![RMGT]

RMGT 10
1,020/1,050 mm Format Offset Presses

1050LX-6 + CC + LD (6-color press with a coating unit)

Superior Performance, Cutting-Edge Technology

RMGT 10 – Shaping an Evolution

RMGT's aim in developing printing presses
with advanced automation and laborsaving technology is
to "Assist Your Potential".
The newly upgraded flagship RMGT 10 series is perfectly positioned to meet that aim.
Digital control systems together with automation
and laborsaving devices allow tasks to be efficiently performed
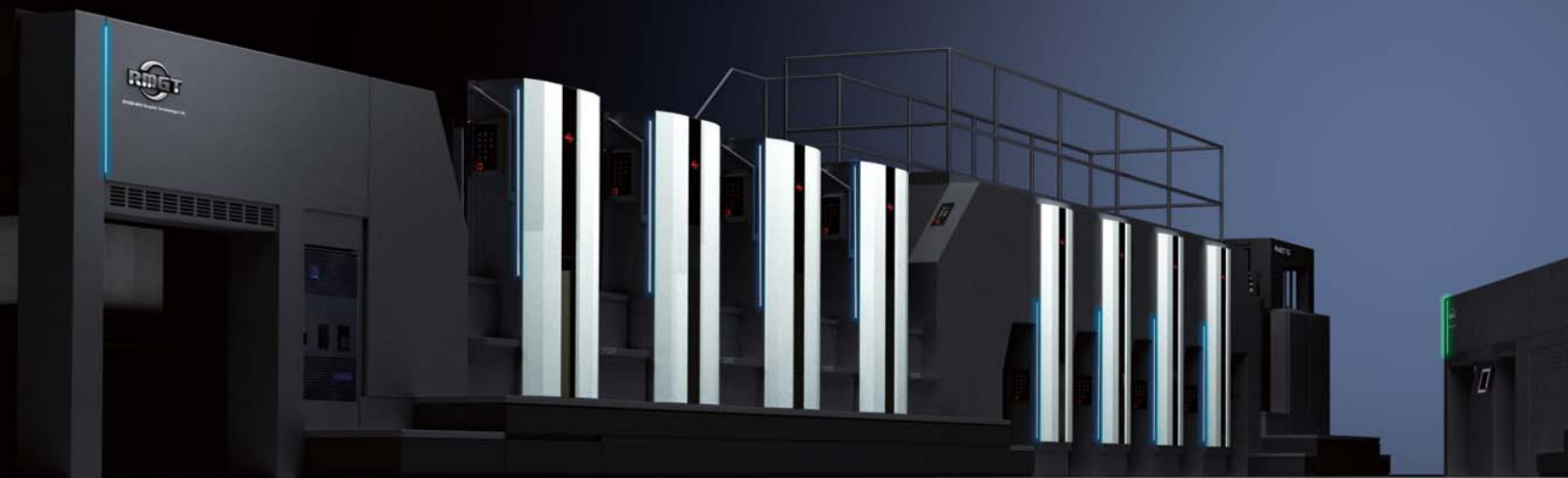in parallel, markedly shortening make-ready time.
The new RMGT 10 1,020/1,050 mm format offset presses
offer the latest cutting-edge printing technologies.
Expand your business opportunities in different market sectors
with high quality printing performance.

1,020/1,050 mm Format Offset Presses

RMGT 10

Oper

1050TP-8 (1,050 mm Format Tandem Perfector 8-Color Offset Press)

logy

Shorter make-ready time

Operator-friendly

Automation & Laborsaving

ses

RMGT 10

1050LX-6 (1,050 mm Format Wide Stock Range 6-Color Offset Press)

High-definition and high-value-added printing that surpasses other presses

The RMGT 10 press models not only meet the needs for small lot, diverisifed production, but also deliver a higher level of overall performance in line with today's demands.

Feeder and registration sections reduce operator burden while improving register precision.

The RMGT 10 boasts next-generation features such as a high power LED-UV curing system*

that dramatically reduces energy consumption while boosting productivity,

and an advanced PCS-N operation interface that combines a new operator-friendly

GUI (graphical user interface) with a wide-screen press information display*.

An optional automatic non-stop feeder mechanism and delivery shutter, increase efficiency for

continuous printing on heavy stock, further enhancing package printing performance.

The RMGT 10 contributes to higher profitability through proven stability and reduced downtime.

1050LX-6 + CC + LD (1,050 mm Format Wide Stock Range 6-color Offset Press)

Advanced downtime-reducing mechanisms

- Parallel processing of printing procedue
- Simul Changer*
- Register air adjustment preset / Convenient delivery touch panel
- Easier nip checking function

Uncompromising pursuit of printing quality

- Seven o'clock cylinder arrangement
- Multi-mode dampening system
- Lubrication-free gripper bearings
- Stable sheet transfer by original air control
- Ink roller temperature control system*

High-level printing quality controls

- MCCS-e (color tone control)*
- PDS-E SpectroDrive (color density control)*
- Expert software
- Color Navigator

Operator-friendly performance

- PCS-N printing control system
- A new, easier-to-view, easier-to-use GUI
- Press Information Display*

