2 layer printing as well as 3 layer printing plus clear ink printing expand the range of applications even further than before.

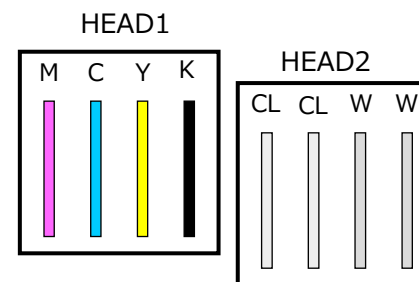
■ 4 Colour + White



■ White + 4 Colour



■ 4 Colour + Clear + White



deliverables	1	Pull-back	2
	White	->	Color
	Color ->White		
	Color ->White	->	Color

deliverables	1	Pull-back	2
	White ->Color		
	Color	->	White
	Color	->	White ->Color

deliverables	1	Pull-back	2
	White	->	Color
	Color ->White		
	Color ->White	->	Color
	White	->	Color ->Clear
	Color ->Clear		

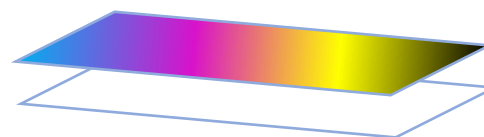


plus PULL-BACK PRINTING : MORE FLEXIBLE PRINTING

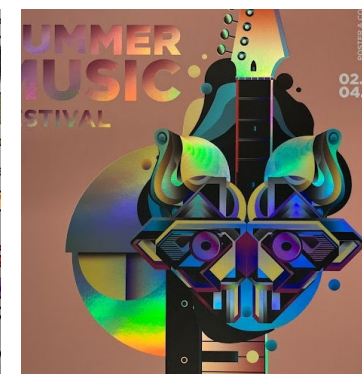
- Pull-Back printing allows multi-layer printing regardless of ink set.
- White->colour and colour->white two-layer printing can now also be printed flexibly.
- Depending on the nature of your business, you can select the best printing method.



White -> Colour
Printing

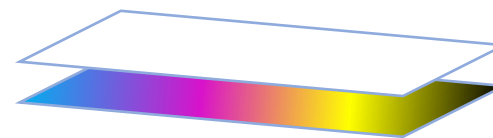


Transparent sheet



Coloured sheet







Colour -> White
Printing



Transparent sheet
Ex. Window Sign from inside

plus PULL-BACK PRINTING : EXPAND WITH A GREAT VARIETY OF APPLICATIONS

- Expanded range of applications that can be created with up to three-layer printing
 - Mimaki unique UV technology, the multi-layer printing function with 2 to 3 layers, offers even more applications.
 - Mimaki multi-layer printing function creates even more effective advertising.

	1 layer	2 layers	3 layers
How to use	General Signs and window signs	Ideal for coloured media	Ideal for decorative signs that do not dull even in daylight
Print layer construction	1. Colour only 2. White only 3. Clear only	1. Colour + White 2. White + Color 3. Colour + Clear	Colour + White + Colour
Applications	 <p>General Signs</p>  <p>Window Signs</p>	 <p>Coloured Media</p>  <p>Window Signs</p>  <p>Add Gloss effect to Signs</p>	 <p>Outdoor or Indoor Backlit Signs</p>

plus PULL-BACK PRINTING : UP TO THREE-LAYER PRINTING for BACKLIT SIGN

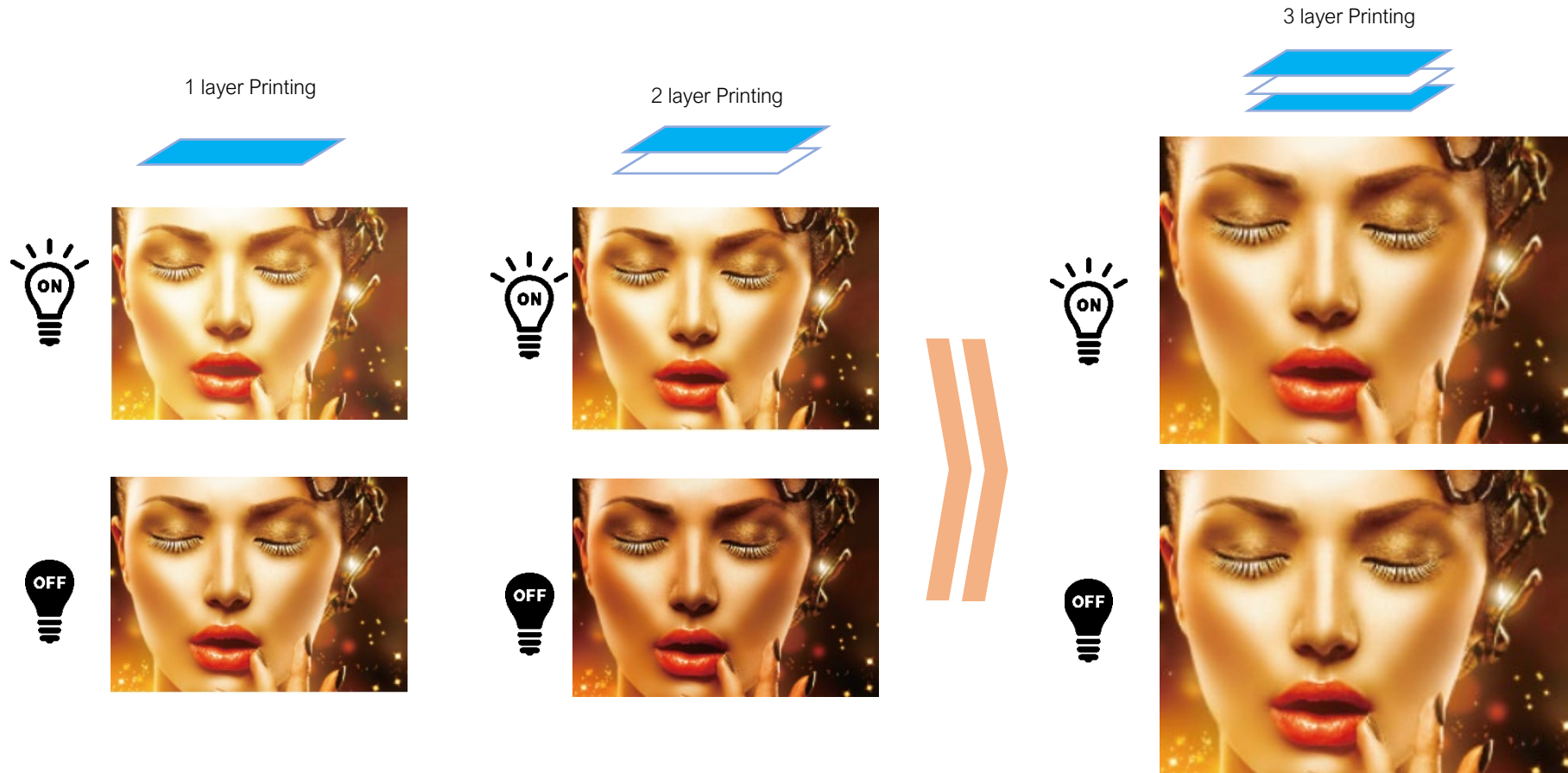
- Backlit sign with unchanged image quality is achieved with 3 layer printing.

- 1 layer Printing (Colour)
- 2 layer Printing (White + Colour)
- **3 layer Printing (Colour + White + Colour)**

Colour looks dark when the backlight is off, although this is not a problem when the backlight is on.

No problem when the backlight off, but some parts of the image are clipped white when the backlight is on.

Maintains the beauty of the image quality when the backlight is both on and off.



plus PULL-BACK PRINTING : UP TO THREE-LAYER PRINTING for WINDOW DECORATION

- Window signs can also be designed more widely with three-layer printing

- 1 layer Printing (Colour)
- 2 layer Printing (White + Colour)
- **3 layer Printing (Colour + White + Colour)**

Poor visibility due to colour transparency

While the use of white ink as a base for colour ink allows for vivid printing, the back is all white.

Window signs can be created that are colourful from both inside and outside.

