

Acuity Ultra Range

PRODUCT BROCHURE



World-class
wide format
printing solutions

Superb dot reproduction and bright vivid colours

Colour is the most important aspect of an ink; prints with rich colour have more impact and are more saleable. What's more, a printer needs a wide colour gamut for faithful reproduction of images and to match spot colours.

Our Uvijet inks feature Fujifilm's proprietary Micro-V dispersion technology. This enables high concentrations of colour pigment to be effectively dispersed and stabilised, resulting in brilliant results in the final printed product.

Reassuringly consistent results

To achieve high quality images and beautiful, vibrant colours time and time again, not only must the inks be of an exceptionally high standard, the formulations must be ultra-consistent. Our Uvijet inks are manufactured to incredibly exacting standards. Quality assurance at our award-winning ink manufacturing facility is second-to-none; we only use raw materials that are consistently of the highest grade, which helps to ensure that every batch of ink we create is exactly the same as the last.

Micro-V dispersion technology

Micro-V is a unique Fujifilm technology that breaks down pigment particles and ensures they are held in stable dispersion in the ink. It enables high concentrations of colour pigment to be effectively dispersed and stabilised, resulting in an ink with high colour intensity that resists both agglomeration and gravitational settling – so the ink has high colour strength as well as being stable and reliable.

A proprietary Fujifilm dispersion technology is used to coat the individual pigment particles that are separated during the dispersion process. This coating gives the particles a tendency to repel each other and therefore prevents pigment agglomeration. A molecular bonding agent is used to provide a link between this dispersion coating and the ink binder, or 'vehicle', in order to stabilise the pigment particle in the fluid and prevent gravitational settlement.

After Micro-V dispersion, pigment particles have an average particle size of less than 200 nanometres – 0.2 microns. They start roughly the size of a grain of salt and are ground down in size to smaller than a human cell.

Fujifilm pioneered UV
inkjet printing, and has
the highest number of
patents for UV inkjet ink

Acuity Ultra R2

The Acuity Ultra R2 is a high quality, high productivity superwide platform, available in Mercury UV and LED UV curing configurations. Engineered with the operator in mind, it is designed with specialist inks to support the printing of exceptional near-photographic interior graphics and the high speed printing of banners and PVC signage.

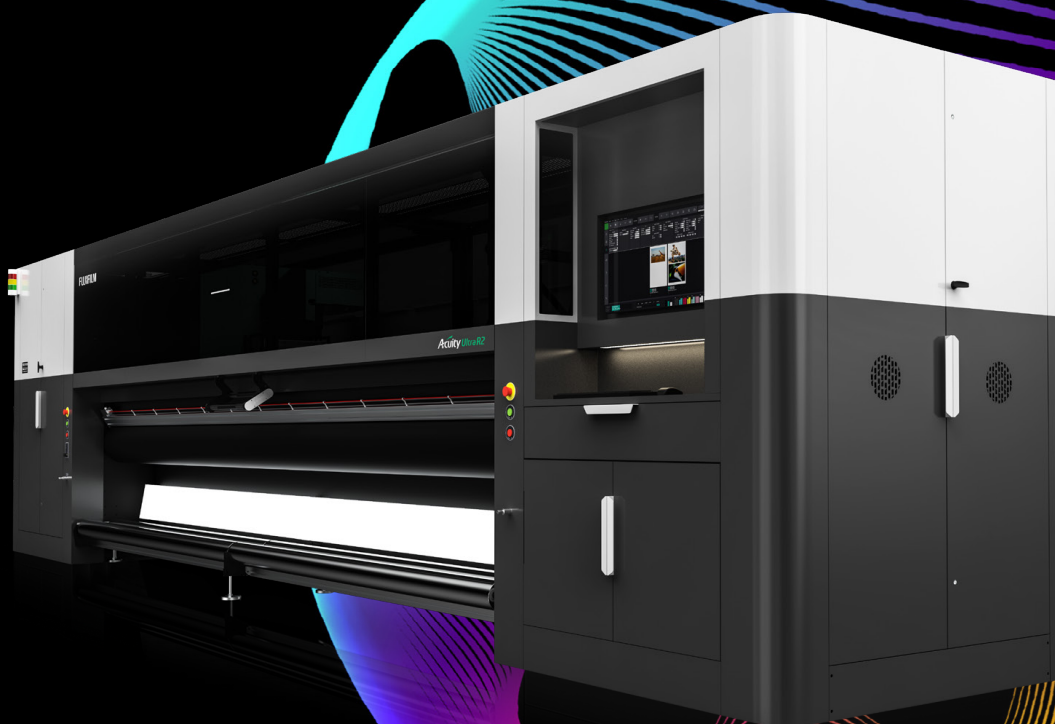
With the Acuity Ultra R2, you get the excellent high quality, productivity and reliability our Acuity range is known for, on a massive industrial scale. High performance printheads with a 3.5 picolitre drop size ensure consistent high quality print, and are combined with excellent build quality using industrial-quality components.

