

FACT SHEET



Mimaki CJV300 Series

Wide-format Eco-solvent Printer/Cutter

The Mimaki CJV300 Series printers are high-productivity printer/cutter devices that deliver outstanding image quality and reliable performance with many cost-saving features. Built on the Mimaki JV300 Series platform introduced in July 2014, the CJV300 Series brings advanced print-and-cut operations to this class of printer for the first time.

The series includes innovative technologies that increase throughput and uptime. Eight ink channels and a variety of colors – including Silver – provide the flexibility to produce nearly any application. These models use fast-drying, eco-solvent inks that can print on hundreds of media choices, more than any range used by other inkjet technologies.

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Product highlights

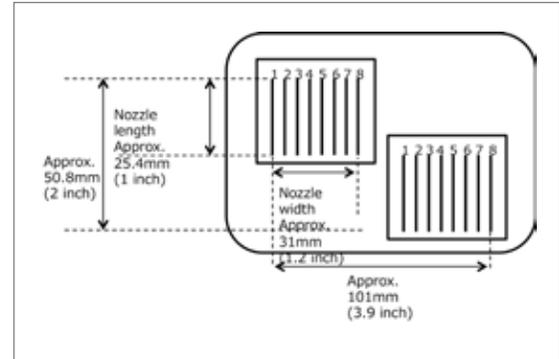
- Two models:
 - 54-inch Mimaki CJV300-130
 - 64-inch Mimaki CJV300-160
- Built on the proven Mimaki JV Series platform – a workhorse in the company's roll-based printer line-up
- Production-speed printing and integrated cutting function
- Produces outstanding print quality with precise dot control
- Offers application versatility to fulfill varied client needs
- Facilitates production workflow with technologies and features that increase throughput and uptime
- Delivers value: high productivity without sacrificing quality, designed to keep operating costs low

Printhead technology

Mimaki's printhead technology and staggered design combine to deliver higher productivity without sacrificing quality.

» **Staggered dual-head configuration**

Staggered dual-head configuration printheads deliver a wider print swath. This printhead configuration can apply a two-inch wide swath in a single pass, resulting in print speeds of up to 1140 square feet per hour.



» **Waveform technology**

Each ink color has its own specific gravity and viscosity. To achieve precise ink droplet placements onto the media, Mimaki designed an optimum waveform, enabling the printhead to jet each ink color at the appropriate jetting angle without losing precise ink droplet circularity.

When ink droplets are deformed in-flight, they can produce inaccurate results because either the jetting angle is out of tolerance or droplets brake in the air.



With Mimaki waveform technology, ink droplets are placed precisely without deformation because they maintain high circularity in-flight.

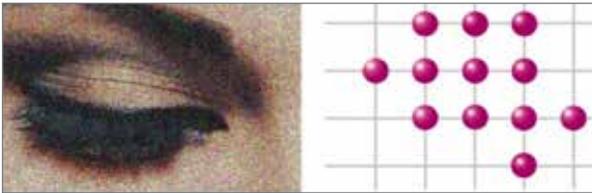


Outstanding print quality

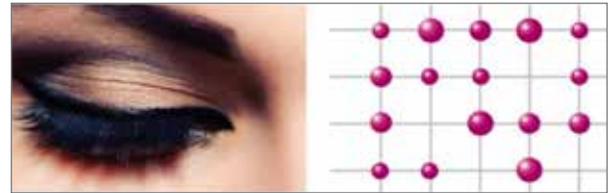
Mimaki waveform technology is one element in delivering outstanding print quality. Variable dot printing and MAPS3 technology also ensure precise image reproduction.

» **Variable dot printing**

In addition, variable ink droplet sizes are precisely placed from the minimum size of 4 picoliters to the maximum size of 35 picoliters. Smaller droplets create smoother gradients and quartertones, and large droplets produce uniform solids and are useful for high-speed printing.



