

Main Equipment ● : Standard ○ : Option

	920 model	940 model		920 model	940 model
Vacuum feeder board	●	●	Impression pressure preset system (includes program-controlled impression cylinder cleaning function)*1 *2	○	○
Side lay preset	●	●	Sheet size preset*1	○	○
Side lay sensor	●	●	Pneumatic side lay device*1	○	○
Front-lay Bernoulli device	●	●	Timing checker (add-on type)	○	○
Front-lay micro adjustment device (manual)	●	●	Smart-FPC fully simultaneous plate changer*1	○	○
SPC semi-automatic plate changing system	●	●	FPC fully automatic plate changer*1	○	○
Plate register remote control device (vertical, lateral, diagonal)	●	●	Delivery fan electrostatic eliminator	○	○
PCS-G Printing Control System	●	●	Chiller for dampening solution	○	○
Program Inking (built into PCS-G)	●	●	Automatic dampening solution supply device	○	○
Base ink volume control function	●	●	Cushion tank for dampening system	○	○
R-matic continuous dampening system	●	●	R-matic-D continuous dampening system with hickey removing function	○	○
Hickey picker	●	●	R-matic-D continuous dampening system with remote ON/OFF hickey removing function*1	○	○
Oscillating bridge roller	●	●	Air center	○	○
Double sheet detector (mechanical)	●	●	Ink oscillating form roller	○	○
Ultrasonic type double sheet detector	●	●	Multi-train ink roller configuration*1	○	○
Slowed sheet detector	●	●	Automatic ink roller cleaning device*1	○	○
Front-lay sheet stop	●	●	Ink roller temperature control system*1	○	○
Delivery jam detector	●	●	Super blue	○	○
Delivery air guide plate*3	●	○	Infrared dryer*1 / UV curing unit*1	○	○
Electrostatic eliminator	●	●	LED-UV curing unit*1	○	○
De-curler	●	●	Chamber type doctor blade coating system	○*1	●*4
Powder spray	●	●	Image area calculating software • PPC Server III • Ink Volume Setter	○	○
Preset repeat counter with batch function (electronic, 5-digit)	●	●	Printing density control system • PDS-E SpectroJet / PDS-E SpectroDrive	○	○
Machine counter (total number of machine rotations, 10-digit, non-resettable)	●	●	IntelliTrax connecting set	○	○
Print counter (total number of printed sheets, 10-digit, non-resettable)	●	●	MIS connection software (for CIP4-JDF)	○	○
OK monitor	●	●	Press information display	○	○
Board insertion device	●	●	Print Job Manager	○	○
Delivery section safety area detector	●	●	RP920-780MB high-precision register punch with plate bender	○	○
Feeder air presets*1	○	○	TY-80MB-9 plate bender	○	○
Nonstop feeder*1	○	○	Photo type delivery pile lowering sensor	○	○
Pile carrier plate*1	○	○	Rear alignment bar*1	○	○
Nonstop pile carrier plate*1	○	○	Tape inserter	○	○
Sheet pre-loader	○	○	Ink can tray	○	○
Automatic feeder pile lateral alignment function*1	○	○	EQD earthquake detection unit	○	○
Paper feed cylinder fan-out adjustment mechanism	○	○			
Special sheet feeding set	○	○			
Automatic blanket cleaning device*1	○	○			

*1 Factory installation only

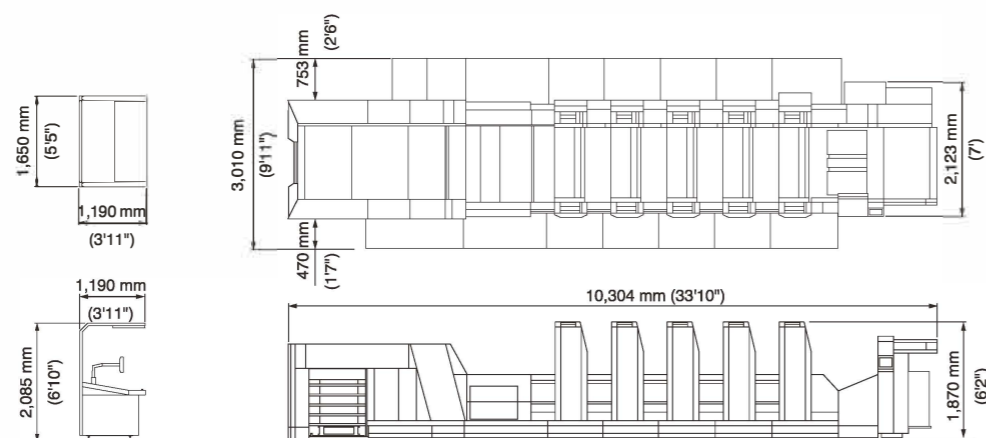
*2 The program-controlled impression cylinder cleaning function requires an optional automatic blanket cleaning device.

*3 Models with a convertible perfecting device

*4 Models with a coating unit

Machine Dimensions

920ST-4 + CC + SLD



Design and specifications are subject to change without notice.

RMGT RYOBI MHI Graphic Technology Ltd.

International Sales and Marketing Department
5-2-8 TOSHIMA, KITA-KU, TOKYO 114-8518, JAPAN
TEL. +81-3-3927-5238, FAX. +81-3-3927-5240
<http://www.ryobi-group.co.jp/graphic/>

Cat. No. RMGT 9 July '18 E03 OB08 Order No. H5894 01 001
Printed in Japan



RMGT 9
A1-Size Offset Presses



920PF-8 (8-color convertible perfector)

Providing optimum solutions for printers seeking cost savings

RMGT's aim in developing printing presses with advanced automation and laborsaving technology is to "Assist Your Potential". The newly upgraded RMGT 9 series of A1-size offset presses is perfectly positioned to meet that aim. In addition to the 920 model, which is available in many different versions up to a 10-color perfecter, the lineup includes the 940, which handles a wider paper width. Equipped with advanced automation and laborsaving systems, including a large-screen press information display that enables printing status to be confirmed at a glance, as well as maintenance functions based on the proven technology of the RMGT 10, these presses greatly enhance productivity. The addition of feeder air presets further shortens job changeover time for a wide range of work requiring frequent paper changes.

