RYOBI 524HXX

RYOBI 525HXX

High Quality and High Productivity — the Key to Successful Printing

The RYOBI 522HXX, 524HXX, 525HXX and 526HXX Give Enhanced Labor-Saving Automation for the Next Era in Printing

RYOBI has always aimed to provide the world with the highest possible quality printing presses. And now, having fully invested its technology accumulated over the years, RYOBI introduces the new RYOBI 522HXX, 524HXX, 525HXX and 526HXX multi-color presses.

The RYOBI 520HXX Series builds on the superior features of the RYOBI 520HX Series, such as RYOBI AAC (aqua automatic control), and aims for even higher productivity by providing further automation and labor reduction. The newly developed Semi-RPC RYOBI semiautomatic plate changer is included as standard equipment. Together with the optional automatic ink roller/blanket cleaning devices, these automated labor-saving devices help to boost productivity. To effectively reduce time and skill in making color adjustments, these presses feature the RYOBI PCS-H printing control system (optional on the 522HXX) for precision control over the ink and water balance, and can be optionally equipped with the RYOBI PDS/PDS-E for superior color adjusting accuracy.

Along with its advanced features, the RYOBI 520HXX Series is available in 2- to 6-color printing as well as models with in-line coating (RYOBI 524HXX, 525HXX, 526HXX), offering a wide lineup that's destined to create a whole new era in printing.

A3-Plus Size 2-Color Offset Press
RYOBI 522HXX

A3-Plus Size 4-Color Offset Press
RYOBI 524HXX

A3-Plus Size 5-Color Offset Press
RYOBI 525HXX

A3-Plus Size 6-Color Offset Press
RYOBI 526HXX

Left: The RYOBI 524HXX with low-pile delivery

RYOBI's Superb Automation Boosts Productivity

● RYOBI Semi-RPC Semiautomatic Plate Changer

The RYOBI semiautomatic plate changer makes plate mounting simple and easy. Mounting takes place automatically without bending the tail edge of the plate, allowing for easy reuse of the stored printing plate. This automated system can handle metal plates as well as polyester-based plates.

RYOBI semiautomatic plate changer

● Plate Register Remote Control Device

The plate register remote control device quickly makes precise adjustments of the image position. This system allows the operator to make minute vertical, lateral and diagonal image position adjustments at the delivery side. Adjustments can be made in increments of 0.01 mm within a range of ±1.0 mm vertically, ±2.0 mm laterally and ±0.15 mm diagonally.

Plate register remote control device

● RYOBI RP740-425 AUTO High-Precision Register Punch (option)

The RYOBI RP740-425 AUTO uses a CCD camera to scan for registration marks exposed on the plate. It then automatically adjusts the vertical, lateral and diagonal direction of the plate and punches holes in the plate to match the image position. This further assures the accuracy of the RYOBI semiautomatic plate changer.

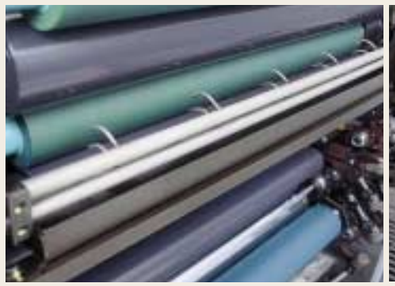
Note: The RYOBI RP520-425F High-Precision Register Punch (manual) is also available as an option.

● Automatic Cleaning Devices (option)

Automatic cleaning devices are available as optional equipment to clean ink rollers and blankets. Cleaning with water after using conventional cleaning solution contributes to even more effective cleaning. This system saves time and effort involved in cleaning and changing colors, reducing the burden on the operator.

Note: The automatic ink roller cleaning device is available as a set with the automatic blanket cleaning device. The automatic blanket cleaning device is also available independently as an option. The automatic ink roller/blanket cleaning devices cannot be retrofitted in the field. The automatic ink roller/blanket cleaning devices are not available on models equipped with the UV curing unit.

