RYOBI

RYOBI 520GE series
522GE / 524GE
A3-Plus Size Multi-Color Offset Presses

Model in photo is shown with optional accessories.

GE

GE

RYOBI
520
OFFSET PRESS
GE

RYOBI
520
OFFSET PRESS
GE

Combining impressive cost performance
with the same DNA that gives
the RYOBI 520GX Series
exceptional printing performance
—introducing the RYOBI 520GE Series!

For over 20 years the RYOBI 520 Series has built a solid reputation

throughout the world.

Now RYOBI is proud to announce the RYOBI 520GE Series,

which includes the RYOBI 522GE 2-color press and 524GE 4-color press -

high cost performance models

boasting some of the same advanced functions

as the high-end RYOBI 520GX Series.

Loaded with the latest automation and labor-saving features

to ensure easy operation and exceptional printing quality,

the presses can be upgraded with a variety of optional equipment.

Combining function and style in an attractive new design,

the RYOBI 520GE Series effectively meets a wide range of needs.

Model in photo is shown with optional accessories.

GE
Shortened Make-Ready Times Mean Higher Production Efficiency

Plate Register Remote Control (vertical, lateral, diagonal)*(Equipped on 524GE)*

The plate register remote control device quickly makes precise adjustments of the image position. Adjustments can be made in increments of 0.01 mm (0.0004") within a range of ± 1.0 mm (0.039") vertically, ± 2.0 mm (0.079") laterally, and ± 0.15 mm (0.006") diagonally (at maximum printing area).

Plate Register Remote Control

RYOBI Semiautomatic Plate Changer

RYOBI Semiautomatic Plate Changer

The RYOBI semiautomatic plate changer comes as standard equipment and allows plates to be changed quickly and accurately. The operator merely sets the plate on the positioning pins and presses the button. There is no need to bend the leading edge or the tail edge of the plate.
This automated system allows easy reuse of the stored printing plates and can also handle polyester-based plates as well as metal plates.

RYOBI RP520-425F RYOBI RP780-425M High-Precision Register Punch

Thanks to the 25-power microscopes of the RYOBI RP520-425F, the register marks on the plates can be precisely adjusted vertically, laterally and diagonally by dial operation. The RYOBI RP780-425M is also a manual type register punch. The CCD camera scans the register marks exposed on the plate, and the register marks are displayed on the center monitors. By checking the monitors, diagonal, vertical and lateral micro-adjustments can be done easily with dial operations, which assures accurate plate punching by lever operation.
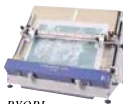
RYOBI RP520-425F

Automatic Cleaning Devices (option)

Automatic cleaning devices are available as optional equipment to clean ink rollers and blankets. These devices reduce the time and effort involved in cleaning and changing colors, reducing the burden on the operator.

Automatic Ink Roller Cleaning Device

This device performs cleaning by separately spraying water and cleaning solution, and can efficiently remove ink as well as paper dust on rollers.

Automatic Blanket Cleaning Device

This device uses cleaning cloth saturated with cleaning solution. Maintenance is easy, requiring only a change of the cleaning cloth.

4

GE Efficient Quality Control Thanks to Systematized Workflow

RYOBI PCS-J

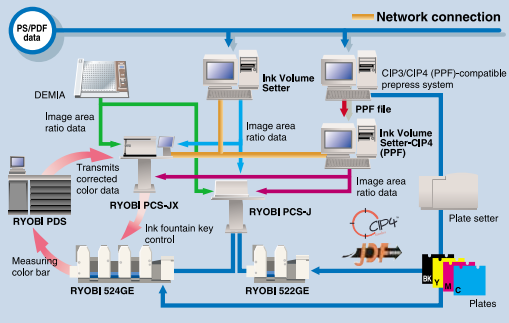## RYOBI PCS-J Printing Control System
(522GE: option)

The RYOBI PCS-J printing control system lets operators remotely control subtle ink balance adjustments. The operation panel is equipped with a 5.7-inch touch-screen LCD, from which the operator can easily control RYOBI Program Inking, save and call up printing data on floppy disks and check the opening volumes of the ink fountain keys. Plus, when the optional RYOBI PCS-JX printing control system is equipped, the RYOBI PDS or PDS-E printing density control system can be additionally installed to control printing quality. Using special sensors to measure the color bar on the printed sheet, the PDS and PDS-E calculate the values needed to correct color densities and feed the data back to the PCS-JX to control the opening volumes of the ink fountain keys.

Ink Volume Setter (for PS) (option)
Ink Volume Setter-CIP4 (PPF) (option)

Image area ratio data is calculated by Ink Volume Setter software (for PS) using the PostScript data created on Macintosh★[1] or Windows★[2] computers and then converted by using the RYOBI PCS-J (option for 522GE) printing control system to preset the ink fountain keys. Plus, with CIP3/CIP4 (PPF)-compatible Ink Volume Setter-CIP4 (PPF) software, image area ratio data can be calculated from PPF files. Making effective use of prepress data can dramatically reduce the labor involved in adjusting 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.

