INDUSTRIAL INKJET / PRODUCT GUIDE

VD200E

High-Resolution Digital Inkjet Printer

GEN5 printing platform · Intelligent ink-path control

54 mm

Maximum print height

52 m/min

Maximum print speed*

13.3-inch touchscreen operation

Variable data · Status diagnosis · Dedicated maintenance



* At 300 × 600 dpi in single-drop mode. Actual speed varies with job and configuration.

PRODUCT CATALOGUE / 2026.09

01 / Machine capabilities

One machine for the complete coding workflow

From fixed content to variable data, supporting continuous production-line printing and on-site operation.

54 mm
Maximum print height

600 dpi
Native Resolution

52 m/min
Maximum speed*

Machine specifications

printhead & Configuration	GEN5 industrial piezoelectric printheads; MH5420 / MH5440 limited-speed version.
Print Speed	0–52 m/min; 300 × 600 dpi, single-drop mode
Operating Interface	13.3-inch industrial capacitive touchscreen
Print content	Text, images, PDF, barcodes, QR codes and database content
Layout and printing	Multi-line layouts within the effective height; downward printing; single or continuous printing
Ink and colors	Water-based, oil-based and UV-curable inks; colors selected by configuration.
External interfaces	Gigabit Ethernet data transfer; Ethernet, USB and RS232.
Power and Enclosure	AC 220 V / 150 W / 2 A; powder-coated enclosure; standard conduit 2.5 m.

* Maximum speed comes from the model data. Oil-based and UV configurations are job-specific. Follow delivered documents for peripheral loads, ink and final configuration.

02 / Printhead technology

GEN5 printhead technology

Ricoh MH5420 / MH5440 (limited-speed version) technical reference.

1,280	600 dpi	54.1 mm
Nozzles per head	Native monochrome resolution	Bare printhead width

Printhead technical reference

Ink drop volume	Binary 7 pL; grayscale 7–35 pL
Firing Frequency	Binary 10 kHz; grayscale frequency per delivered specifications
Grayscale Capability	Up to 4 Levels
Temperature control	Built-in heater and thermistor; maximum operating temperature 60 °C.
Ink Reference Features	Viscosity 10–12 mPa·s; surface tension 28–35 mN/m.

Structure and performance

Fine detail for industrial use

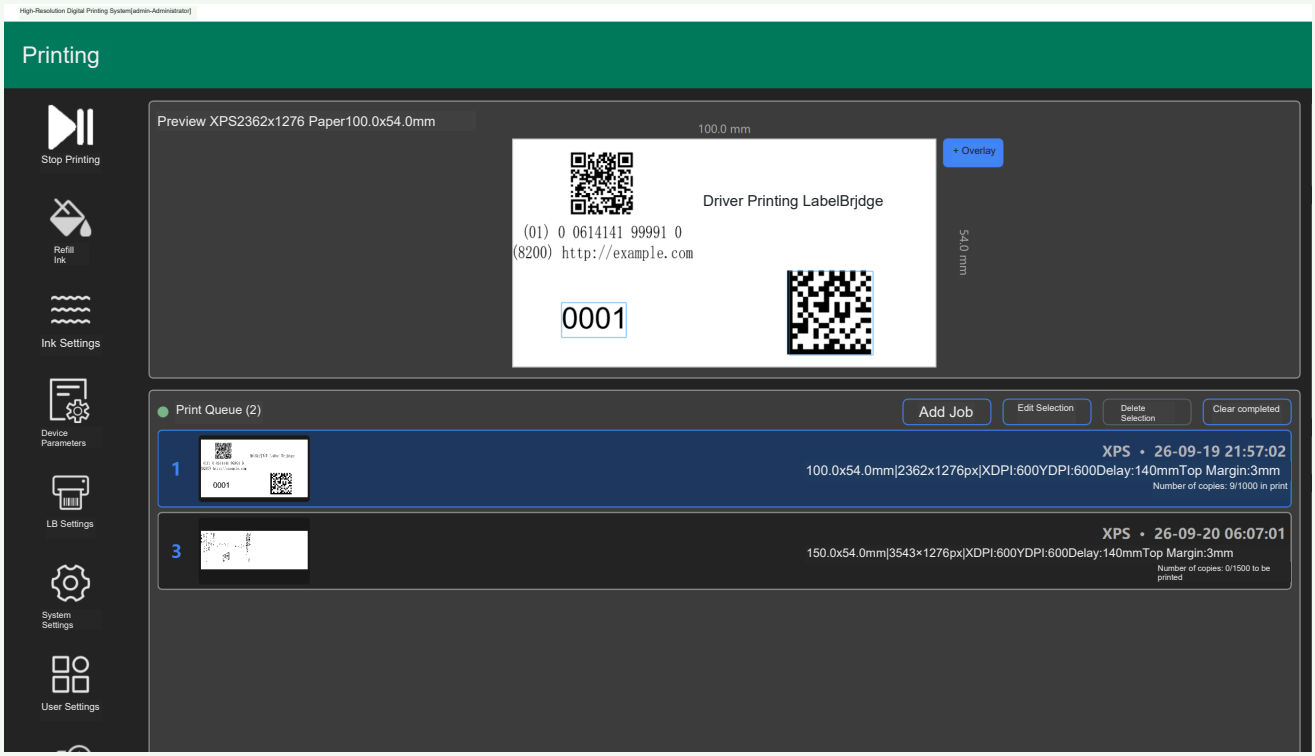
Multiple nozzle rows and variable drops support fine detail and grayscale. A stainless-steel structure isolates the ink path from piezoelectric drive elements.