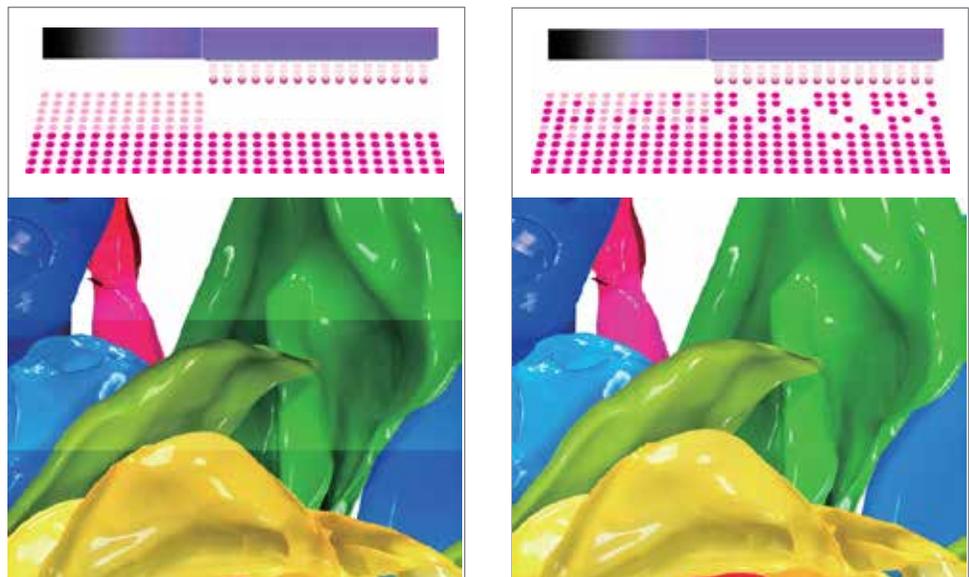
Fixed dots result in a grainy image.



Variable dots deliver smoother images.

» **Mimaki Advanced Pass System 3 technology**

Variable drop printing combined with Mimaki Advanced Pass System 3 (MAPS3) anti-banding technology ensures precise and accurate print quality throughout the printing process, greatly reduce the appearance of banding by printing in a gradational mask pattern. The result is a smoother image with no distinct bands.



In normal printing (above left), the edges between gradations are visible. MAPS3 technology uses a gradational mask pattern (above right), resulting in a smoother image with no distinct bands.

Eco-solvent inks print on a wide variety of media for application flexibility

The Mimaki CJV300 Series printers employ dependable ink technology used in the sign and graphics industry for many years. Mimaki was the first manufacturer of eco-solvent, wide format printers.

Mimaki SS21 ink was developed based on the company's deep knowledge of inkjet printing and its unique technology heritage. Mimaki SS21 ink dries quickly due to a good balance between ink penetration and solvent volatilization. High productivity is achieved through high density printing in high speed modes without blocking or bleeding.

Eight ink channels and a choice of ten colors provide the flexibility to produce nearly any application.

» ***Print on hundreds of media choices, more than any other inkjet technology***

Solvent inkjet printing is a proven technology used around the world for signage and graphics production. The standard Mimaki SS21 inkset is a fast-drying, eco-solvent formulation that can print on hundreds of media types – more than any range used by other inkjet technologies.

Mimaki SS21 inks for the CJV300 are available in ten colors: Magenta, Cyan, Yellow, Black, Light Cyan, Light Magenta, Light Black, Orange, White and Silver. They can be configured to support a wide range of applications and production requirements.



Mimaki SS21 eco-solvent inks for the CJV300 are available in ten colors. With eight ink channels, they can be configured to support nearly any application.

» ***Produce a wide range of applications for both indoor and outdoor use***

The Mimaki SS21eco-solvent inkset offers the aggressive characteristics of full-solvent inks without the high volatile organic compounds (VOCs). This inkset can be used for indoor applications such as point-of-purchase displays, posters, exhibits, T-shirt transfers, backlit displays, labels, decals and package prototyping. It can also be used for outdoor-durable applications such as banners, window graphics, and vehicle marking/wraps.

» ***Standard Mimaki Bulk Ink System enables overnight / unattended printing***

CJV300 Series units ship with the Mimaki Bulk Ink System 3 (MBIS3) that features two-liter ink packs for most colors¹, enabling unattended printing and freeing staff to work on other projects. It can also be used to print long runs – even to help make money overnight. This gravity-fed system does not require additional power for pumps.



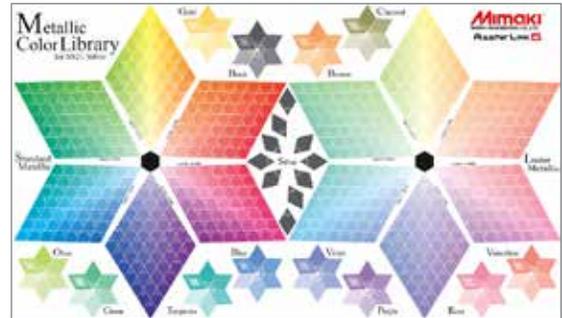
¹- SS21 White and Silver available in 220 ml cartridges only.