Earth and human conscious

- LED-UV curing system*
- Energy savings and reduced sheet waste contributions
  Eco Drive Motor / Reduced sheet waste at printing startup
- Safety-conscious considerations
  Safety area detectors / World's first multifunctional LED beams

* Option

RMGT 10

4

Advanced downtime-reducing mechanisms

Reducing press downtime is a key factor for increasing productivity.
The RMGT 10 simultaneously performs different make-ready tasks, shortening make-ready time up to 40% compared to previous presses. Various high-efficiency laborsaving mechanisms markedly reduce press downtime during multiple job changeovers.
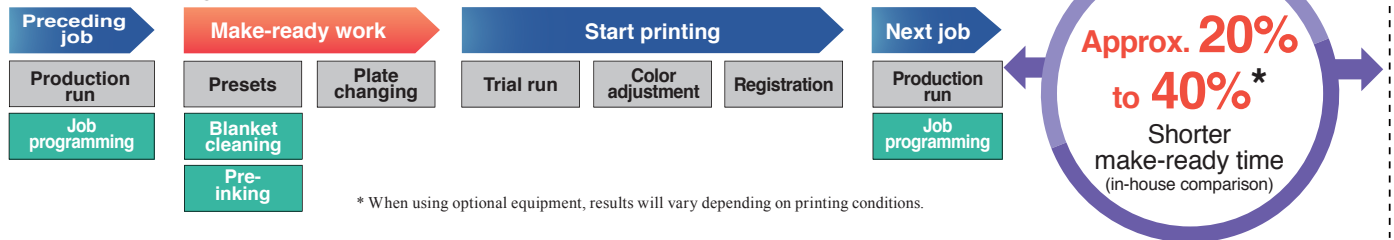
Parallel processing of printing procedure

By performing blanket cleaning and pre-inking simultaneously and streamlining the workflow and programming—such as by allowing presets for the next job while printing a different job—the RMGT 10 shortens make-ready time by approximately 20% to 40%* compared to previous presses. This ensures a high operating rate even when performing diverse small-lot printing.

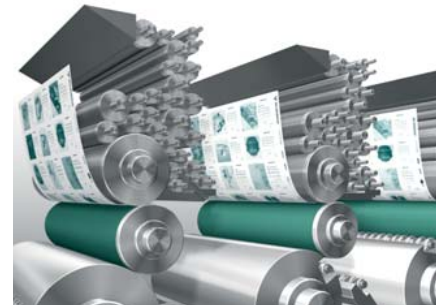## Workflow comparison

· Previous workflow

Preceding job	Make-ready work					Start printing			Next job
Production run	Job call-up	Presets	Blanket cleaning	Plate changing	Pre-inking	Trial run	Color adjustment	Registration	Production run

· Workflow with upgraded RMGT 10

Preceding job	Make-ready work		Start printing			Next job
Production run	Presets	Plate changing	Trial run	Color adjustment	Registration	Production run
Job programming	Blanket cleaning					Job programming
	Pre-inking					

Approx. 20% to 40%*
Shorter make-ready time (in-house comparison)

* When using optional equipment, results will vary depending on printing conditions.
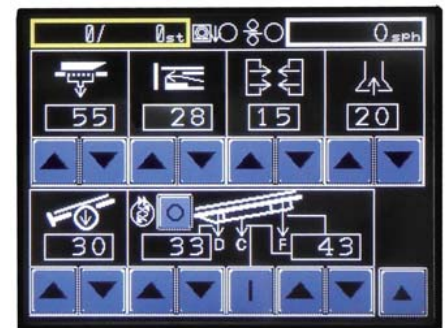
Simul Changer*

By setting the plates for the next job while a different job is being printed, all remaining plate changing tasks — from plate cylinder phase adjustment to removal of the old plates and mounting of the new plates — are automatically performed in just 75 seconds by simple button operation on the operation stand. Plus, a bender-less plate clamping system eliminates the need to bend the plate edges. The result is greatly reduced downtime for small-lot work requiring frequent job changeovers.

* Option

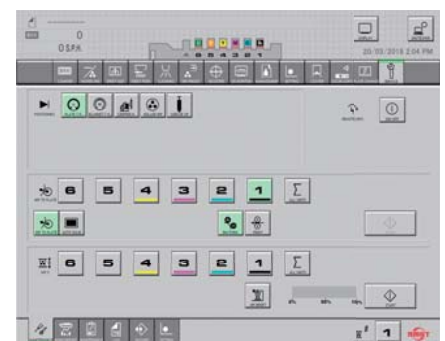## Register air adjustment preset / Convenient delivery touch panel

The side lay, as well as the air volume for the front lay Bernoulli device, are easily adjusted via touchscreen panels, with an automatic preset function for different sheet types and thicknesses. The delivery section features a touchscreen monitor for easy digital control of the delivery fan and vacuum slowdown wheel rotaion speeds, and for the sheet release cam position. The registration and delivery sections can be efficiently preset for repeat work by storing the air adjustment values for special media and for each job in the PCS-N.

Delivery section touchscreen monitor

Easier nip pressure checking function

The one-touch nip pressure adjustment position cue function and automatic roller nip pressure checking function vastly reduce the amount of labor required during maintenance work. Nip checking is remarkably easier on the RMGT 10 and 11 with the nip checking mode that print actual nip width on a single sheet pass.