The RMGT 9 series can help you expand the range of your printing business. Delivering proven cost performance to every customer.

RMGT 9
A1-Size Offset Presses



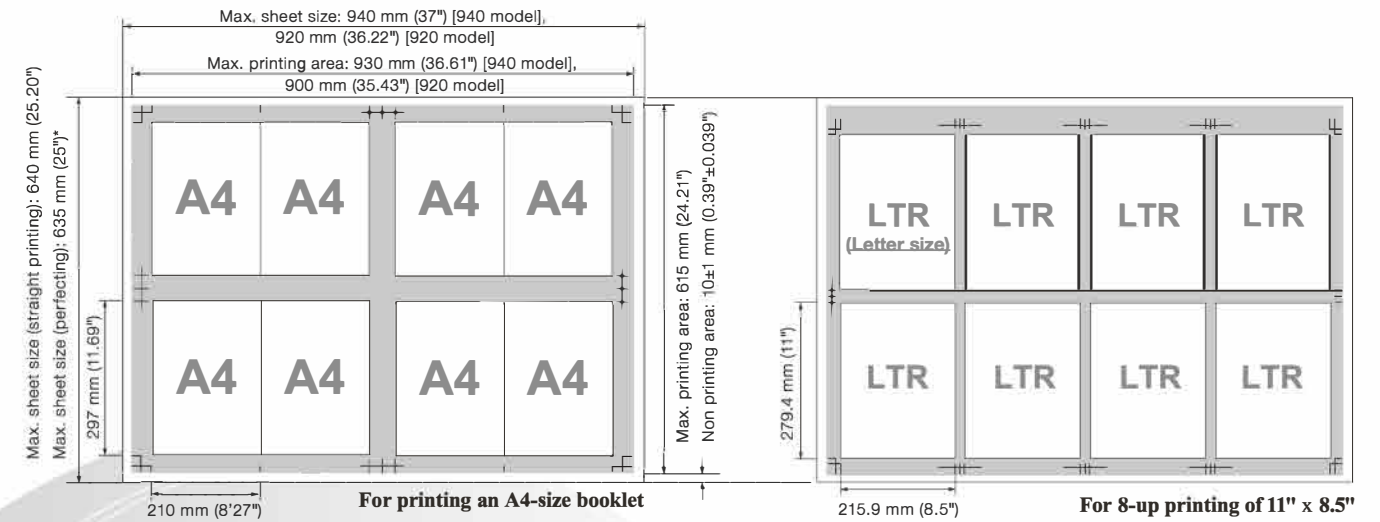
940ST-4 (A1-Size Straight 4-Color Press)

920PF-8 (A1-Size 8-Color Convertible Perfector)

8-up printing of A4 size and letter size

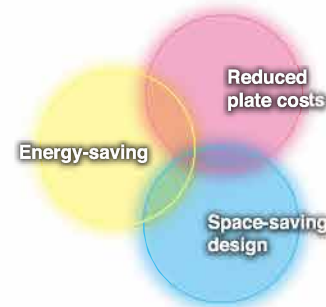
RMGT 9 presses are ideal for A1-size printing. Two models are available: the 920 for sheet widths up to 920 mm (900 mm printing area), and the 940 for sheet widths up to 940 mm (930 wide printing area).

Both models are designed to print A1-size posters as well as 8-up printing of both A4 size and 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.



Superior Cost Performance Speeds Up Jobs



920PF-8 (8-color convertible perfecter)

One pass full-color perfecting achieves higher productivity.

The 920 model can be equipped with an automatic convertible perfecting device to print both sides of a sheet in one pass for higher productivity. Moreover, installing an LED-UV curing unit at the convertible perfecting device and in the delivery section enables instant drying of both sides of the sheet, eliminating wait time before the job can be sent off for finishing.



Double/double/single-diameter cylinder perfecting mechanism used on 8- to 10-color convertible perfecters



LED-UV curing unit

(Note) Paper tail edge vacuum ON/OFF switching may be a manual task, depending on sheet width.

Retractable coating unit enables make-ready work during printing

A movable varnish coating unit enables the coating cylinder and anilox roller to be raised upward when not in use to prevent scratching of the printed sheets. A safety guard between the main press unit and coating cylinder enables make-ready work for subsequent jobs—such as cleaning the coating cylinder and changing the blanket—to be performed even while printing.



Employing the functions of the flagship RMGT 10

The RMGT 9 presses achieve higher performance by adopting many of the functions found in the flagship RMGT 10 presses, such as sheet transfer technology and the easy roller nip pressure checking function that reduces maintenance work.



