

# RYOBI®

# RYOBI 780E series

782E/ 784E/ 784EP/ 785E

## B2-Size Multi-Color Offset Presses

Model in photo is shown with optional accessories.



# Discover New Bu

**RYOBI 780E series**

**The Quality to Meet Tomorrow's Needs**

**Advanced Functions and Superior Cost Performance**

**in a Compact Body**



B2-Size 2-Color Offset Press  
RYOBI 782E



B2-Size 4-Color Offset Press  
RYOBI 784E  
RYOBI 784EP

# Business World

The RYOBI 780E series offers superior cost performance while meeting the demands of today's printing market for short turnaround time, high quality and low cost.

Backed by years of technical innovation, these presses dramatically reduce press downtime and deliver impressive printing quality.

The wide printing area of 765 x 545 mm (30.12" x 21.46") [XL type: 765 x 580 mm (30.12" x 22.83")] enables a greater range of applications to be handled.

The RYOBI 784EP, for example, boosts productivity and better meets various printing needs with a built-in perfecting device for conversion between straight printing and perfecting.

The newly introduced 5-color 785E makes the most of such features for a broad range of applications.

RYOBI 780E series presses are ideal for printing companies considering a B2-size format press to increase the profitability of rush printing jobs.



B2-Size 5-Color Offset Press  
RYOBI 785E

Model in photo is shown with optional accessories.

# Compact Design Achieves Space-Saving

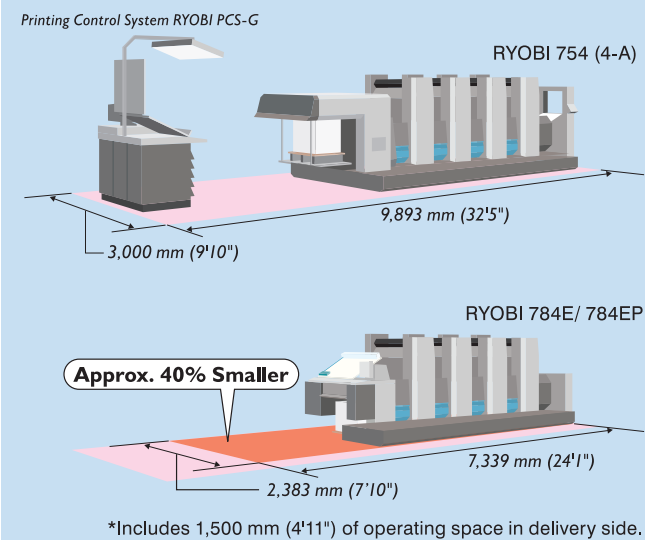
## Built-in RYOBİ PCS-K Printing Control System (782E : option)

The RYOBİ PCS-K Printing Control System (782E: Option) is built into the press as a space-saving feature. This system allows centralized control of the main operations and settings, such as ink and water volume control, printing parameter settings, fine adjustment of registration, impression pressure preset\*, and maintenance information. It also input the image area ratio data calculated from pre-press data by the Ink Volume Setter (Option) and Ink Volume Setter-CIP4 (PPF) (Option). With the 785E, the data can be input with a USB flash drive.

\* RYOBİ 784E, 784EP and 785E: Option  
RYOBİ 782E: Not available



### Comparison of Installation Space with RYOBİ 754 (4-A)



## Environment-friendly LED-UV Printing System (option for 785E)

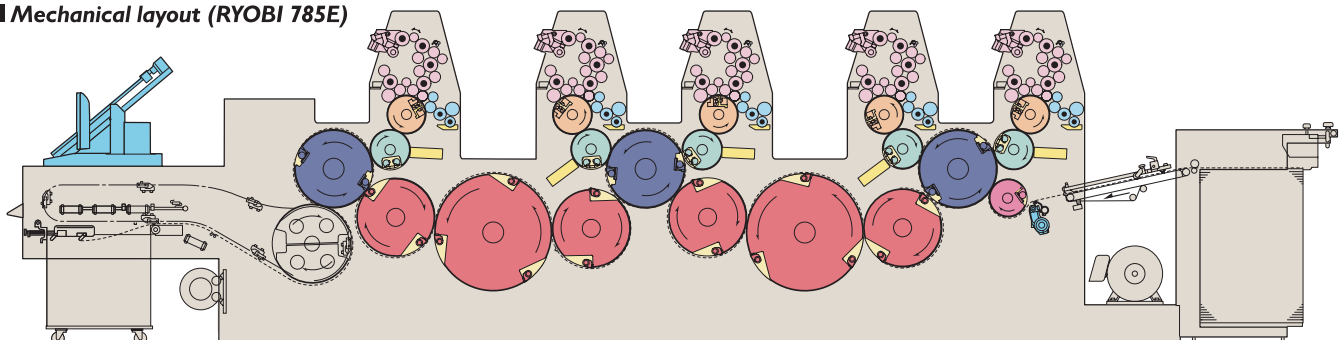
The RYOBİ 785E can be equipped with an energy-saving, environment-friendly LED-UV printing system. This system can be installed above the 5th color impression cylinder without extending the delivery section for space saving. It ideally matches the need for handling quick turnarounds and printing on special paper.

