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Human- and environmentally-friendly printer HydrAton 1642 is now available for sale! Equipped with UV-curable water-based ink AQUAFUZE™

MUTOH INDUSTRIES LTD.

MUTOH INDUSTRIES LTD. (Headquarters: Setagaya-ku, Tokyo, President: Yasuhiko Isobe; hereafter referred to as “MUTOH”), a subsidiary of MUTOH HOLDINGS CO., LTD. that develops, manufactures, and sells large-format inkjet and 3D printers, is announcing that the environmentally-friendly printer, HydrAton 1642, which was previously exhibited at drupa 2024, will begin its sales starting today.

HydrAton 1642 is a printer in a new technology segment, born from the combination of Fujifilm's AQUAFUZE™* technology and MUTOH’s print control technology. It is equipped with a unique printing control and a unique film formation processes that were newly developed to maximize the performance of ink created using AQUAFUZE™* technology.

＊AQUAFUZE™ is a registered trademark of Fujifilm Group.

Inks using AQUAFUZE™* technology are expected to become the new technology that will address several issues that existing ink technologies face. Its highly safe composition, with water as the main ingredient, and its low odor, as well as its capability of printing on different substrates, including using non-penetrating media without the need for primers or optimizers are AQUAFUZE’s™ main characteristics. Moreover, the printed film is thin and offers high scratch resistance without the use of an overcoat, making it suitable for a wide range of applications, including wallpaper, decorations for stores and public facilities, and indoor signs.

64”/1,625mm wide environmentally-friendly printer
Dual head 4 color（CMYK）

HydrAton 1642's main characteristics

Inspired by the concept of "human- and environmentally-friendly technology", HydrAton 1642 features an aqua blue front cover. AQUAFUZE™ ink, which is primarily water-based, together with MUTOH's proprietary film formation system optimized for this ink enable an environmentally-friendly printing process.

Image: AQUAFUZE™ ink (bag)

Image: film formation system

Image: take-up system

AQUAFUZE™ ink

"Human-friendly" - Highly safe ink primarily composed of water

- **Low VOC, low odor, and considerate of workers' health**
  Mininal evaporation of solvent components together with low odor make this ink safe and comfortable for operators to use.
  ※VOC meaning volatile organic compounds.
- **Does not intentionally use any CMR substances**
  ※CMR meaning carcinogenic, mutagenic and reprotoxic.
- **GHS hazard free**
  ※As of January 2025.
  ※GHS meaning a Globally Harmonized System for Hazard Classification and Labeling.
- Planned to be certified ※As of January 2025
  In addition to the GREENGUARD Gold certification, we plan to obtain certifications for interior and building materials in the European region.

GHS symbol marks: pictorial marks indicating hazard

No GHS symbol marks: indicating high safety levels

AQUAFUZE™ technology

AQUAFUZE™ inkjet ink technology is a Fujifilm's proprietary technology for stable water dispersion of photopolymers and it was born from the combination of Fujifilm's water-based ink and UV-curable ink technologies. Based on the AQUAFUZE™ technology, Fujifilm Group has newly developed the UV-curable water-based ink AQUAFUZE™ by combining the formulation of both water-based and UV-curable inks.

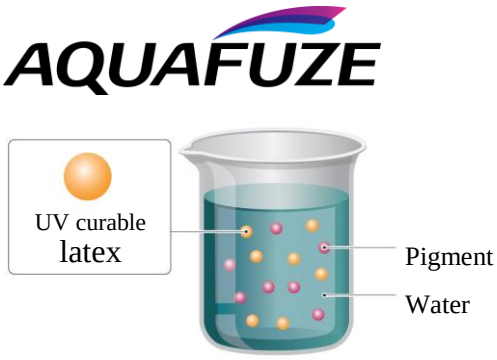


Image: Ingredients of AQUAFUZE™ ink

Film formation system

The newly developed HydrAton 1642 film formation system combines a 3-way heater, a blower fan, and a UV lamp to optimize the process from image formation to film deposition, resulting in highly durable printed film and high-quality printing.