High Productivity with Minimum Make-ready Time

- Fast, precise plate changing
- Smart Make-Ready Function
- Program Inking supplies the right amount of ink as soon as printing starts
- Feeder air presets for easier paper change (option)
- Easier roller nip pressure checking function

Supports High Quality Printing of Multiple Jobs

- Double-diameter printing mechanism ensures stable sheet transfer
- Gripper open/close mechanism ensures reliable sheet transfer
- Stable sheet feeding from thin sheets to board
- Vacuum feeder board enables smooth sheet transfer
- Advanced dampening system for an optimized balance of water and ink
- Press with coating unit meets the need for diversified value-added printing

Centralized Management of Printing Quality and Productivity

- Press information display for checking press operation status at the delivery section (option)
- Centralized management and control of printing and data from PCS-G
- Automated printing density control and consistent printing quality
- Digital workflow

LED-UV Curing System Improves Productivity with Superior Environmental Performance

- LED-UV curing system (option)



High Productivity with Minimum Make-ready Time

The key to higher productivity for multi-variety small-lot printing work is shorter make-ready time. Features such as program inking for faster color adjustment, an automatic plate changing system, a Smart Make-Ready function, automatic cleaning devices, and feeder air presets* automate much of the make-ready work for a marked boost in efficiency.

* Option

Fast, precise plate changing

The SPC semiautomatic plate changer comes as standard and allows plates to be changed quickly and accurately. Plate changing can be automated with the Smart-FPC* and FPC* fully automatic plate changer for even greater work efficiency.

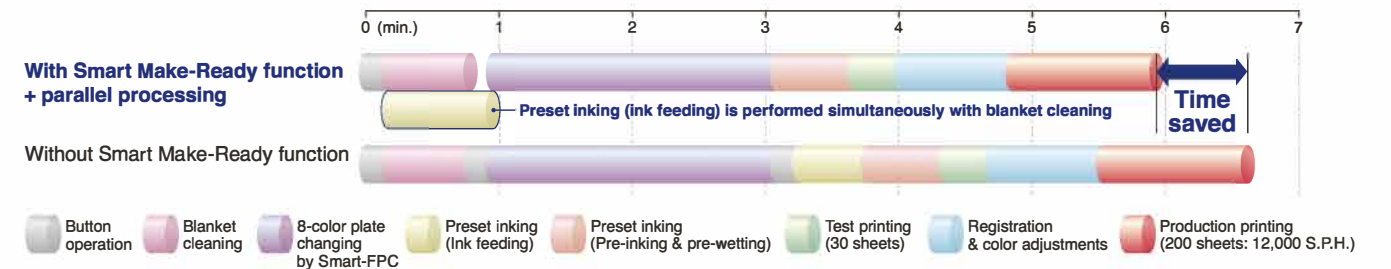
* Option



FPC fully automatic plate changer

Smart Make-Ready function

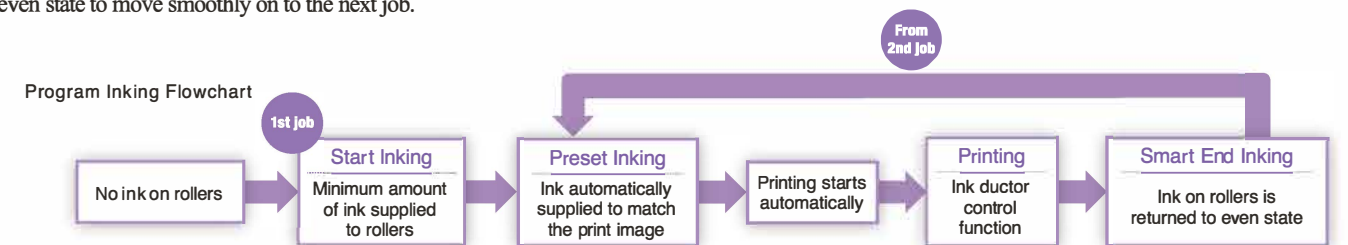
On models with an optional Smart FPC or FPC fully automatic plate changer, a Smart Make-Ready function automatically performs blanket cleaning, plate changing, preset inking and test printing to greatly enhance work efficiency. Job changeover is shortened even further by a newly added feature that allows blanket cleaning and preset inking (ink feeding) to be performed simultaneously. Fast job changeover is a powerful advantage as the volume of short-run work grows on printing shop floors.



* Time required for 4 over 4 color printing of 200 sheets with oil based ink, when performed by RMGT's technical staff. Printing time will vary depending on the printing conditions, printing speed, and operator experience.

Program Inking supplies the right amount of ink as soon as printing starts

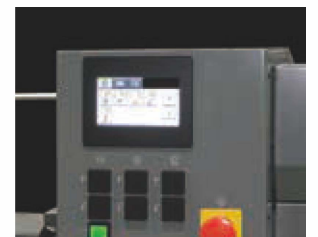
Ink is automatically supplied to match the print image. After the set number of sheets has been printed, the ink on the rollers is automatically returned to an even state to move smoothly on to the next job.



Feeder air presets* accurately preset the air volume for the type of paper

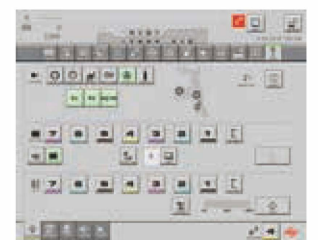
The air volume for the feeder and registration can be preset together from the operation stand according to the paper type and thickness, shortening make-ready time when changing the paper. If more precise air adjustment is required, such as for printing on thin sheets, fine adjustments can be made on the feeder touch panel. Updating and saving the preset values further enhances preset precision for repeat jobs.