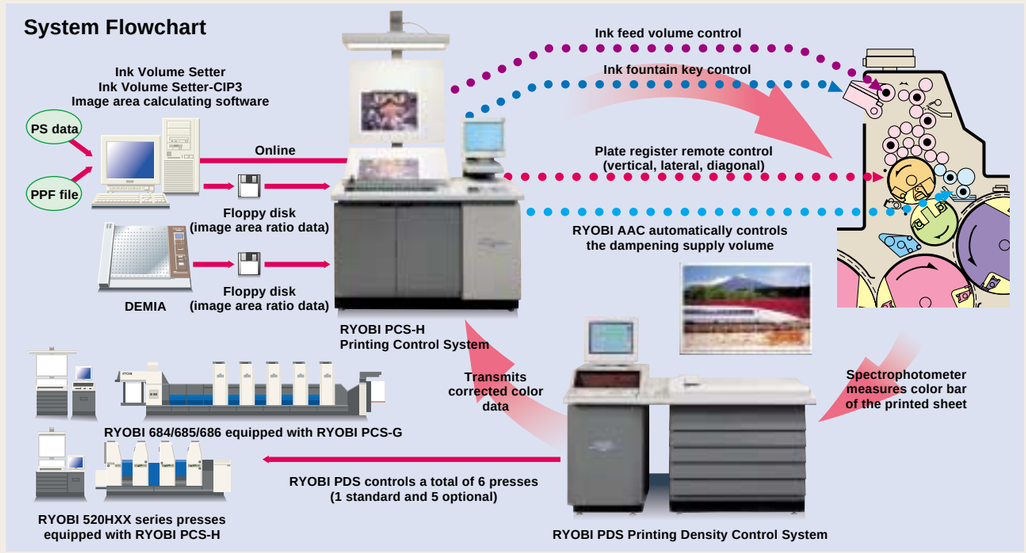
RYOBI RP740-425 AUTO
Winner of a 1999 Good Design Award sponsored by the Japan Industrial Design Promotion Organization (JIDPO)



Automatic ink roller cleaning device

Automatic blanket cleaning device

RYOBI's Quality Control System Makes Color Adjustments Easy



● RYOBI PCS-H Printing Control System (optional on the 522HXX)

The RYOBI PCS-H precisely controls the delicate balance between ink and water to realize the highest printing quality. Plus, it allows micro registration adjustments to be performed remotely, helping to shorten make-ready time prior to actual printing.

● RYOBI Program Inking (optional on the 522HXX)

RYOBI Program Inking automatically supplies ink to the ink rollers to match the image from the start of printing. After the set number of prints are finished, the ink on the rollers is automatically restored to an even state, allowing the operator to proceed quickly to the next job.

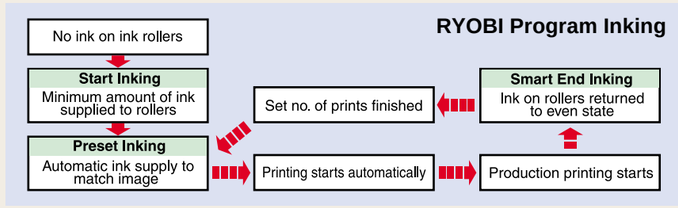
● RYOBI PDS / PDS-E (option) Control Values for the Highest Quality Printing

The RYOBI PDS printing density control system measures the color bar of the printed sheet using sensors in a spectro-photometer. Values needed to correct color densities to match those of the OK sheet are calculated and fed back to the RYOBI PCS-H which, in turn, makes appropriate adjustments in the opening volume of the ink fountain keys. A simplified version, the RYOBI PDS-E, is also available.

● Ink Volume Setter and Ink Volume Setter CIP-3 Image Area Calculating Software

RYOBI's original image area calculating software greatly reduces labor in making color adjustments by enabling the use of platemaking data. Ink Volume Setter uses PostScript data created on Macintosh*1 computers to calculate the image area ratio for each ink fountain key on a RYOBI printing press, while Ink Volume Setter-CIP3 uses CIP3 PPF files created with CIP3-compatible software on a PostScript RIP. The calculated data is loaded via a 3.5-inch floppy disk or through a network*2 into a RYOBI Printing Control System connected to a RYOBI printing press. The system then converts the data into the opening volume of each fountain key.

**1 Macintosh is a registered trademark of Apple Computer, Inc.*
**2 An optional network connection kit is required.*



Note: Smart End Inking is not available on the 522HXX.