Uncompromising pursuit of printing quality

Various systems serve essential roles geared to quality control. Included here are a proven air management system that contributes to highly stable sheet transfer and a multitude of highly reliable mechanisms developed by combining technologies accumulated over many years.
Our uncompromising pursuit of printing quality is intended to meet diversified printing demands.

Seven o'clock cylinder arrangement preventing the occurrence of printing problems
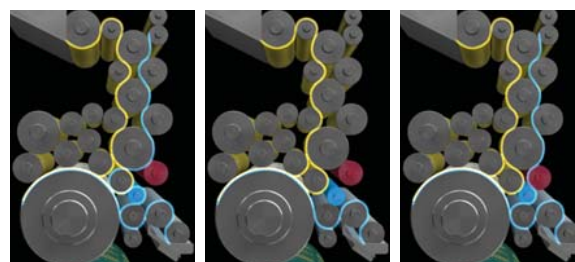
Printing units are configured with double-diameter impression and transfer cylinders positioned in a seven o'clock arrangement with plate and blanker cylinders.
These highly reliable mechanisms, designed in pursuit of uncompromising precision and durability provide smooth and stable sheet transfer that readily supports outstanding printing quality.

Multi-mode dampening system

This system optimizes the supply of dampening solution depending on the type of image being printed, from light ink coverage to large solid ink areas. Three modes are available: the semi-AD mode for most routine color job requirements; the AD mode, suitable for print images requiring less ink; and the ITD mode*, designed for solid high gloss print images requiring heavy ink coverage. Different modes can be set at different printing units, and on-the-run mode changes are also possible.

Semi-AD Mode

Intermediate mode applied to a wide variety of print image conditions

AD Mode

Provides light ink coverage through low rate of ink emulsification

ITD Mode

Provides heavy ink coverage through high rate of ink emulsification

Lubrication-free gripper shaft bearings

The use of oil-less bearings for the impression cylinder and transfer cylinder grippers eliminates the need for lubrication, reducing maintenance work and preventing stains on the printed sheets from oil spatter.

Stable sheet transfer by original air control

RMGT's own advanced air management technologies. Together, each ensures stable sheet transfer at all times.

- **High-speed separator**
- **Front-lay Bernoulli device***
- **Delivery section air management system**
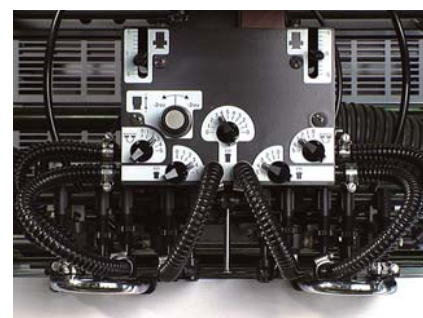- **Integrated vacuum slowdown wheel**

* Option

Delivery section air management system

Integrated vacuum slowdown wheel

High-speed feeder head

Ink roller temperature control system*

Ink roller temperature control system maintains consistent temperature of the ink rollers and three oscillation rollers from start to finish of printing. This system eliminates variations in print quality due to fluctuations in ink train temperature.

* Option

High-level printing quality controls

The best software is required for intelligently improving press stability.

Included here is our expert software – a program for automating color adjustment at job changes and for maintaining stable and high printing quality – and our digitally controlled color control system.

MCCS-e (color tone control)[*1]
PDS-E SpectroDrive (color density control)[*1]

The MCCS-e employs an X-Rite sensor to measure printed color patches , and RMGT's proprietary predictive control algorithm calculates the amounts by which the ink needs to be adjusted to meet the target value. The ink key openings are then automatically controlled for high precision color matching to quickly achieve the target values.
An another powerful option is the PDS-E SpectroDrive printing density control system.
Both the MCCS-e and PDS-E SpectroDrive are equipped with
an M1 spectrophotometer [*2] for high-precision measurement
under a wide range of sheet conditions.

MCCS-e

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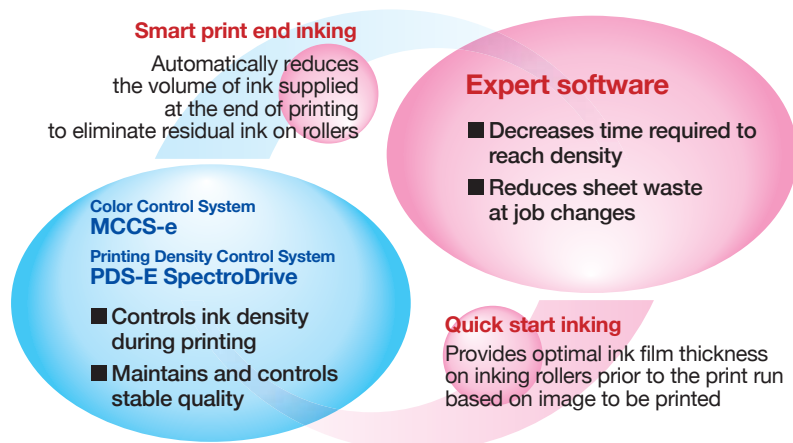   when using paper treated with afluorescing whitening agent.