* Option

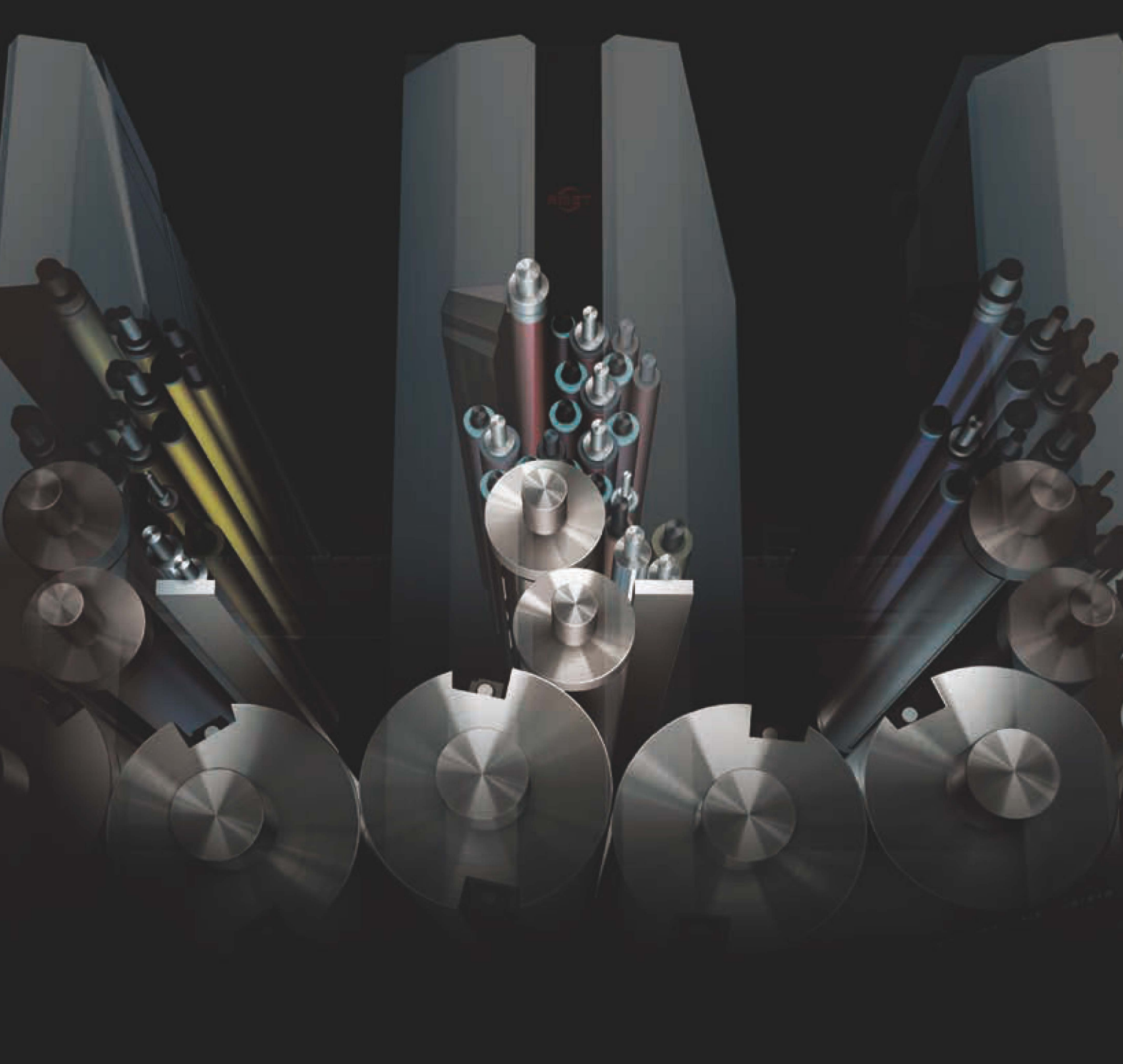


Easier roller nip pressure checking function

The one-touch nip pressure adjustment position cue function and automatic roller nip pressure checking function reduce the amount of labor required for maintenance work. Nip checking is remarkably easier thanks to the nip checking mode that prints the actual nip width in a single sheet pass.



Maintenance mode screen



Supports High Quality Printing of Multiple Jobs

The RMGT 9 employs the same advanced air management technology found in all RMGT 10 presses to enhance sheet transfer accuracy.

Stable printing quality and color reproduction are maintained by employing high precision mechanisms built with the toughness and durability to retain printing precision over long-term use.

A diverse range of printing is supported by an uncompromising standard of press performance.

Double-diameter cylinders ensure stable sheet transfer

The printing unit consists of a double-diameter impression cylinder and transfer cylinder. The large radius of curvature ensures stable sheet transfer by suppressing flapping even when printing on heavy stock and film.



Gripper open/close mechanism ensures reliable sheet transfer

Each gripper shaft features a torsion bar-type gripper open/close mechanism. Reliable gripper-to-gripper sheet transfer at any operation speed ensures stable registration accuracy.

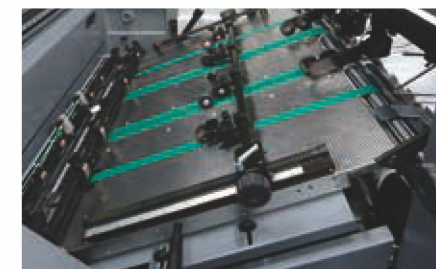
Stable sheet feeding from thin sheets to cardboard

The same high-speed, high-performance separator equipped on RMGT 10 presses is also equipped on RMGT 9 presses. From thin 0.04 mm sheets to thick 0.6 mm stock, sophisticated air management technology ensures each sheet is fed precisely even during high-speed press runs. This stock handling capability makes possible a wide range of applications, from poster to package printing.



Vacuum feeder board enables smooth sheet transfer

The vacuum feeder board ensures smooth, stable sheet feed from the feeder board to the front lay. An integrated brush and runner wheel mechanism shortens the time needed to change sheet sizes. A pneumatic pull side guide* minimizes contact scratches when feeding delicate substrates.