## Simple Cylinder Arrangement

The satellite type cylinder arrangement consists of a double diameter impression cylinder and double diameter and triple diameter transfer drums. Double sprung grippers used on the paper feed drum, impression cylinders and transfer drums firmly grip the paper. Accordingly, even during high-speed operation and

heavy solid printing, a precise registration accuracy is maintained. A minimum number of gripper changes and the larger circumference cylinders mean less paper curling, important when printing on thick paper.

### Mechanical layout (RYOBİ 785E)



# Handles a Wide Range of Printing Applications

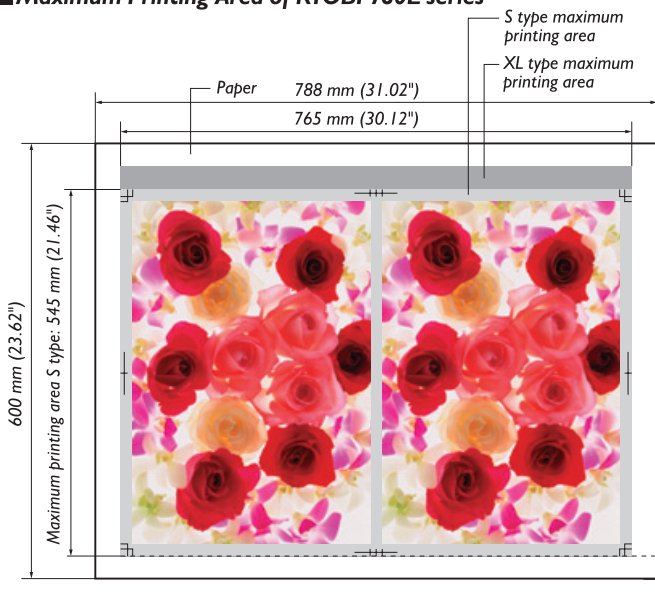
## Wider Paper Size for More Utility

The RYOBİ 780E series comes in two types: the S type press which offers a maximum printing area of 765 x 545 mm (30.12" x 21.46"), and the XL type press with a maximum printing area of 765 x 580 mm (30.12" x 22.83") enabling a wider range of printing applica-

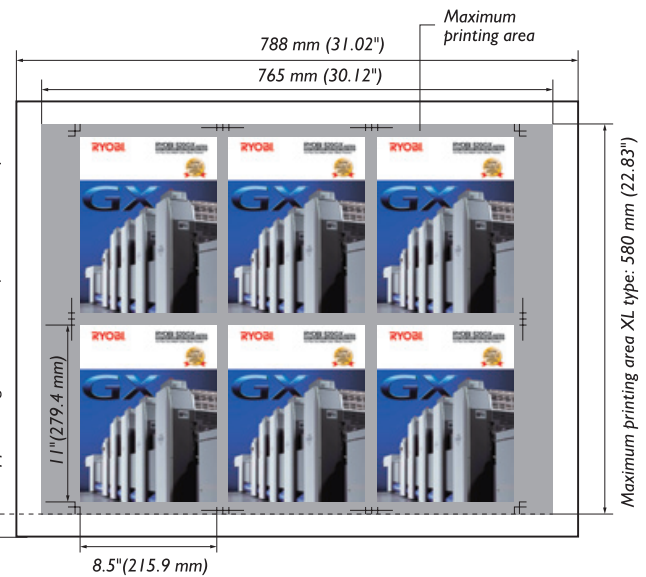
tions.

And the XL type allows 6-up printing of 8.5" x 11" letter-size. This press can flexibly handle a wide range of paper from 0.04 mm (0.0016") onion skin to 0.6 mm (0.024") thick cardboard.