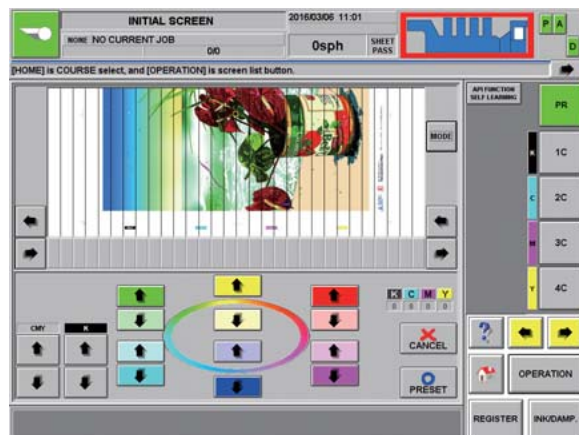PDS-E SpectroDrive

Expert software

Built-in expert software controls ink adjustments at job changes. It stabilizes printing quality from start to end of printing, shortens makeready time, and reduces sheet waste.

Expert software is an inking control program,
including quick start inking and smart print end inking.

Smart print end inking
Automatically reduces
the volume of ink supplied
at the end of printing
to eliminate residual ink on rollers

Expert software
■ Decreases time required to
   reach density
■ Reduces sheet waste
   at job changes

Color Control System
MCCS-e

Printing Density Control System
PDS-E SpectroDrive

■ Controls ink density
   during printing
■ Maintains and controls
   stable quality

Quick start inking
Provides optimal ink film thickness
on inking rollers prior to the print run
based on image to be printed

Color Navigator

Color Navigator provides highly skilled operator-like fine-tuning of colors through a revolutionary touch screen color wheel installed in the IPC-III. Highly precise color adjustment and registration functions, encompassing RGB colors as well, are included.
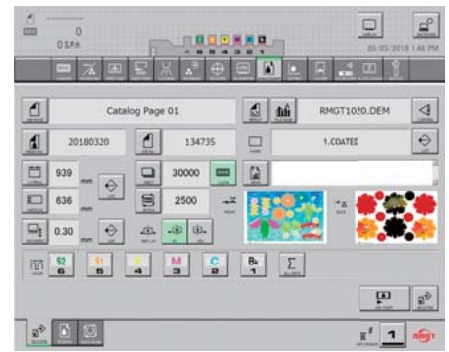
Operator-friendly performance

For easy control of increasingly advanced and complex presses,

the latest operation interface has been equipped to support print professionals.

The GUI has also been revamped for greater usability.

Such operator-friendly performance ensures easier press operation.

PCS-N printing control system

This integrated operation interface features RMGT's expert software for consistently high printing quality, shorter make-ready time, and reduced sheet waste. Various monitoring functions, such as for power consumption and ink mileage, plus accurate real-time operating status display of all necessary information enable easy remote control of press operation.

A new, easier-to-view, easier-to-use GUI

The GUI (graphical user interface) for the operation stand display has been improved with icons and illustrations that enable intuitive operation by less experienced operators. Tab menus enable quick access of the desired operating screen with just 1 or 2 touches.
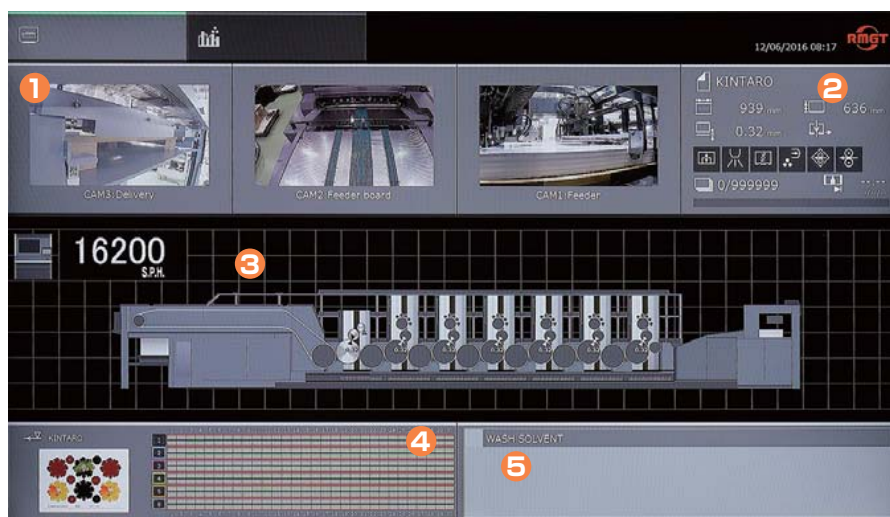

Press Information Display*

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 ink key supply volumes, image area data, job progress, print density measurement results, and operating conditions 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. (Normally, three cameras are installed, but up to a maximum of ten can be accommodated.)

* Option

Press Information Display and easy-to-use touch panel display

Remote monitoring of Press Information Display by Tablet PC

❶ Live view monitors

❷ Job indication

❸ Press operating status (impression pressure, impression cylinder ON, safety device and etc.)