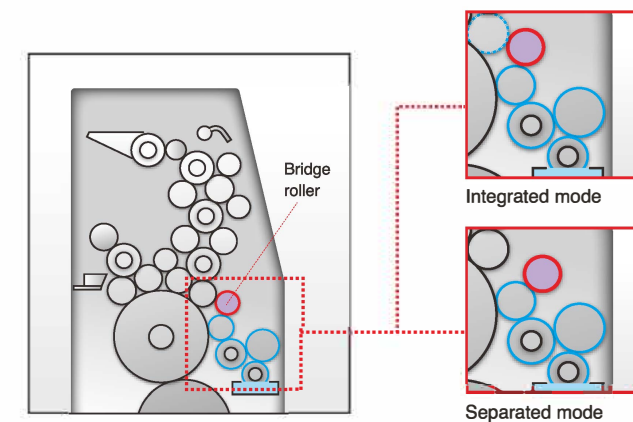


* Option

Advanced dampening system for an optimized balance of water and ink

The R-matic continuous dampening system assures a uniform dampening supply on the plate surface to reproduce sharp dots, glossy solids and finely detailed text. This system also allows non-alcohol printing. Switching between integrated mode and separated mode from the touch-panel display is easy, for precisely matching the image and characteristics.

The R-matic-D* Continuous Dampening System with Hickey Removing Function and R-matic-D Remote* Continuous Dampening System with Remote ON/OFF Hickey Removing Function substantially reduce hiccups 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.



* Option



Centralized Management and Control of Printing Quality and Productivity

The RMGT 9 forms an integral part of the optimal digital work flow centered on the PCS-G Printing Control System. With connections to an MIS designed for CIP4-JDF, a color management system linked to prepress data, and other pre- and post-press functions, centralized management and control of printing quality and productivity optimizes printing operations.

Press information display* for checking press operation status at the delivery section

Real-time viewing of sheet transfer by press-mounted video cameras is available on the live-view monitor at the press operation console. The information display features a monitoring function to show image area data, job progress, print density measurement results, and the operating status of safety devices. The screen can be viewed on a tablet connected to a Wi-Fi network, allowing remote operation at locations away from the delivery section. The press information display contributes to a comfortable operational environment. (Three cameras are standardly installed, but up to a maximum of ten can be accommodated.)



Density measurement monitor



Live-view monitors

* Option

Centralized management of printing and data from PCS-G

The PCS-G printing control system acts as a printing control center and provides centralized management of all processes from make-ready to printing completion, including ink density adjustment, registration, color adjustment, water control, printing settings, cleaning and other operations. It also allows centralized management of operation and maintenance information such as maintenance history and press operation logs.

Automated printing density control and consistent printing quality

The optional PDS-E SpectroJet*¹ and PDS-E SpectroDrive*¹ printing density control systems use a spectrophotometer to measure the color bar on printed sheets and calculate the correction values as the difference between the printed sheet and OK sheet. These correction values are then fed back to the PCS-G to automatically control the opening and closing of the ink fountain keys for much faster color adjustment. By measuring printed sheets regularly during printing and sending data to the PCS-G, consistent printing quality is maintained from start to finish with minimum density fluctuations. The PDS-E SpectroDrive and PDS-E SpectroJet are both equipped with an M1 spectrophotometer*² for high-precision measurement under a wide range of paper conditions.



PDS-E SpectroDrive

*¹ Option

*² Colorimeter capable of precise color measurement under a D50 light source when using paper treated with a fluorescent whitening agent.

Digital Workflow

A digital workflow can be established to integrate the entire press room, prepress, and other internal sections. With the IPC and PPC servers as an interface, you can not only utilize CIP4, JDF, and a compatible MIS, but also easily connect to other management systems and prepress processes.

MIS connection software (CIP4-JDF)*

MIS connection software connects a CIP4-JDF compatible MIS (Management Information System) and PCS-G printing control system for real-time printing process management.

Print Job Manager*

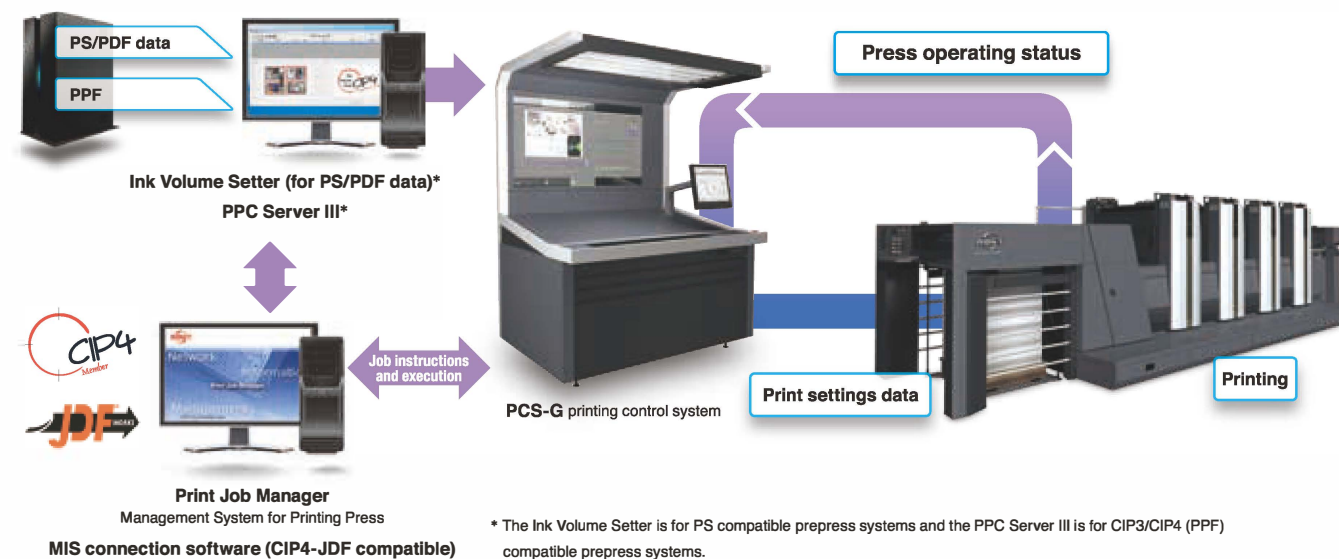
The optional Print Job Manager press operation control system connects compatible presses via a network to manage the production schedule and transmit printing job data. It also collects data on press operating status in real time and automatically generates production analysis data.