Printhead reference: official Ricoh MH5420 / MH5440 specifications. 54.1 mm is bare-head width; machine print height is 54 mm. Drop and grayscale performance depend on ink. Head firing frequency is not machine line speed.

03 / Design and printing

Easyprint brings layouts and data to the production line

Design directly in standard mode; LabelBridge receives print jobs from existing label software.



Illustrative Easyprint print preview and job queue

01 / Standard mode

Design and print directly

Build layouts, connect data and submit print jobs in Easyprint.

02 / Driver printing

Reuse existing templates

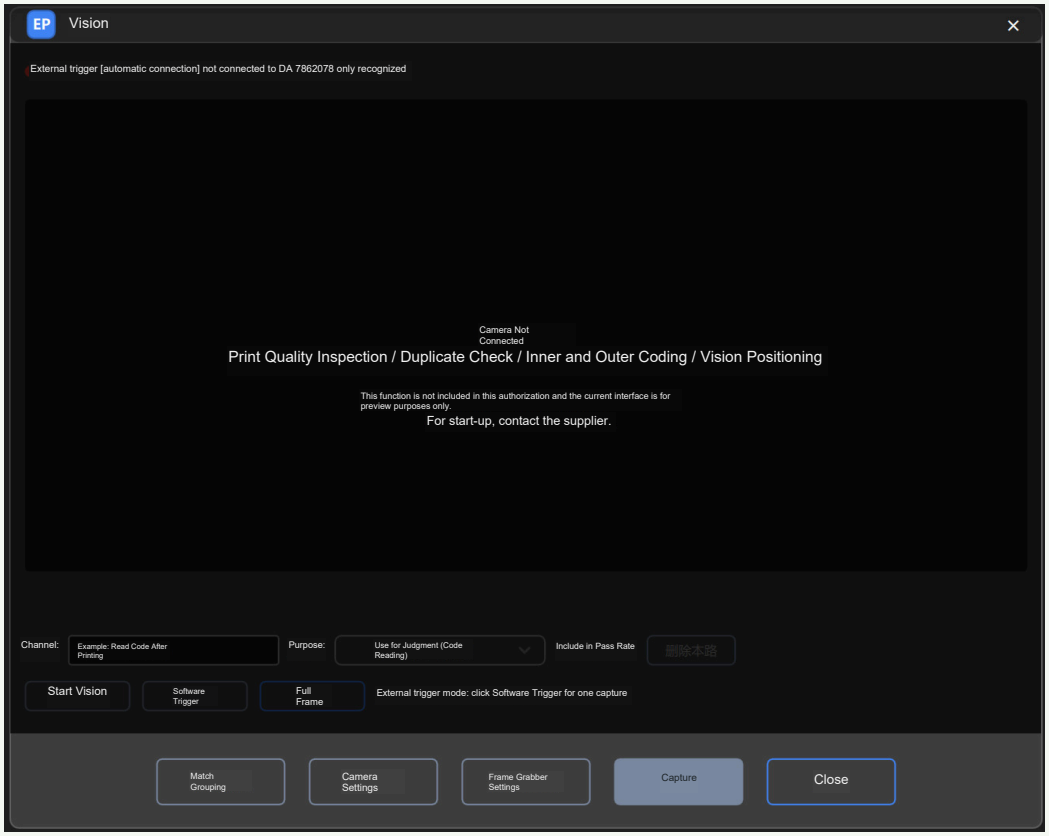
Use LabelBridge with label software such as BarTender and NiceLabel.

