RYOBI®

RYOBI 920 series

922 / 924 / 925 / 926

A1-Size Multi-Color Offset Presses

Model in photo is shown with optional accessories.

The newly upgraded RYOBI 920 series meets a growing range of needs.

Already known for superior cost performance, the RYOBI 920 series of A1-size high-speed multi-color offset presses has been further upgraded!
New models - 2-color and 6-color - have been added, as well as varnish coating unit-equipped models, all with a larger maximum vertical paper size that has been increased from 625 to 640 mm for greater flexibility.
Featuring the ideal paper size and printing area for A1-size printing jobs, a maximum printing speed of 16,200 SPH, plus enhancements such as varnish coating capability for added value and higher productivity , the RYOBI 920 series meets today's diverse needs with versatility and economy.

Ideal for A1-size printing jobs

Impressive cost performance

Space-saving design enhances work efficiency

Coating unit expands versatility

RYOBI PCS-G Printing Control System

RYOBI 925

Type 5-D : 5-color press with coating unit & semi-long delivery model

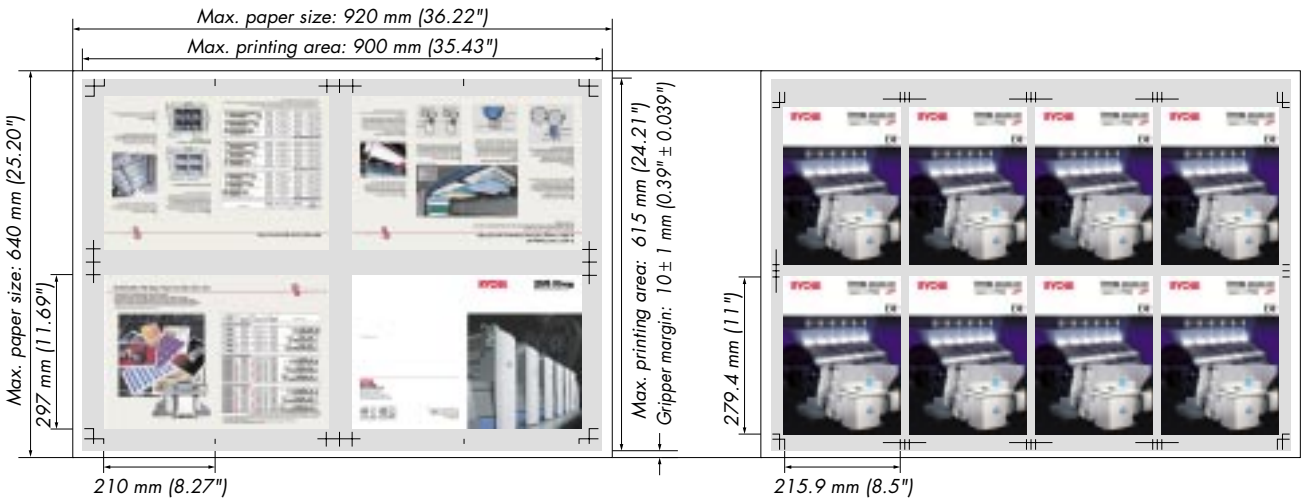
Impressive Cost Performance - Ideal for A1-size Printing

8-up Printing of A4 Size and Letter Size

The RYOBI 920 series has a maximum paper size of 920 x 640 mm (36.22" x 25.20") and maximum printing area of 900 x 615 mm (35.43" x 24.21"), enabling printing of A1-size posters as well as 8-up printing of both A4 size and letter size. It can also print on paper from a thin 0.04 mm (0.0016") up to 0.6 mm (0.024") thick, enabling flexible handling of a wide range of jobs.