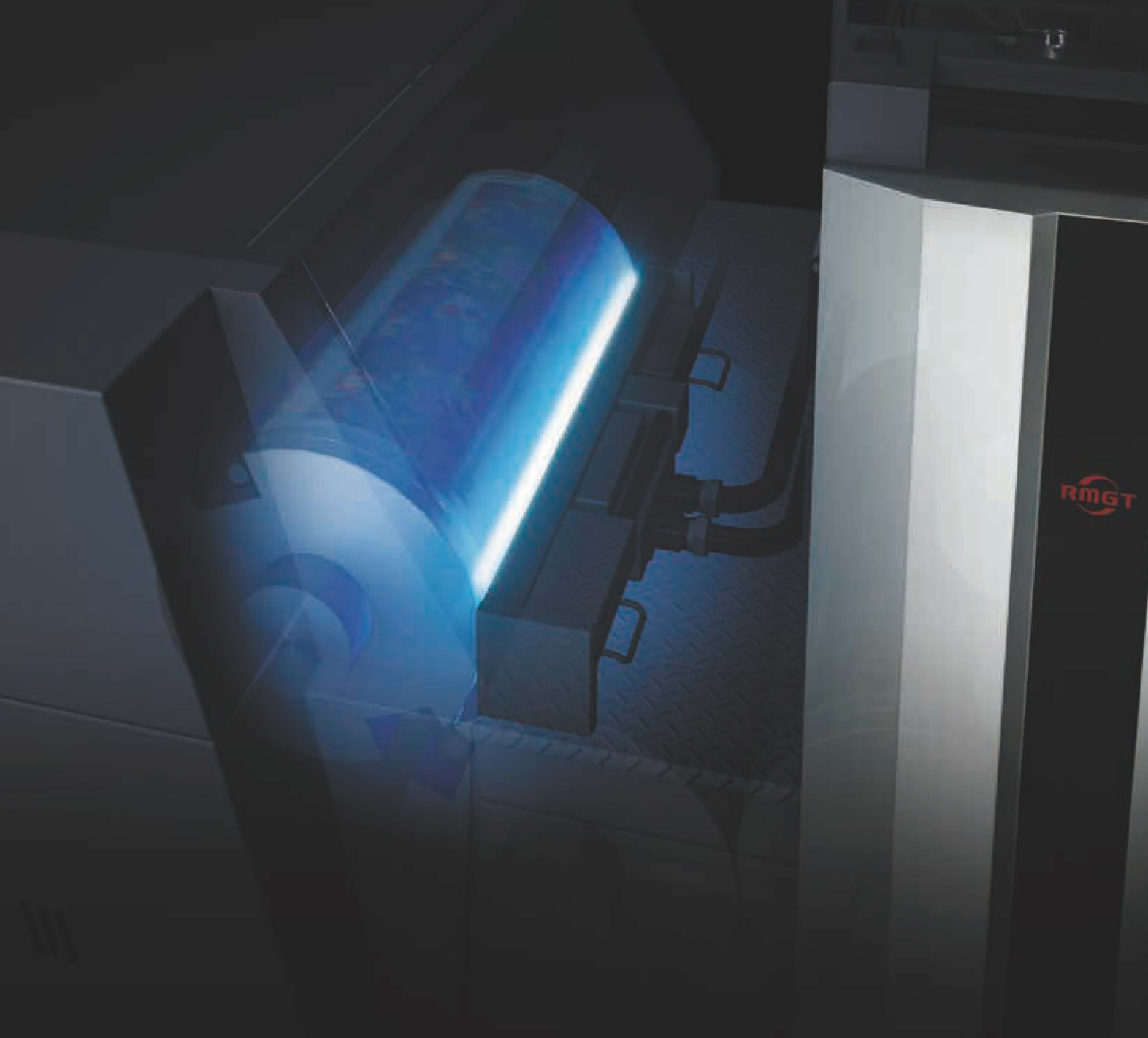
PPC Server (PPC Server III)*

This server converts image area ratio data generated by CIP3/CIP4-PPF and CIP4-JDF-enabled prepress systems and provides data on ink key opening volume.

*Option

Image area ratio is calculated based on plate-making data.





LED-UV Curing System* Improves Productivity with Superior Environmental Performance

RMGT is the first press manufacturer worldwide to put LED-UV curing systems into commercial production for sheet-fed offset printing.

RMGT continues to lead the industry in this area by further improving and developing the curing system, which features outstanding environmental performance.

* Option

Features of LED-UV curing system

Low power consumption

Power consumption of the LED-UV curing system is only 10%* of a conventional UV lamp system. In addition, the instant on-and-off of LED-UV lighting eliminates the need for substantial standby power.

* For the 920 model (the percentage may vary depending on various conditions).

Long-life light source

A conventional UV lamp system's light source lasts approximately 1,000 to 3,000 hours*, but the LED-UV curing system's light source has an impressively long life of approximately 15,000 hours. Moreover, a conventional UV lamp system remains lit in standby mode during make-ready work, shortening its life, while the LED-UV curing system remains completely off so light source life is unaffected.