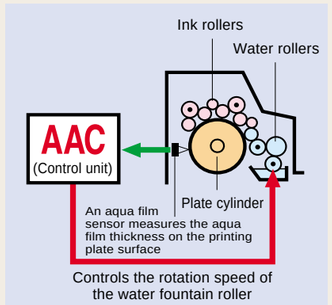
Ink Volume Setter software

Reliable Features Support Precision Printing

● RYOBI AAC Aqua Automatic Control System

The RYOBI AAC comes as standard equipment. A high-precision aqua film sensor monitors the aqua film thickness on the plate surface and automatically controls the water fountain roller speed to maintain the optimum dampening supply volume set by the operator. Because it forms a uniform thickness without being affected by environmental conditions such as air temperature or humidity, the RYOBI AAC relieves the operator of the task of having to continually adjust the dampening supply volume during printing, thus assuring stable, consistent and reliable printing quality.

Note: Sufficiently grained surface is needed on metal plates for efficient use of the RYOBI AAC system. For more information, please ask your dealer.



RYOBI AAC aqua automatic control system

Ink and water rollers

● High-Quality Printing without Compromise

- The RYOBI-matic continuous dampening system is incorporated in the dampening section. This system assures a uniform dampening supply on the plate surface to reproduce sharp halftone dots, glossy solids and finely detailed text. Start-up is quick and is designed to minimize wasted sheets. By simple lever operation, it can also be switched easily between integrated mode and separated mode, in order to exactly match the image and ink characteristics.
- Each ink section consists of 17 ink rollers including four different-diameter form rollers. This superior design ensures an ample ink coverage ratio over the maximum printing area. Printed sheets are reproduced beautifully thanks to superior kneading efficiency and inking characteristics, even at high printing speeds.
- The satellite V-shaped 5-cylinder system allows printing with the minimum number of gripper changes, maintaining registration accuracy.

Ultra-high precision gears

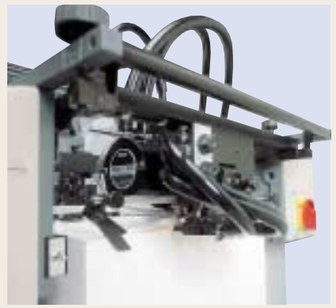
● Rugged Design for Superb Durability

To ensure stable printing quality over long periods of use, RYOBI employs its superior mechatronics technology throughout the presses' entire design. A bearer contact cylinder system maintains constant plate pressure with each rotation of the cylinder. Plus, ultra-high precision gears are induction-hardened while all cylinders and transfer drums use high-precision bearings.

Flexible Processing of a Wide Range of Printing Jobs

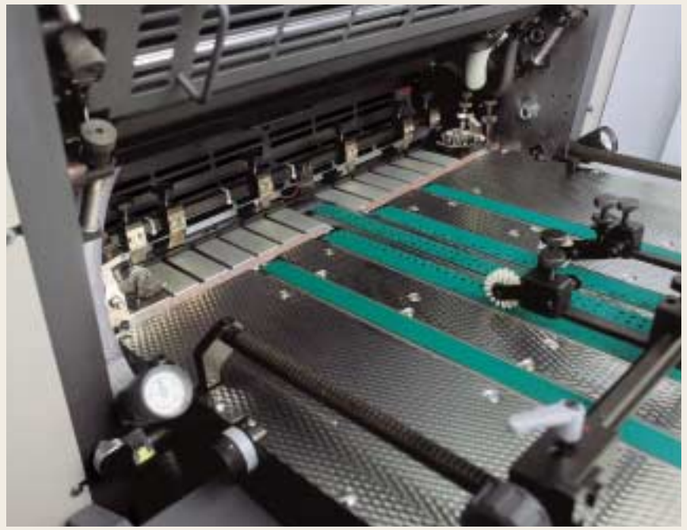
● Stable Paper Feed and Delivery

- A rotary type stream feeder ensures stable, smooth paper feeding for paper thicknesses ranging from onion skin to heavy stock. Adjustments to accommodate variations in paper quality and paper size are simple and easy.
- Thanks to a simple, yet precise underswing infeed system, an accurate drop-away front lay system and cam-closed type sheet grippers, these presses maintain stable registration accuracy even during high-speed printing at 13,000 sheets per hour.



Rotary type stream feeder

Delivery section



Suction tape feeder board

- The suction tape feeder board can handle a wide variety of paper stocks in a wide range of thicknesses assuring consistent, stable paper feeding. Plus, setting the feeder board when changing paper sizes is simplified, thanks to the reduced number of brush and runner wheels.
- Mechanical and electronic double-sheet detectors and multiple sensors monitor paper travel. The source of any trouble arising in the paper flow is instantly displayed on the OK monitor, allowing the operator to take quick action to remedy the situation.
- The decurling device uses a vacuum to eliminate curls in paper stock immediately prior to delivery. Printed sheets are delivered neat and flat. In addition, an air blower and suction wheels boost sheet piling performance when printing at high speeds.