❹ Density measurement result display

❺ Error indication (message)

Earth and human conscious

The proven LED-UV curing system provides significant energy-savings and extended service life while maximizing high productivity. Various devices are equipped to reduce sheet waste and pursue greater efficiency. And press safety systems have been designed specifically with protection of operators and machines in mind. RMGT's technologies further embody an earth and human conscious environment.
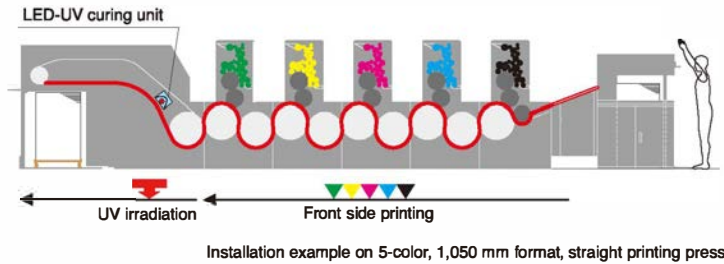
LED-UV curing system*

The LED-UV curing system features long-life lamps and substantially reduces power consumption compared to conventional UV lamp units. Minimal heat generation at the unit's light source lessens the influence of heat on films and other printing substrates. In addition, the system switches on and off instantaneously, offering more effective press utilization.

*Option

■ UV power consumption comparison

UV type	UV lamp location and output	Total output
Conventional UV	Extended delivery 160 W/cm x 3 lamps	52.8 kW
LED-UV	Swan-neck delivery: 1 lamp	9.0 kW

Approximately **1/6** that of conventional UV lamp

Note: Values may differ depending on conditions.

LED-UV installation example

1050ST-5 + LED-UV

LED-UV curing unit

UV irradiation ← Front side printing

Installation example on 5-color, 1,050 mm format, straight printing press

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Energy savings and reduced sheet waste contributions

Eco Drive Motor

A highly efficient eco drive motor serves as the main press motor.
Compared to conventional drive motors, its power consumption is reduced by 7 to 8%*.

*Reduction value depends on operating conditions of the press.

Reduced sheet waste

Expert software that automatically adjusts ink volume during job changeover and print start-up functions together with high-speed impression throw-on and other sophisticated mechanisms to reduce sheet waste before the start of a print run, when sheet waste is most likely to occur.

Eco Drive Motor

Careful attention to safety

Safety area detectors for operator's safety

Safety area detectors have been incorporated into the delivery unit to meet the latest safety standards. These are designed to protect the operator from careless accidents.

Safety area detectors

World's first multifunctional LED beams

The multifunctional LED beam is a revolutionary new system that for the first time in the world enables the operator to monitor the press status in real time by means of different colored lights. LED strips equipped at each press section, from feeder to printing unit to delivery, flash red when the press is running on auto, green during sheet size presetting or ink key adjustment, and blue when safety devices are activated. The operator can instantly recognize the status of the press even from a distance.

Multifunctional LED Beams

Various model lineups for customer applications

LX Wide Stock Range Press

Featuring air management technology for smooth sheet transfer and skeleton cylinders that prevent scratching and smearing by keeping the printed sheets away from contact with the cylinders, these presses can handle a wide range of paper stock from 0.04 mm thin paper to 1.0 mm heavy board.

Air chamber below transfer cylinder

An air chamber below the transfer cylinder stabilizes sheet movement with an advanced air management system. It ensures the suitable sheet transfer for a wide range of sheet thicknesses.

Skeleton transfer cylinder

These cylinders have no cylinder surface, transferring sheets by use of grippers alone. With no cylinder surface to come in contact with, outstanding printing quality is achieved even with full-page images. An opening on the cylinders allows easy access to the air chambers to facilitate cleaning.

Automatic nonstop feeder / Delivery shutter *

The automatic nonstop feeder and delivery shutter make it possible to print long runs of heavy stock without the need for stopping the press. These devices eliminate downtime and reduce sheet waste during pile loading and removal and improve press productivity.
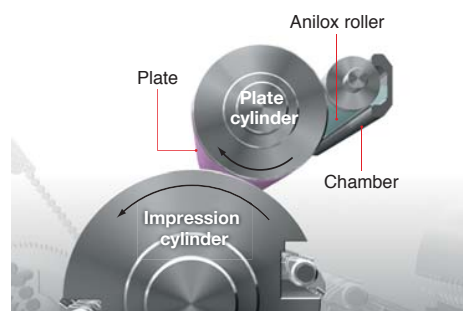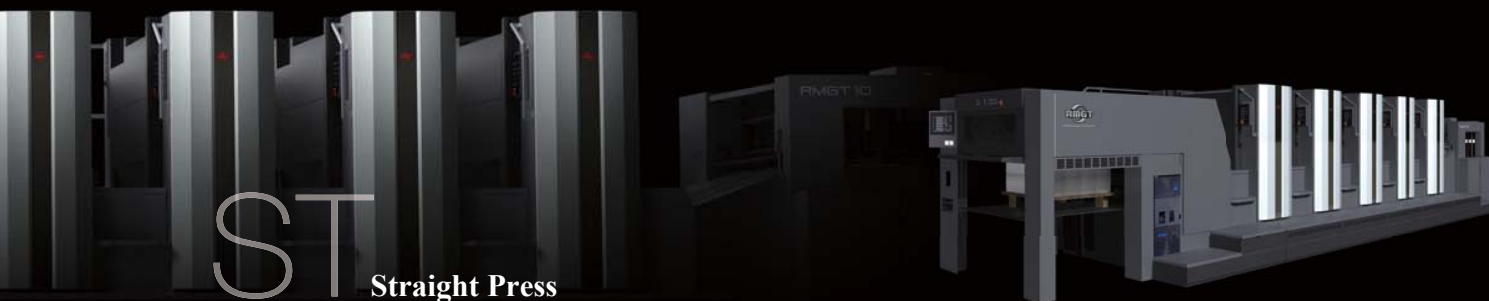
* Option