### ■ Maximum Printing Area of RYOBİ 780E series



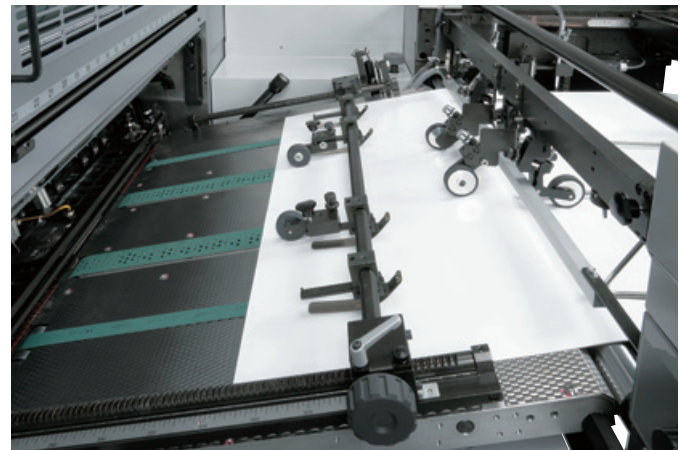
### ■ When printing 6-up of 8.5" x 11" letter size (XL type)



## Reliable Paper Feeding Mechanism

The suction tape feeder board simplifies the setting of the brush and runner wheels and shortens the time required for changing paper sizes. The suction tape holds the paper securely and feeds it smoothly to the front lay. And an ultrasonic type double sheet detector is equipped as standard. An ultrasonic signal from the transmitter passes through the paper, and the attenuation rate of the ultrasonic wave is measured to detect high precision any double-sheet feeding of thick paper.

On the 785E, the blower and the vacuum hose were covered to further increase the safety and achieves the simple design.



Suction tape feeder board

## Superior Inking Performance

An optimum ink roller configuration (18 rollers including 4 form rollers) designed by computer analysis assures stable ink supply and superb response to ink volume adjustments. The motor-driven ink fountain rollers are programmed to automatically operate in synchronization with the speed of printing, enabling a stable supply of ink at any operation speed.

## The RYOBİ-matic-D Continuous Dampening System with Hickey Removing Function (option)

The RYOBİ-matic-D Continuous Dampening System with Hickey Removing Function (option) substantially reduces hickies 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. A hickey picker is also available as an option.

# Advanced Automated Devices Realize Superb Operability

## 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. A plate bending device is unnecessary as there is no need to bend the leading edge or the tail edge of the plate. This system allows easy reuse of the stored printing plate and can handle polyester-based plates as well as metal plates. Plus, lateral image inaccuracy that may occur due to paper stretching can be adjusted with the fanout clamp.



RYOBI Semiautomatic Plate Changer Semi-RPC

## Automatic Cleaning Devices (option)

The automatic blanket cleaning device and automatic ink roller cleaning device reduce the time and effort involved in cleaning and changing colors, reducing operator workload.

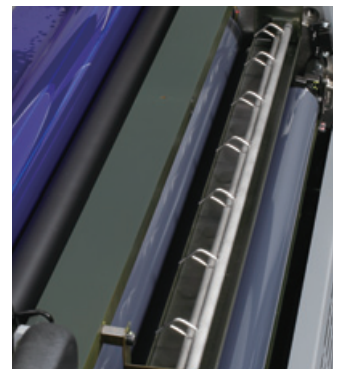
Plus, the program-controlled impression cylinder cleaning function\* cleans the blankets and impression cylinder simultaneously.

\* 784E, 784EP and 785EP: Can be used on the press equipped with optional impression pressure preset and automatic blanket cleaning device.

782E: Not available



Automatic blanket cleaning device



Automatic ink roller cleaning device

## Plate Register Remote Control (vertical, lateral, diagonal)

The plate register remote control device is equipped as standard. It quickly makes precise adjustments of the vertical, lateral and diagonal image position.