Envelope printing

● Quick Adjustment for a Variety of Paper Sizes

- These presses can handle a wide range of paper sizes from a postcard size of 100 x 150 mm to a maximum size of 520 x 375 mm. They are also designed to smoothly feed envelopes and heavy stocks.
- A convenient paper size change button allows quick and easy resetting of paper guides for different stock size. Push the button to feed just one sheet of paper and the sheet automatically stops, first at the front lay and then at the delivery section to allow paper guide setting at each section.

High-Quality In-Line Coating

[RYOBI 524HXX (types 4-F/G/H), 525HXX (types 5-D/E/F), 526HXX (types 6-E/F/G)]

● Coating Unit

The RYOBI 524HXX, 525HXX and 526HXX are equipped with an in-line coating system that can apply an aqueous or UV coating on printed material. Such protective or gloss coatings add higher value to your printing. Thanks to the system's shortened drying time, it can be helpful especially for short-run jobs.

● Superior Ease of Operation

The anilox roller is independently driven by a separate motor, and adjusting the amount of varnish supply is done simply and easily from the delivery side. When the coating unit is not being used, the entire coating cylinder and anilox roller mechanism can be moved easily upward with the push of a button. Then a safety guard is inserted between the coating cylinder and the main press unit, making maintenance such as cleaning the coating cylinder and mounting blankets easy and safe during operation, enabling the operator to proceed to the next printing job.

● Spot Coating Using Nylon Plates

The universal clamp does double duty by enabling the operator to mount blankets with aluminum bars as well as nylon plates (used by adhering on presensitized plates). This system is capable of doing both over-all coating or spot coating.

● Drying System Capable of Handling High-Speed Operation

Drying aqueous coatings is done with a system that uses a combination of heat from an infrared dryer as well as heated and ambient air knives. The infrared dryer and the air knives can be adjusted to provide optimum drying of inks and coatings, and deliver ample drying capacity even during high-speed operation. A UV curing unit can be built into the press for applications such as printing that demands quick drying times, glossy printing and printing on special films.

Drying system (UV curing unit, ambient air knives + infrared dryer + heated air knives)

Semi-High Pile Delivery Further Increases Productivity

- The operation panel at the delivery side uses a 10-inch touch-panel color LCD. Operation is easy and straight-forward—simply touch the on-screen menu according to operating guidance provided for primary operation such as setting and inputting the number of printed sheets. In addition, the OK monitor allows the operator to check on the paper travel and the activation of safety devices.

Note: Except for RYOBI 522HXX/524HXX with low-pile delivery (type 4-A).

- The semi-high pile delivery system can accommodate piles up to 700 mm in height, increasing delivery efficiency. Coated sheets can be stacked in the delivery so that the delivery table changing labor is reduced, while making a cleaner work environment by reducing the use of powder spray.