» **Silver ink adds brilliance**

Among the ten SS21 eco-solvent ink colors available for the CJV300 Series is Silver, which can be used to create high value-added print products. This new formulation delivers a greater than 50 percent improvement on refraction over conventional Silver ink, delivering brilliant mirror-effect results that are not diminished even if overlaminated.



Metallic color effects are in high demand for label, decal and package prototyping applications. To create metallic color effects using Silver ink, RasterLink6 RIP software – standard with CJV300 Series units – includes a swatch palette of 648 metallic colors that are easily selectable from Illustrator® software and can be utilized in a near-endless combination of custom colors.



» **White ink offers higher opacity**

Mimaki's SS21 White ink yields a 48 percent greater density opacity due to the larger drop size of the new printheads. This higher density enables more accurate colors to be printed on top of the white layer.

The Mimaki CJV300 printer can achieve 3-layer printing. Users can print a color layer, a white layer and another color layer at the same time, widening the application range to additional products such as window films, packaging, etc.

This new formulation can also be printed at higher speeds for a production increase of 430 percent.



JV33-160	Printer	JV300-160
720 x 1440	DPI	720 x 1440
32 pass, bi	Mode	32 pass, bi
14 pl	Max. Drop Size	24 pl
0.27	Transmission Density	0.40
9.68	Speed (SqFt/Hr)	41.97

» **Specialty ink colors produce vibrant colors and smooth monotoness**

Orange ink increases the color gamut and delivers more vivid output and the ability to reproduce approximately 94 percent of the PANTONE® color chart. This is particularly applicable when reproducing corporate colors for campaigns across a range of media.

Orange is added as a process color – there is no need for designers to prepare artwork in the hexachrome color space.



Images printed with CMYKLcLm can look muddy.



Images printed with the same combination plus Orange ink look more vibrant.

Light Black ink produces high quality monochrome color reproduction, resulting in gray tones without a red undercast. Both of these inks, along with Light Magenta and Light Cyan in a eight-color configuration, can also be used to serve the high-end, fine art market where prints command premium prices.

On one Mimaki CJV300 Series printer, service providers can produce a variety of printed media for campaigns that include indoor and outdoor components such as retail promotions, and be assured of color and quality fidelity.

CMYKLcLm
Reddish-gray



CMYKLcLmLkOr
No color rolling



CMYKLcLm
Reddish-gray
Skin with grainy appearance



CMYKLcLmLkOr
Clear gray
Smooth skin



Adding Light Black to the color configuration provides high color balance without color rolling, resulting in high quality, smooth output with no red undertones in monochrome images.

» **Textile inkset also available**

For textile and apparel production, Mimaki Sb53 dye-sublimation is available in Magenta, Blue, Yellow, Black, Light Blue and Light Magenta.

These high-density inks are fast drying for sublimation transfer to polyester substrates such as sportswear and soft signage.

Mimaki Sb53 inkset:

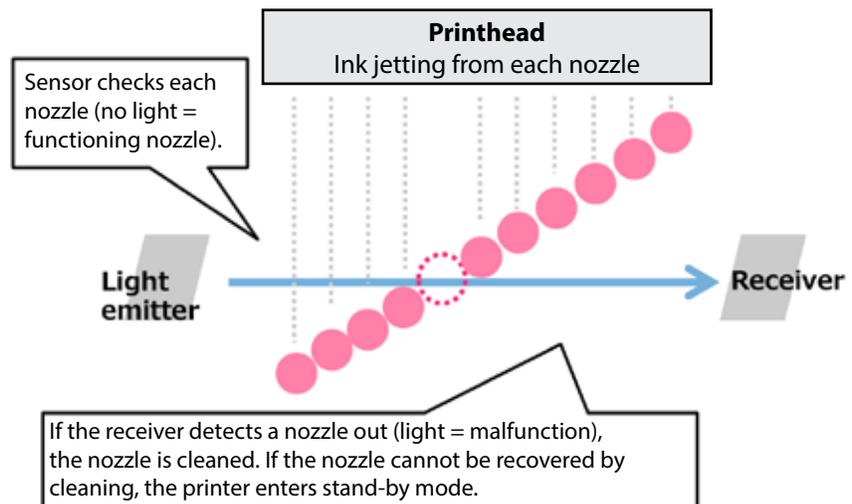


Automated systems increase throughput and uptime, reduce costs

The Mimaki CJV300 printer is designed for production workflow and includes numerous systems to increase throughput, reduce costs and help improve margins.