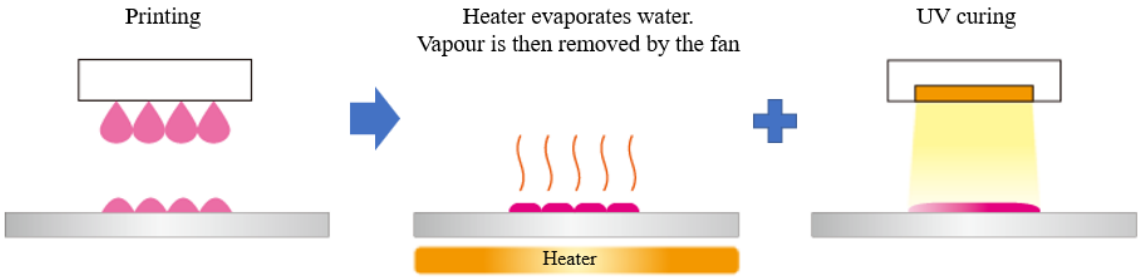


Image: film formation system

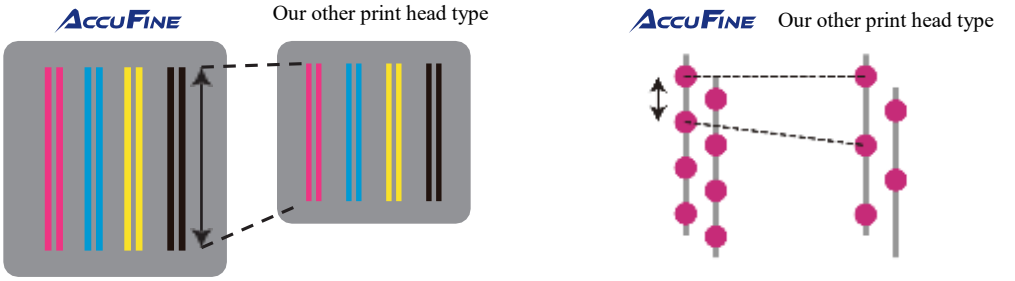
"Environmentally-friendly" - Saving energy and resources

Compared to other industrial latex ink/resin ink inkjet printers, which operate at high temperatures, HydrAton 1642 reduces power consumption and CO_2 emissions due to its low temperature heaters, which operate at 30–50°C during print drying. Additionally, this model runs on a 100V power supply. Furthermore, with HydrAton 1642 the need for optimizers to prevent smudging or overcoats to enhance scratch resistance is eliminated, leading to reduced ink consumption.

This energy- and resource-efficient printing system results in a lowered environmental impact.

Print head AccuFine HD

AccuFine HD print heads equipped in this model achieve both high-speed printing and high image quality due to their large size, high density, and excellent ink landing accuracy. These factors combined reduce misalignment of ink droplets, making it less likely for banding (striping) to occur in solid color prints, and ensure high-quality for printing fine lines and small text. By equipping two of these print heads, HydrAton 1642's productivity is improved while maintaining high print quality.

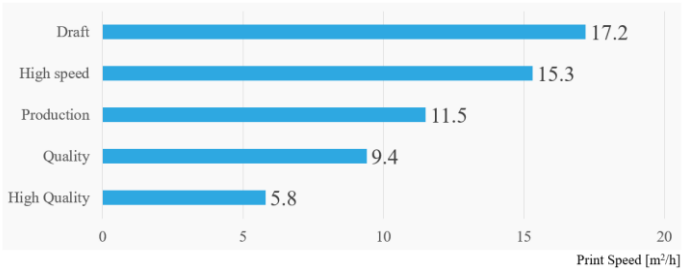


Increased nozzle row length
Contributes to higher productivity

High density nozzle pitch
Contributes to higher image quality

∗ Actual ink arrangement may differ.

Output modes and productivity



Ease-of-use functions

HydrAton 1642 is equipped with various functions that assist operators during printing and usability features that many users demand, making daily workflow more efficient.

- **Automatic Bi-Directional adjustment "DropMaster 2"**

  Built-in sensor on the carriage automatically adjusts bi-directional alignments, reduces calibration time, and minimizes inconsistencies of adjustments made by different operations.

- **Automatic media feed adjustment "FEED MASTER"**

  A printing pattern is printed and read by a sensor to automate media feed correction.

- **Media roll balance management "Media Tracker"**

  Before replacing the media, a barcode indicating the remaining amount is printed on the media. When it is reloaded, the barcode is read to determine the remaining amount of media. This makes managing multiple media rolls more efficient.

Software and services

- **Genuine RIP software VerteLith**

  Convert data from different graphic applications into a format that can be used for printing.

- **MUTOH Status Monitor**

  Check printer status and operate your printer on PC in real time.

- **MUTOH Club**

  Free cloud service that offers MUTOH printer users access to important resources, including new software.

By bringing HydrAton 1642 to the market with safety and security as its motto, MUTOH will continue to deliver high "Made in Japan Quality" and respond to the diverse needs of its customers.

Contact

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＜Product Specifications＞

Printer model		HA-1642
Print head	Print method	On-demand piezo drive system
	Head height	Low: 1.5mm, Middle: 2.0mm, High: 2.5mm
	Number	2
Media	Roll media width	Maximum: 1,625mm　Minimum: 500mm
	Media thickness	1.0mm or less is recommended
	Diameter	Φ200mm or less
	Core diameter	2 or 3 inches
	Weight	30kg or less
Maximum printable width		1,615mm
Ink	Type	AQUAFUZE™
	Color	4 color (Cyan, Magenta, Yellow, Black)
	Capacity	1,000ml ink bag
Interface		Gb-Ethernet（1000BASE-T)
Power supply		Voltage: AC 100V～120V ±10% / AC 200V～240V ±10% Frequency: 50/60Hz ±1Hz
Environmental condition	Printer operation	Temperature: 20℃～32℃ Humidity: 40%～60% No condensing
	Accuracy guaranteed	Temperature: 22℃～30℃ Humidity: 40%～60% No condensing
Power consumption	Operation	1.4kW or less (max. 2.7kW or less)
	Sleep mode	41W or less
Dimensions (W)x(D)x(H)		Body size: 2,770mm x 895mm x 1,428mm With ink case installed: 2,770mm x 895mm x 1,611mm
Weight		Printer body: 146 kg　Stand: 32 kg　Take-up system: 8 kg
RIP software		Genuine RIP software VerteLith