Automatic Nonstop Feeder   Delivery shutter

Chamber coater *

The chamber coater maintains a consistent coating thickness at all times regardless of printing speed. It is ideal for jobs requiring thick applications in spot and pattern coatings as well as with high-quality gold, silver, and other metallic inks. Coating thickness adjustments are accomplished by changing out the anilox roller. Register adjustment is a standard feature that facilities precise coating control.

* Option

Anilox roller

Plate

Plate cylinder

Chamber
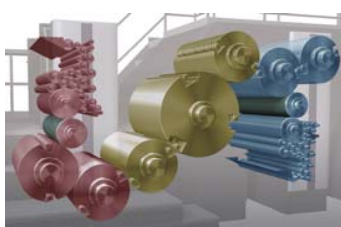
Impression cylinder

ST Straight Press

These presses combine cutting-edge technologies with mechanisms offering proven rigidity,
including the seven o'clock cylinder arrangement with double-diameter impression and transfer cylinders.

TP Tandem Perfector

The reverse-side printing units are connected to conventional straight printing units by a translink unit to provide single-pass perfecting without the need to reverse the printed sheets.

Translink unit streamlines sheet transfer

The unique translink unit smoothly and stably conveys sheets from reverse-side printing units to front-side printing units without the need to reverse the sheets, providing a key role in printing speed and quality. The press produces little fan-out since it does not alternately print the front side and back side, achieving highly accurate front to back side registration similar to that of straight presses. In addition, the press transfers sheets without changing the vertical direction, eliminating the need to make plates differently for front side and back side printing units.

Front Side Printing Units

These units inherit a proven design, including the world's first application of the seven o'clock cylinder arrangement and a highly responsive inking system with high-precision ink keys.

Vacuum Hold-Down Cylinder

This cylinder stabilizes sheet transfer to front side printing units with each sheet held in place by an air vacuum immediately after its back side is printed, preventing the occurrence of scratches and ink smearing due to sheet flutter.

Back Side Printing Units

These units provides the same high quality features as front side printing units with operational access on the same floor level, reducing the need for constantly going up to the upper structure.
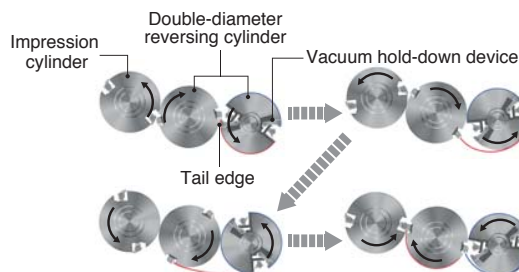
PF Convertible Perfector

This press employs our unique three double-diameter cylinder convertible perfecting device for fast, high-quality perfecting.

Original three double-diameter cylinder mechanism

Our original three double-diameter cylinder sheet-reversing mechanism provides smooth and accurate sheet reversal and highly accurate front side to back side registration at all printing speed ranges. Doubling the size of the reversing cylinder at the center of the convertible perfecting device allows smooth sheet transfer during reversal with applications for up to 0.6 mm sheet thicknesses.

Impression cylinder / Double-diameter reversing cylinder / Vacuum hold-down device / Tail edge

Changeover between straight printing and perfecting is automatically accomplished with a single touch operation in just three minutes. The straight printing mode responds to high value-added printing needs, including special color inks and OP vanish coating.
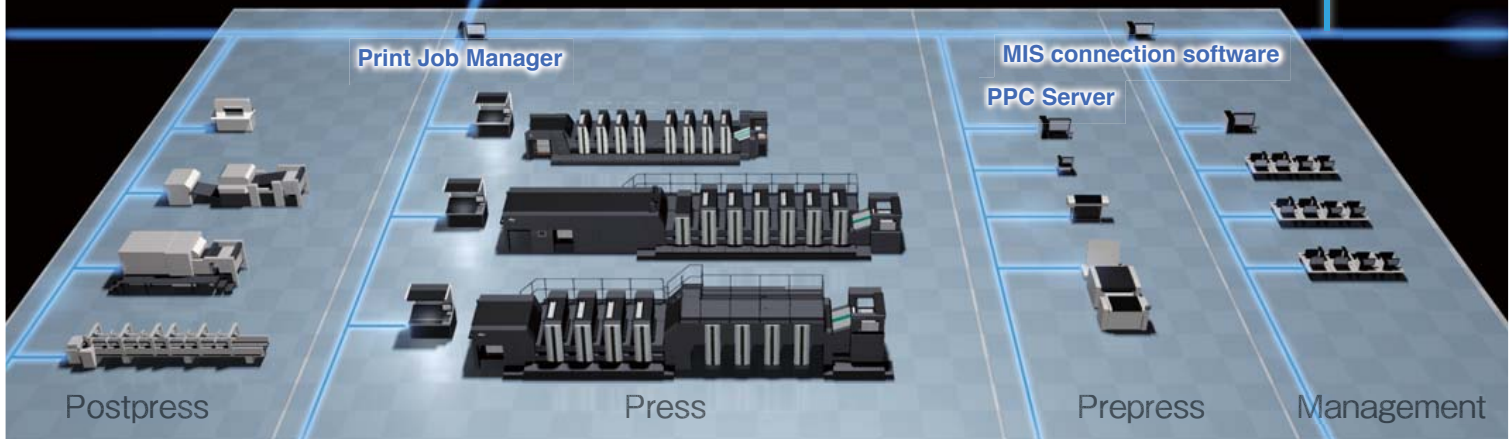
Digital workflow