RYOBI Smart Net   System Flowchart

RYOBI Program Inking
(built-in with printing control system)

RYOBI Program Inking automatically supplies ink to ink rollers to match the image from the very start of printing. After the preset 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 and minimizing the amount of wasted paper generated at the start of printing.

RYOBI Program Inking
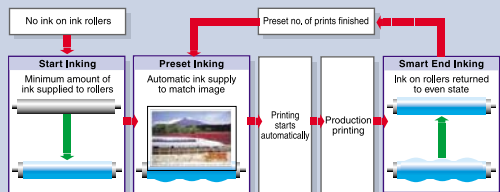
Note: Smart End Inking is not available on the 522GE.

RYOBI-matic Continuous Dampening System

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. It can also be switched easily between integrated mode and separated mode, in order to exactly match the image and ink characteristics.

RYOBI-matic Continuous Dampening System

Bearer Contact Cylinder System

A bearer contact cylinder system, which the blanket cylinder bearer comes into contact with the plate cylinder, maintains constant plate pressure with each rotation of the cylinder, delivering high print quality.

Simple Cylinder Arrangement

The satellite type cylinder arrangement consisting of a double diameter impression cylinder and double diameter and triple diameter transfer drums allows printing with the minimum number of gripper changes, maintaining registration accuracy. The double-diameter impression cylinders, which have a large curvature ratio, provide stable paper transport even when printing on heavy stock.

Mechanical Configuration

RYOBI 524GE
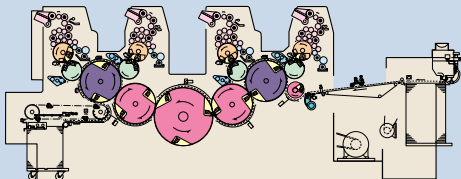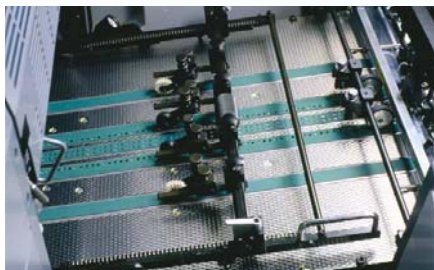

RYOBI 522GE
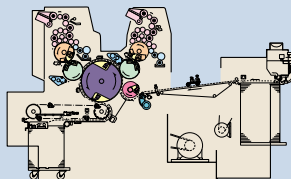
Inking Mechanism

Each ink section consists of 16 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.

Lever Control Ink Fountain
(standard on the 522GE only)

The RYOBI 522GE is equipped with a lever control ink fountain as standard. Graduated levers make it possible to quickly confirm the status of ink supply from the ink fountains, and by simply raising or lowering the levers, the operator can quickly and accurately make fine adjustment of the color.

GE Reliable Technology Supported by Years of Experience

Suction Tape Feeder Board

Prints on Minimum Paper Size 100 x 105 mm

The RYOBI 522GE and 524GE can print on paper as small as 100 x 105 mm*, enabling printing on postcards as well as printing of laterally fed envelopes to further expand the range of jobs.

★ The postcard feeding kit (standard) must be mounted.

Sheet Travel Sensor System

Mechanical and electronic double-sheet detectors check for double sheet feeding. Delayed and slewed paper feed detectors and a delivery jam detector are quick to catch any sheet travel problems. The source of the trouble is indicated on the monitor of the operation panels at the feeder and delivery sides, allowing the operator to remedy the problem quickly.

NP52 (for 522GE / 524GE) for Numbering and Perforating
(available as an option)

This NP unit can be retrofitted in the field to accommodate various customer needs. The NP52 features 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.

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.

Rotary Type Stream Feeder

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.

Rotary Type Stream Feeder

High-Speed Infeed Mechanism (underswing, drop-away front lay)

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 11,000 sheets per hour. Micro diagonal adjustments can be made with the shaft-integrated drop-away front lay within a range of ± 1.0 mm through easy dial control, even while the press is running.

NP52 (for 522GE / 524GE) Specifications

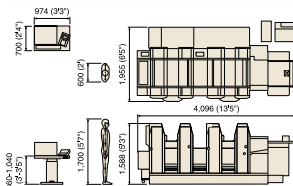|	
Max. Paper Size	520 x 365 mm (20.47" x 14.37") ★
Min. Paper Size	257 x 182 mm (10.12" x 7.17") ★
Paper Thickness (when numbering)	0.04 – 0.25 mm (0.002" – 0.0098") ★
Paper Thickness (when perforating)	0.04 – 0.15 mm (0.002" – 0.059") ★
Max. Numbering Area	505 x 345 mm (19.88" x 13.58")
Max. Nylon 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	3,000 – 8,000 S.P.H. ★
Number of Ink Rollers	8 (form rollers: 2)
Delivery Pile Capacity	270 mm (10.63") ★
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 940 mm (3' x 3'4" x 3'1")
Net Weight	460 kg (1,015 lbs.)