■ ***For printing an A4-size booklet***

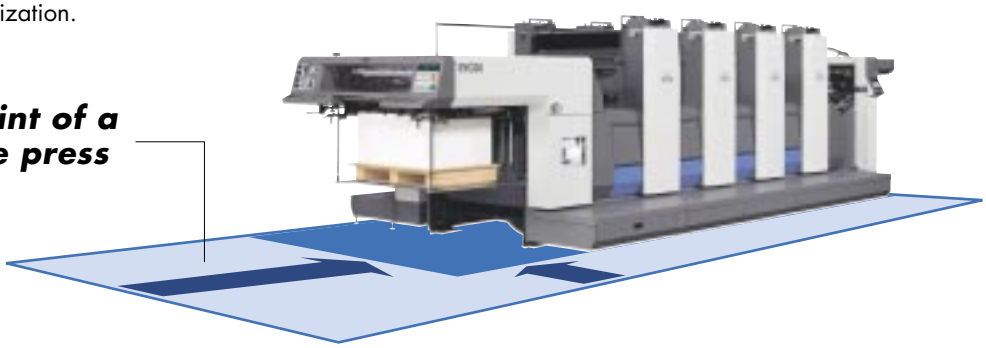
■ ***For 8-up printing of 8.5" x 11" (letter-size)***



Lower Material Costs, Lower Power Consumption and Less Installation Space than a B1-size Press

Printing plate costs and power consumption are markedly lower than for a B1-size press, and the compact space-saving design allows efficient space utilization.

Footprint of a B1-size press



Reliable Mechanisms for High-Speed Printing

High-Speed Feeding Mechanism

A tape slow-down mechanism reduces the feeder board tape speed to prevent sheets from bouncing back from the front lay. An underswing gripper and drop-away front lay infeed system in the registration section ensure that high registration accuracy is maintained even during high-speed operation at 16,200 S.P.H. Suction wheels and a front lay blower that guides paper up to the front lays contribute to stable paper feeding.
High-grade type feeder that facilitates air volume adjustment during paper changing work is available as an option.

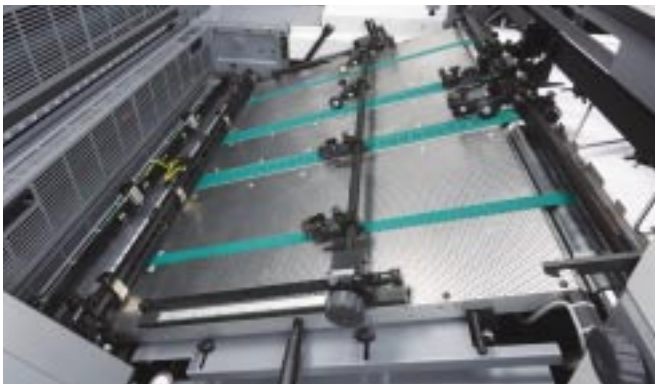
High-grade type feeder(Option)

Ultrasonic Type Double Sheet Detector

An ultrasonic signal from the transmitter passes through the paper, and the ultrasonic wave's attenuation rate is measured to detect double-sheet feeding with high precision even when printing on heavy stock.

Suction Tape Feeder Board

The suction tape feeder board simplifies the setting of the brush and runner wheels and shortens the time required for changing the paper size. The suction belt holds the paper securely and feeds it smoothly to the front lay.



Suction tape feeder board

Double-Diameter Cylinder Printing Mechanism

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

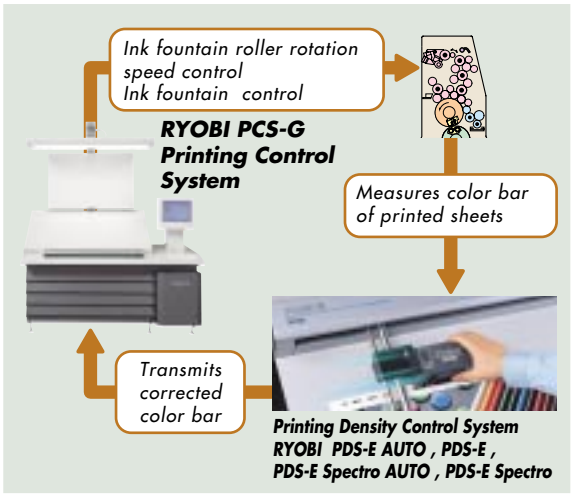
Stable Sheet Piling

A decurling device, air blower, and suction wheels driven by an independent motor all boost sheet piling performance when printing at high speeds.