1 layer Printing



2 layer Printing



3 layer Printing



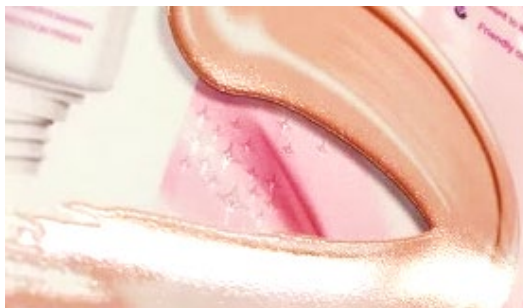
PLUS PULL-BACK PRINTING : CLEAR INK MAKES PRINTING VALUABLE

- Gloss, matt and texture printing with three different clear ink printing methods add value to regular printing.
 - Glossy Printing: adds shiny effects to high-quality designs
 - Matte Printing: enhances texture printing
 - Texture Printing: expresses the 3D effect by printing clear ink in multiple layers

TEXTURE PRINTING



GLOSSY PRINTING

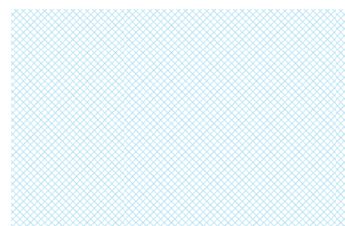
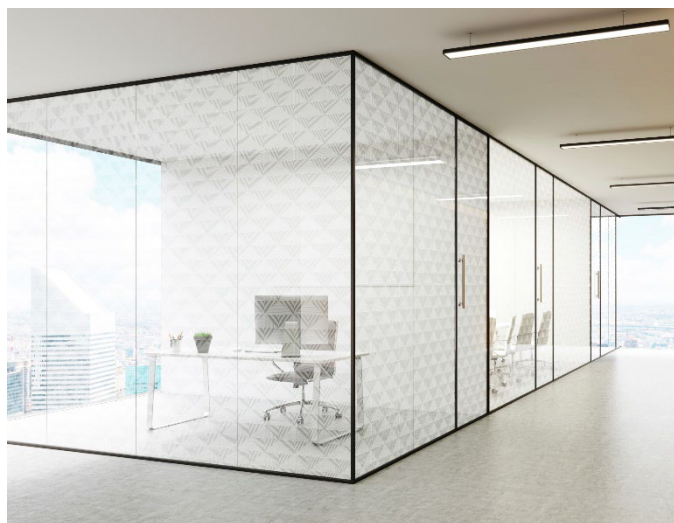


MATTE PRINTING

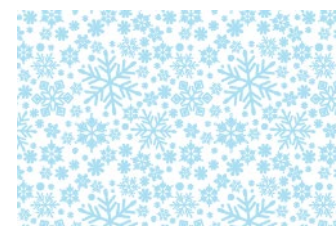


PLUS PULL-BACK PRINTING : ARTISTA TEXTURE LIBRARY

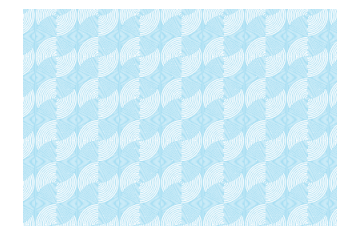
- ARTISTA Texture Library offers 129 pre-defined swatch patterns for Adobe Illustrator*
- 3D texture can be easy designed in Illustrator and printed with clear liquid to the material
- Choose from 3 different pattern groups: BASIC, ARTISTIC and MODERN



BASIC: 44 different types of basic designed texture patterns

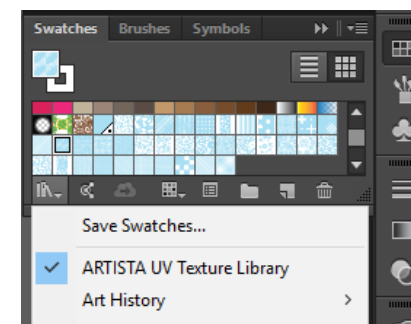


ARTISTIC: 45 different types of patterns with floral or symbolic textured design



MODERN: 40 different types of patterns with modern textured design

- The ARTISTA Texture Library is located at C:\MijSuite\Swatch\Illustrator
- Simply add to Adobe Illustrator by copy/paste into Adobe Illustrator Preset\Swatch folder



* ARTISTA Texture Library requires Adobe Illustrator ver. CS or higher

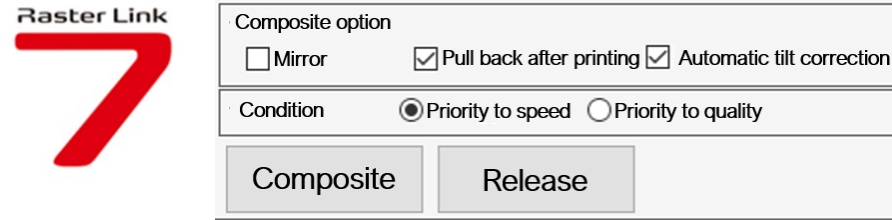
PLUS PULL-BACK PRINTING : TILT COMPENSATION FUNCTION

- Tilt compensation for precise printing even after pull-back
- Easy operation and precise printing with tilt compensation

1. Find some printing misalignment



2. Check the Tilt Compensation Function by RasterLink7



3. Printing with trim marks



4. Prints according to misalignment with mark detection



ADVANCED PRINTING SOFTWARE: RASTERLINK7

• FUNCTIONS IN RASTERLINK7

- **New Ink Saving Function** is a great function to reduce running costs
- **New Direct Output to CG-AR** is enhanced linkage between UJV100-160Plus and CG-AR
- **Variable Data Print** is a function that streamlines the production of customised print runs
- **Harlequin RIP® Core** for accurate PDF printing with Transparency
- **Faster PDF** processing with **up to 25%** faster PDF rendering time
- **User Interface** that maximises screen efficiency
- **Calibration Tool** for measuring and easily correction of colour differences with a colourimeter*
- **Jig BarCode** function triggers automatic jig printing by scanning a barcode of a specific jig

• TRUSTED RIP SOFTWARE FOR MIMAKI WIDE FORMAT PRINTERS

- Comes in the box with the printer
- Easy migration of data from previous version, RasterLink6plus

• EASY TO USE

- Simple resizing, cropping, nesting or tailing
- Easy workflow operation, even for beginners
- 30 favourite print presets as Hot Folders
- Up to 4 printers can be controlled from a single PC

• PROFESSIONAL PRINT QUALITY

- Smooth gradation with 16-bit rendering
- Ability to print White, Metallic or Clear inks
- True PANTONE® Spot colour matching and replacing
- Accurate ink consumption calculation



PLUS RasterLink7 : INK SAVING FUNCTION



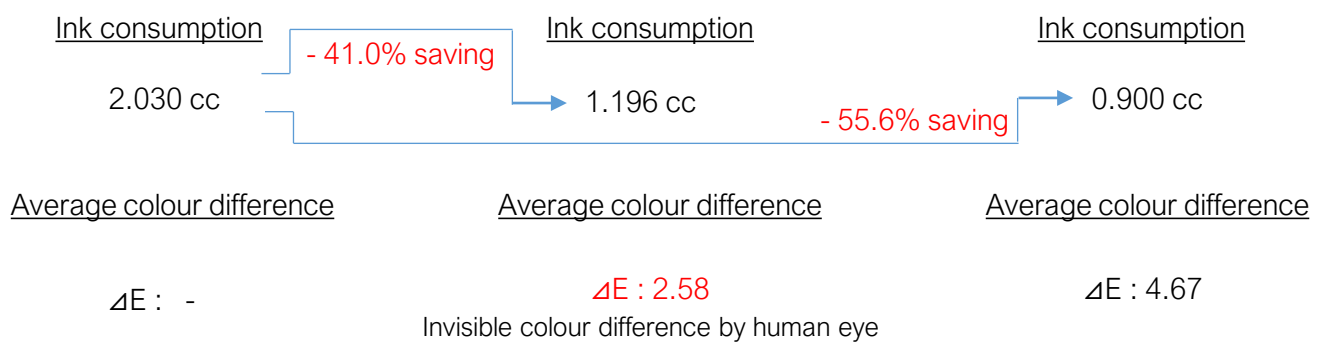
- This is a great function to reduce running costs by up to 55% or more.
- Easy operation reduces ink consumption while maintaining colour balance and image quality.
- The running cost can be minimised just by selecting the level of ink saving from level 1 to level 5 in RasterLink7.