The robust chassis of the Acuity Ultra R2 is a substantial construction, contributing to the 7.7 t and 4.7 t weights of each model. In addition, the linear, vibration free carriage drive, supported by a reliable feeding system, ensures accurate drop placement from first to last drop.

The Acuity Ultra R2 is a modular system with a scalable architecture, meaning it can grow and change as your business evolves.

Acuity Ultra R2

Ultra-high quality output



Why Acuity Ultra R2?



Ultra-low ink consumption for low cost-in-use and exceptional ROI



Capable of producing ultra-high quality print at the highest production speeds



Incorporates advanced operator features for ultra reliable, profitable printing



Acuity Ultra



Our investment in an Acuity Ultra R2 has enabled us to prioritise personalisation and efficiency - while delivering on versatility and value - all while achieving growth.”

Miguel Ángel Gómez Cano
Managing Director
Oedim Spain

Delivering phenomenal return on investment

The perfect ratio for profitability

With the ideal ratio of quality, speed and cost-in-use, the Acuity Ultra R2 gives you the power to profit from a huge range of indoor and outdoor applications, offer better quality and produce higher speeds. Drive your business forward with an outstanding superwide machine from a world leader in industrial inkjet technology.

Make an impact in the high-end indoor display market

The Acuity Ultra R2 is not only ideal for out-of-home applications such as single billboards and signage, it's also perfect for high-end indoor displays where close viewing requires images to be exceptionally clear and vibrant. With quality comparable to leading water-based inkjet systems, investing in an Acuity Ultra R2 can propel your business into the luxury brand market.

Long printhead life minimises costs of consumables

With an impressively long life, you won't have to worry about replacing printheads as often. Combined with low ink consumption, the long printhead life reduces the hassle and costs associated with replacing consumables.

Versatility on a massive scale

With its massive format size, 2- or 3-up multi-roll potential, and ability to print on a broad range of materials, the Acuity Ultra R2 gives you the ability to profitably create exhibition graphics, POS displays, high-value graphic art, backlit displays, outdoor displays, outdoor signage and more. And now with the option of our LED UV versions, you can offer even more value and versatility to your workflow, based on customer demand.

Fully equipped to enhance productivity

The Acuity Ultra R2 is equipped with advanced features for flexible and productive printing, including: a unique chilled vacuum table to enable printing of thin heat-sensitive substrates; an on-board backlighting feature to enable image quality to be checked during printing; and an automatic nozzle spitting system to maintain consistent print quality.

Scalable architecture

All Acuity Ultra R2 systems have an ink channel upgrade path. You can start with a 5004 LED UV printer, then add light colours at a later date or white too if needed. The scalable architecture allows you to maximise your investment depending on the direction of your business for maximum flexibility.