Superbly Reliable Ink and Water Control

Printing Density Control System *(Option)* RYOBI PDS-E AUTO / PDS-E / RYOBI PDS-E Spectro AUTO / PDS-E Spectro

The RYOBI PDS-E AUTO, PDS-E, PDS-E Spectro AUTO, PDS-E Spectro Printing Density Control System measure the color bar of the printed sheet using a spectrophotometer (a densitometer is used for the PDS-E AUTO and PDS-E).
Values needed to correct the color densities to match those of the OK sheet are calculated and provided as feedback to the RYOBI PCS-G, which appropriately adjusts 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.



Printing Density Control System RYOBI PDS-E AUTO , PDS-E , PDS-E Spectro AUTO , PDS-E Spectro

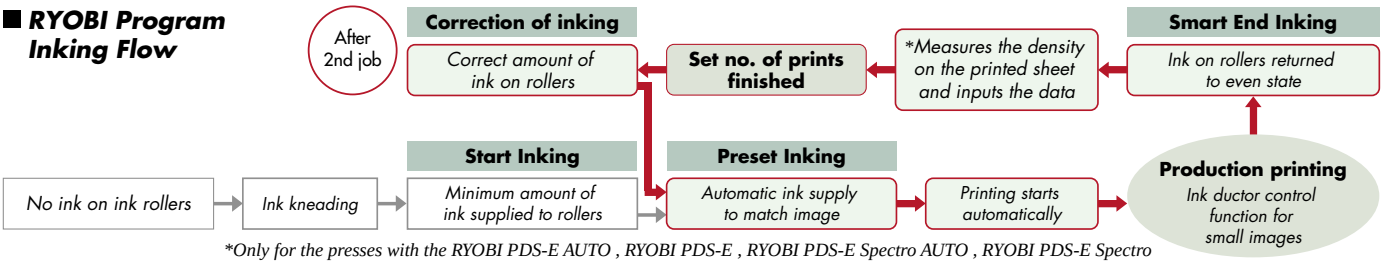
Superior Inking and Dampening Mechanisms

- The ink fountain with high graduations to enhance ink control precision and match the image with greater accuracy.
- The motor-driven ink and water fountain rollers are programmed to automatically synchronize with the printing speed, ensuring a stable ink supply and uniform dampening.
- An ink roller temperature control system minimizes temperature fluctuation for consistent printing quality even during long print runs.

RYOBI Program Inking *(built into the PCS-G)*

RYOBI Program Inking automatically sets the conversion curve for each color according to the image area ratio data calculated at prepress. The ink settings, ink fountain roller speed, and number of contacts by the ink ductor roller are all controlled based on the conversion curves to assure the optimum ink volume. The target printing density can be quickly achieved, significantly shortening the time required for color matching.

RYOBI Program Inking Flow



*Only for the presses with the RYOBI PDS-E AUTO , RYOBI PDS-E , RYOBI PDS-E Spectro AUTO , RYOBI PDS-E Spectro

Advanced Automated Systems Enable Efficient Job Changeover

RYOBI Semi-RPC Semiautomatic Plate Changer

The standardly equipped RYOBI Semi-RPC semiautomatic plate changer allows quick and accurate plate changing without tools. The operator merely sets the plate on the positioning pins and presses the button. Lateral image inaccuracy that may occur due to paper stretching can be easily adjusted with the fanout clamp.

(Note)
Plate setting requires either the RYOBI RP920-780MB high-precision register punch with plate bender or the PB-S-Ryobi 920 plate bender.

RYOBI RP920-780MB *(option)* High-Precision Register Punch with Plate Bender

A CCD camera scans the plate's register marks and displays them on the center monitor. Diagonal, vertical and lateral micro-adjustments can then be easily performed by dial operation, assuring accurate plate punching. The system bends and punches the plate simultaneously. The PB-S-Ryobi 920 (manufactured by BEIL-Registersysteme GmbH) is also optionally available as a device for plate bending only.

