

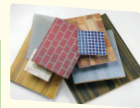
# The Expansion of Ricoh's Inkjet Technology

"Pushing the boundaries of inkjet to open new worlds" Ricoh's inkjet technology is based on 50 years of continuous research and innovation. It started out as technology to be used in office printing. Now it is used in numerous commercial areas. It has even developed into industrial solutions, deployed in a variety of applications encompassing food, clothing and housing. Ricoh keeps expanding the printing possibilities, delivering new value and new experiences for our customers across the globe.

<https://www.ricoh.com/technology/inkjet/>

**Industrial printing**  
 Ricoh's inkjet printheads range from high-resolution to large droplet. The RICOH MH SERIES offers a wide range of ink compatibility with high durability. The RICOH TH SERIES provides a compact footprint. The inkjet printhead and ink technologies developed over several years are now deployed as solutions. Ricoh enables printing on many different media for a broad range of solutions.

**Key Technologies**  
 • Multi-drop control technology • Latex ink • UV-Curable Inkjet Ink



Delivering Inkjet systems

Labels and packages

**Inkjet Printed Battery**  
 Digital manufacturing of rechargeable battery with ink-based components using precision inkjet printing technology

**3D Printing**  
 Providing solutions based on inkjet technology and material technology

**Manufacturing innovation**  
 Applying ink and inkjet technology to printed electronics

**Bioprinting**  
 Applied in inspections and the production of human tissue through precise ejection of live cells

**INNOVATIONS**  
 Ricoh's ideas and core technologies continue to bring about innovations in many fields. Opportunities are increasing for Ricoh to deliver new value to society.

Combination of Ricoh's inkjet printhead technology along with that of Hitachi Printing Solutions



RICOH MH SERIES

2008 RICOH MH2420  
 Ricoh's first print head with a bi-pitch laminated piezo actuator

2010 RICOH MH2620/2820  
 Increased droplet size and enhanced definition for 3D printers

2012 RICOH MH5420/5440  
 Higher resolution due to multiple-rows of longer nozzles

2016 RICOH MH5220  
 Higher resolution due to staggered print heads (1,200dpi)

2017 RICOH MHS421F/5421MF  
 High ink discharge stability based on the ink circulation structure

2019 RICOH MH 5320/5340  
 High durability and high-productivity

2020 RICOH TH5241  
 Unique, highly integrated design using MEMS\*2 technology achieves compactness

2021 RICOH TH6310F  
 High definition printing using MEMS\*2 technology and high image quality printing with wide print gap. \*3

2022 RICOH MH5422/5442  
 High durability and high precision

\*1 Available outside Japan  
 \*2 Micro Electro Mechanical System  
 \*3 Printing that requires a distance between printhead and media, such as printing of uneven media.

**Commercial printing**  
 With high quality printing on a wide range of media at high speed, Ricoh helps you expand your business. The RICOH Pro VC70000 continuous feed inkjet printer achieves both high image quality and high productivity that is close to offset printing, through newly developed inks and new drying technology.

**Key Technologies**  
 • Inks designed for offset coated paper • Drying technology • Undercoating • Protector Coating  
 • 2.13-inch, 1,200 dpi dual heads • Dynamic Print Head Positioning

2015 RICOH Pro VC60000  
 Dual print heads boasting 1,200 dpi on offset coated paper

2019 RICOH Pro VC 70000

2021 RICOH Pro Z75

2012 RICOH MP CW2200/CW1200 series  
 Multifunction printer based on GELJET technology, capable of handling A0-sized sheets

2016 RICOH MP CW2201/CW1201 series

Wide printers featuring the GELJET head and ink system

Delivering GELJET heads to DTG printers

Bi-pitch laminated piezo actuator

2006 imagio MP C1500 series  
 The office-use A3 multifunction printer features GELJET technology

2013 RICOH SG 3120SF

2019 RICOH Handy Printer

**Office/business printing**  
 Ricoh's inkjet technology development team started out focusing on the creation of a business inkjet printer — one that is fast, supports plain paper printing, and operates at low cost per page. The development yielded a bi-pitch laminated piezo actuator. This technology is the foundation of the heads used in Ricoh's inkjet product portfolio.

**Key Technologies**  
 • Bi-pitch laminated piezo actuator

2003 IPSIO G505/G707  
 The first printer featuring the GELJET technology. The core technology of Ricoh's inkjet printer was installed

2012 IPSIO SG 3100/2100/2010L series

2017 RICOH SG 5100/3200/2200 series

MFP  
 e.g. Printing on medicine bags at pharmacies

Sheetfed  
 CF (Continuous Feed)  
 WF (Wide Format)

**Digital Painting**  
 Vehicle Art Robo  
 Tire Printer  
 Bottle Printer  
 Gas Cylinder Printer

**Textiles**  
 Entering the direct-to-garment (DTG) printer market

**Sign Graphics / Decoration**  
 Inkjet Printheads  
 Signage and posters  
 Industrial building materials, interiors, housing building materials, automotive, upholstery, and more