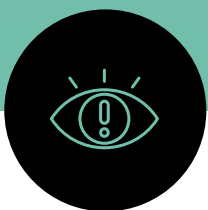
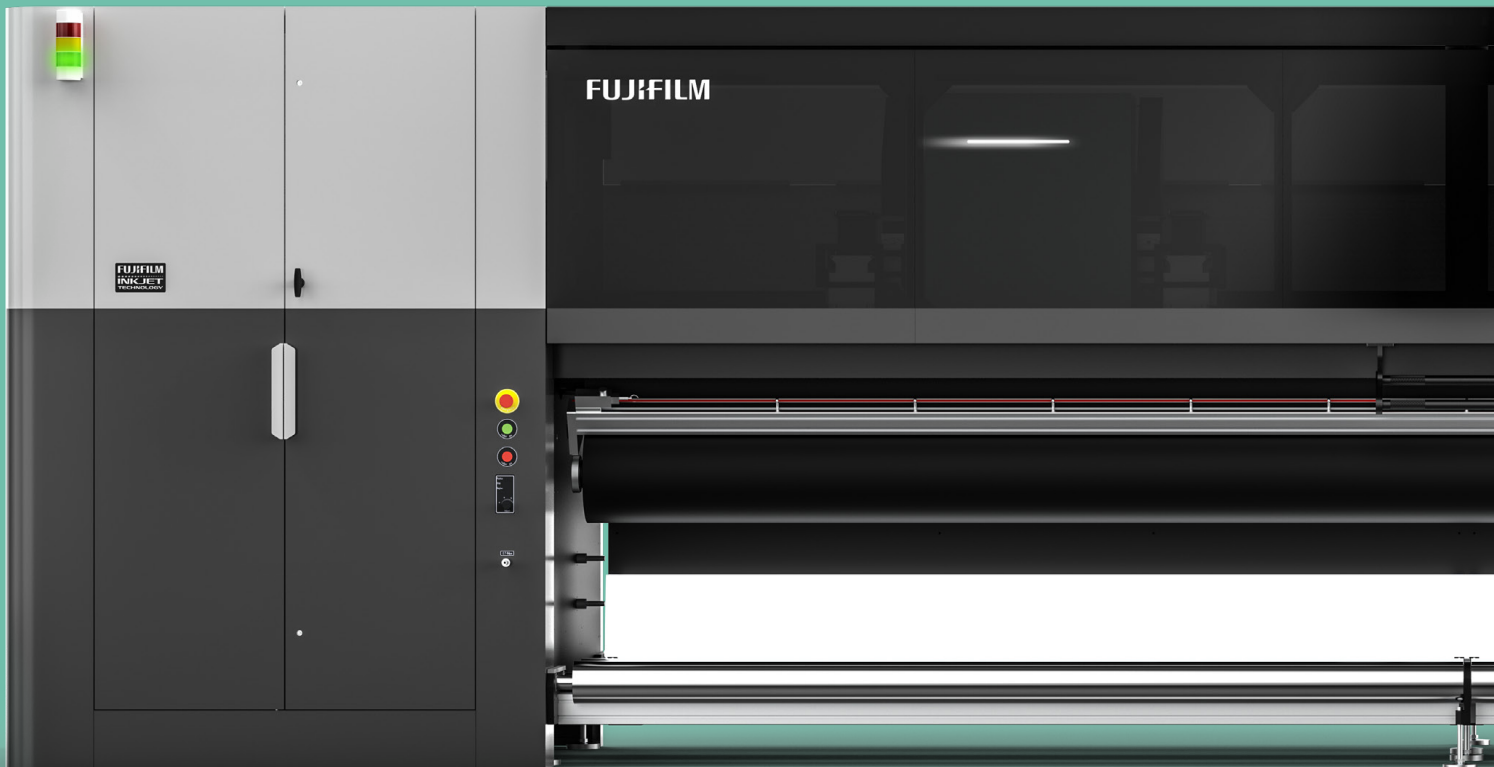
Key features

- Native 3.5 picolitre, 3 level greyscale printhead
- Linear-driven printhead carriage
- Water-cooled vacuum table
- Accurate and reliable media transport system
- Double sided print function supports printing on both sides of the media in perfect registration
- 3.2 m and 5 m options
- Mercury UV and LED UV curing options available
- Fujifilm Uvijet GS and AU inks
- Versatile, ultra-high quality 6 channel with white option
- Highly productive dual CMYK 8 channel model
- Output speed over 600 m²/hr
- 0.1 mm to 2.0 mm media thickness
- Multi-roll printing
- Prints on heat-sensitive materials
- Intuitive GUI

Acuity Ultra R2 at a glance

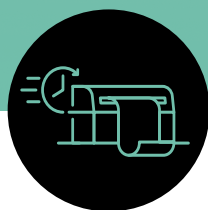
Easy to use, saving time and money

With features to speed up job set-up times, enable the status of the print to easily be reviewed, through to the day-to-day maintenance of the machine, the ease of use of the Acuity Ultra R2 is a key contributor to improving your overall print ROI.



Media crash detectors to prevent printhead damage

The carriage is equipped with media crash detectors on either side. These react to obstructions on the vacuum table to stop the carriage and prevent damage to the printheads.



Multi-roll capability maximises productivity for smaller jobs

With a throughput of over 600 m² per hour, the machine has the potential to produce huge volumes of work when printing on three rolls simultaneously, as well as printing superwide format graphics up to five metres in width.



Water-cooled vacuum table

A unique chilled vacuum table maintains the substrate temperature while printing and allows the use of thin heat-sensitive substrates, reducing media shrinkage and wrinkling.



Ink spitting to minimise machine downtime

The Acuity Ultra R2 is fitted with a spit function designed to reduce machine downtime. This maintains the print quality and helps to increase the overall consistency of the printed results.



Auto media thickness and position measurement

The Acuity Ultra R2 is equipped with a media detector mounted on the carriage. This is used to determine the position and thickness of the media.



Mechanical substrate detector

The Acuity Ultra R2 is equipped with media sensors positioned under the rear media tension rollers, with 3 sensors on the Acuity Ultra R2 5000, and 2 on the Acuity Ultra R2 3200.