Just check "Ink saving" and choose the level before printing

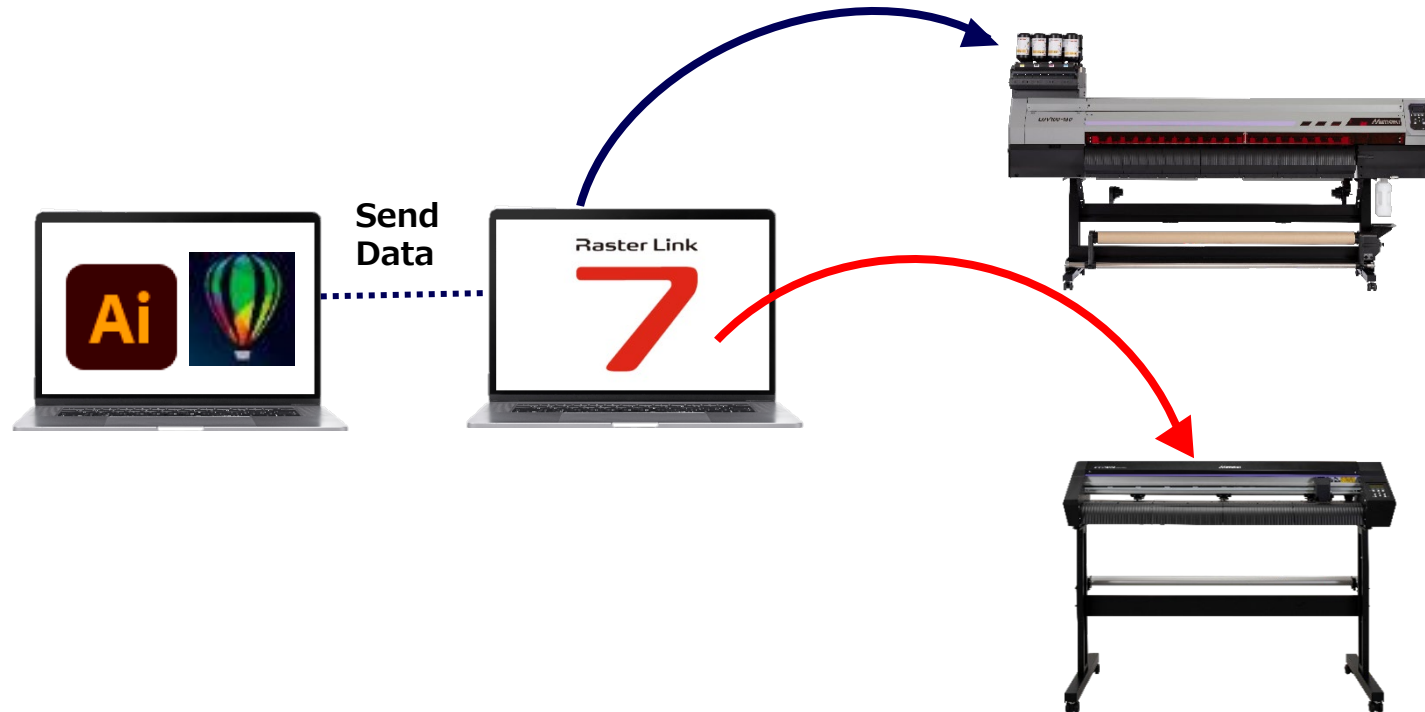
Ink saving

Ink saving level Level 3



PLUS RASTERLINK7 : SIMPLE CUT OUTPUT TO CG-AR

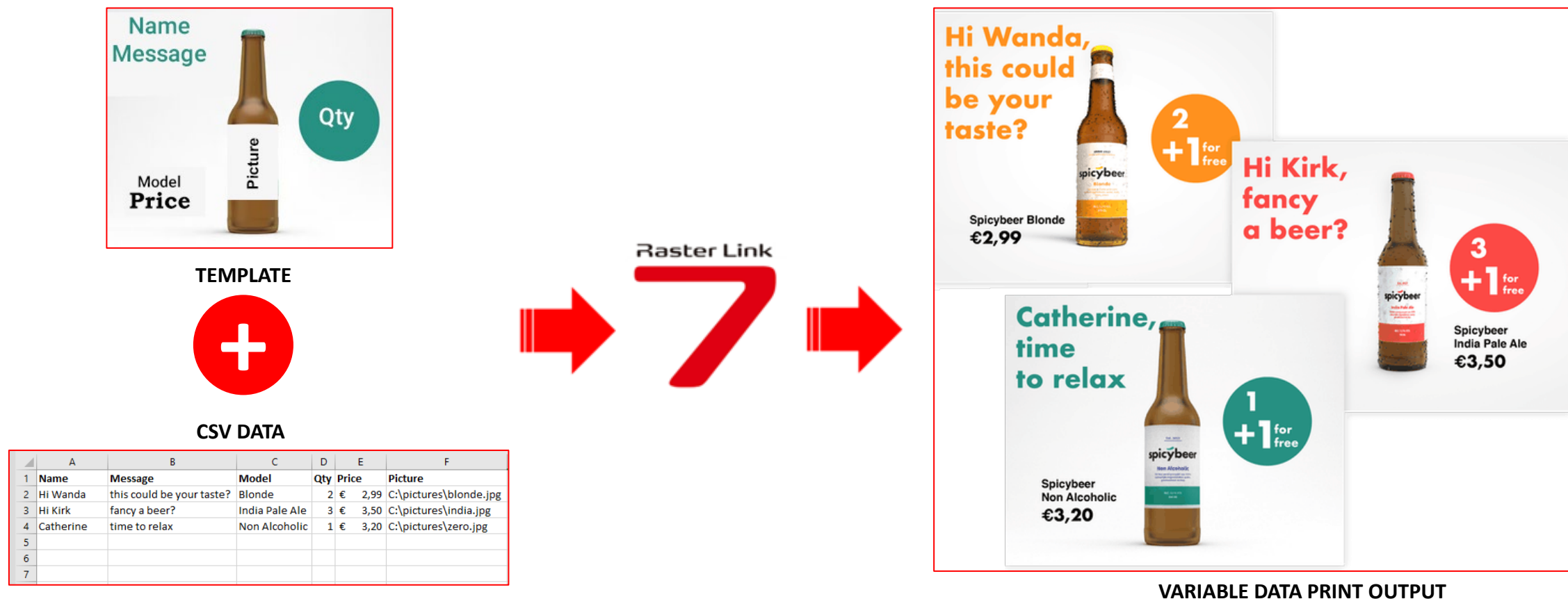
- Direct cut instructions from RasterLink7 to CG-AR are now possible
- Data transmission is now simpler and easier to coordinate between UJV100-160Plus and CG-AR
- No need to launch separate software for cutting and reduces operator labor



RASTERLINK7 : VARIABLE DATA PRINT

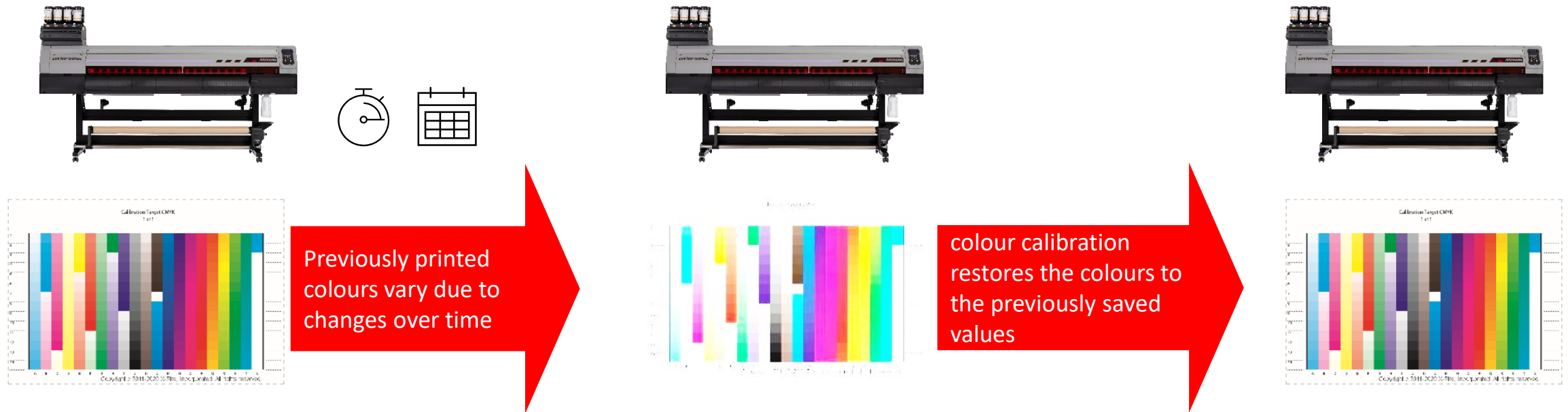
PERSONALISATION OF DESIGNS AT SCALE

- Variable data printing function in RasterLink7 allows the merging of prepared files in CSV format with up to one thousand lines into predefined design templates.
- The dynamic printing of various applications, such as stickers, product labels, employee names, and others, is as simple as they are done on the go.



RASTERLINK7 : COLOUR CALIBRATION

- CONSISTENT colour OUTPUT, ALWAYS AND EVERY TIME
 - Maintaining consistent colour output from the printer*1
 - Printer colour consistency can be maintained by measuring colour differences with a colourimeter*2
 - The detected colour differences are easily corrected to the specified values