RMGT Smart Net

A CIP4-JDF compatible digital workflow can be generated to interconnect all necessary print shop equipment and processes via a network.
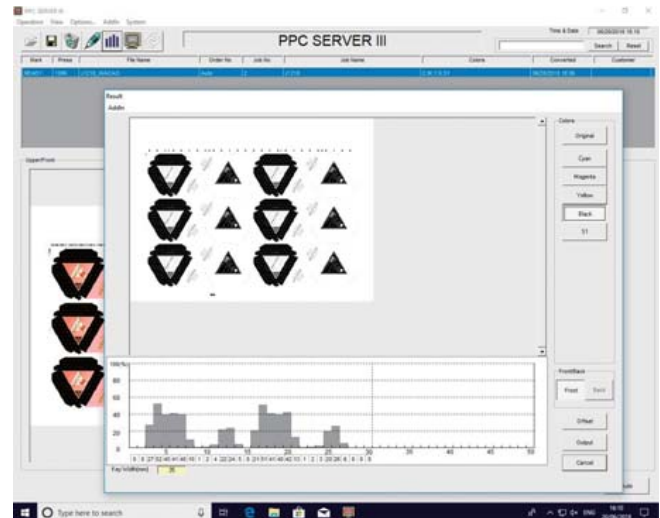

Internet

Print Job Manager

MIS connection software

PPC Server

Postpress   Press   Prepress   Management

PPC server (PPC Server III) (option)

This server calculates image coverage rate data from PPF files created on a CIP3/CIP4 (PPF) or CIP4-JDF compatible prepress system. The calculated data are then read by the printing control system to calculate the ink key openings.

Print Job Manager (option)

Print Job Manager enables centralized management of production schedules for multiple presses and allows job data to be separately sent to each press. The operating status of each press is monitored in real time and productivity analysis data are automatically generated. Print Job Manager can also be connected to a JDF compatible MIS (management information system).

MIS connection software (option)

This software exchanges job ticket data and job performance data in CIP4-JDF format in real time between the MIS and printing control system. It enables each press to be preset based on the job ticket data and, by sending the job performance data to the MIS, the job's progress and cost can be tracked in real time by the print shop owner, sales manager, etc.

PPC server image area ratio calculation screen

Print Job Manager productivity analysis data screen
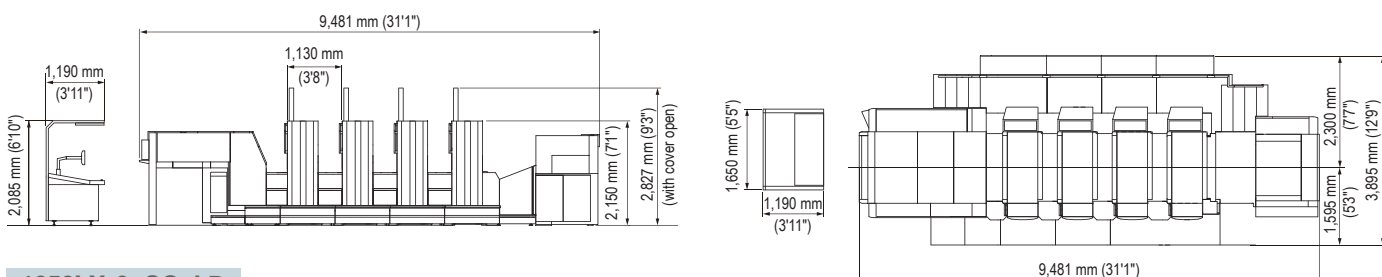
Specifications