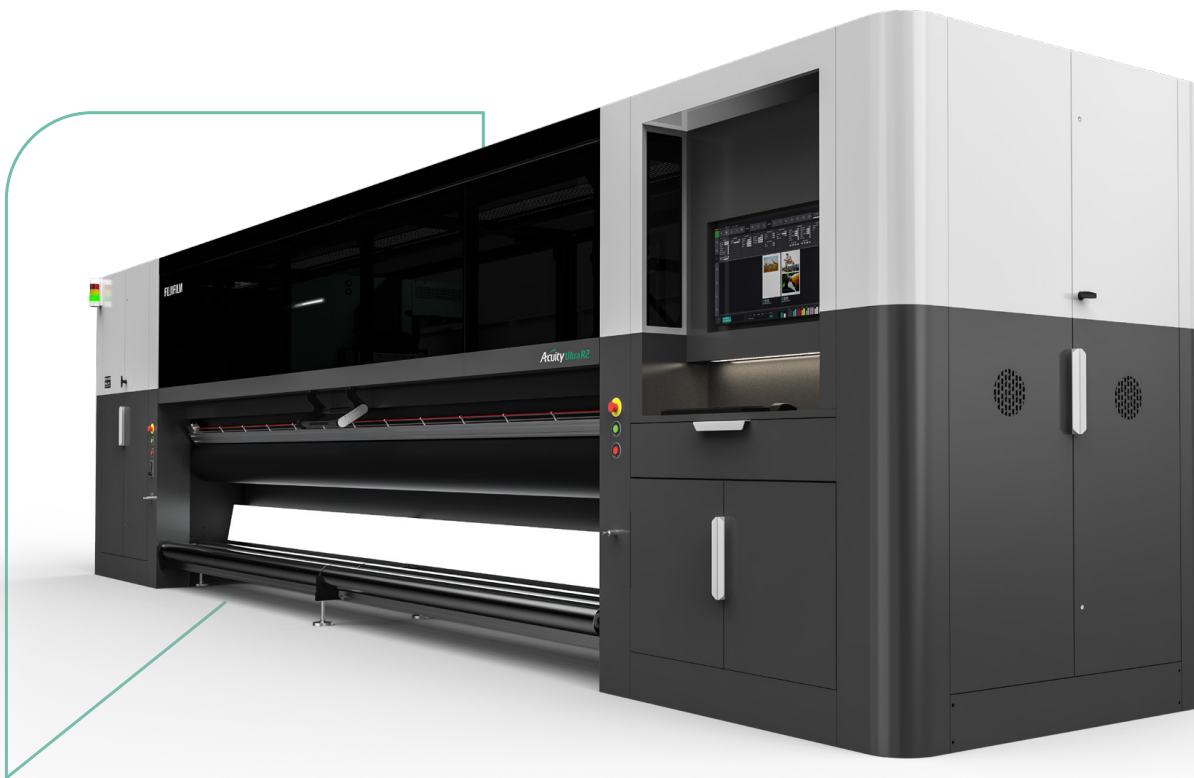
Acuity Ultra R2

Industrial UV and LED curing systems

The Acuity Ultra R2 is available in 3.2 or 5m formats, using LED UV lamps for the 6 colour and 6 colour plus white options, or Mercury UV lamps for the high speed double CMYK configuration, ensuring block free production. By offering both solutions, printers can choose the most appropriate technology to support their business needs.

High-performance Uvijet GS and AU inks

New, high colour density inks deliver superb vibrancy and a wide colour gamut. Excellent inter-coat laydown produces solid backlit colours and prints. The inks also do not exhibit cracking when folded due to the low ink build. The new high colour density inks are delivered using 3.5 pL printheads, resulting in a very low film thickness and ultra-low ink consumption, resulting in very low cost-in-use and higher profit per print.