* The UV lamp's life cycle depends on the on-and-off frequency and other conditions.

Ozone-less and low heat generation

The LED-UV operates within a UV wavelength where no ozone is generated, eliminating the ozone odor peculiar to UV printing. The minimal heat generated during curing reduces thermal impact on the printed sheets and eliminates the need for exhaust ducting.

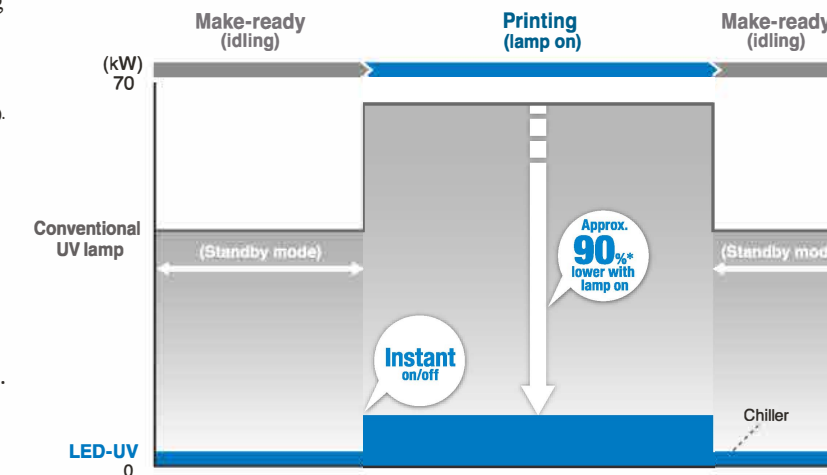
Varnish and special substrates for high-value-added printing*

The growing popularity of the LED-UV curing system has led to a wider selection of inks, varnishes and substrates. An array of high-value-added printing services can be offered by combining special colors such as gold and silver, various varnish coating surface treatments, and printing on special substrates.

* Drying performance may vary depending on printing conditions such as the paper, ink, varnish, drying unit, printing speed, etc.

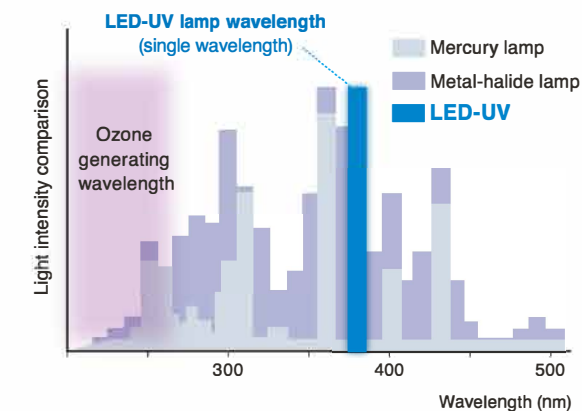
Power consumption vs. conventional UV lamp*

Greatly reduced during both printing (lit) and make-ready (idling).



* For the 920 model (the percentage may vary depending on various conditions).

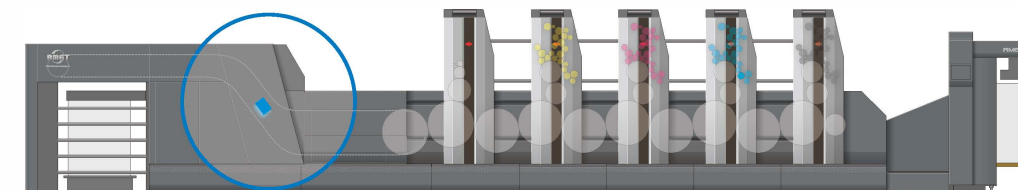
Wavelength comparison of LED-UV and conventional UV lamps



Instant drying for offset printing



Instant drying for offset printing + varnish coating



Various Model Lineups for Customer Applications

■ Combination Chart 920ST/940ST (straight press)

Number of printing units	Coating unit	Delivery		Dryer			Mechanical side view
		and delivery	Semi-long delivery	air-dryer	UV curing unit	LED-UV curing unit	
2	—	●	—	—	—	○*3	
2	—	—	●	—	○	—	
4	—	●	—	—	—	○*3	
4	—	—	●	—	○	○*4	
4	●*1	—	●	○*2	○	○*4	
5	—	●	—	—	—	○*3	
5	—	—	●	—	○	○*4	
5	●*1	—	●	○*2	○	○*4	
6	—	●	—	—	—	○*3	
6	—	—	●	—	○	○*4	
6	●*1	—	●	○*2	○	○*4	

● Standard ○ Option

■ Combination Chart 920PF (convertible perfecter)

2 (2/0, 1/1)	—	●	—	—	—	○*3 ○*5	
4 (4/0, 2/2)	—	●	—	—	—	○*3 ○*5	
5 (5/0, 4/1)	—	●	—	—	—	○*3 ○*5	
5 (5/0, 3/2)	—	●	—	—	—	○*3 ○*5	
6 (6/0, 5/1)	—	●	—	—	—	○*3 ○*5	
6 (6/0, 4/2)	—	●	—	—	—	○*3 ○*5	
8 (8/0, 4/4)	—	●	—	—	—	○*3 ○*5	
10 (10/0, 5/5)	—	●	—	—	—	○*3 ○*5	

● Standard ○ Option

● Convertible perfecting device

*1 The coating unit only allows an aluminum bar type blanket. *2 Infrared dryer with hot air
*3 LED-UV curing unit over the delivery drum *4 LED-UV curing unit in the delivery section
*5 LED-UV curing unit over the convertible perfecting device

Note 1: The 920PF convertible perfecter is not available with a coating unit, infrared dryer, UV curing unit or semi-long delivery.
Note 2: Please consult your sales representative if you wish to install an LED-UV curing unit over the convertible perfecting device on the 920PF convertible perfecter.
Note 3: The 940 models are not available with a convertible perfecting device.