Raster Link 7 colour Calibration Tool

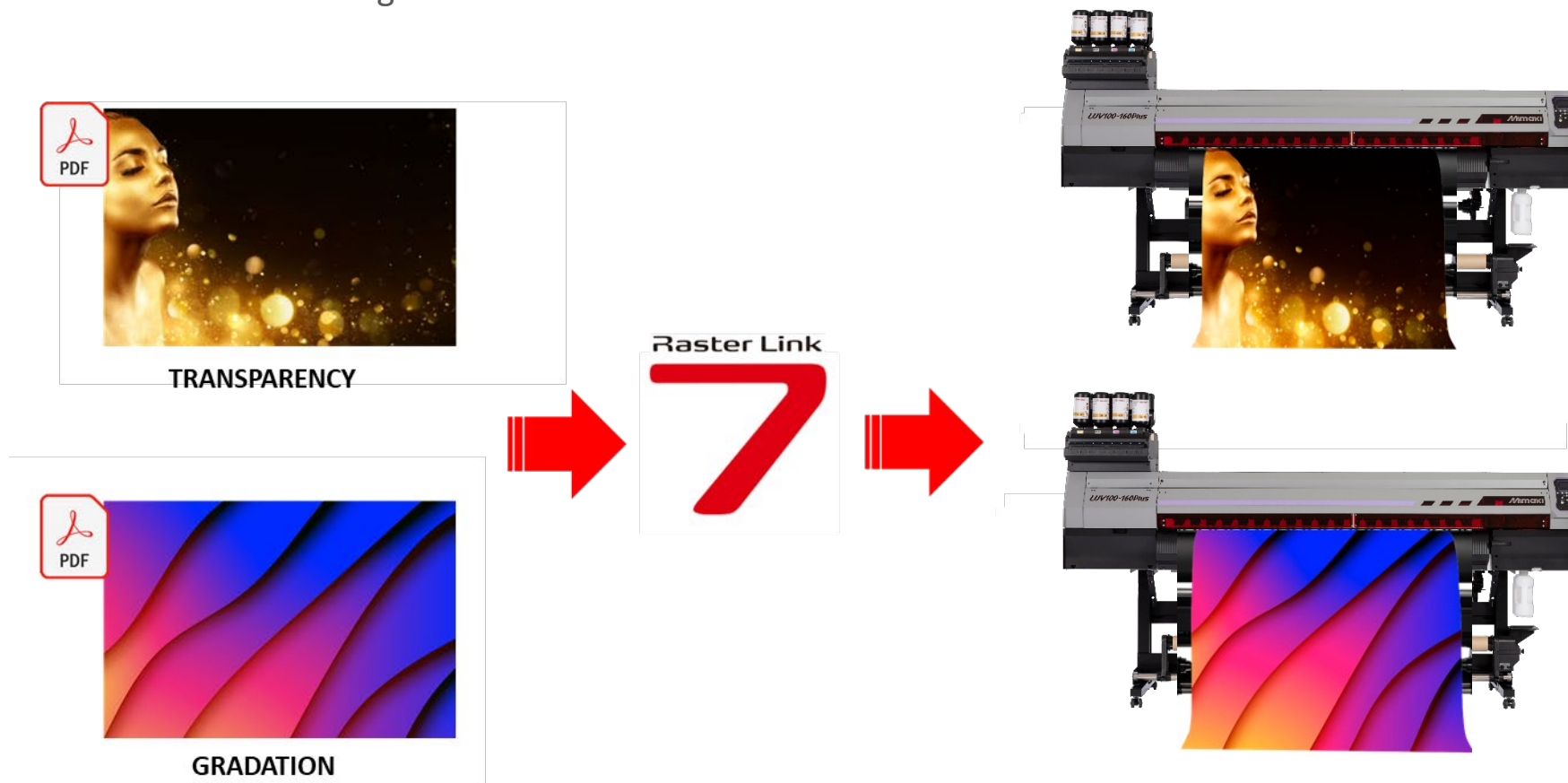
*1: It is necessary to measure with the colour chart at the time of installation

*2: colourimeter must be prepared by the customer

RASTERLINK7 : PDF 2.0 NATIVE SUPPORT

• ADD TRANSPARENCY INTO YOUR PRINT BUSINESS

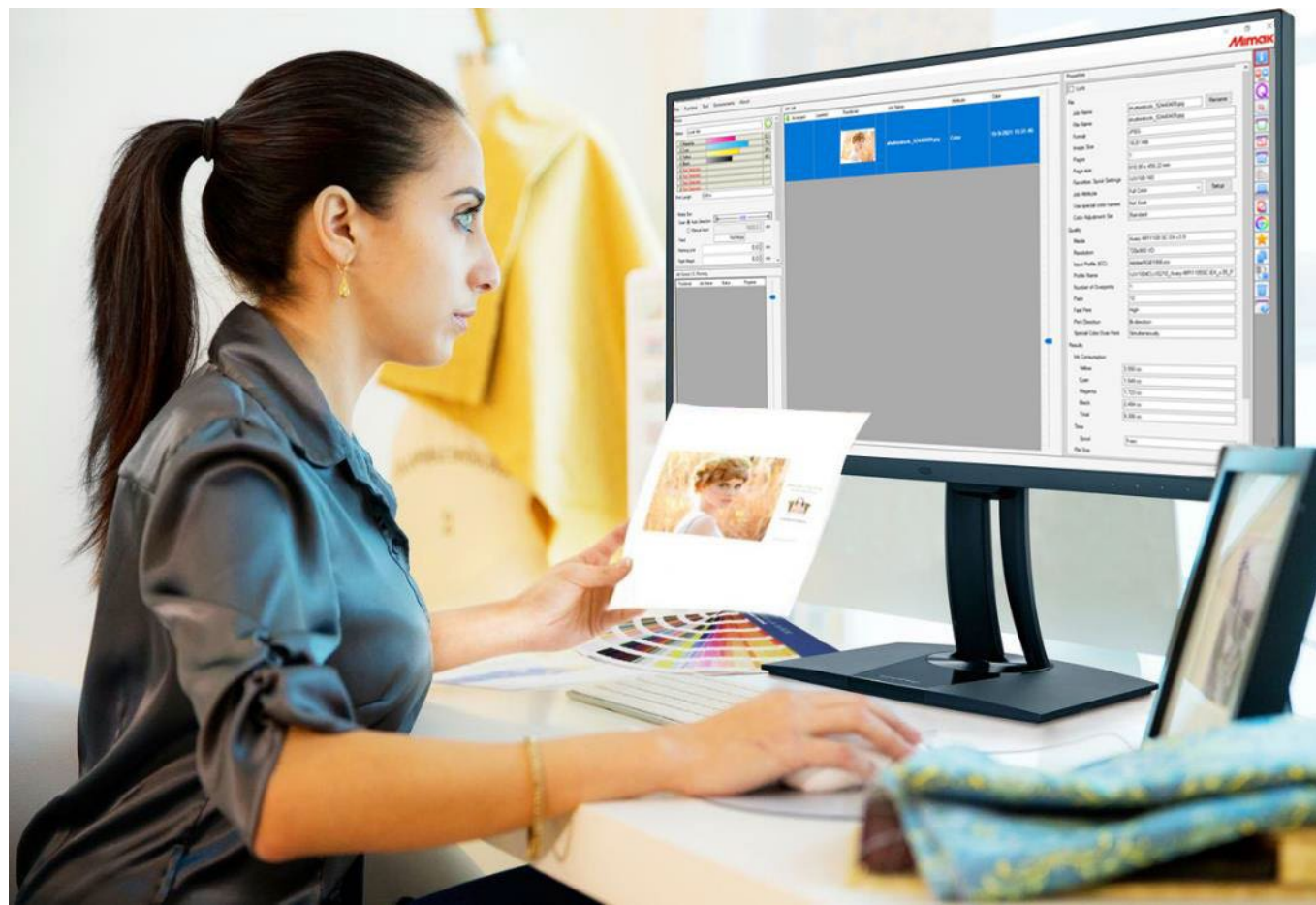
- The Harlequin RIP® Core has been implemented for showing correct previews of PDF colours dynamically and processes the PDFs faster than earlier versions
- RasterLink7 supports all the features of PDF 2.0 standard that are relevant for production printing
- It automatically detects when a PDF file contains any transparency and generates a correct print result, speeding up production time and reducing waste media



RASTERLINK7 : OPTIMIZED USER SCREEN

• PROFESSIONAL DESIGN

- The main screen now offers more available space to the user and provides easy navigation and functionality for all your print and job management tasks
- The refreshed user interface offers a clean and simple look with a smart overview of all functions, printer status, print jobs, and a set of icon tools on one single screen



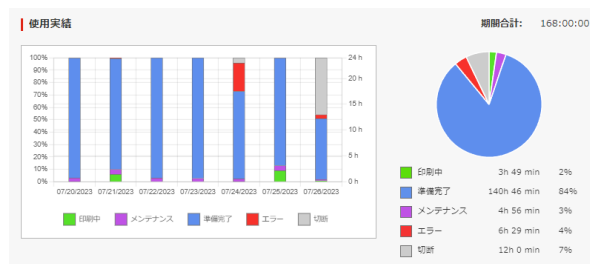
plus MIMAKI CLOUD TECHNOLOGY PICT : SIMPLE PRINTER MANAGEMENT

- This software can be used for consistent printer management.
- Check printer operating status, ink consumption and running cost at a glance.
- The function of monthly operation status reports enables systematic printer management.