RYOBI RP920-780MB
High-Precision Register Punch
with Plate Bender

Automatic Preset System for Convenient Job Changeover

The RYOBI 920 series allows the operator to enter preset values for paper size and thickness using the touch-panel display of the RYOBI PCS-G. The positions of the feeder and delivery section guides and pull side guide can be preset*1. The impression pressure preset system includes a program-controlled impression cylinder cleaning function*2 as standard.

**1 The pull side guide preset system comes as standard equipment. Paper size preset and impression pressure preset systems are available as options.*
**2 Can be used on presses equipped with an optional impression pressure preset system and automatic blanket cleaning device.*

Touch panel display

Automatic Cleaning Devices *(option)*

Optional automatic blanket and ink roller cleaning devices reduce the time and effort involved in cleaning and changing colors, markedly reducing operator workload. The PCS-G at the delivery side of the press allows the operator to turn each device ON and OFF, as well as select the cleaning pattern according to the degree of cleaning required.

RYOBI-matic-D Continuous Dampening System with Hickey Removing Function

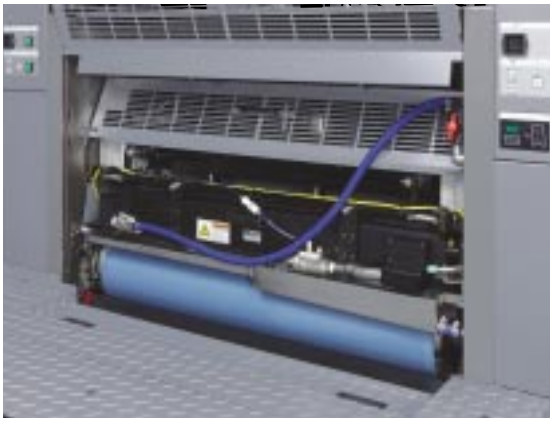
The RYOBI-matic-D substantially reduces hickeys on plates by adopting a drive mechanism for the water form roller that creates a rotational speed difference between the water form roller and plate cylinder.

UV curing unit

Inline Varnish Coating Boosts Productivity and Adds Value

Inline Coating System

An aqueous or UV varnish coating can be processed inline using a retractable coating unit. In addition to adding value such as surface protection, or a glossy finish, this system also shortens drying time for a faster delivery.
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. A safety guard between the main press unit and coating cylinder allows maintenance work (such as cleaning of the coating cylinder or mounting blanket) even while the press is in operation. This enables faster job changeover.

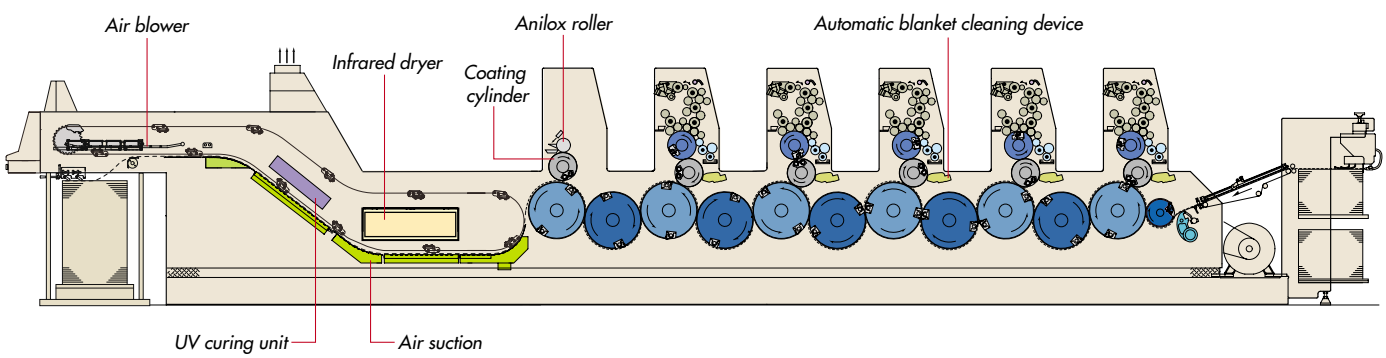


Chamber type doctor blade coating system(Option)