Specifications

■ 920 model

	920ST-2 / 920PF-2	920ST-4 / 920PF-4	920ST-5 / 920PF-5	920ST-6 / 920PF-6	920PF-8	920PF-10
Number of printing units	2 (2/0, 1/1)	4 (4/0, 2/2)	5 (5/0, 4/1) 5 (5/0, 3/2)	6 (6/0, 5/1) 6 (6/0, 4/2)	8 (8/0, 4/4)	10 (10/0, 5/5)
Cylinder arrangement of the convertible perfecting device	Standard: single-, double- and single-diameter cylinder arrangement Option: double-, double- and single-diameter cylinder arrangement				Double-, double- and single-diameter cylinder arrangement	
Max. sheet size	920ST (straight press): 640 × 920 mm (25.20" × 36.22") 920PF (convertible perfecter): [straight printing] 640 × 920 mm (25.20" × 36.22") [perfecting] 635 × 920 mm (25" × 36.22")					
Min. sheet size	920ST (straight press): 290 × 410 mm (11.42" × 16.14") 920PF (convertible perfecter): [straight printing] 290 × 410 mm (11.42" × 16.14") [perfecting] 370 × 410 mm (14.57" × 16.14")					
Max. printing area	615 × 900 mm (24.21" × 35.43")					
Paper thickness *1	920ST (straight press): 0.04 – 0.6 mm (0.0016" – 0.024"), 920PF (convertible perfecter): 0.04 – 0.4 mm (0.0016" – 0.016")					
Max. printing speed *2	920ST (straight press): 16,200 S.P.H. 920PF (convertible perfecter): 13,000 S.P.H.					
Plate size	665 × 910 mm (26.18" × 35.83") [positioning pitch: 780 mm (30.71") Plate thickness (cylinder packing total): 0.44 mm (0.017")					
Blanket size	Blanket size: 682 × 941 × 1.95 mm (26.85" × 37.05" × 0.077") [Cylinder packing total: 2.55 mm (0.1")]					
Feeder and delivery pile capacity	Feeder: 800 mm (31.5") Delivery: 900 mm (35.43")					
Number of rollers	Ink rollers: 19 (form rollers: 4)/ unit Water rollers: 4 (form roller: 1)/ unit					
Non printing area	10 ± 1 mm (0.39" ± 0.039")					
Dimensions	Length	5,954 mm (19'6") / 6,317 mm (20'9")	7,726 mm (25'4") / 8,089 mm (26'6")	8,612 mm (28'3") / 8,976 mm (29'5")	9,498 mm (31'2") / 9,862 mm (32'4")	11,878 mm (39") / 13,650 mm (44'9")
	Width	3,010 mm (9'11")	3,010 mm (9'11")	3,010 mm (9'11")	3,010 mm (9'11")	3,274 mm (10'9") / 3,368 mm (11'1")
	Height	1,870 mm (6'2")	1,870 mm (6'2")	1,870 mm (6'2")	1,870 mm (6'2")	1,870 mm (6'2")
Weight *3	12.6 t (27,778 lbs) / 13.6 t (29,983 lbs)	21.6 t (47,620 lbs) / 22.6 t (49,824 lbs)	26.1 t (57,540 lbs) / 27.1 t (59,745 lbs)	30.6 t (67,461 lbs) / 31.6 t (69,666 lbs)	41 t (90,389 lbs)	50 t (110,231 lbs)

■ 940 model *4

	940ST-4	940ST-5	940ST-6	
Number of printing units	4	5	6	
Max. sheet size	640 × 940 mm (25.20" × 37.01")			
Min. sheet size	290 × 410 mm (11.42" × 16.14")			
Max. printing area	615 × 930 mm (24.21" × 36.61")			
Paper thickness *1	0.04 – 0.6 mm (0.0016" – 0.024")			
Max. printing speed *2	15,000 S.P.H.			
Plate size	665 × 945 mm (26.18" × 37.20") [positioning pin pitch: 780 mm (30.71") Plate thickness (cylinder packing total): 0.44 mm (0.017")			
Blanket size	Blanket size: 682 × 955 × 1.95 mm (26.85" × 37.60" × 0.077") [cylinder packing total : 2.55 mm (0.1")]			
Feeder and delivery pile capacity	Feeder : 800 mm (31.5") Delivery: 900 mm (35.43")			
Number of rollers	Ink roller: 19 (form rollers: 4)/ unit Water rollers: 4 (form roller:1)/ unit			
Non printing area	10 ± 1 mm (0.39" ± 0.039")			
Dimensions	Length	7,726 mm (25'4")	8,612 mm (28'3")	9,498 mm (31'2")
	Width	3,045 mm (10')	3,045 mm (10')	3,045 mm (10')
	Height	1,870 mm (6'2")	1,870 mm (6'2")	1,870 mm (6'2")
Weight *3	21.9 t (48,281 lbs)	26.4 t (58,202 lbs)	30.9 t (68,123 lbs)	

*1 Printable paper thickness may vary according to paper stock. The maximum paper thickness on the 920PF is 0.4 mm and printing speed is 13,000 S.P.H. for both straight printing and perfecting.

*2 The local conditions, ink and printing plate type, and the printing quality required will affect the maximum printing speed.

*3 The indicated weight is for a standard delivery type press without a coating unit and does not include peripheral devices. Please contact an RMGT dealer or representative for detailed information on dimensions and weight for other press types.

*4 The 940 models are not available with a convertible perfecting device.