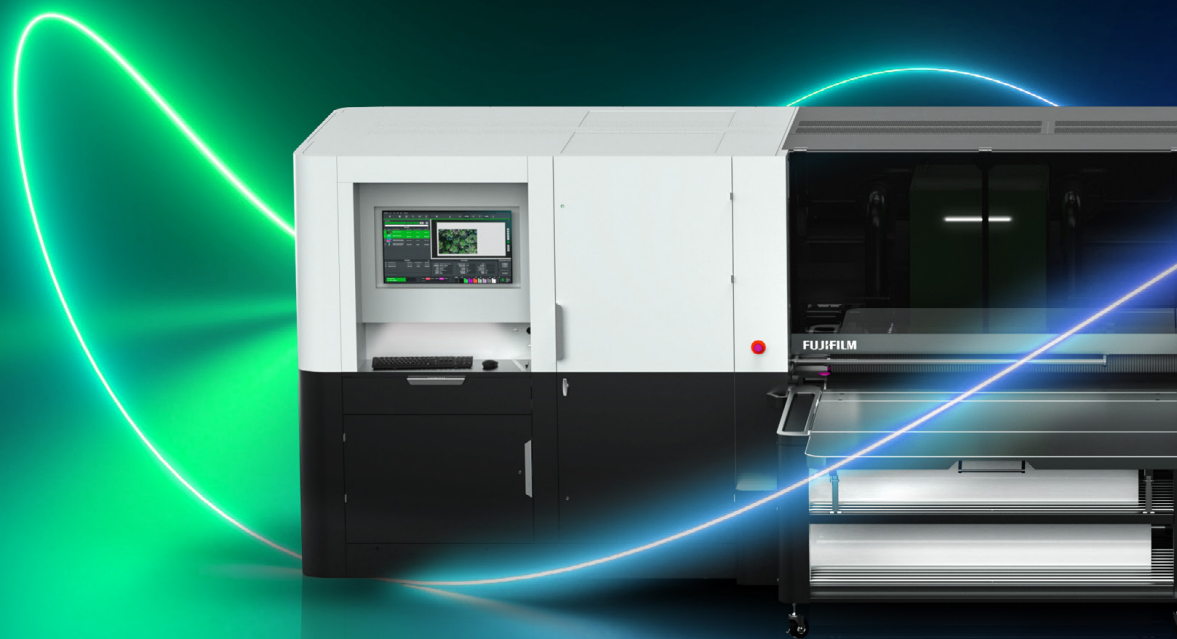


Technical specifications

Acuity Ultra R2	3200 series	3200 series	5000 series	5000 series
Curing system	LED UV	Mercury UV	LED UV	Mercury UV
Model	3204: CMYK 3206: CMYK LcLm 3208W: CMYK LcLmWW	3204: CMYK 3244HS: CMYK CMYK	5004: CMYK 5006: CMYK LcLm 5008W: CMYK LcLmWW	5004: CMYK 5044HS: CMYK CMYK
Printhead drop volume	Greyscale, 3.5 pl – 14 pl			
Printing technology	Piezoelectric drop-on-demand inkjet			
Resolution	Up to 1200 x 1200 dpi			
Inks	Uvijet AU series	Uvijet GS series	Uvijet AU series	Uvijet GS series
Maximum throughput	400 m ² /hr		667 m ² /hr	
Maximum media width	3.40 m		5.13 m	
Maximum media thickness	2.0 mm			
Minimum media thickness	0.1 mm			
Maximum print image width	3.20 m		5.00 m	
Media loading capabilities	Large rolls: 400 kg x 400 mm		Large rolls: 600 kg x 400 mm	
	Multi-rolls: 2 x 200 kg x 340 mm		Multi-rolls: 3 x 200 kg x 340 mm	
Hardware interface	Ethernet TCP/IP, 1000 base-T			
Power requirements	3 phase, 400V AC, 50 Hz, 30A			
Compressed air	Pressure (minimum): 8 kg/cm ² (7.85 bar / 114 psi)			
	Flow rate (minimum): 1.2 m ³ /min (1200 l/min / 42.26 cfm)			
Environmental conditions	Temperature: 18°C – 28°C			
	Humidity: 40% – 80% RH (non-condensing)			
	Atmospheric dust: ≤0.15 mg/m ³			
Dimensions (L x W x H) (excluding workstation)	6.81 m x 1.81 m x 2.04 m		8.5 m x 1.88 m x 2.21 m	
Machine weight	4750 kg		7740 kg	

Acuity Ultra Hybrid LED

One platform unlimited results



Acuity Ultra Hybrid LED

The Acuity Ultra Hybrid LED is a high-end printer designed for rigid and flexible media, offering superb, high quality printing in a 3.3m platform.



Engineered with the operator in mind

The Acuity Ultra Hybrid LED is designed with specialist inks to support near photographic quality printing on a huge range of applications.

It is also a highly modular six-colour system with a scalable architecture that can grow and change as business demands evolve. This means you can start with a CMYK device, and add light colours and white inks at a later date, making it one of the most versatile and flexible platforms on the market, able to produce the widest variety of products in the smallest machine footprint.

Versatility

The combination of intelligent design features and Fujifilm's new Uvijet UH high performance ink, ensures that the Acuity Ultra Hybrid LED is one of the most versatile platforms on the market, able to produce an unrivalled range of applications at both high quality and high speed.

Media load and unload tables

Fujifilm's patented media table design features a dimpled table surface which supports all media types while allowing easy media positioning, providing performance superior to most other systems on the market. In addition, an innovative catch mechanism improves media feed accuracy, and provides protection from accidental damage throughout a print run. Finally, the change over from roll to rigid or rigid to roll is ultra-quick, maximising overall productivity.

Intelligent vacuum control system

The Acuity Ultra Hybrid LED features an intelligent vacuum control system that has been designed from the ground up using sophisticated airflow CAD modelling software to generate excellent media hold down.

The system automatically turns on the vacuum zones needed for any print job based upon the media width, and automatically adjusts the vacuum control power to maintain a constant force under the belt regardless of media type and size. This ensures excellent media hold down, whilst maintaining consistent media transport, to ensure high print quality.