The 13.3-inch touchscreen has numeric, full and Pinyin keyboards; press and hold for quick on-site content editing.

04 / Variable data and inspection

Make Every Print Traceable

Supports multiple code types, external data inputs and optional inspection workflows.



Illustrative optional vision inspection interface

Coding objects

Flexible data

Text, barcodes, QR codes, GS1, quantum cloud codes, serial numbers, dates and times.

Data sources

System integration

TXT, Excel, database and host-system Socket; supports extraction, padding and replacement.

Production traceability

Item-level records

Code-package import and duplicate checking, print accounting, item lookup and NG-record export.

Integrated print and inspection

Optional by need

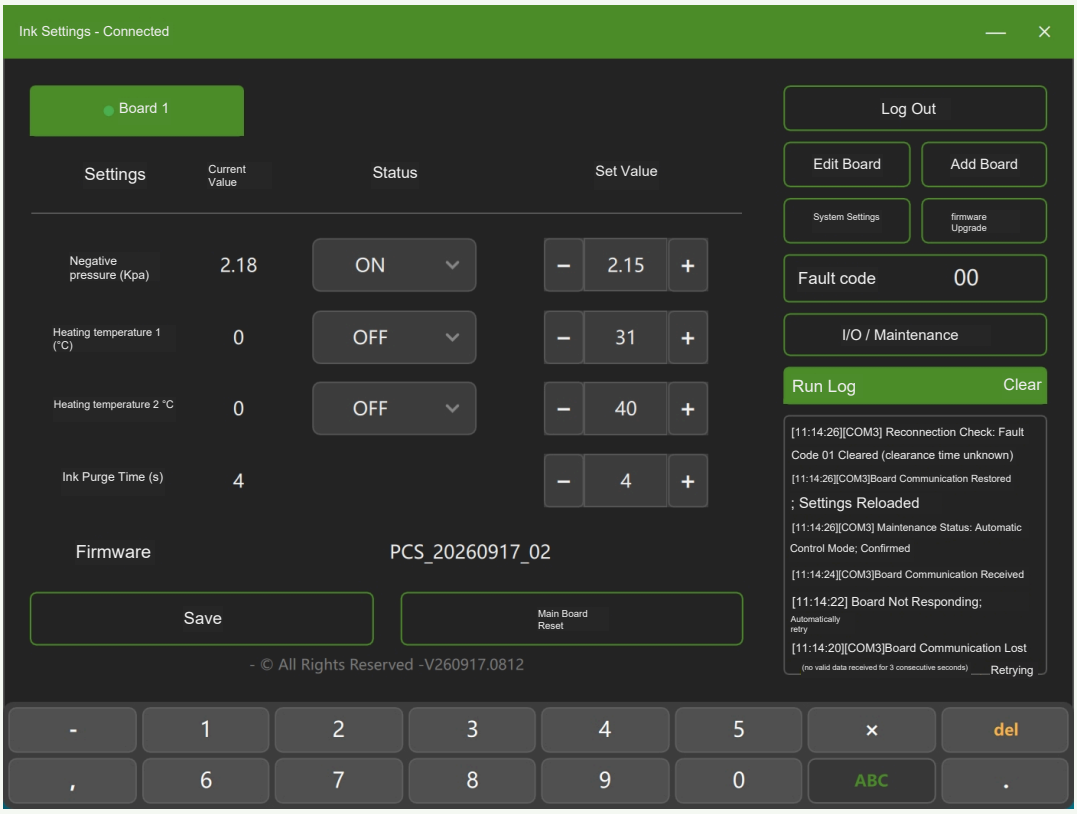
Cameras and capture cards can inspect code reading, quality, duplicates, content and position.

Vision inspection, NG rejection and line stop depend on project options and on-site configuration.

05 / Automatic ink path

Automatic ink management with visible, adjustable parameters

Pressure, level and temperature readings feed the control logic that operates pumps, valves and heaters.