» **Nozzle Check Unit**

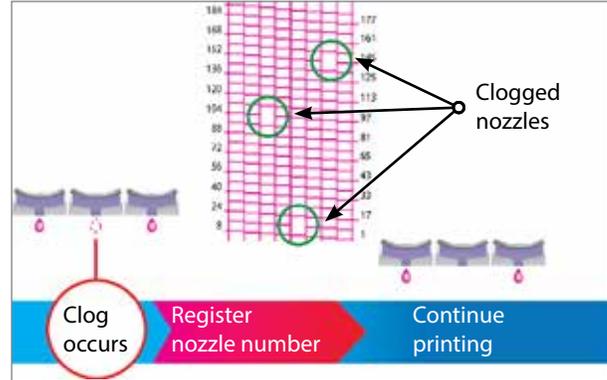
The Nozzle Check Unit (NCU) reduces ink and media waste, and downtime. The NCU automatically checks for potential nozzle outages between file runs. When a nozzle outage is detected, the system cleans the nozzle and re-tests. If the outage is cleared, printing resumes. If the outage cannot be cleared, the printer automatically goes into standby mode and will not waste media and ink on an unsellable print.



» **Nozzle Recovery System**

The Nozzle Recovery System (NRS) enables continued productivity by assigning operational nozzles as substitutes until an outage can be cleared.

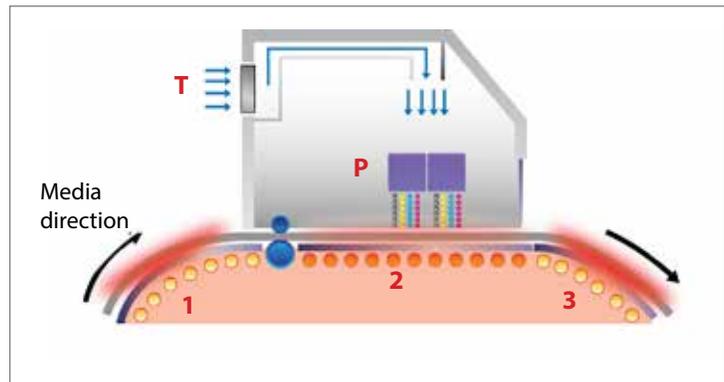
Up to 10 nozzles can be registered per nozzle line so printing can continue even with nozzles out.



If a nozzle clog is not cleared via the maintenance function, other nozzles can be assigned to continue printing. Print speed is largely unaffected.

» **Uniform media drying for consistent results**

Mimaki patented media heat system employs a three-way, intelligent heating system composed of a pre-heater (1), a print-heater (2) and a post-heater (3), which heat the media to the proper temperature for quick drying and accurate fixation. A top blower (T) over the printheads (P) incorporates an airflow path to control the dot size by drying ink from its surface. This system results in uniform ink drying across the width of the printer, assuring even image quality. Competitive products do not heat across the entire width resulting in undesirable artifacts. Additionally, the ceramic heaters use less energy for greater operational cost savings.



» **Email print status notification**

For long running print jobs, the machine can send status messages such as start, errors and completion, through the email notification system to email addresses programmed into the system.

» ***Fine-tune media handling***

Independent pinch rollers enable users to select the number of rollers to be used depending on the characteristics of the media. They can be adjusted for all types of media from light and delicate to heavy and stiff material. This results in more accurate printing with less damage to the media. It also reduces media waste and keeps production on-track, eliminating costly re-runs. The extended pinch rollers reduce media cockling at the edges.

The pinch rollers on the CJV300 Series include automatic engage and disengage functions, enabling continuous printing without operator intervention.



Operators can manually push down on the lever (above left) when the pinch roller is in the down position to raise it off the media (above right).

Print-and-cut function expands application opportunities

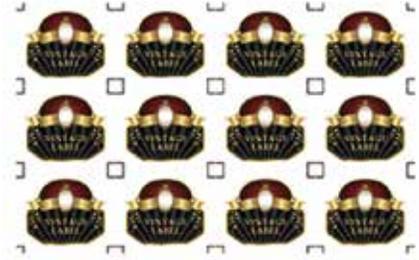
The multiple functions of the CJV300 Series enable high-quality printing and high-accuracy cutting. One compact unit can deliver production runs of labels, decals and vehicle markings. It is ideal for creating one-off or custom items such as T-shirt transfers and packaging prototypes because of its ability to print on thin, transparent films and label materials with metallic colors.

Because of its ability to print White and Silver ink on thin films, the CJV300 Series is ideal for printing and cutting packaging prototypes on one compact unit.



» **Continuous registration mark-detection function enables sustained media cutting**

The CJV300 Series automatically detects all registration marks set by RasterLink6 software on the media. It precisely cuts contour lines by utilizing simultaneous, automatic calibration, enabling cutting of an entire roll of media without interruption.