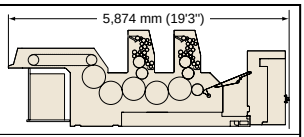
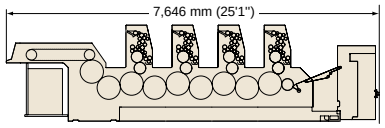
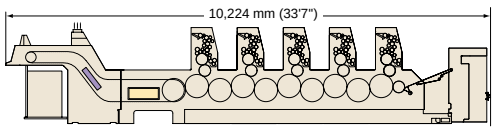
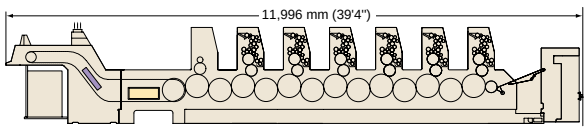
Semi-long delivery models with a built-in dryer system

Select either a standard delivery or a semi-long delivery model that can be equipped with a built-in dryer system. For curing water-based varnish coatings, the system combines an infrared dryer with air knives using hot or ambient temperature air. The infrared dryer and air knives can be adjusted for optimum drying of ink and varnish, providing satisfactory drying performance even during high-speed printing. A built-in UV curing unit is available for high-gloss printing and other applications requiring even higher drying performance. Standard delivery models can also be equipped with an energy-saving, eco-friendly LED-UV curing unit.

■ *Mechanical Configuration: Type 5-D : 5-color press with coating unit and semi-long delivery*



■ Combination Chart RYOBI 922 / 924 / 925 / 926

Type	Number of printing units	Coating unit	Delivery		Dryer			Mechanical side view
			Standard delivery	Semi-long delivery	Infrared dryer	Infrared dryer with hot air	UV curing unit	
2-A	2	—	●	—	—	—	—	Type 2-A 
2-B	2	—	—	●	○	—	○	
4-A	4	—	●	—	—	—	—	Type 4-A 
4-B	4	—	—	●	○	—	○	
4-D	4	●*1	—	●	—	○	○	
5-A	5	—	●	—	—	—	—	Type 5-B 
5-B	5	—	—	●	○	—	○	
5-D	5	●*1	—	●	—	○	○	
6-A	6	—	●	—	—	—	—	Type 6-D 
6-B	6	—	—	●	○	—	○	
6-D	6	●*1	—	●	—	○	○	

*1 The coating unit allows mounting of an aluminum bar type blanket only.

● Standard equipment , ○ Option

RYOBI 924 4-A

RYOBI 924 4-D

Creating the Ideal Digital Workflow Enables Total Control of Printing Quality and Productivity.

RYOBI Print Job Manager Management System for Printing Presses *(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.

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

The MIS connection software links CIP4-JDF compatible management information systems and RYOBI printing presses to enable printing process management from the MIS (Management Information System). The MIS connection software for CIP4-JDF enables real-time exchange using the CIP4-JDF data format for sharing job direction data (including job name, number of printing sheets, paper size) and production data (including the printing start time, end time, and number of printed sheets) between the MIS and PCS-G.

Ink Volume Setter *(for PostScript data)(Option)*
Ink Volume Setter-CIP4 *(PPF) (Option)*

The image area ratio data is calculated by the Ink Volume Setter software (option) using PostScript data created on either a Macintosh*1 or Windows*2 computer, and then converted by the RYOBI PCS-G to preset the ink fountain keys. Ink Volume Setter-CIP4 (PPF) software (option) allows the image area ratio data to be calculated from PPF files.
Effective use of prepress data can dramatically reduce the labor involved in adjusting the ink fountain keys prior to production printing.