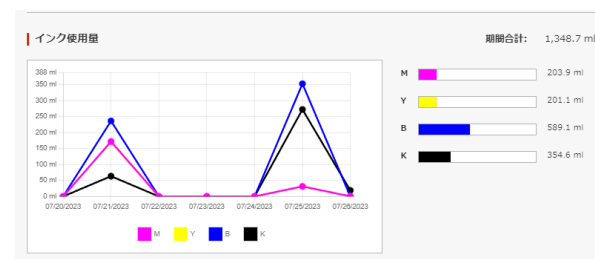
Mimaki Cloud
Technology **PICT**



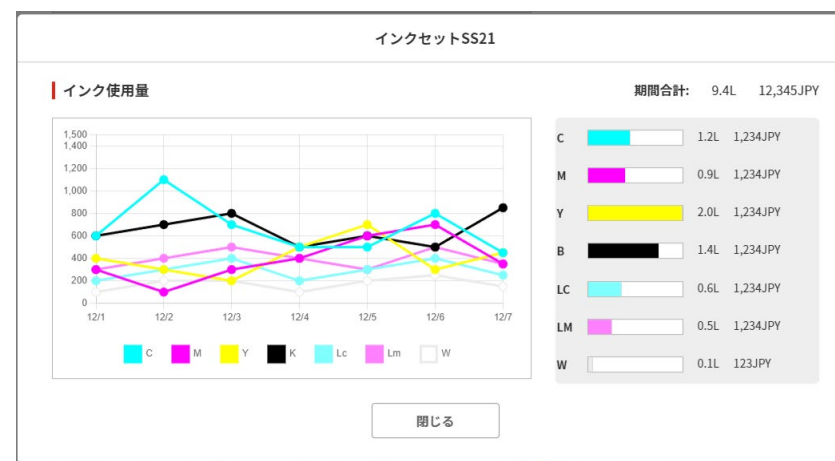
Operating status



Printing volume and Ink consumption



Calculate running cost



PRINT & CUT : EXPAND YOUR BUSINESS WITH CG-AR.

- 'UJV100-160Plus' and 'CG-AR' combo for maximum business expansion.
 - Linking the 'UJV100-160Plus' with the 'CG-AR' will dramatically expand applications, thanks to the high cutting performance of a dedicated cutting machine.
 - The UJV100-160Plus can flexibly respond to various cutting needs, such as labels and window stickers, to support new business development.



ID CUT FUNCTION: MAKES PRINT & CUT EASIER

- Prevent mistakes in the cutting process
 - Using the ID CUT function enables an operator to contour cut multiple jobs without intervention
 - Trouble-free function performs automatic cutting of multiple jobs and saves time and material waste

• Workflow

- RasterLink7 prints the ID code along with the image
- ID code includes cutting and rotation information
- The crop mark sensor reads the ID code and automatically executes cutting



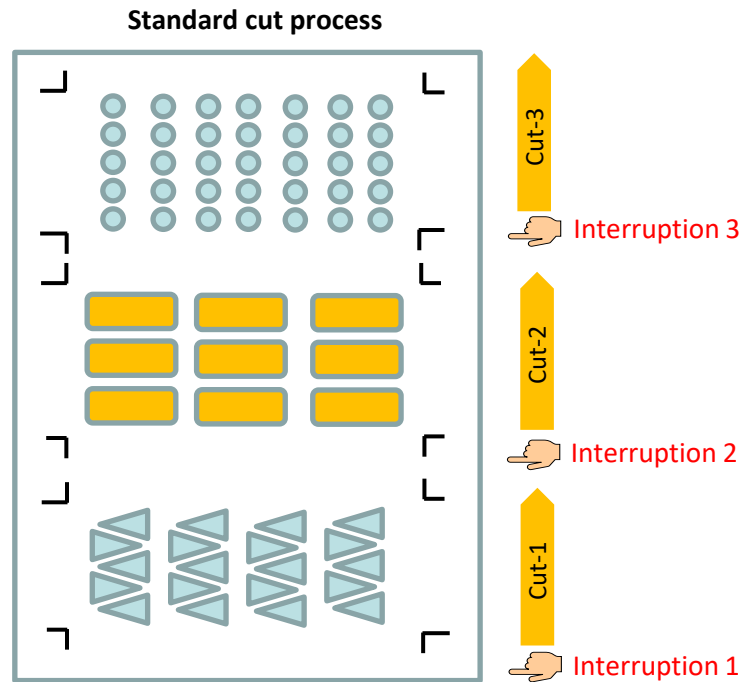
ID CUT →

The diagram area contains several key elements:

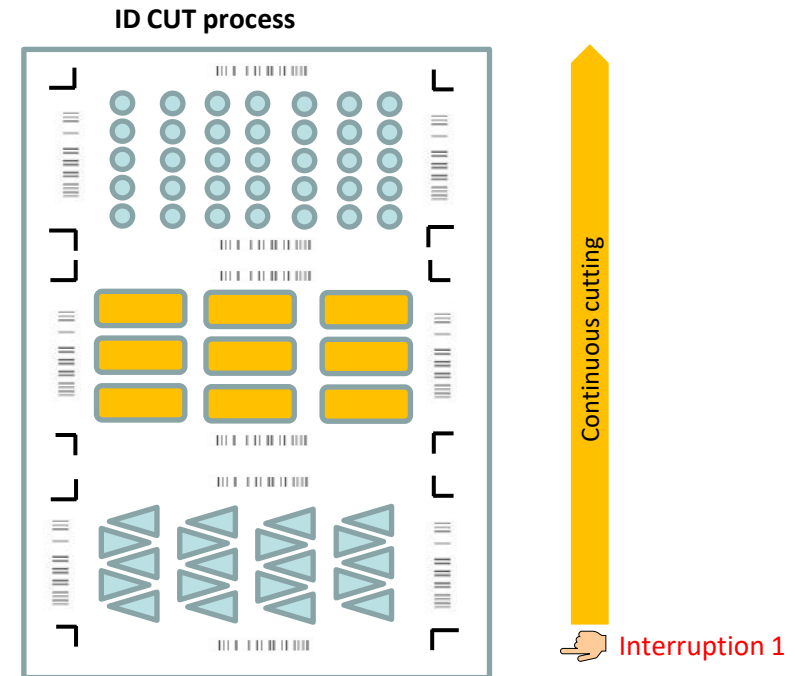
- CAUTION DISCONNECT POWER BEFORE SERVICING**: A yellow warning sign with a triangle and exclamation mark.
- ATC ARM RETUR**: A detailed instruction sheet with diagrams and text in multiple languages (Danish, German, English) explaining how to return the ATC arm.
- Mimaki CJV300 Series**: An energy efficiency chart showing A+++ to D ratings, with A++ highlighted. It also lists 1,920 kWh, 1440 DPI, 105,9 sqm/h, and 38 dB.
- Safety Icons**: A grid of icons for OIL LUBRICATION, LOCKOUT POINT, FILTER MAINTENANCE, OZONATOR, and EMERGENCY STOP.
- Technical Diagrams**: Various circular and rectangular diagrams showing sensor positions and cutting paths.

ID CUT FUNCTION: MAKES PRINT & CUT FASTER

- Multiple cutting jobs without interruption
 - Reduce the need for operator intervention and interruption between multiple cutting jobs
 - Prevents mistakes, saving material and speeds up the process



Operator always needs to confirm cutting data



Operator does not need to attend the process

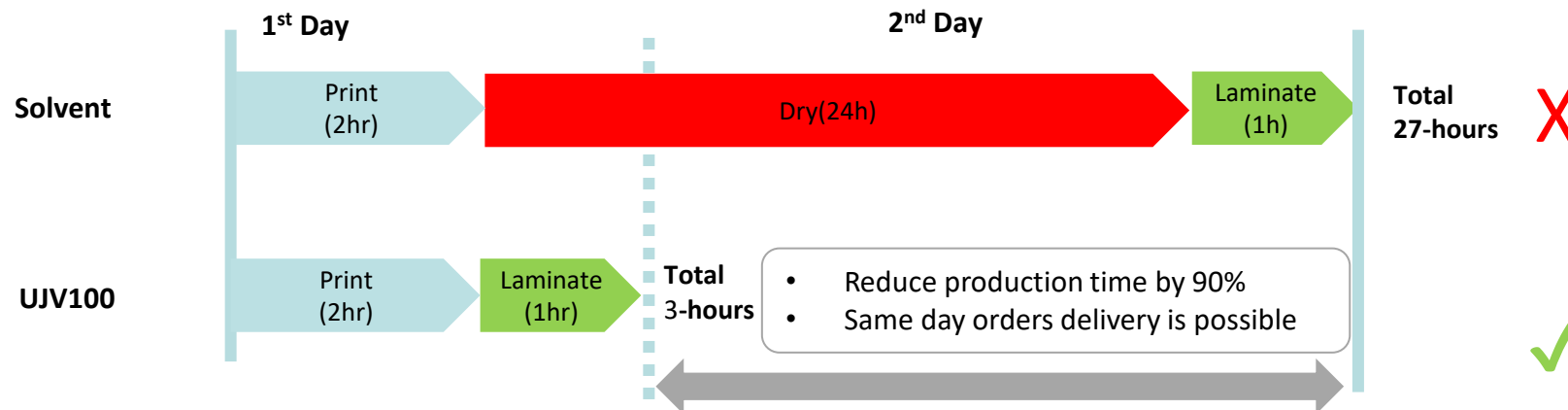
ECO-FRIENDLY AND SUSTAINABLE

- Mimaki UV inks use environmentally friendly inks that produce little or no VOCs
- Energy-saving and sustainable printer
 - Uses less than half the power consumption of a typical eco-solvent printer
 - Uses less than 1/3 of the power consumption of a typical latex printer