A maximum of four crop marks are automatically and continuously detected so printed images are accurately cut.

» **Segment correction for precision cutting**

This function detects intermediate register marks and enables four-point corrections for each segment to ensure accurate contour cutting over longer-length prints, even if the image is distorted.

» **Cut-and-print for thin materials**

A cut-and-print function for pre-cutting before printing prevents common problems such as film separation and other issues related to post-cutting on thin materials.

» **Over-cut and corner-cut functions ensure clean edges**

The CJV300 includes an over-cut function that produces sharply cut edges with no undercut fragments by making a cross-cut at the start and end positions of the contour cut. A corner-cut function ensures sharply cut edges by making cross cuts at each corner. This feature reduces waste by ensuring clean edges.



The over-cut function is particularly useful when cutting thick or sticky media.

» **Faster, more accurate cutting**

The CJV300 Series includes on-the-fly blade acceleration and calibration, enabling it to cut faster and with more accuracy by adjusting the cut speed and depth during operation.

» **Cut nearly any media**

A mark detect sensor automatically adjusts to various media types, including laminated and unlaminated materials.

Preliminary Specifications

	CJV300-130	CJV300-160		
Printhead	On-demand piezoelectric (2 staggered printheads per color)			
Print resolution	360, 540, 720, 1080 and 1440 dpi			
Maximum print width	53.5 inches / 1361 mm	63.3 inches / 1610 mm		
Maximum media width	53.9 inches / 1371 mm	63.7 inches / 1620 mm		
Representative print speeds (based on 2x4C printing on banner material using SS21 inks)				
Mode	SqFt/hr	SqM/hr	SqFt/hr	SqM/hr
SuperDraft 360 x 360 dpi, 1P, bi-directional	991.3	92.1	1140	105.9
Draft 540 x 360 dpi, 2P, bi-directional	647.9	60.2	745	69.2
High Speed 360 x 720 dpi, 4P, bi-directional	421.9	39.2	352	32.7
Standard 720 x 720 dpi, 4P, bi-directional	276.6	25.7	317	29.5
High Quality 720 x 1080 dpi, 8P, bi-directional	144.2	13.4	166	15.4
Ink	SS21	Quick-drying, eco-solvent ink C, M, Y, K available in 2L bulk ink pouches or 440 ml cartridges Lc, Lm, Lk and Or available in 440 ml cartridges W and Si available in 220 ml cartridges		
	Sb53	Dye-sublimation ink M, B, Y, K, Lb, Lm available in 2L bulk ink or 440 ml cartridges		
	Circulation	Mimaki Circulation Technology (MCT) for White ink only		
Media	Thickness	1.0 mm maximum		
	Weight	88.18 lbs. / 40 kg maximum		
	Diameter	9.8 inches / 25 cm maximum		
Certifications	VCC1 class A, FCC class A, ETL (UL 60905-1), CE Marking (EMC, Low voltage, and Machinery directive), CB, RoHS, REACH, EnergyStar and RCM			
Interface	USB 2.0, LAN for email notification function			
Power supply	Single-phase AC 100-120V x2			
Power consumption	1440W x2 maximum			
Operational environment	Temperature: 68-86°F / 20-30°C Humidity: 35-65% RH, non-condensing			
Dimensions (W x D x H)	101 x 28 x 55 inches / 254 x 71 x 139 cm		110 x 28 x 55 inches / 280 x 71 x 139 cm	
Weight	268.2 lbs. / 167 kg		392.4 lbs. / 178 kg	
Options	Anti-static unit for sensitive media			
	Tension bar for handling heavy media			
	Exhaust unit for VOC reduction			

Specifications are subject to change without notice.

A model to suit nearly every need

The Mimaki CJV300 Series printers are affordable, and are designed to keep operating costs low. With the entire JV and CJV printer range, Mimaki is the only company that offers a complete selection of wide format digital printing solutions – including eco-solvent, print/cut, solvent, UV solvent, latex, pigmented aqueous and dye sublimation – with models for any budget.

About Mimaki USA

Mimaki is an innovator and a pioneer in the development of digital printing and cutting products worldwide. The company has engineered and manufactured a complete line of digital printers and cutters, and offers a total workflow solution for the many applications found in the Sign & Graphics, Textile & Apparel and Industrial markets. In 2014, Mimaki USA celebrates 15 years of serving customers in the Americas. It is an operating entity of Mimaki Engineering of Japan. For more information, email info@mimakiusa.com or visit www.mimakiusa.com.

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