Delivery side operation panel

Coating Unit Specifications

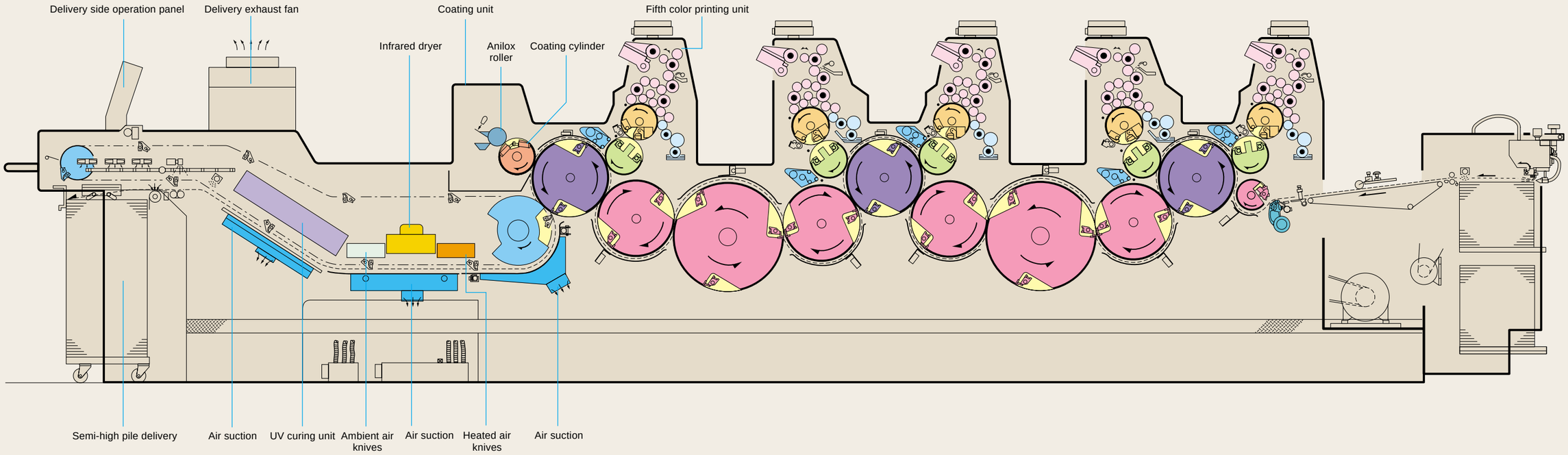
Max. Coating Area	505 x 350 mm (19.88 x 13.78")
Coating Cylinder Blanket Size	546 x 427 x 1.9 mm (21.57 x 16.81 x 0.075")
Number of Coating Rollers	1 (anilox roller)

Dryer Specifications

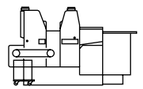
Aqueous Coating	Infrared dryer (including heated and ambient air knives)
UV Coating	UV curing system

Note: These drying systems can also be used for normal offset printing and UV printing.

Mechanical Configuration (RYOBI 525HXX type 5-F)

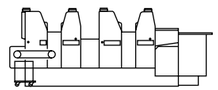
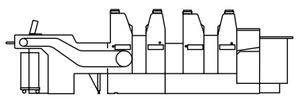
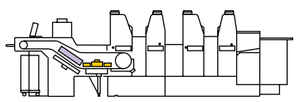
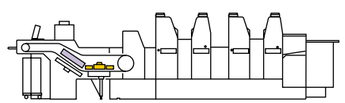


Combination Chart for RYOBI 522HXX

Type	Number of printing units	Coating unit	Low-pile delivery (430 mm)	Semi-high pile delivery (700 mm)	Coating circulation device		Dryer		Mechanical side view
					For aqueous coating	For UV coating	Infrared dryer (heated/ambient air knives)	UV curing unit	
	2	—	●	—	—	—	—	—	

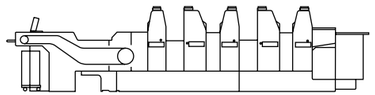
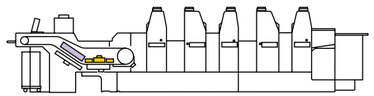
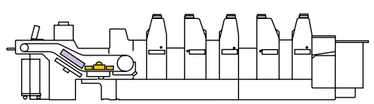
●: Standard equipment —: Not available

Combination Chart for RYOBI 524HXX

Type	Number of printing units	Coating unit	Low-pile delivery (430 mm)	Semi-high pile delivery (700 mm)	Coating circulation device		Dryer		Mechanical side view
					For aqueous coating	For UV coating	Infrared dryer (heated/ambient air knives)	UV curing unit	
4-A	4	—	●	—	—	—	—	—	
4-B	4	—	—	●	—	—	—	—	
4-C	4	—	—	●	—	—	●	—	
4-D	4	—	—	●	—	—	—	● *1	
4-E	4	—	—	●	—	—	●	● *1	
4-F	4	●	—	●	●	—	●	—	
4-G	4	●	—	●	—	●	—	● *1	
4-H	4	● *2	—	●	●	●	●	● *1	

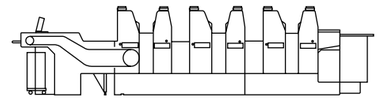
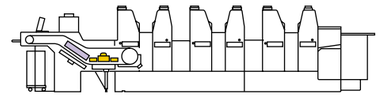
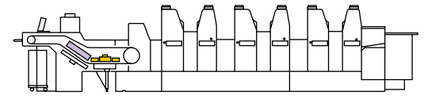
●: Standard equipment —: Not available