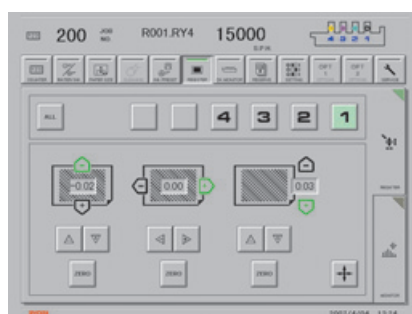


Plate Register Remote Control

## RYOBI RP780-425M (option) High-Precision 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 RP780-425M

# Automatic Convertible Perfecting Device Boosts Productivity

## Automatic Convertible Perfecting Device (RYOBI 784EP)

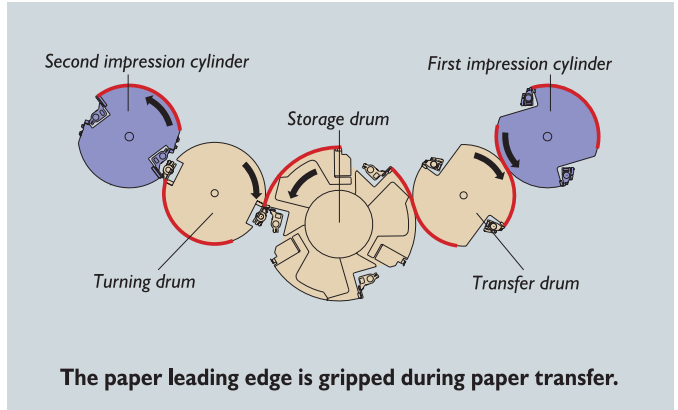
The RYOBI 784EP is equipped with an automatic convertible perfecting device. Switching between straight printing and perfecting can be performed from the RYOBI PCS-K. The operator inputs the paper size and selects a printing mode from the touch panel display. Various perfecting device settings switch automatically to match the paper size. These include the open/close timing of the grippers on the storage drum and turning drum, the position of the paper tail edge suction mechanism, and the phase of the turning drum and storage drum.

(Note) Paper tail edge suction ON/OFF switching is manual depending on the paper width.

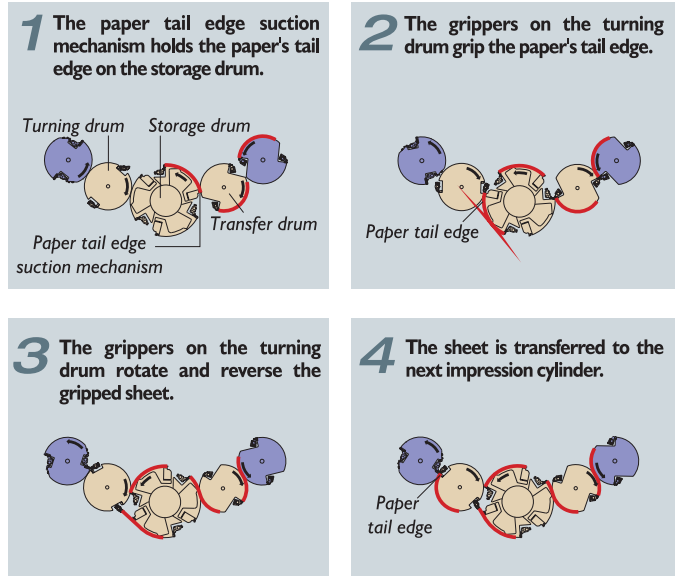


Straight printing/ perfecting printing switchover screen

### ■ Straight Printing



### ■ Perfecting



## Paper Tail Edge Suction Mechanism

The storage drum is equipped with a paper tail edge suction mechanism, which uses air suction to pull the paper tail edges. Rotating suckers tightly hold the paper tail edges and pull them both lengthwise and laterally to accurately transfer paper from the storage drum to the turning drum.

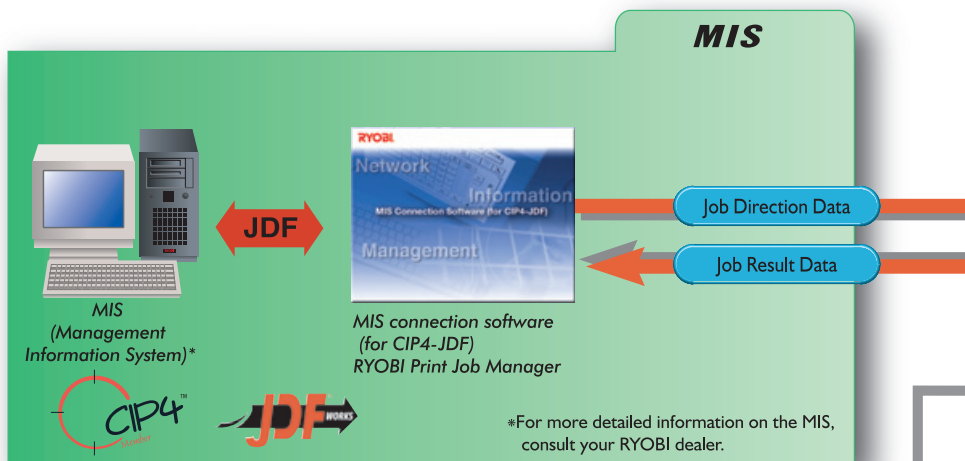


Paper tail edge suction mechanism

# Ideal Workflow for Total Management of Production and Quality

## RYOBI PDS, PDS-E Spectro, PDS-E Controls Values for the Highest Quality Printing (option)

The RYOBI PDS, PDS-E Spectro and PDS-E Printing Density Control System measures the color bar of the printed sheet using special sensors in a spectrophotometer (densitometer is used for PDS-E Spectro and PDS-E). Values needed to correct color densities to match those of the OK sheet are calculated and provided as feedback to the RYOBI PCS-K (782E: Option) which, in turn, makes appropriate adjustments in the openings of the ink fountain keys. Quality control that previously relied on human experience and intuitions is now done using precise numerical values, contributing to consistent printing quality.

