B2/A2

A2-Plus Size Offset Presses

RYOBI 680X series

This A2-plus size series has inherited the excellent functions and performance of the high-end B2-size RYOBI 750G series. Featuring high productivity, printing performance and reliability, these presses are appropriate for a wide range of printing jobs.

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Specifications

Model name	682X	682XP	684X	684XP	685X	685XP	686X	686XP	688XP	6810XP
Number of printing units	2		4		5		6		8	10
With Convertible Perfecting Device		○		○		○		○	○	○
Max. Paper size (W x L)	686 x 508 mm (27" x 20")									
Min. Paper size (W x L)	Straight printing: 279 x 200 mm (10.98" x 7.87") Perfecting: 279 x 279 mm (10.98" x 10.98")									
Max. Printing Area (W x L)	Straight printing: 660 x 495 mm (25.98" x 19.49") Perfecting: 660 x 488 mm (25.98" x 19.21")									
Paper Thickness[*1]	Straight printing: 0.04-0.6 mm (0.0016" - 0.024") Perfecting: 0.04-0.4 mm (0.0016" - 0.016")									
Printing Speed[*2]	3,000-15,000 S.P.H.									
Plate Size	650 x 550 mm (25.59" x 21.65") [Standard] 550 mm (26.38" x 21.65") [Max]									
Feeder Pile Capacity	800 mm									
Delivery Pile Capacity	925 mm									

Design and specifications are subject to change without notice.
*1 There are some limitations to print thick paper depending on paper types.
*2 Local conditions, ink, stock, and printing plate types, and printing quality required will affect the printing speed.

Efficient job changeover improves profitability

RYOBI Semiautomatic Plate Changer Semi-RPC

The RYOBI Semi-RPC allows plates to be changed quickly and accurately. The operator merely sets the plate on the positioning pins and presses the button. The Semi-RPC does not need the leading edge or tail edge of the plate to be bent.

RYOBI Fully Automatic Plate Changer Full-RPC (option)

The RYOBI Full-RPC, both plate mounting and plate removal are automatically performed on all printing units in sequence with single button operation, freeing the operator from all plate changing work. The Full-RPC takes only about 4 minutes and 30 seconds to change the plates on an 8-color press, and eliminates human error for greater plate changing accuracy.

Fully Automatic Simultaneous Plate Changer (option)

The "Full-RPC" RYOBI's conventional fully automatic plate changer ejects the used plates and then inserts the new plates one by one sequentially. Compared to this, the new "Smart-RPC" switches the phase of all plate cylinders to the same position, and then changes the plates simultaneously on all printing units. Thanks to this new system, plate changing can now be performed approx. 2 minutes.

Automatic Cleaning Devices

Automatic blanket cleaning device, Automatic impression cylinder cleaning device (option), Automatic ink roller cleaning device (option)

Paper Size and Impression Pressure Presets (option)

The RYOBI 680X series allows the operator to enter preset values for paper size and thickness using the touch-panel display. Positions of the feeder head and delivery section guides[*] as well as pull side guides* can be preset. Plus, an impression pressure preset system is also available.

*Standard equipment: The pull side guide preset system, Options: Feeder head preset, delivery section preset, and impression pressure preset systems

RYOBI Program Inking

- RYOBI Program Inking automatically supplies ink to ink rollers to match the image from the early start of printing.
- After the set number of prints are finished, the ink on the rollers is automatically restored to an even state.

An optimized digital workflow gives you total control over production and quality

RYOBI PCS-G Printing Control System

Almost the entire operation flow from make-ready through printing _ including paper changing, cleaning, printing settings, registration, color adjustment, water control, and other operations - can be centrally controlled by the RYOBI PCS-G printing control system.

Image Area Calculating Software [Ink Volume Setter/Ink Volume Setter-CIP4 (PPF)] (option)

RYOBI Ink Volume Setter uses PostScript data created on Macintosh computers to calculate the image area ratio for each ink fountain key on a RYOBI printing press, while RYOBI Ink Volume Setter-CIP4 (PPF) uses CIP3/CIP4 (PPF) files created with CIP3/CIP4 (PPF)-compatible software on a PostScript RIP. The calculated data is loaded via a USB flash memory or through a network into a RYOBI Printing Control System connected to a RYOBI printing press. The system then converts the data into the opening degree of each ink fountain key.

Printing Density Control System RYOBI PDS-E SpectroJet/ RYOBI PDS-E SpectroDrive (option)

The RYOBI PDS-E SpectroJet, PDS-E SpectroDrive Printing Density Control System measures the color bar of the printed sheet using a spectrophotometer Values needed to correct color densities to match those of the OK sheet are calculated and provided as feedback to the RYOBI PCS-G, which appropriate adjustments in the ink fountain keys. Quality control that previously relied on human experience and intuition is now done using precise numerical values, contributing to consistent printing.

