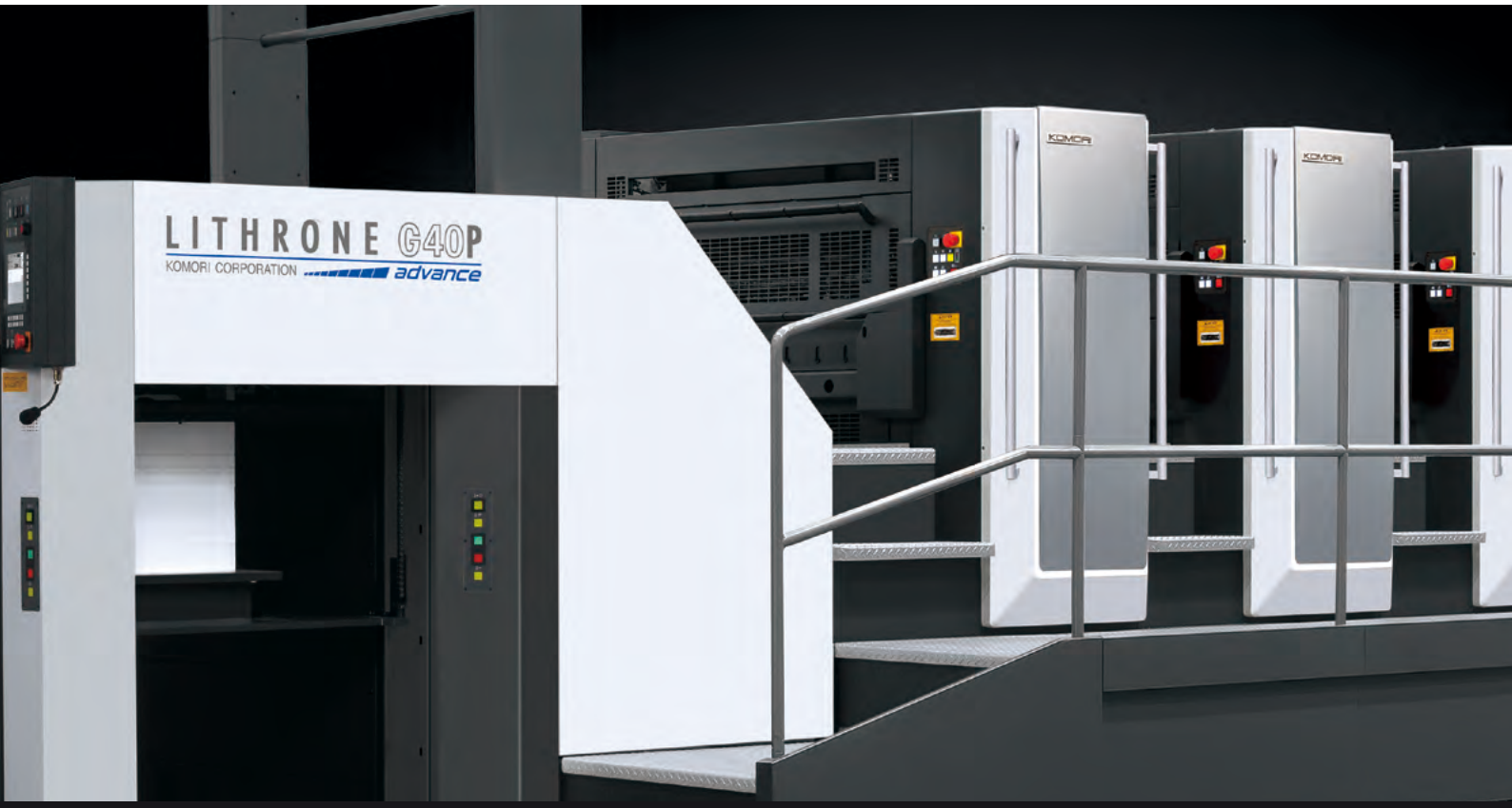
LITHRONE G40 advance EX Edition

LITHRONE G40P advance EX Edition



40-inch Offset Printing Press
40-inch Convertible Perfecting Offset Printing Press