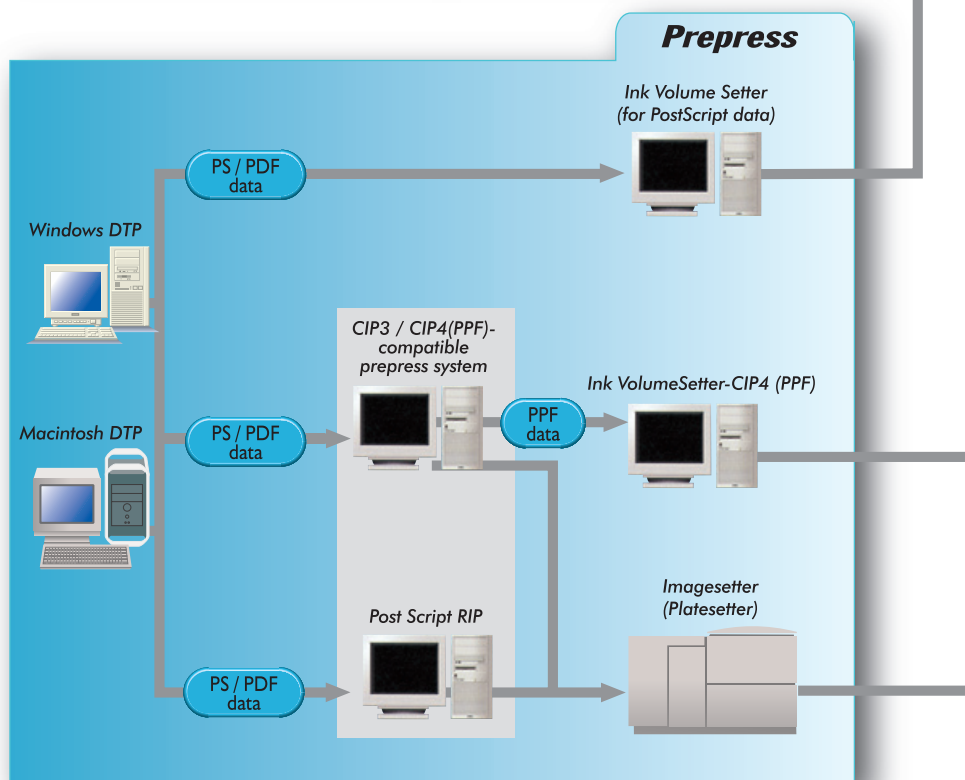


## MIS Connection Software (for CIP4-JDF) (option) RYOBI Print Job Manager (option)

The MIS connection software links a CIP4-JDF compatible management information systems and RYOBI printing presses to enable printing process management from the MIS (Management Information System).

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 RYOBI PCS-K printing control system.

RYOBI Print Job Manager Management System for Printing Presses (option) allows centralized productivity control on maximum of 30 printing presses.

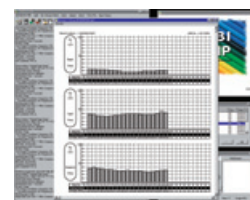


## Ink Volume Setter (for PostScript data) (option) Ink Volume Setter-CIP4 (PPF) (option)

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-K 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.

