

Technologies

Ricoh's Printing Solutions From offices to mainframe systems

From Low-end Printers in Offices to High-end Printers for Mainframe Systems

The Ricoh Group considers the printing business an important pillar of its growth strategy, because it is expected to expand as IT and networking progress.

In October 2004, Ricoh Printing Systems, Ltd. was established as a member of the Ricoh Group specializing in the printer business. Specializing in laser printers for mainframe systems, it promotes its business by focusing on its expertise in high-speed high-reliability technology, small-size large-volume technology, and systems technology. With the addition of this new company, Ricoh can now offer a full lineup of printers and services, and has become a premier printer vendor. We will continue to develop more technologies while enhancing and expanding our marketing reach.

Developing High-speed, High-reliability Open Environment Printers

For our mainframe printers, high-speed, high-reliability and high-durability are required, because they are expected to print large volumes of data as fast as possible. In recent years, business systems have been switching from general-purpose mainframe computers to UNIX[®] and Windows[®]. Ricoh Printing Systems has developed high-speed, high-reliability open environment printers using the technology for reliability gained from developing printers for mainframe systems. These printers are equipped with network interfaces, enabling high-capacity high-speed data transmission by switching protocols, to meet the need for high productivity for both cut-sheet and continuous-feed printers.

From Parts to Production Equipment, All Developed In-house

1. High-Speed

Continuous-feed printers print 574 pages/min (A4, 2-UP printing). Cut-sheet printers print 156 pages/min (A4, 2-UP printing). They provide world-class speed and productivity using high-level optical, imaging and paper feed technologies. Since 2001, a "pinless" paper feed method has been used to handle paper without pin-feed holes (for continuous-feed printers).

2. Reliability

Superb reliability is provided through the use of sensors for paper feed control, printing position, etc.

An air-pick mechanism was developed (for cut-sheet printers), in which a cut-sheet is fed using air pressure, in order to increase reliability in high-speed printers. By using a frame with high rigidity to achieve dimensional accuracy, the paper feed system is made more stable and the risk of paper jams has been greatly reduced.

3. High-Quality & High-Resolution

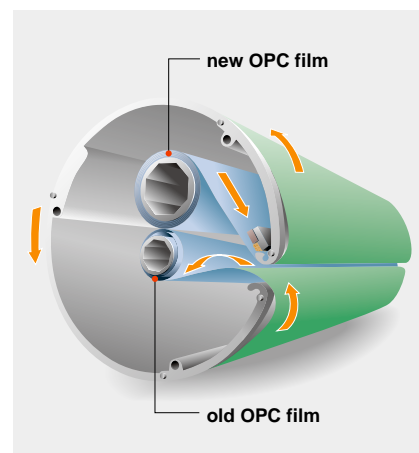
Blue laser diodes (in our continuous-feed printers) result in high-speed and high-quality. 600 dpi printing is used, the highest resolution for mainframe printers, in order

to print high-resolution images without slowing down the printer.

4. High-durability & Easy Maintenance

Continuous-feed printers are able to average five million pages/month. Cut-sheet printers average nine hundred thousand pages/month, with a durability rating of 80 million pages.

To prolong printer life, a photo conductor drum is used for continuous-feed printers. For cut-sheet printers, an original OPC film roll up method was developed.



The OPC film is automatically rolled up after printing a specified quantity of pages, and a new sheet is installed.



This paper pick-up method feeds air towards the paper from the compressor to float the paper. It improves the reliability of cut-sheet printers by reducing paper jams.