In addition, the belt is a single piece constructed of a semi-rigid polyurethane material, so it resists both ink damage and distortion over time, ensuring years of continual use. The belt drive rollers are also substantial 32cm diameter steel rollers that resist deflection when the belt is tensioned.

Key features

- Versatile, ultra-high quality printer
- Native 3.5 picolitre, 3 level greyscale printheads
- Linear-driven printhead carriage
- Dimpled media tables support all media types
- 3.3 m width
- LED UV curing for lower power consumption
- Uvijet UH high performance inks
- 6 channel with white option
- Up to 218 m²/hr roll-to-roll
- Dual roll printing
- Prints on heat-sensitive materials
- Intuitive GUI

The Acuity Ultra Hybrid LED delivers an unrivalled range of applications at both high quality and high speed.



Acuity Ultra Hybrid LED

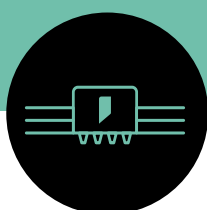
Ultra-high quality

The Acuity Ultra Hybrid LED uses the same head carriage as the Acuity Ultra R2, capable of ejecting greyscale drops down to 3.5pL in size to deliver superb print quality. Combined with an industrial build quality, a linear motor head carriage drive and Fujifilm's high performance Uvijet UH inks, the very best print quality is guaranteed.