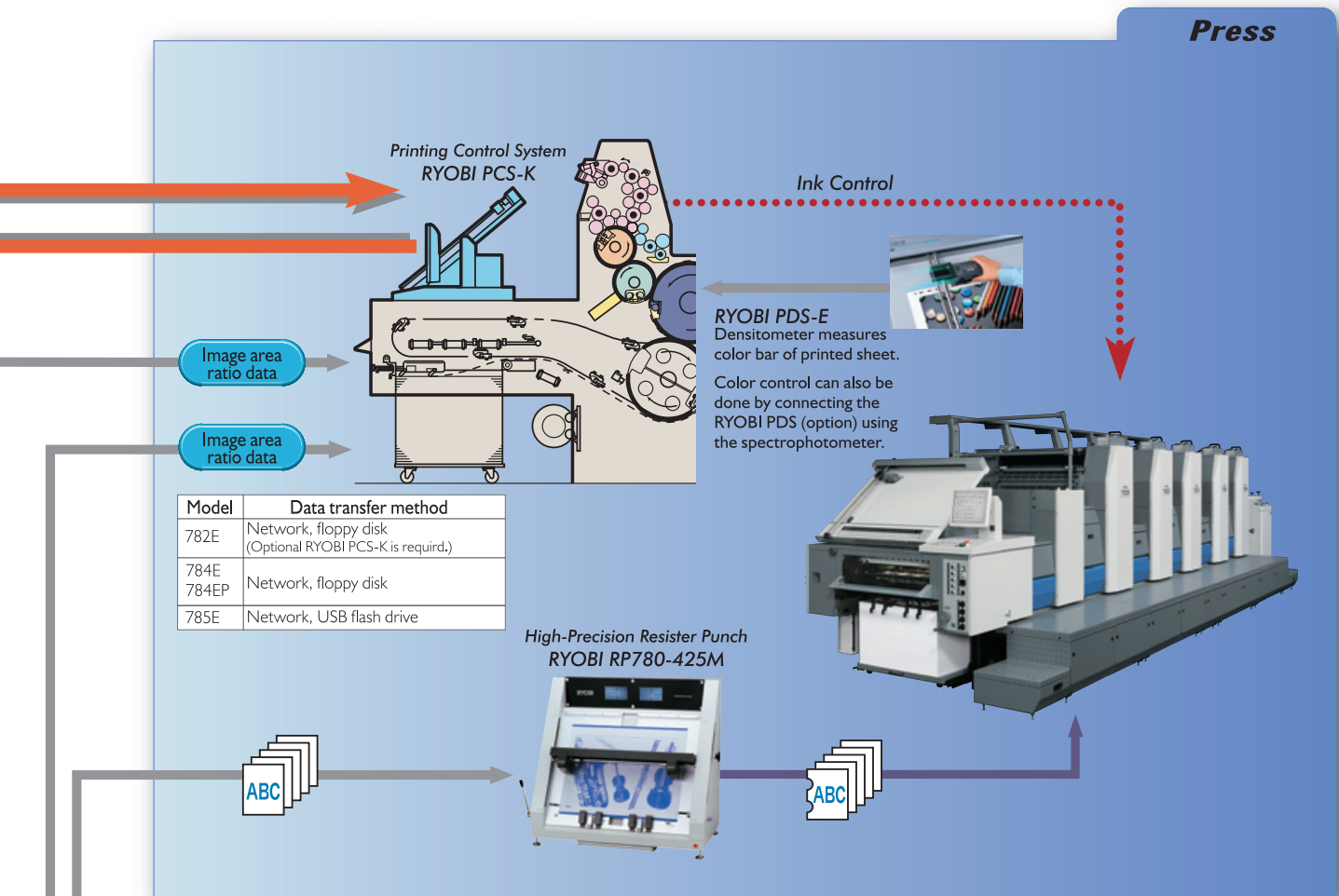
\*1: Macintosh is a registered trademark of Apple Computer, Inc.  
\*2: Windows is a registered trademark of Microsoft Corporation in the United States and other countries.



Ink Volume Setter calculation screen



## Press

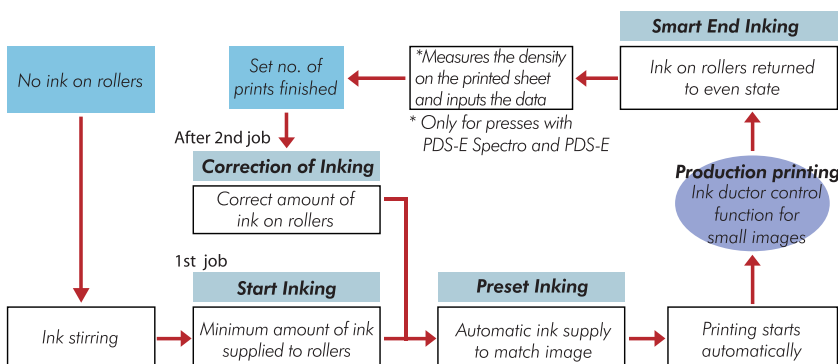


### RYOBi Program Inking for Quick Printing Setup (built into the RYOBi PCS-K)

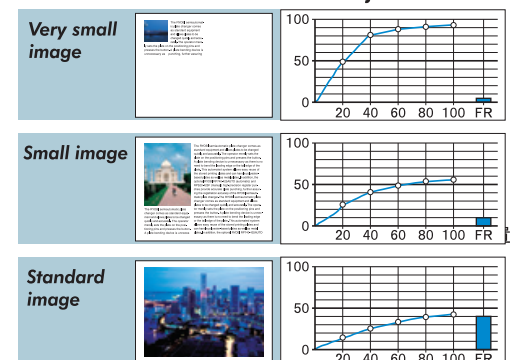
RYOBi Program Inking automatically sets the conversion curve for each color according to the image area ratio data calculated at pre-press. The ink settings, ink fountain roller speed, and number of con-

tacts by the ink ductor roller are all controlled based on the conversion curves to assure the optimum ink volume.