UV-LED print: Improves work efficiency

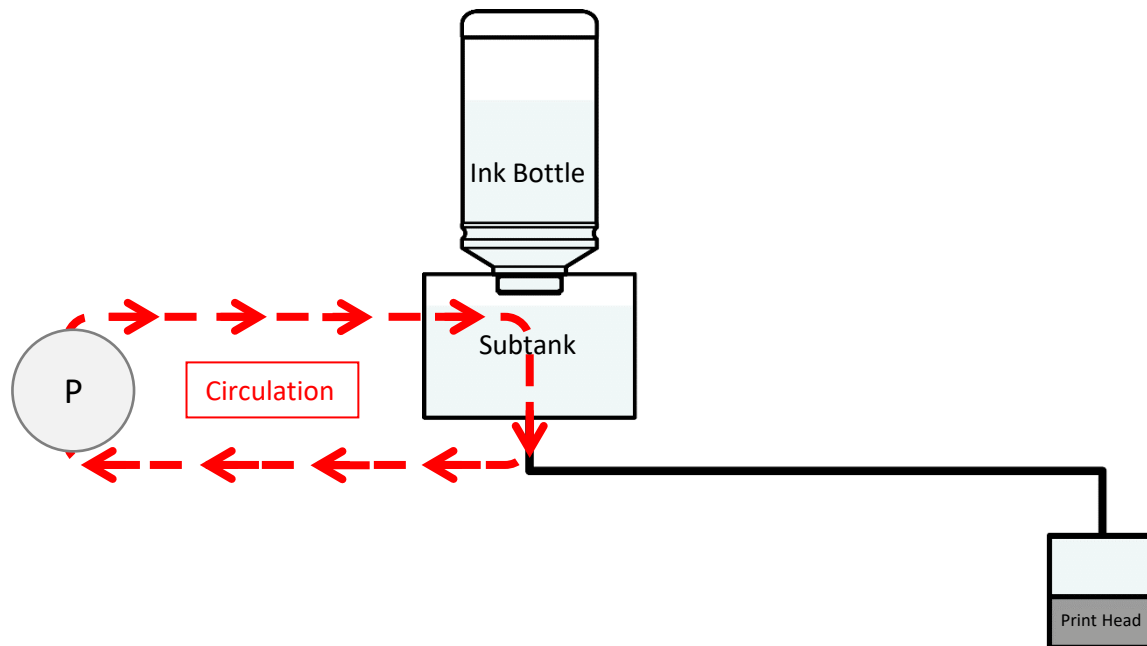
- Immediate curing and adhesion saves time
 - With the UJV100-160Plus, prints come out of the printer completely dry
 - It is possible to laminate right after printing
 - An estimated production time is 90% less, compared to solvent printing, in which solvent must dry before post processing



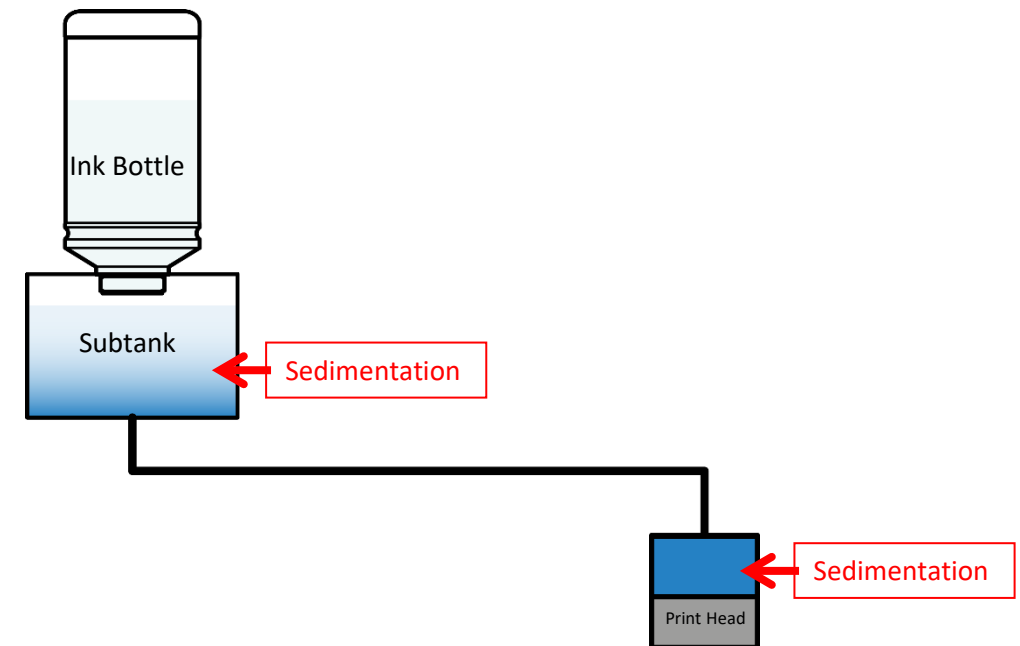
Print quantity: 10-sheets (900x1,800mm)
 colour Set: 4-C
 Speed: 18,6m²/h

Stability: White Ink circulation system

- White ink circulation for continuous ink stability
 - Prevents pigment sedimentation by periodically circulating the white ink in the subtank
 - The white ink circulation feature accomplishes stable production and reduction of ink discharge and waste



Ink supply UJV100: White ink circulation system

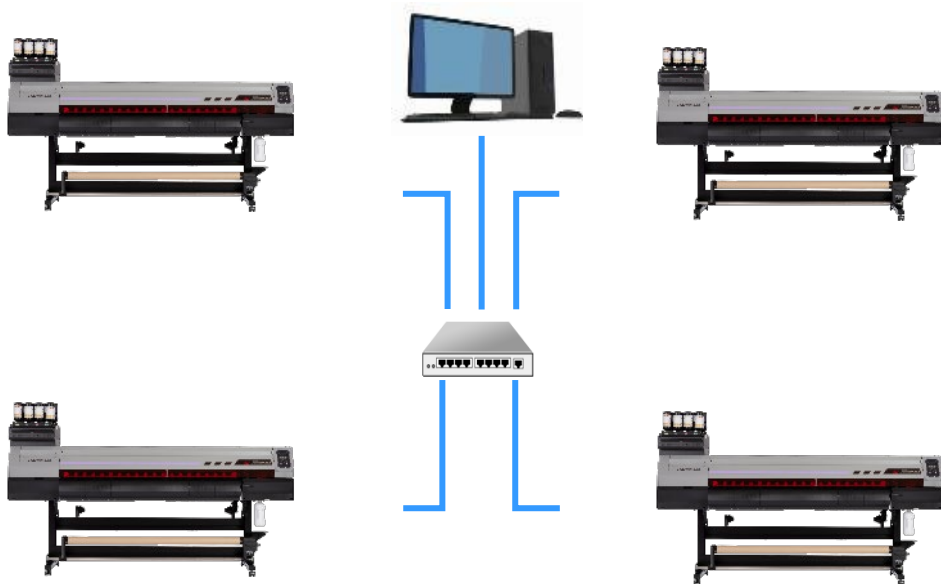


Genuine ink supply: No white ink circulation system

Ethernet connection

- Ethernet

- In addition to the USB2.0 connection, an Ethernet connection is also available on the UJV100-160Plus.
- It provides convenience by allowing to connect several printers with only one computer.
- Installation is done simply by plugging cables into the network.



*Please use CAT6 network cables

*Connecting by a relaying router is not supported

*When using Ethernet, please connect the printer and RIP PC in the same network

*When using a switching hub, please use a 1000BASE-T supported model

*RL6 can support a maximum of 4 printers.

*Waiting for data can occur, depending on the condition of the network

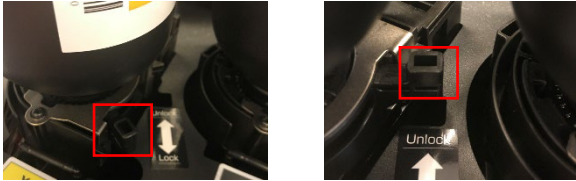


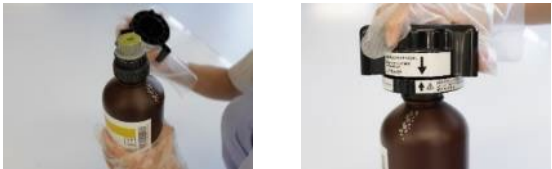

Event mail

- Event mail

- The status of the printer can be sent from the printer to a PC, or a mobile phone via the Internet.
- For remote status indication of the printer.