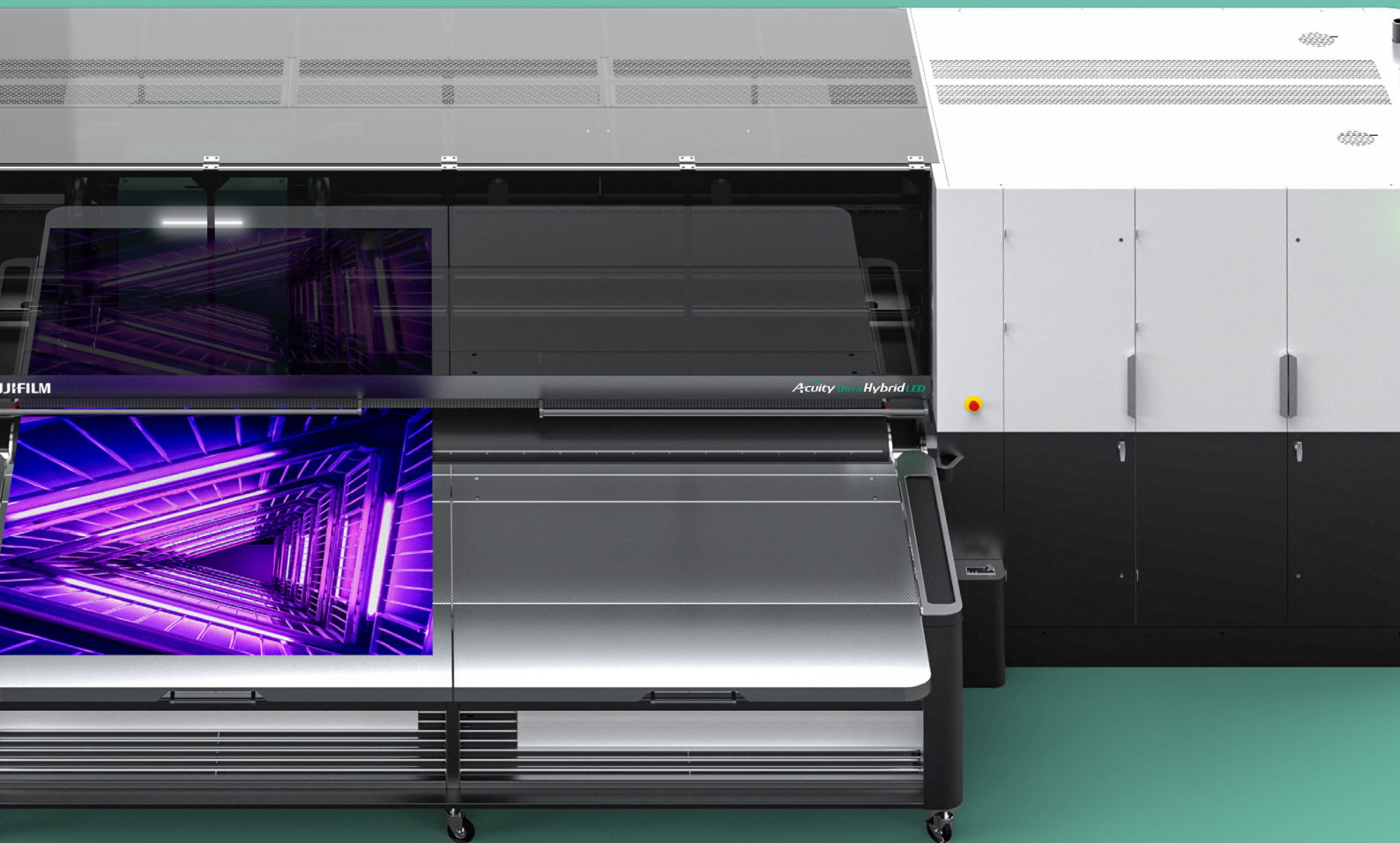
Heavy duty chassis

Like the Acuity Ultra R2, the Acuity Ultra Hybrid LED is built on a substantial welded steel construction, together with solid steel bars, which contribute to the machines 8.3T weight. This design not only delivers a robust construction, it also ensures that the printer displays very little vibration during operation, further enhancing print quality.



Linear motor head carriage drive

Many hybrid printers use a belt drive to move the print carriage, often resulting in a reduced life span as well as impacting print quality. The Acuity Ultra Hybrid LED uses a linear motor drive for the head carriage delivering travel speeds of 1900mm per second when using the fast carriage travel speed. The carriage movement is quiet and free from vibration, travelling along dual rails with the carriage supported by 6 large race bearings.



Uvijet UH ink

Fujifilm has developed a new high performance LED curing ink for use in the Acuity Ultra Hybrid LED, specifically designed to give the adhesion performance needed in a hybrid solution. However, the ink still delivers the same high coverage and print quality as Fujifilm's other Uvijet AU and GS inks, with customers also able to benefit from the same low ink usage.

The Uvijet UH ink set consists of six standard colours (CMYKLCm) and an optional white ink.

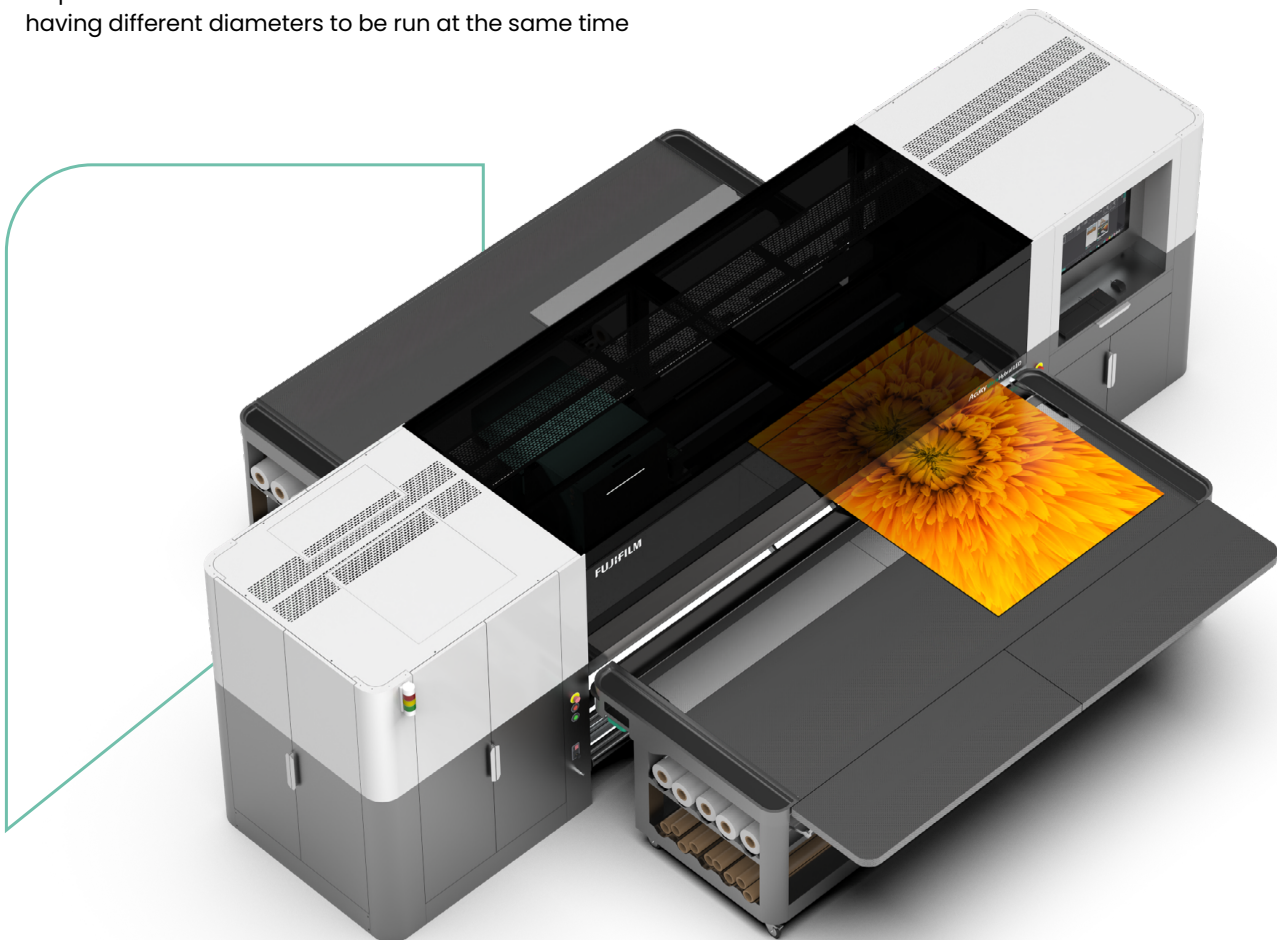
The printer can be configured with two white ink channels to maximise throughput speeds and print density.