#### RYOBi Program Inking Flowchart



#### Automatic Conversion Curve Adjustment



## ■ Specifications

	782E	784E	784EP	785E	
Number of printing units	2	4	4	5	
Max. Paper Size (W x L)	788 x 600 mm (31.02" x 23.62")				
Min. Paper Size (W x L)	279 x 200 mm (10.98" x 7.87")		Straight printing: 279 x 200 mm (10.98" x 7.87") Perfecting: 325 x 295 mm (12.80" x 11.61")	279 x 200 mm (10.98" x 7.87")	
	When the paper vertical size is smaller than 290 mm (11.42"), the delivery auxiliary back guide must be mounted.				
Max. Printing Area (W x L)	S type : 765 x 545 mm (30.12" x 21.46") XL type : 765 x 580 mm (30.12" x 22.83")				
Paper Thickness *1	0.04 - 0.6 mm (0.0016" - 0.024")		Straight printing: 0.04 - 0.6 mm (0.0016" - 0.024") Perfecting: 0.04 - 0.4 mm (0.0016" - 0.016")	0.04 - 0.6 mm (0.0016" - 0.024")	
Printing Speed *2	3,000 - 15,000 S.P.H. (15,500 S.P.H. is possible on special request.)		3,000 - 14,000 S.P.H.		
	The maximum printing speed is 8,000 S.P.H. when using the delivery auxiliary back guide.				
Plate Size	S type: Standard; 745 x 605 mm (29.33" x 23.82") Max.; 775 x 605 mm (30.51" x 23.82") XL type: Standard; 745 x 635 mm (29.33" x 25") Max.; 775 x 635 mm (30.51" x 25") [Positioning pin pitch: 425 mm (16.73")]				
Plate Thickness	0.4 mm (0.016") (cylinder packing total)				
Blanket Type	Blanket with aluminum bar				
Blanket Size	791 x 665 x 1.95 mm (31.14" x 26.18" x 0.077") [Cylinder packing total 2.55 mm (0.1")]				
Feeder System	Rotary type stream feeder				
Feeder Pile Capacity	735 mm (28.94")				
Delivery Pile Capacity	500 mm (19.69")				
Infeed System	Underswing gripper and paper feed drum				
Number of Rollers	Ink rollers: 18 (form rollers: 4) / unit Water rollers: 4 (form roller: 1) / unit				
Gripper margin	10±1 mm (0.39" ±0.039")				
Diagonal Image Micro Adjustment Range	±0.2 mm (±0.008") (at max. printing area)				
Vertical Image Micro Adjustment Range	±1 mm (±0.039")(front lay), ±1 mm (±0.039")(plate cylinder)				
Vertical Image Rough Adjustment Range	+ 40 mm to -20 mm (+1.57" to -0.79")				
Lateral Image Micro Adjustment Range	±2.5 mm (±0.098")(pull side guide), ±2 mm (±0.079")(plate cylinder)				
Oiling System	Automatic centralized oiling system				
Electric Current	3-phase, 200 V, 50/60 Hz, 65 A or other voltages	3-phase, 200 V, 50/60 Hz, 90 A or other voltages	3-phase, 200 V, 50/60 Hz, 95 A or other voltages	3-phase, 200 V, 50/60 Hz, 104 A or other voltages	
Power Consumption	20 kW	27 kW	29 kW	29 kW	
Dimensions	Length	4,044 mm (13'3")	5,839 mm (19'2")	5,839 mm (19'2")	7,637 mm (25'1")
	Width	2,251 mm (7'5")	2,383 mm (7'10")	2,383 mm (7'10")	2,473 mm (8'1")
		For the press with the non operation side inching box, the press width is 2,660 mm (8'9").			
Height	2,149 mm (7'1")	2,149 mm (7'1")	2,149 mm (7'1")	2,121 mm (7')	
Weight *3	7,000 kg (15,432 lbs)	12,800 kg (28,219 lbs)	13,300 kg (29,321 lbs)	17,800 kg (39,242 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 printing speed.

\*3: Weight does not include the peripheral devices of the press.