**1: Macintosh is a registered trademark of Apple Computer, Inc.*
**2: Windows is a registered trademark of Microsoft Corporation in the United States and other countries.*

System Flowchart

** For more detailed information on the MIS, consult your RYOBI dealer.*

■ Specifications

	RYOBI 922	RYOBI 924	RYOBI 925	RYOBI 926
Number of Printing Units	2	4	5	6
Max. Paper Size (W x L)	920 x 640 mm (36.22" x 25.20")			
Min. Paper Size (W x L)	410 x 290 mm (16.14" x 11.42")			
Max. Printing Area (W x L)	900 x 615 mm (35.43" x 24.21")			
Paper Thickness*1	0.04 - 0.6 mm (0.0016" - 0.024")			
Printing Speed*2	3,000 - 16,200 S.P.H. Local conditions, ink, stock and printing plate type, and printing quality required will affect the maximum printing speed.			
Plate Size	910 x 665 mm (35.83" x 26.18") [positioning pin pitch:780 mm (30.71")]			
Plate Thickness	0.44 mm (0.017")			
Blanket Type*3	Blanket with aluminum bar			
Blanket Size	Blanket: 941 x 681 x 1.95 mm (37.05" x 26.81" x 0.077") Under blanket: 905 x 630 x 0.5 mm (35.63" x 24.8" x 0.02") [cylinder packing total: 2.55 mm (0.1")]			
Feeding System	Rotary type stream feeder			
Feeder / Delivery Pile Capacity	800 mm (31.5") / 900 mm (35.43")			
Infeed System	Under swing gripper and paper feed drum			
Number of Rollers	Ink rollers : 19 (form rollers : 4)/unit Water rollers : 4 (form rollers : 1)/unit			
Gripper Margin	10 ± 1 mm (0.39" ± 0.039")			
Registration System	Pull side guide, Drop-away front lay			
Vertical Image Micro Adjustment Range	± 1 mm (± 0.039") by plate cylinder ± 1 mm (± 0.039") by front lay			
Vertical Image Rough Adjustment Range	± 20 mm (± 0.079") by plate cylinder			
Lateral Image Micro Adjustment Range	± 2.5 mm (± 0.098") by pull side guide ± 2 mm (± 0.079") by plate cylinder			
Diagonal Image Micro Adjustment Range	± 0.2 mm (± 0.008") by plate cylinder (for max. printing area)			
Oiling System	Automatic centralized oiling system			
Electric Current*4	3-phase 200V 50/60Hz 105A or other voltages	3-phase 200V 50/60Hz 145A or other voltages	3-phase 200V 50/60Hz 175A or other voltages	3-phase 200V 50/60Hz 205A or other voltages
Power Consumption*4	32 kW	45 kW	52 kW	63 kW
Dimension (L x W x H)*4	5,874 x 3,010 x 1,870 mm (19'3" x 9'11" x 6'2")	7,646 x 3,010 x 1,870 mm (25'1" x 9'11" x 6'2")	8,532 x 3,010 x 1,870 mm (28' x 9'11" x 6'2")	9,418 x 3,010 x 1,870 mm (30'11" x 9'11" x 6'2")
Weight*4	About 12.6 t (27,778 lbs)	About 21.6 t (47,620 lbs)	About 26.1 t (57,540 lbs)	About 30.6 t (67,461lbs)

*1 There are some limitations to printing on thick paper depending on paper type.
*2 Local conditions, the ink and printing plate type, and the printing quality required will affect the maximum printing speed.
*3 Use only as a set with a genuine Ryobi over blanket and under blanket.
*4 Type A. Weight does not include peripheral devices.