Combination Chart for RYOBI 525HXX

Type	Number of printing units	Coating unit	Low-pile delivery (430 mm)	Semi-high pile delivery (700 mm)	Coating circulation device		Dryer		Mechanical side view
					For aqueous coating	For UV coating	Infrared dryer (heated/ambient air knives)	UV curing unit	
5-A	5	—	—	●	—	—	—	—	
5-B	5	—	—	●	—	—	●	—	
5-C	5	—	—	●	—	—	—	● *1	
5-D	5	●	—	●	●	—	●	—	
5-E	5	●	—	●	—	●	—	● *1	
5-F	5	● *2	—	●	●	●	●	● *1	

●: Standard equipment —: Not available

Combination Chart for RYOBI 526HXX

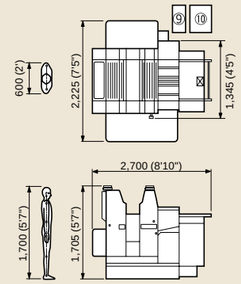
Type	Number of printing units	Coating unit	Low-pile delivery (430 mm)	Semi-high pile delivery (700 mm)	Coating circulation device		Dryer		Mechanical side view
					For aqueous coating	For UV coating	Infrared dryer (heated/ambient air knives)	UV curing unit	
6-A	6	—	—	●	—	—	—	—	
6-B	6	—	—	●	—	—	●	—	
6-C	6	—	—	●	—	—	—	● *1	
6-D	6	—	—	●	—	—	●	● *1	
6-E	6	●	—	●	●	—	●	—	
6-F	6	●	—	●	—	●	—	● *1	
6-G	6	● *2	—	●	●	●	●	● *1	

●: Standard equipment —: Not available

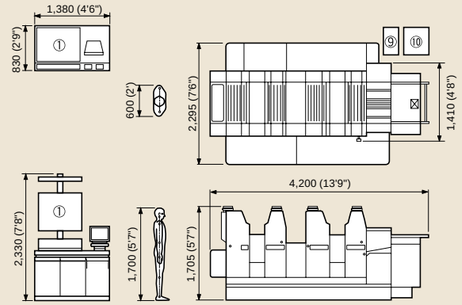
*1 : A UV roller is equipped as standard on models equipped with a UV curing unit (types 4-D/E/G/H, 5-C/E/F, 6-C/D/F/G). The UV roller can be used for normal offset printing.
*2 : Aqueous and UV coating cannot be done simultaneously.

Mechanical Dimensions

RYOBI 522HXX (Units: mm)



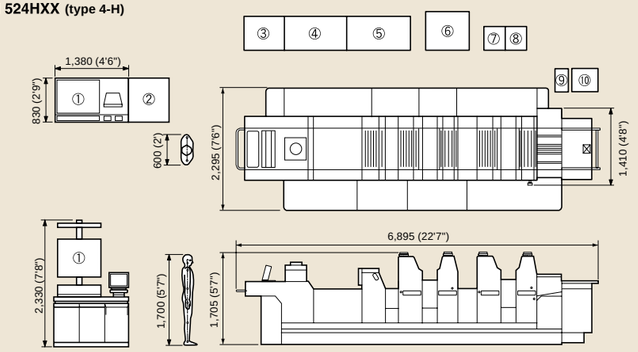
RYOBI 524HXX (type 4-A) (Units: mm)



① RYOBI PCS-H Operation Stand
② Coating, Infrared Dryer/UV Curing Unit Operation Console
③ UV Curing Unit Power Supply Box
④ Coating, Infrared Dryer/UV Curing Unit Control Box
⑤ Oil Hydraulic Pump, Heated and Ambient Air Blower Box
⑥ Exhaust Blower Box
⑦ Aqueous Coating Circulation Device
⑧ UV Coating Circulation Device
⑨ Air Cylinder Compressor *
⑩ Dampening Solution Cooling/Circulation Device

* The air cylinder compressor is standard equipment on the 522HXX and 524HXX (types 4-A/B/C/D/E). However, it is not equipped on the 524HXX (types 4-F/G/H), 525HXX and 526HXX and thus should be prepared at the customer's side. For more information, please ask your dealer.