**Accessories** ●:Standard equipment ○:Optional equipment —:Not available

	782E	784E	784EP	785E
RYOBI PCS-K Printing Control System (includes network kit for Ink Volume Setter)	○*5	●	●	●
Dial control ink fountain	●	—	—	—
RYOBI Semiautomatic Plate Changer (Semi-RPC)	●	●	●	●
RYOBI Program Inking (built-in with RYOBI PCS-K)	○*4	●	●	●
RYOBI-matic Continuous Dampening System	●	●	●	●
Dampening solution cooling/ circulation device	●	●	●	●
Automatic dampening solution supply device (include automatic alcohol/ etching solution supply device)	—	○	○	○
Intermediate tank for dampening solution cooling/ circulation device	○	○	○	○
Plate register remote control device (vertical, lateral, diagonal)	●	●	●	●
Suction tape feeder board	●	●	●	●
Ultrasonic type double sheet detector	●	●	●	●
Double sheet detector (mechanical)	●	●	●	●
Static eliminator (feeder and delivery sections )	●	●	●	●
Oscillating bridge roller	●	●	●	●
Decurling device	●	●	●	●
Powder spray device	●	●	●	●
Preset repeat counter	●	●	●	●
Print counter (total number of printed sheets, non-resettable)	●	●	●	●
Machine counter (total number of machine rotations, non-resettable)	●	●	●	●
OK monitor	●	●	●	●
RYOBI PDS Printing Density Control System	○*4	○	○	○
RYOBI PDS-E Spectro Printing Density Control System	○*4	○	○	○
RYOBI PDS-E Printing Density Control System	○*4	○	○	○

\*4: RYOBI PCS-K is required.

\*5: Factory installation only

\*6: The program-controlled impression cylinder cleaning function requires optional automatic blanket cleaning device.

\*7: This system can be used when the press is stopped.

	782E	784E	784EP	785E
IntelliTrax connecting set	○*4	○	○	○
Automatic blanket cleaning device *5	○	○	○	○
Automatic ink roller cleaning device *5	○	○	○	○
Impression pressure preset *5 (includes program-controlled impression cylinder cleaning function *6)	—	○	○	○
Ink roller temperature control system *5	○	○	○	○
Skid type paper pile board	○	○	○	○
Side lay sensor	○	○	○	○
Delivery racking system *7	○	○	○	○
Nonstop delivery device	○	○	○	○
RYOBI-matic-D continuous dampening system with hickey removing function	○	○	○	○
Hickey picker *5	○	○	○	○
Ink oscillating form roller	○	○	○	○
Tape inserter	○	○	○	○
Powder spray device (Grafix GmbH)	○	○	○	○
Non operation side inching box and foot step	○	○	○	○
Polyester-based plate kit	○	○	○	○
Ink Volume Setter software (for PS)	○*4	○	○	○
Ink Volume Setter-CIP4 (PPF) software	○*4	○	○	○
MIS connection software	○*4	○	○	○
RYOBI Print Job Manager	○*4	○	○	○
RP780-425M High-Precision Register Punch	○	○	○	○
BEIL425 Register Punch	○	○	○	○
LED-UV Printing System*5	—	—	—	○

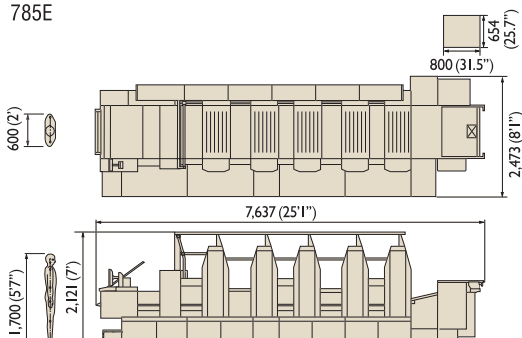
The air compressor should be prepared at the customer's side.

For more information, please ask your dealer.

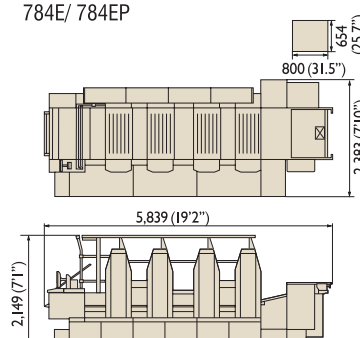
Design and specifications are subject to change without notice.  
Specifications may differ slightly depending on the country.

**Dimensions** (Unit: mm)

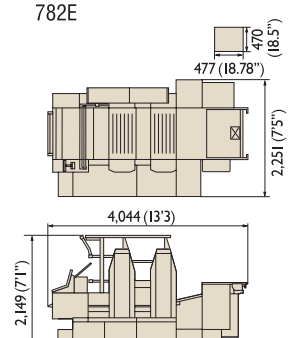
785E



784E/ 784EP



782E



# RYOBI 780E series



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