

News Release

Konica Minolta Installs Newly Developed Printheads Incorporating Substrates with Inkjet-applied Solder Resist in the NASSENGER 8 Inkjet Textile Printer

Contributing to Transforming the Manufacturing Process for Printed Circuit Boards and Reducing Environmental Impact

Tokyo (November 7, 2025) – Konica Minolta, Inc. (Konica Minolta) today announced that the Company has developed new inkjet printheads exclusively for the NASSENGER series inkjet textile printers. These printheads feature printed circuit boards (PCBs) on which a proprietary solder resist ink is applied by an inkjet method. Konica Minolta will replace the conventional printheads for the NASSENGER series with the new printheads in stages. The Company also aims to spread the use of inkjet-applied solder resist technology, which helps transform the PCB manufacturing process and reduce the environmental impact, and promote market penetration.

Transforming the PCB Manufacturing Process by Inkjet Application of Solder Resist

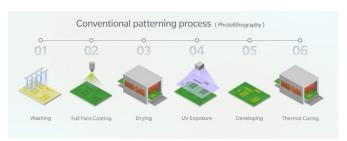
The manufacture of PCBs involves a process that applies and forms solder resist, an insulating film for protecting circuits. While photolithography methods are widely used to form a pattern of solder resist layer, inkjet methods are also used.



In contrast to photolithography, inkjet methods do not require mask exposure and development processes, making

it possible to streamline the manufacturing process and reduce both materials and power consumption. Reductions in the emissions of volatile organic compounds (VOCs) and industrial effluent from the manufacturing process also help mitigate environmental impact.

Konica Minolta will work to expand the use of inkjet methods, which help transform the PCB manufacturing process and reduce environmental impact. As part of such efforts, Konica Minolta has developed the KM1024iSAE-SR and KM1024iMAE-SR, new printheads exclusively for the NASSENGER series inkjet textile printers, using PCBs with inkjet-applied solder resist*1. The new printheads incorporate PCBs on which solder resist is applied by Konica Minolta's KM1800i series industrial inkjet printhead. Konica Minolta aims to further strengthen its proposals for the adoption of inkjet technology in the PCB market by accumulating achievements in the use of inkjet solder resist for PCBs through the installation of new heads in the NASSENGER series.







Realizing Superior Curing Performance Using a Proprietary Solder Resist Ink

Because solder resist must properly coat circuits to protect them, it must be fully cured on traces. Konica Minolta has developed a proprietary solder resist ink characterized by superior curing performance by using UV ink technology, which has been refined through the development of the AccurioJet series digital inkjet press. The ink is used for substrates of the KM1024iSAE-SR and KM1024iMAE-SR. This proprietary ink improves the quality of solder resist application based on an inkjet method. PCBs using Konica Minolta's proprietary ink also comply with various PCB standards, including UL94 V-0, a standard for the safety of flammability of plastic materials for parts in devices and appliances*2.

NASSENGER 8, the First Product Equipped with the Newly Developed Inkjet Printheads, to Come into Full Operation

The KM1024iSAE-SR and KM1024iMAE-SR feature the same performance as the NASSENGER series printheads. The printheads installed in the NASSENGER series will be replaced with the new printheads in stages.

The first NASSENGER 8 equipped with the KM1024iSAE-SR will come into full operation by the end of 2025 at Niida Bussan Co., Ltd., one of the largest designed-to-order Imabari towel manufacturers in Japan, to ensure high-quality towel printing.

Konica Minolta will install the KM1024iSAE-SR in the NASSENGER 10e inkjet textile printer and study the possibility of installing the KM1024iMAE-SR in the NASSENGER series in order to expand the use of inkjet-applied solder resist.





Niida Bussan's printed towels using the NASSENGER 8, which realizes vivid, high-precision printing

Overview of the NASSENGER Series Inkjet Textile Printers

The NASSENGER series inkjet printers are designed exclusively for textiles, including fabrics and towels. Since its launch, the series has contributed to digitalization in the textile industry due to its high-quality printing and superb productivity for over 20 years. It has also helped curb environmental impact,



NASSENGER 8

such as by reducing effluent and waste. Notably, the NASSENGER 8 has a strong track record of customer adoption as a standard model that can meet various needs, such as sample printing and small- and medium-lot production.

Customer Contact

■ Regarding Inkjet Solder Resist

Inquiry form

Sales Division, IJ Component Business Unit, Konica Minolta, Inc.

■ Regarding the NASSENGER series inkjet textile printers Inquiry form

Textile Business Promotion Division, Konica Minolta, Inc.

- *1 Printed by Konica Minolta's KM1800i series industrial inkjet printhead.
- *2 In compliance with UL94 V-0, RoHS10, Halogen Free (JPCA-ES01), IPC-SM-840E, and SVHC NASSENGER and AccurioJet are trademarks or registered trademarks of Konica Minolta, Inc.

###