 RYOBI PDS-E SpectroDrive

 RYOBI PDS-E SpectroJet

MIS Connection Software (for CIP4-JDF) (option)

MIS connection software for CIP4-JDF enables real-time exchange using the CIP4-JDF data format for sharing job direction data and production data between the MIS and printing control system. RYOBI MIS connection software and CIP4-JDF-compatible digital workflow streamline printing company operations by improving productivity and integrating the workflow from sales to production and management.

Management System for Printing Presses [RYOBI Print Job Manager] (option)

The RYOBI Print Job Manager connects RYOBI printing presses in a network to perform centralized production schedule management by optimally assigning job data to each press. It also gathers real time information on operating status and automatically generates productivity assessment data for each press. The RYOBI Print Job Manager is a powerful support tool for printing companies who want to boost productivity.

Various Innovative Mechanisms Guarantee High-Quality Printing

RYOBI-matic Continuous Dampening System

The RYOBI-matic continuous dampening system assures a uniform dampening supply on the plate surface to reproduce sharp halftone dots, glossy solids and finely detailed text. Starting is quick and this system is designed to minimize wasted sheets.

## The "RYOBI-matic-D / RYOBI-matic-D Remote Continuous Dampening System (option)

These dampening systems substantially reduce hickeys on plates by adopting a new drive mechanism for the water form roller that creates a rotational speed difference between the water form roller and plate cylinder.

Double-Diameter Printing Mechanism

The printing unit consists of a double-diameter impression cylinder and a double-diameter transfer drum. These cylinders, which have a large curvature ratio, transport paper with minimum flapping, providing stable paper transport even when printing on heavy stock.
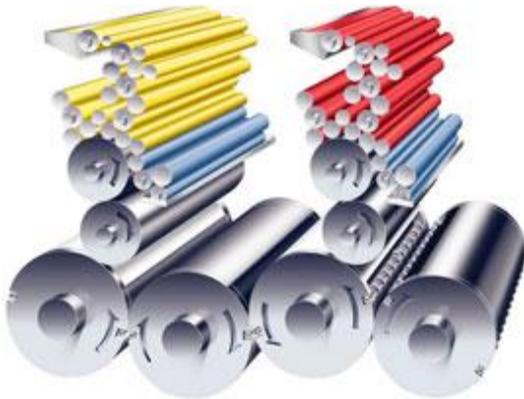
Boost Productivity and Add Value
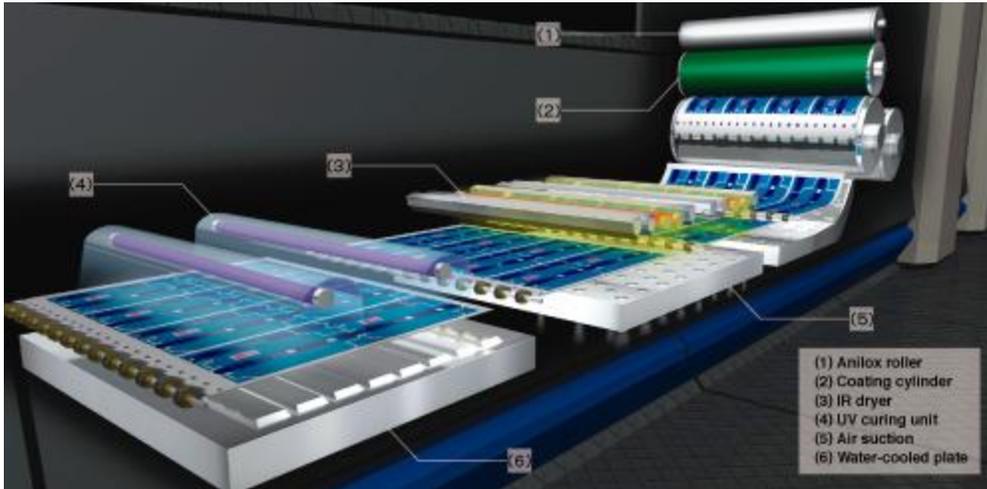
Coating unit and Dryer systems

Inline Coating System

Coating Unit

When the varnish coating system is not being used, the entire coating cylinder and anilox roller can be easily slid upward at the touch of a button to prevent marking on the sheet. Then, a safety guard between the main press unit and coating cylinder allows maintenance work (such as cleaning the coating cylinder or mounting blankets) even while the press is in operation. This enables faster switchover to the next printing job.

Ryobi's Fully Automatic Convertible Perfecting Device Boosts Productivity

Fully Automatic Convertible Perfecting Device

Switching between straight printing and perfecting can be performed remotely from the delivery side via the RYOBI PCS-G Printing Control System. The operator simply inputs the paper size and selects a printing mode from the touch panel display.

One-pass full-color perfecting RYOBI 688XP/6810XP

Unlike a straight printing press, no time is lost waiting for the front side to dry after printing or for paper piling when printing the back side. Printing takes only half the time, of course, compared to printing both sides with two passes on a 4-color straight printing press.