Illustrative ink-path settings screen

0.30–6.00
Negative-pressure setting / kPa

20–59 °C
Dual-path temperature setting

1–4 seconds
Routine ink-purge time

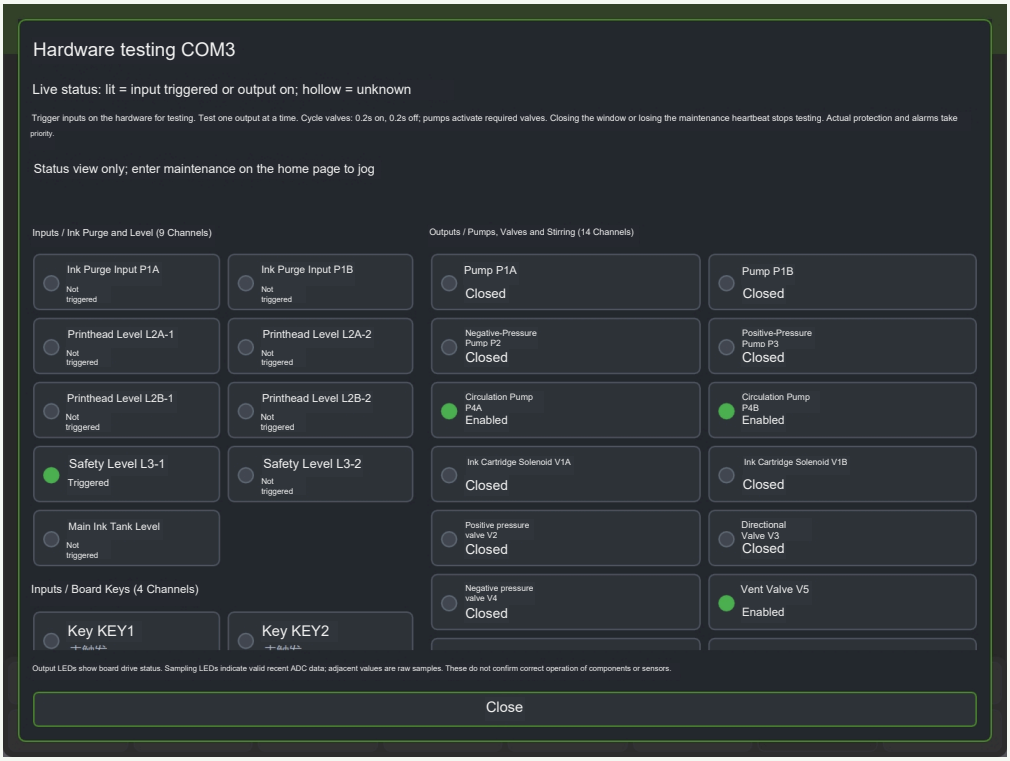
A and B sides refill independently by cartridge level. Controls include two circulation pumps and tank agitation. The board saves and reports settings for software checks.

Negative-pressure setting increments are 0.01 kPa; temperature increments are 1 °C. Verify circulation, agitation and ink compatibility for the chosen ink path.

06 / Status diagnostics

Visible status and recorded diagnostics for troubleshooting

Logs record alarms, recovery, reconnection and parameter feedback for on-site review.