RYOBI 524HXX (type 4-H) (Units: mm)



NP52/NPE52 NP Units for Value-Added Tasks

[available as an option for the RYOBI 522HXX/524HXX (type 4-A)]

The RYOBI 522HXX and 524HXX (type 4-A) with low-pile delivery can be retrofitted with NP units in the field to accommodate various customer needs. Both NP units feature an independent NP impression cylinder to enable high-quality numbering. Plus, when only offset printing is required without any finishing operations, the NP unit can be swung away from the parent press in just a few minutes.

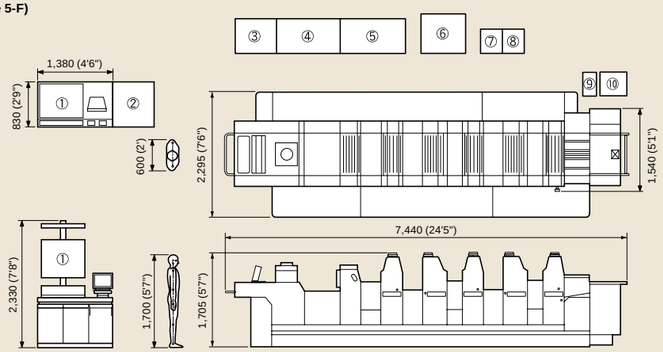
NP52 NP Unit Specifications

Max. Paper Size (when using NP unit)	520 x 365 mm (20.47 x 14.37")*
Min. Paper Size (when using NP unit)	257 x 182 mm (10.12 x 7.17")*
Paper Thickness (when numbering)	0.04 – 0.25 mm (0.002 – 0.0098")*
Paper Thickness (when perforating)	0.04 – 0.15 mm (0.002 – 0.059")*
Max. Numbering Area	505 x 345 mm (19.88 x 13.58")
Max. Nylon Plate Size	90 x 120 mm (3.54 x 4.72") (for one spot color printing)
Imprinting Area	505 x 345 mm (19.88 x 13.58") (spot color printing of numerous small images can be printed in this area)
Printing Speed (when using NP unit)	3,000 – 8,000 S.P.H.*
Number of Ink Rollers	8 (form rollers: 2)
Delivery Pile Capacity	350 mm (13.78")*
Numbering Box (straight-type/convex-type)	Total boxes (max.): 20
Vertical Perforator	5 pcs. (max.)
Cross Perforator	3 pcs. (max.)
Dimensions (L x W x H)	920 x 1,020 x 1,020 mm (3' x 3'4" x 3'4")
Net Weight	460 kg (1,015 lbs.)

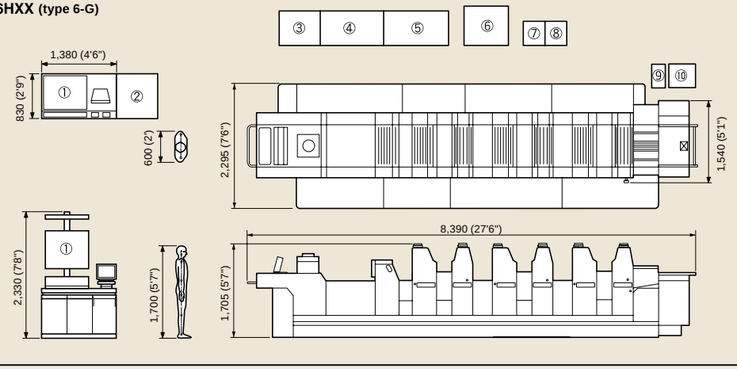
* *The parent press specifications vary when using the NP unit.*

Mechanical Dimensions

RYOBI 525HXX (type 5-F) (Units: mm)



RYOBI 526HXX (type 6-G) (Units: mm)