Ink bottle replacement procedure

Order	Photo details	Procedure
1.		Move the ink lever to “Unlock” position
2.		Remove the empty ink bottle To prevent ink dripping after bottle removal, wipe it gently with the sponge.
3.		Remove the main cap from the empty bottle
4.		Attach the cap to an ink bottle. Fasten it until the arrow signs of the main cap matches, as shown in the photo on the right.
5.		Attach the ink bottle into the slot. Lock the ink bottle by moving the lever to the “Lock” position

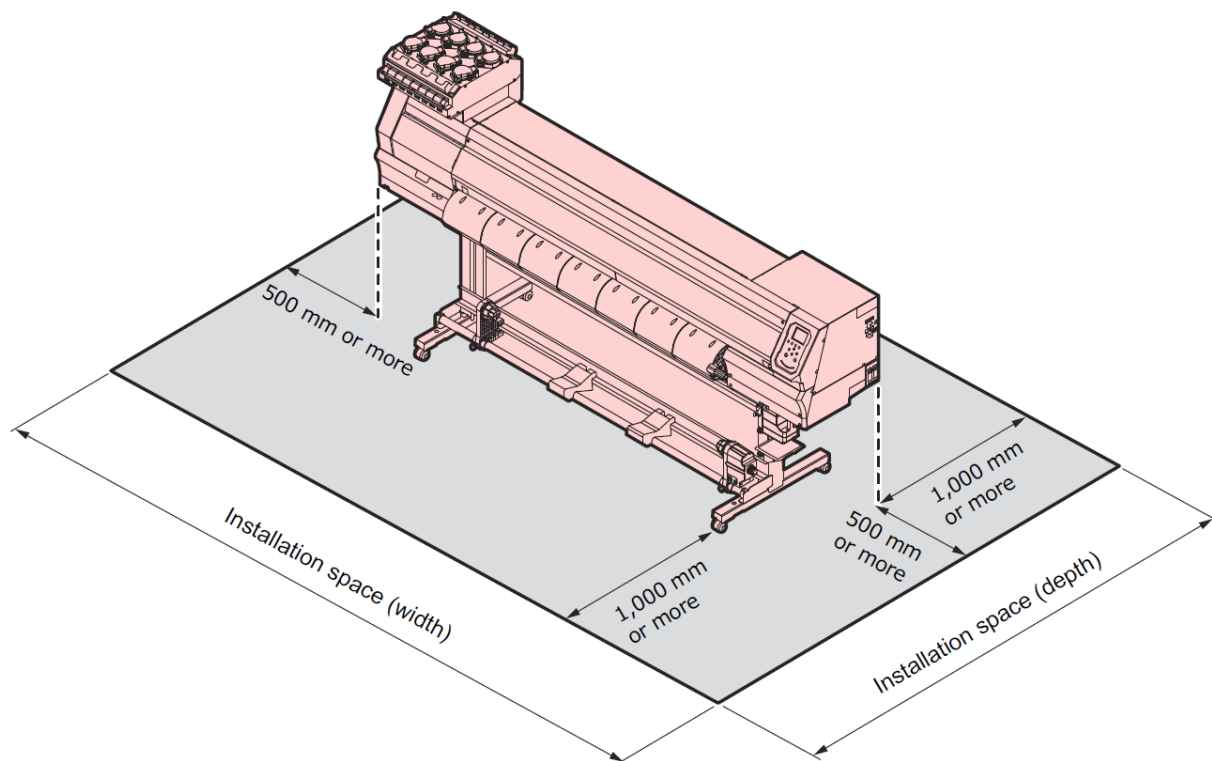
Specification: UJV100-160Plus

Item	UJV100-160Plus
Print head	2 drop-on-demand piezoelectric head; stagger arrangement
Print resolution	Y: 360 dpi, 720 dpi, 1200dpi; X: 900 dpi, 1200dpi
Drop size	Min: 4pl, Max: 20pl
Head height	Manual adjustment (2.0/2.5mm from platen)
Ink type	UV-LED ink LUS-210
Ink colour	4C (CMYK) /5C (CMYK+W) / 6C (CMYK+W+CI)
Ink supply	1L bottle supply
Ink IC	Charge method before ink use
Max printing width	1,610mm
Max media width	1,620mm
Media thickness	1.0mm or less
Outside diameter	250mm or less
Roll weight	45kg or less
Interface	USB2.0 / Ethernet
Body weight	167kg
Dimension (WxDxH)	2,775/700/1,475mm
Power supply	Single phase (AC100~120/200~240V +/- 10%, 50/60Hz +/- 1Hz)
Power consumption	AC100V: 1.44kW / AC200V:1.92kW
Safety Standards	VCCI class A, FCC Class A, UL62368-1 Conform ETL, CE Marking (EMC Directive, Machinery and Low Voltage Directive), CB Certification, RoHS, RCM, EAC

Product Comparison

Item	UJV100-160Plus	UCJV150-160
Nr. of Heads	2 heads in staggered arrangement	1 Head
Cut functionality	No	Yes
DAS	Yes	No
Media Weight	45kg	40kg
Print Width	1.610mm	1.610mm
Ink type	LUS-190 / LUS-210	LUS-170 / LUS-200
Ink Registration	Ink IC chip registration	Ink IC chip continuous read
Ink Set	4C: 2 x CMYK 5C: CMYK WW 6C CMYK CICI WW	4C: CMYK
Max. Print Speed	4C single layer: 23m ² /h 5C double layer: 9,3m ² /h	13,4m ² /h
Printer Dimension	2.775 x 700 x 1.475mm	2900 x 776 x 1.475mm
Printer Weight	167kg	183kg

Packing and installation



	Dimensions	Width	Depth	Height	Weight	Manpower for installation
UJV100-160Plus	Outside dimension	2,775mm	700mm	1,475mm	167kg	Installation requires a minimum 4 person
	Packing size	2,912mm	750mm	1,050mm	214kg	

Installation environment

1. Make sure to use in a ventilated environment.
Environmental temperature: 20°C ~ 30°C
Quality assurance temperature: 20°C - 25°C
Humidity: 35 - 65%Rh (no condensation)
Temperature gradient: +/- 10°C/h or less
Dust: 0.15mg/m² (comparable office)
2. Do not install on carpets, etc. because those are easy to be charged and it can effect the image quality
3. Please use the printer in a well-ventilated environment
4. Do not install in a place where using a photograph fixer or the place with acid steam like acetic acid, hydrochloric acid

* The space for PC is required separately.

* For the maintenance purpose, a space of 500mm or more is required around the machine.

APPENDIX

- Print guide for Window film
- Notes for LUS-190/210 ink
- Certificates
- Options
- Supplies
- FAQ

White ink note: Printing on window film

- White ink expands the application range for window decoration
- Notes on application of window film printed with LUS-190 / LUS-210:
 - The water can get cloudy when the printed surface with white ink is repeatedly rubbed by squeegees, since the surface of the ink is rubbed off
 - Wipe the water so that the water does not leave marks
 - The quality of the image is not affected*
 - To prevent the water from getting clouded, it is recommended to use the squeegees with rollers



Window decoration



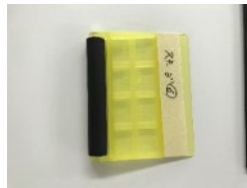





Back side



Restaurant decoration

Test results of different application methods:

	1	2	3	4	5	6
Test Results	OK	OK	OK	OK	Slightly gets cloudy	Likely to get cloudy
Squeegee type	Roller Squeegee With soft rubber 	Roller Squeegee With hard rubber 	Roller Squeegee With hard rubber 	Roller Squeegee With PP 	Squeegee With sponge 	Squeegee With rubber 

Test Method

1. Applied the window film on the acrylic board and rubbed it 20 times with water (including 0.5% mild acidity detergent)
2. Printed white ink patches of 0 – 100 % gradation.

*The applied water leaves marks when it dries, but the marks can be removed by wiping with Bemcot soaked with water.

LUS-190 and LUS-210: Economical High-Quality UV-LED inks

- High productivity, low ink consumption, and excellent cost performance
- UV-LED inks produce beautiful prints with a high scratch resistance and wide colour gamut

Media	Glossy PVC		Tarpaulin	
Print mode	360x1200 ,8P, Bi	720x900, 12P, Bi	360x900, 6P, Bi	720x900, 12P, Bi
Ink consumption (ml)	10.3	11.3	12.9	14,3
Print speed (m2/h)	18.6	13.6	23	13,6



ISO300/N2A




Conditions:

Image: ISO300/N2A
 Size : A0 (1118mmx894mm)
 RIP: RasterLink6plus
 Print setting: Default
 Glossy PVC: Jintu Pixelvue
 Tarpaulin: Delun DX225

*Ink consumption is different with different profiles

LUS-190: Excellent scratch resistance

- LUS-190 ink has excellent scratch resistance.
- It is therefore very suitable for outdoor applications such as banners, partial vehicle wrapping, and tarpaulins.



LUS-190	Company A UV-Ink	Latex Ink
		
Excellent scratch resistance	Media surface becomes visible	Media surface becomes visible

Evaluation method

- Testing machine: RT-300
- Friction paper: Sandpaper # 400
- Number of frictions: 100 [2N, 30/min]
- Media: SPC-0706 (PVC)

LUS-210: Competitive Performance

- The LUS-210 performs excellently in a demanding printing environment
- It offers great resistance to abrasion and chemicals.

Test items		Mimaki LUS-210			Chinese Competition ink		
		Primary colour	Secondary colour	Tertiary colour	Primary colour	Secondary colour	Tertiary colour
Abrasion (Pencil hardness)		H~2H			HB~H		
Ethanol resistance		20~30%	20~30%	30%	0~20%	0~20%	10%
Adhesion	PVC1	O	O	O	O	O	O
	PVC2	O	O	O	O	O	O
	Tarpaulin	O	O	O	O	O	O
	PET	O	O	O	X	X	X
	PET image						

Conditions:

Resolution: 720x900*

Printing density: 100%

Abrasion: Conform the JIS K5600-5-4.