The Acuity Ultra LED Hybrid with white ink allows flood white under-printing for non-white media, over-printing white for backlit applications on transparent media and/or printing white as a spot colour. The new ink range has both Greenguard Gold and AgBB certification. The printer is capable of printing up to 5 layers, with the 1st and 5th layer being a different image.

Designed with the operator in mind

A range of advanced features have also been incorporated into the design of the Acuity Ultra Hybrid LED to improve operation and maximise uptime. These include:

- A second workspace with keyboard and monitor that mirror the functions of the PC that drives the machine, meaning a single user can operate the printer from either the input or the output sides of the machine
- Media tension buttons controlling the roll functions of the machine are located on both the input and output sides for ease of use
- The input media roller is adjustable, moving up and down, for improved tension, and to help keep the roll media flat and wrinkle free
- The durable aluminium media shafts cater for either single 3.3m rolls, or two rolls each up to 1.6m wide. The printer uses a special airshaft which allows two rolls of the same media having different diameters to be run at the same time

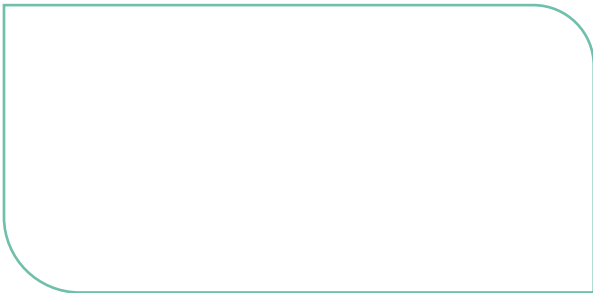




Technical specifications

Acuity Ultra Hybrid LED	
Media	Maximum width 3.3 metre
Print sizes	Maximum width 3.3 metre
Ink range	Uvijet UH std colours – CMYKLCm – Optional white
Ink reservoir	Top loading 7 ltr tanks , White 2 ltr
Print head	Up to 16 Kyocera KJ4A heads
Number of nozzles	5,312 nozzles per colour channel with white channel having 10,624
Print resolution	Print resolution up to 1200 x 1200 dpi
Productivity	Up to 218 m ² /hr for RTR, 100 m ² /hr High Quality, 69 m ² /hr Backlit Up to 54 beds an hour (1.22 x 2.44 m) – 3 pass
Curing system	LED Lamp – lamp life minimum 5000 hours
Power supply machine	380 v 3 phase 50/60 Hz 30 amp, 7 kw consumption. (Vacuum motor: 400 V 3-ph+N+PE/Gnd, 50/60 HZ, 80 A, 33.5 KW)
Connectivity	Connectivity Minimum 1000 base T
Services	Pressure (minimum): 8 kg/cm ² (7.85 bar / 114 psi)
Media Type – RTR	Up to 2 mm – PC, PET, UV textiles, Papers, SAV, Mesh, banner PVC
Media Type – rigid	Up to 5 cm – Foam PVC, Rigid PVC, Dibond, PE Flute, Acrylic, P&B
Media RTR – single roll	180 kg x 36 cm diameter x 3.2 m width
Media RTR – dual roll	Each - 90 kg x 36 cm diameter x 1.6 m width
Media RTR on table rollers	20 kg max weight
Media capabilities rigid	Max 15 kg/m ² – Max single sheet weight on table 80 kg
Sheet sizes	Minimum sheet size 50 x 70 cm. Max 3.2 m x 3 m (with table extensions)
Environment	18–28° C. 40–80% RH (noncondensing) (Altitude 0–2000 m)
Dimensions L x W x H	8.3 m x 2.1 m x 1.9 m (With tables width 5.5 m or 7.5 m with table extensions)
Working area recommended	10.3 m x 9.5 m
Weight	8.3 T (Uncrated)

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print-emea.fujifilm.com/wide-format-sector



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