Specifications

		RYOBI 522HXX	RYOBI 524HXX	RYOBI 525HXX	RYOBI 526HXX
Number of Printing Units		2	4	5	6
Dampening System		RYOBI-matic Continuous Dampening System			
Max. Paper Size		520 x 375 mm (20.47 x 14.76")			
Min. Paper Size		100 x 150 mm (3.94 x 5.91") • The postcard feeding kit (standard) must be mounted.			
Max. Printing Area		505 x 350 mm (19.88 x 13.78")			
Paper Thickness		0.04 – 0.4 (0.5) mm [0.0016 – 0.016 (0.02)"] • 0.5 mm (0.02") stock can be printed when feeding sheets perpendicular to the fiber direction.			
Printing Speed		3,000 – 13,000 S.P.H. • The local conditions, ink, stock and printing plate types, and printing quality required will affect the maximum printing speed. • The maximum printing speed is 8,000 S.P.H. when printing postcards.			
Plate Loading System		RYOBI semiautomatic plate changer			
Plate Size		510 x 400 mm (20.08 x 15.75") [positioning pin pitch: 425 mm (16.73")]			
Plate Thickness (total)		0.3 mm (0.012")			
Blanket Type		Blanket with aluminum bar			
Blanket Size		541 x 437 x 1.9 mm (21.3 x 17.2 x 0.075")			
Under-Blanket Size		505 x 389 x 0.6 mm (19.88 x 15.31 x 0.024")			
Feeding System		Rotary type stream feeder			
Feeder Pile Capacity		550 mm (21.65")	600 mm (23.62")		
Feeder Pile System		Pre-pile			
Delivery System		Chain Delivery			
Delivery Pile Capacity		430 mm (16.93")	Low pile : 430 mm (16.93") Semi-high pile : 700 mm (27.56")	700 mm (27.56")	
Infeed System		Underswing gripper and paper feed drum			
Number of Rollers	Ink rollers	17 (form rollers: 4)			
	Water rollers	4 (form roller: 1)			
Gripper Margin		9 ±1 mm (0.354 ±0.039")			
Registration System		Pull side guide, Drop-away front lay			
Vertical Image Micro Adjustment Range		±1.0 mm (±0.039") (plate cylinder)			
Vertical Image Rough Adjustment Range		±20 mm (±0.79")			
Lateral Image Micro Adjustment Range		±2.0 mm (±0.079") (plate cylinder)			
Diagonal Image Micro Adjustment Range		±0.15 mm (±0.006") (at maximum printing area) (plate cylinder)			
Oiling System		Automatic centralized oiling system			
Dimensions (L x W x H)		2,700 x 2,225 x 1,705 mm (8'10" x 7'5" x 5'7")	4,200 x 2,295 x 1,705 mm (13'9" x 7'6" x 5'7") (4-A) 5,945 x 2,295 x 1,705 mm (19'6" x 7'6" x 5'7") (4-B/C/D/E) 6,895 x 2,295 x 1,705 mm (22'7" x 7'6" x 5'7") (4-F/G/H)	7,440 x 2,295 x 1,705 mm (24'5" x 7'6" x 5'7") (5-A/B/C/D/E/F)	7,440 x 2,295 x 1,705 mm (24'5" x 7'6" x 5'7") (6-A/B/C/D) 8,390 x 2,295 x 1,705 mm (27'6" x 7'6" x 5'7") (6-E/F/G)
Weight		3,400 kg (7,500 lbs.)	Approx. 8,000 kg (17,700 lbs.) (4-A)* Approx. 10,000 kg (22,046 lbs.) (4-B/C/D/E)* Approx. 12,800 kg (28,300 lbs.) (4-F/G/H)*	Approx. 13,300 kg (29,400 lbs.) (5-A)* Approx. 15,000 kg (33,000 lbs.) (5-B/C/D/E/F)*	Approx. 13,400 kg (29,600 lbs.) (6-A)* Approx. 15,000 kg (33,000 lbs.) (6-B/C/D)* Approx. 17,400 kg (38,400 lbs.) (6-E/F/G)*
Power Source	Press	3 phase 200V 50/60Hz	3 phase 200V 50/60Hz		
	Coating unit and dryer	—			
Electric Current	Press	27A	53A	63A	68A
	Coating unit and dryer	—	90A (4-C) 80A (4-D) 170A (4-E) 105A (4-F) 95A (4-G) 185A (4-H)	90A (5-B) 80A (5-C) 105A (5-D) 95A (5-E) 185A (5-F)	90A (6-B) 80A (6-C) 170A (6-D) 105A (6-E) 95A (6-F) 185A (6-G)
Power Consumption	Press	7.5 kW	14 kW	16 kW	17 kW
	Coating unit and dryer	—	32 kW (4-C) 28 kW (4-D) 59 kW (4-E) 37 kW (4-F) 33 kW (4-G) 65 kW (4-H)	32 kW (5-B) 28 kW (5-C) 37 kW (5-D) 33 kW (5-E) 65 kW (5-F)	32 kW (6-B) 28 kW (6-C) 59 kW (6-D) 37 kW (6-E) 33 kW (6-F) 65 kW (6-G)

*Including peripheral devices of the press.