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

■ Specifications

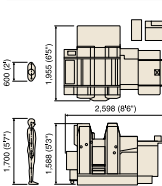|	522GE	524GE
Number of Printing Units	2	4
Max. Paper Size (W x L)	520 x 375 mm (20.47" x 14.76")	
Min. Paper Size (W x L)	100 x 105 mm (3.94" x 4.13")	
	The postcard feeding kit (standard) must be mounted.	
Max. Printing Area (W x L)	505 x 350 mm (19.88" x 13.78")	
Paper Thickness ★1	0.04 - 0.4 (0.5) 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 ★2	3,000 - 11,000 S.P.H.	
	The maximum printing speed is 8,000 S.P.H. when printing postcards.	
Plate Size	510 x 400 mm (20.08" x 15.75") [Positioning pin pitch : 425 mm (16.73")]	
Blanket Type	Blanket with aluminum bar	
Feeding System	Rotary type stream feeder	
Feeder Pile Capacity	600 mm (23.62")	
Delivery Pile Capacity	400 mm (15.75")	
Infeed System	Underswing gripper and paper feed drum	
Number of Rollers	Ink Rollers: 16 (form rollers : 4) per unit Water Rollers: 4 (form roller : 1) per unit	
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") by plate cylinder	
Vertical Image Rough Adjustment Range	± 20 mm (0.79")	
Lateral Image Micro Adjustment Range	± 2.0 mm (0.079") by plate cylinder	
Diagonal Image Micro Adjustment Range	± 0.15 mm (0.006") by plate cylinder (at max. printing area)	
Oiling System	Centralized oiling system (manual)	Automatic centralized oiling system
Power Source	3-phase, 200 V, 50/60 Hz 27 A or other voltages	3-phase, 200 V, 50/60 Hz 47 A or other voltages
Power Consumption	7.5 kW	13.5 kW
Dimensions (L x W x H)	2,598 x 1,955 x 1,588 mm(8'6" x 6'5" x 5'3")	4,096 x 1,955 x 1,588 mm(13'5" x 6'5" x 5'3")
Weight ★3	3,350 kg (7,400 lbs.)	6,830 kg (15,100 lbs.)

★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 maximum printing speed.
★3 : Weight includes standard peripheral devices of the press.

■ Dimensions (Unit: mm)

524GE

974 (3'3")
700 (2'4")
600 (2')
1,955 (6'5")
4,096 (13'5")
1,700 (5'7")
1,588 (5'3")
860 x 1,040 (3'-35")

522GE

600 (2')
1,955 (6'5")
2,598 (8'6")
1,700 (5'7")
1,588 (5'3")

■ Standard and Optional Equipment ●: Standard ○: Option —: Not available

	522GE	524GE
RYOBI Semiautomatic Plate Changer	●	●
Lever Control Ink Fountain	●	—
RYOBI PCS-J Printing Control System	○★4	●
RYOBI PCS-JX Printing Control System	○★4	○★4
RYOBI Program Inking (built-in with the printing control system)	○★5★7	●
RYOBI PDS Printing Density Control System	○★6	○★6
RYOBI PDS-E Printing Density Control System	○★6	○★6
Ink Volume Setter (for PS)	○★7	○
Ink Volume Setter-CIP4 (PPF)	○★7	○
DEMIA	○★7	●
Plate Register Remote Control Device	○	●
Dial Control Registration Adjustment	● (2nd unit only)	—
Front Lay Micro Adjustment Device	●	●
Automatic Ink Roller Cleaning Device	○★4	○★4
Automatic Blanket Cleaning Device	○★4	○★4
RYOBI-matic continuous dampening system	●	●
Dampening Solution Cooling / Circulation Device	●	●
Intermediate Tank for Dampening Solution Cooling / Circulation Device	○	○
RYOBI-matic-D Continuous Dampening System with Hickey Removing Function	○	○
Suction Tape Feeder Board	●	●
Pull Side Guide Micro Adjustment Device	●	●
Double Sheet Detectors (mechanical & electronic)	●	●
Slewed Paper Detector	●	●
OK Monitor	●	●
Brush and Runner Wheel Movement System	●	●
Static Eliminator	●	●
Powder Spray Device	●	●
Preset Repeat Counter	●	●
Print Counter (total number of printed sheets, non-resettable)	○	○
Machine Counter (total number of press rotations, non-resettable)	●	●
Decurling Device	○	○
Suction Wheel	●	●
Pre-Pile Device	○	○
Nonstop Delivery Device	○	○
Tape Inserter	○	○
Non Operation Side Crawl Operation Box	○	○
Oscillating Bridge Roller	○	○
Oscillating Ink Form Roller	○	○
UV Roller / UV Blanket	○	○
Straight Edge Blanket Clamp Kit	○	○
RYOBI RP740-425AUTO (automatic)	○	○
RYOBI RP780-425M (manual)	○	○
RYOBI RP520-425F (manual)	○	○
NP52	○	○
Air Compressor	●	●

★4 : Factory installation only.
★5 : Smart End Inking is not available on the RYOBI 522GE.
★6 : The RYOBI PCS-JX is required.
★7 : The RYOBI PCS-J or PCS-JX is required.

Design and specifications are subject to change without notice.
Specifications may differ slightly depending on the country.

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