■ **RMGT 10** 1,020 / 1,050 mm Format Offset Presses

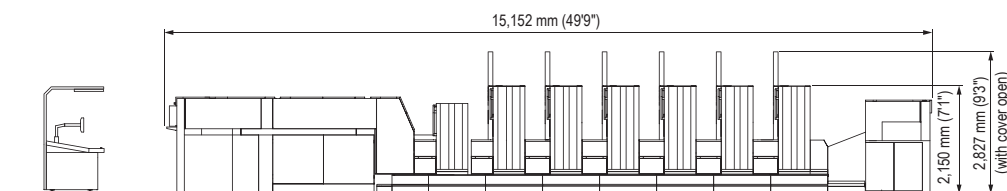|	ST (straight press)		LX (wide stock range press)		TP (tandem perfector)		PF (convertible perfector)	
	1020 model	1050 model	1020 model	1050 model	1020 model	1050 model	1020 model	1050 model
Max. printing speed *	16,200 S.P.H.		16,200 S.P.H.		16,200 S.P.H.		16,200 S.P.H.	
Max. sheet size	740 × 1,020 mm (29.13" × 40.16")	750 × 1,050 mm (29.53" × 41.34")	740 × 1,020 mm (29.13" × 40.16")	750 × 1,050 mm (29.53" × 41.34")	740 × 1,020 mm (29.13" × 40.16")	750 × 1,050 mm (29.53" × 41.34")	740 × 1,020 mm (29.13" × 40.16")	750 × 1,050 mm (29.53" × 41.34")
Min. sheet size	360 × 540 mm (14.17" × 21.26")		360 × 540 mm (14.17" × 21.26")		360 × 540 mm (14.17" × 21.26")		360 × 540 mm (14.17" × 21.26") ［for straight printing］ 440 × 540 mm (17.32" × 21.26") ［for perfecting］	
Max. printing area	730 × 1,020 mm (28.74" × 40.16")	740 × 1,050 mm (29.13" × 41.34")	730 × 1,020 mm (28.74" × 40.16")	740 × 1,050 mm (29.13" × 41.34")	730 × 1,020 mm (28.74" × 40.16")	740 × 1,050 mm (29.13" × 41.34")	730 × 1,020 mm (28.74" × 40.16") ［for straight printing］ 720 × 1,020 mm (28.35" × 40.16") ［for perfecting］	740 × 1,050 mm (29.13" × 41.34") ［for straight printing］ 730 × 1,050 mm (28.74" × 41.34") ［for perfecting］
Sheet thickness	0.04 – 0.8 mm (0.002" – 0.031")		0.04 – 1.0 mm (0.002" – 0.039")		0.04 – 0.6 mm (0.002" – 0.024")		0.04 – 0.6 mm (0.002" – 0.024")	

* Local conditions, ink and printing plate types, and printing quality requirements will affect the maximum printing speed.
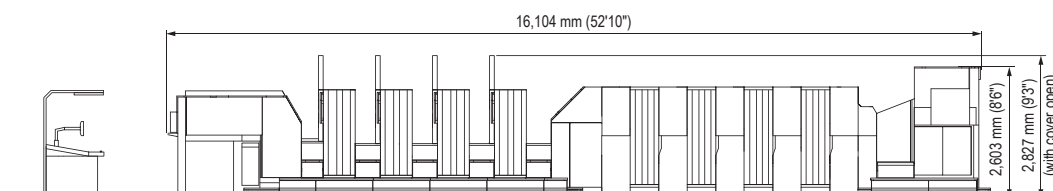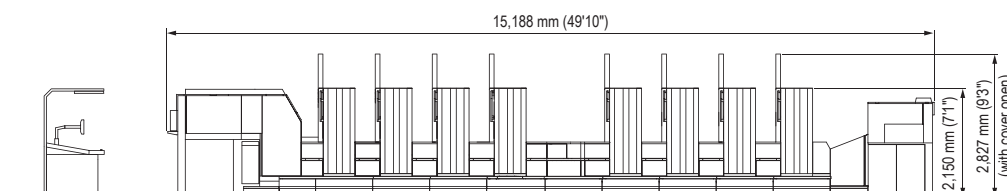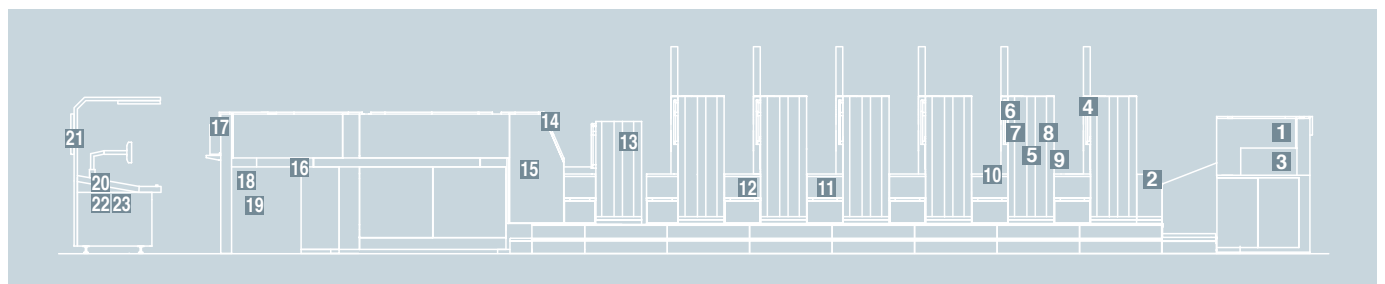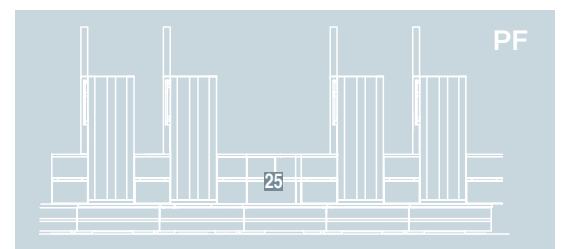
Dimensions

1050ST-4

1050LX-6+CC+LD

1050TP-8

1050PF-8

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* Option

Design and specifications are subject to change without notice.

graphco
print. finish. communicate.