Illustrative status-diagnostics screen

37	13	3	21
status items	digital inputs	analog samples	outputs

Faults and communication

Multiple faults displayed together

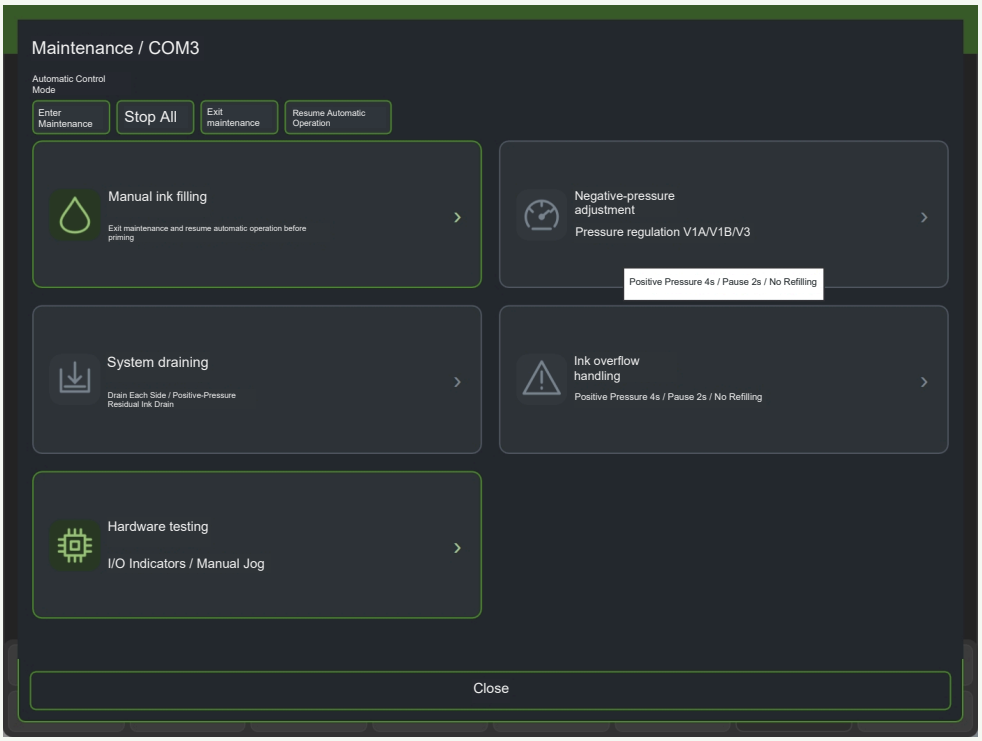
Confirmed no-fault status shows 00; disconnection or unknown status shows --. On reconnection, read current board faults and retain diagnostic communication.

Output lights indicate board drive signals, not completed mechanical action. Valid sampling does not mean calibration is complete.

07 / Dedicated maintenance

Five dedicated maintenance functions, clearly organized

Maintenance functions cover ink priming, adjustment, draining, overflow handling and hardware diagnostics.



Illustrative dedicated maintenance menu

01 Manual Ink Priming	Stop each pump according to its cartridge level; warn and prevent startup when the main tank is empty.
02 Negative-Pressure Adjustment	Use normal negative-pressure control logic to check pressure and related valve responses.
03 System Draining	Select side A or B and the drain outlet, then follow the configured ink-draining procedure.
04 Overflow Recovery	Run a positive-pressure cycle on the affected side to recover from an overflow fault.
05 Hardware Test	Check pumps, valves, heaters, agitators, fans and alarm components from one interface.

Trained personnel should perform dedicated maintenance. Communication timeout stops controlled actions, while real faults and protections remain. Draining does not replace cleaning or depressurization.

08 / Production-line integration

Connect production timing with business data

Printing software handles coding content; InkLink manages ink-path status and maintenance.

01 / Production content

Flexible combination

Arrange text, graphics, PDF, barcodes, QR codes and database data within the effective print height.

02 / Application functions

Configure by job

Automatic dates, length counting, reciprocating, interval and matrix layouts, UDI and other functions.

03 / Data validation

Check duplicate data

Duplicate-code checking helps find repeats; rules and database workflows are project-specific.

04 / Remote interaction

Supports host-system collaboration

Use TCP/IP for remote jobs and Gigabit Ethernet for print-data transfer.

Ink-path communication

RS232

115200 bit/s / 8 data bits / No parity / 1 stop bit / No flow control

Read ink-path status, parameters, faults and maintenance information.

Application functions, interface access and licenses depend on project configuration. The current production software runs on Windows.

09 / Configuration and selection

Configure for the material, speed and production line

Start with print content and sample validation to confirm ink, interfaces and installation.

Host and printhead	Host 1; VD200E printhead module 1; maximum 2 modules
Operation and installation	13.3-inch touchscreen; adjustable multi-axis bracket and control-unit base.
Synchronization and Inspection	2000 PR encoder and bracket; Omron fiber-optic sensor.
UV Curing Options	LED cold-light UV curing unit, configured for the selected solution.
Software and consumables	Software license dongle; UV ink and dedicated wiping cloths as specified in the order.

Provide for system selection

Print content / Material samples / Line speed and resolution / Ink requirements / Interfaces / Installation space

Validate adhesion, drying or curing with samples before confirming the final configuration.

FHES

Product enquiries: 0574-87296000

Edition: 2026.09 / INKLINK_20260920_01 / PCS_20260920_01. Actual accessory quantities and specifications follow the order. Ricoh and related names belong to their owners; references do not imply joint certification.