Ethanol resistance: Higher is more resistant.

Adhesion: crosscut test

- 6 points or more: O

- 3 points or less: X

*colour only

LUS-190 / LUS-210 white ink adhesion and flexibility

- White LUS-190 / LUS-210 prints may have less adhesion and flexibility when printed on specific materials compared to colour inks
- Materials such as PET and acrylic must be tested for results beforehand

LUS-190 / LUS-210 white ink adhesion and flexibility test details

Test materials / Print Resolution			720x900		1200x1200	
Manufacturer	Model	Type	Folding test	Cross cut test score	Folding test	Cross cut test
Lintec	EZ-2200ZC	Transparent PET	Peels off / crack	8	Peels off / crack	10
Mimaki	LX Film	Backlit film	OK	8	OK	10
Nitie	NIJ-UTS	Transparent PET	Peels off / crack	7	Peels off / crack	10
3M	IJ900F	Polyvinyl chloride	OK	10	Peels off / crack	10
3M	IJ8150	Polyvinyl chloride	OK	10	Peels off / crack	10

Cross cut test details:

- Score: 1 worst, 10 best
- Cross-cut test: JIS-K5600-5-6
- Cross-cut the printed material with a cutter, peel it off with adhesive tape, and score it by in-house evaluation.

Folding test details:



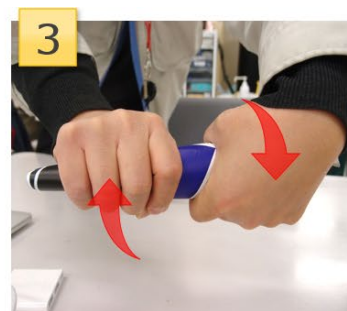
Test pattern



Round the printed surface inward



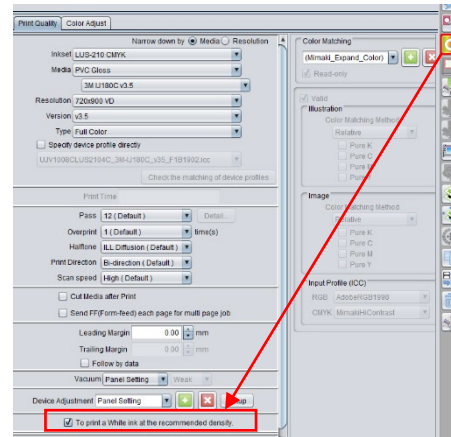
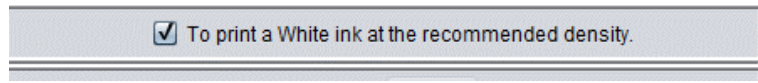
Round the printed surface outward



Compress like squeezing a towel

LUS-190 / LUS-210 white ink: Increase the adhesion and flexibility

- To increase the adhesion and flexibility when printing with LUS-190/LUS-210 white ink, use the RasterLink setting "To print a white ink at the recommended density"
- This setting uses the least amount of white ink to achieve the desired result

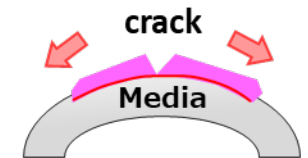


- What causes the ink to crack
 - Cracks are caused by tension between the applied layers and substrate that occurs during mechanical loading.
 - This phenomenon mostly occurs if there is insufficient adhesion between the different layers.
 - In extreme cases, layers can peel off.

Sufficient adhesion



Insufficient adhesion




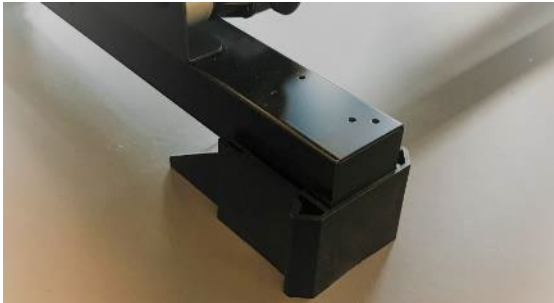

Certificates

- GREENGUARD Gold Certification for UV-LED inks

- Mimaki UV-LED inks LUS-170, LUS-190 and LUS-210 are GREENGUARD GOLD certified.
- Products that are GREENGUARD GOLD certified meet rigorous standards for low emission of volatile organic compounds (VOCs) and ensures that a product is acceptable for use in environments such as schools and healthcare facilities.

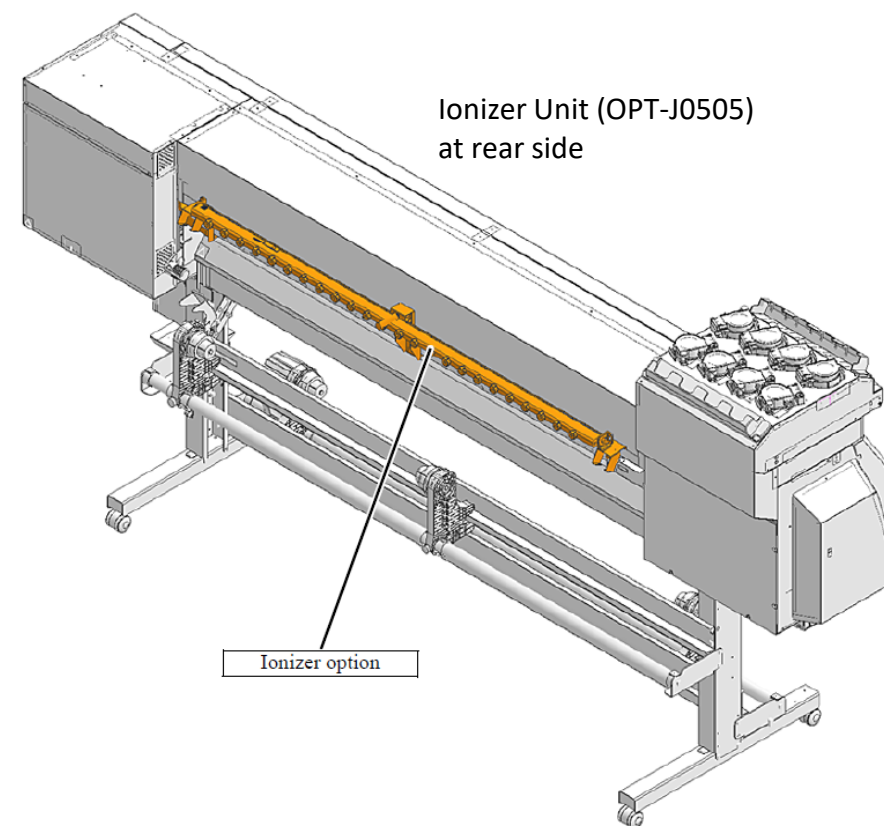


Options

Part No.	Description	Remark
OPT-J0502	ADJUSTER FOOT	 A close-up photograph of an adjuster foot. It features a brass-colored base with a threaded rod and a flat, rectangular metal foot attached to the top. The foot is positioned against a dark, curved surface, likely part of a machine's base.
OPT-J0503	LIFT-UP BLOCKS	 A photograph of a black, rectangular lift-up block. The block has a stepped design with a wider base and a narrower top section. It is shown resting on a light-colored surface.
OPT-J0505	IONIZER	 A photograph of a long, silver-colored ionizer bar. The bar has a series of small, white, circular ionizer tips spaced evenly along its length. It is shown at an angle against a light background.

Option items: Ionizer unit

- UJV100 Ionizer kit, OPT-J0505
 - The ionizer kit is a recommended option
 - It neutralises static electricity of the media surface and improves the printing quality



NOTE:

Ionizer significantly reduces the static charge on the media but does not eliminate it completely. It is therefore important to always check other causes of static charge, such as environmental conditions.

Supply Items: INks

Part No.	Description	Volume	Remark
LUS17-x-BA-1	UV-LED ink LUS-170 1L Bottle	1,000ml bottle	C, M, Y, K, W, Cl
LUS19-x-BA-1	UV-LED ink LUS-190 1L Bottle		
LUS21-x-BA-1	UV-LED ink LUS-210 1L Bottle		
FL007-Z-BA	Cleaning liquid 07		For cleaning of ink lines

Supply Items: Consumables

Part No.	Description	Volume	Remark
A101437	BEMCOT M-3	100 sheets	For daily maintenance
A101438	Swab 6-axis "S"	1000 pcs	For daily maintenance
SPA-0207	Kimwipe S-200	200 sheets	
SPC-0843	Wiper Kit	10pcs	
SPC-0820	Filter set for bottle wiping	4pcs	
SPA-0315	Cap absorber set	1pce	
SPC-0842	Cap ASSY	1pce	
SPA-0107	Media cutter blade	1pce	
SPA-0247	PR10 (Pinch roller)	1 set	
SPA-0281	Cap base B Assy		
SPC-0568	F-200/LF-200 Washing liquid	2 x 100ml bottle	For daily maintenance
SPA-0281	CAP Base B Assy	1 set of 8pcs	Replace once a year
SPA-0290	LED Glass	2pcs	Replace when dirty