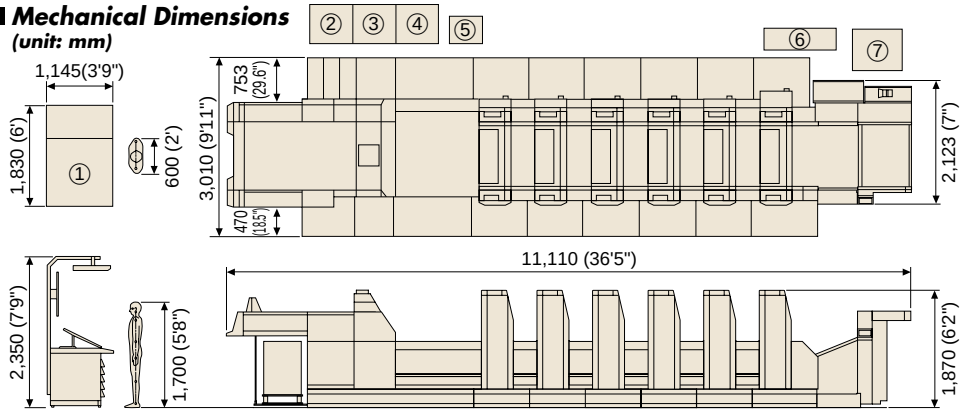
Standard Equipment	
•Rotary type stream feeder	•Slewed paper detector
•Suction tape feeder board	•Front lay paper stopper
•Pull side guide preset system	•Paper transfer jam detector
•Side lay sensor	•Delivery jam detector
•Front lay micro adjustment device (manual)	•Static eliminator
•Front lay blower	•Decurling device
•RYOBI semiautomatic plate changer Semi-RPC	•Powder spray device
•Plate register remote control device (vertical, lateral, diagonal)	•Preset repeat counter with batch function (electronic, 5-digit)
•RYOBI PCS-G printing control system (includes network set for Ink Volume Setter)	•Machine counter (total number of machine rotations, 10-digit, non-resettable)
•RYOBI Program Inking (built into the PCS-G)	•Print counter (total number of printed sheets, 10-digit, non-resettable)
•RYOBI-matic continuous dampening system	•OK monitor
•Dampening solution cooling / circulation device	•Nonstop delivery racking system
•Hickey picker	•Oscillating bridge roller
•Double sheet detector (mechanical)	•Movable type paper guide
•Ultrasonic type double sheet detector	

Optional Equipment	
•High-grade type feeder	•RYOBI PDS-E AUTO / PDS-E printing density control system (densitometer)
•Infrared dryer / UV curing unit*5	•RYOBI PDS-E Spectro AUTO / PDS-E Spectro printing density control system (spectrophotometer)
•LED-UV printing system	•IntelliTrax connecting set
•Chamber type doctor blade coating system*5	•MIS connection software (for CIP4-JDF)
•Impression pressure preset system (includes program-controlled impression cylinder cleaning function)*5*6	•RYOBI Print Job Manager
•Paper size preset system (for delivery section)*5	•Automatic ink roller cleaning device*5
•Paper size preset system (feeder and delivery sections)*5	•Automatic blanket cleaning device*5
•Timing checker (add-on type)	•Ink roller temperature control system*5
•Delivery fan static eliminator	•RYOBI RP920-780MB high-precision register punch with plate bender
•Automatic dampening solution supply device (includes automatic alcohol/ etching solution supply device)	•PB-S-Ryobi 920 plate bender (manufactured by BEIL-Registersysteme GmbH)
•Intermediate tank for dampening solution cooling / circulation device	•Ink oscillating form roller
•RYOBI-matic-D continuous dampening system with hickey removing function	•Nonstop feeder *5
•Ink Volume Setter (for PostScript data)	•Skid type paper pile board*5
•Ink Volume Setter-CIP4(PPF)	•Skid type paper pile board with nonstop feeder function*5
	•Racking board back guide*5

*5 Factory installation only
*6 The program-controlled impression cylinder cleaning function requires an optional automatic blanket cleaning device.

■ Mechanical Dimensions

(unit: mm)



① RYOBI PCS-G Operation Stand
② Infrared Dryer Control Box
③ Infrared Dryer Blower Box
④ Infrared Dryer Exhaust Box
⑤ Aqueous Coating Circulation Device
⑥ Air Compressor
⑦ Dampening Solution Cooling/Circulation Device

The illustration left shows the RYOBI 925 semi-long delivery model with a coating unit and infrared dyer (type 5-D).
Installation space and peripheral equipment vary according to the model, so please consult your sales representative for further details.

Design and specifications are subject to change without notice.
The specifications may vary depending on the country.

RYOBI 920 series

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