KOMORI

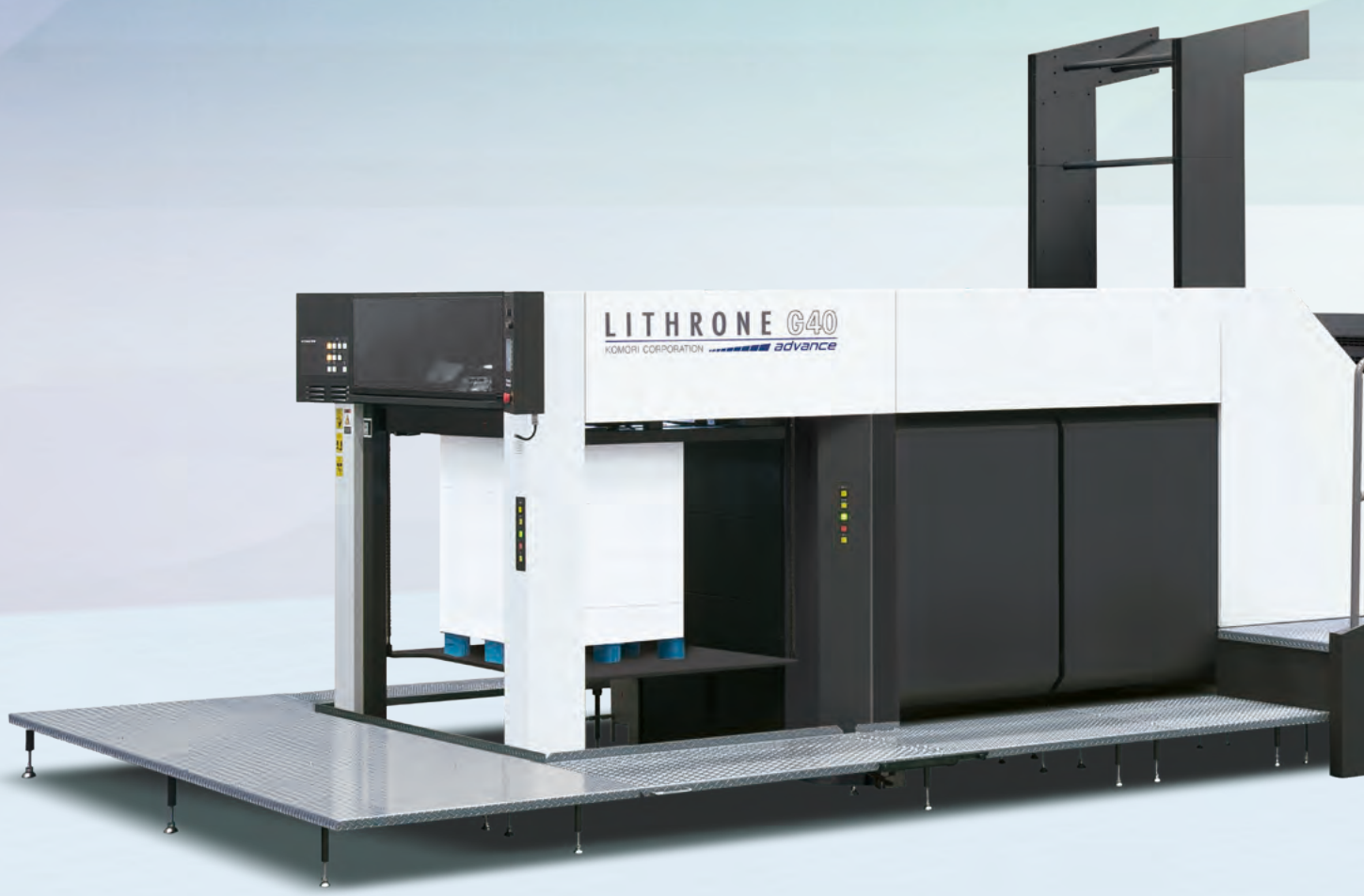
LITHRONE G40 advance EX Edition

LITHRONE G40P advance EX Edition

Komori's Lithrone advance series takes offset print production to the next level

The Lithrone G40/G40P advance provides **world-class ROI**[*1]

[*1] ROI: Return on Investment



- Satisfies all the needs of offset printing presses for the commercial printing and package printing markets.
- Fast and stable operation for thin papers through heavy stocks at a maximum printing speed of 17,200 sheets per hour.
- ①Feeder and delivery, ②Komorimatic dampening system, and ③Operating systems were enhanced. Promotes high-speed production, along with reduced makeready time, and reduced waste, providing a world-class ROI.
- Using KP-Connect Pro to link prepress, press and postpress, optimizes the overall production process, helping to create smart factories that maximize productivity.
- Enhanced KID screen layout helps operators move through press functions faster, improving overall work efficiency.
- An eco-friendly offset printing press with three environmentally responsible press functions*2 that reduce power consumption, paper waste, and greenhouse gas emissions.

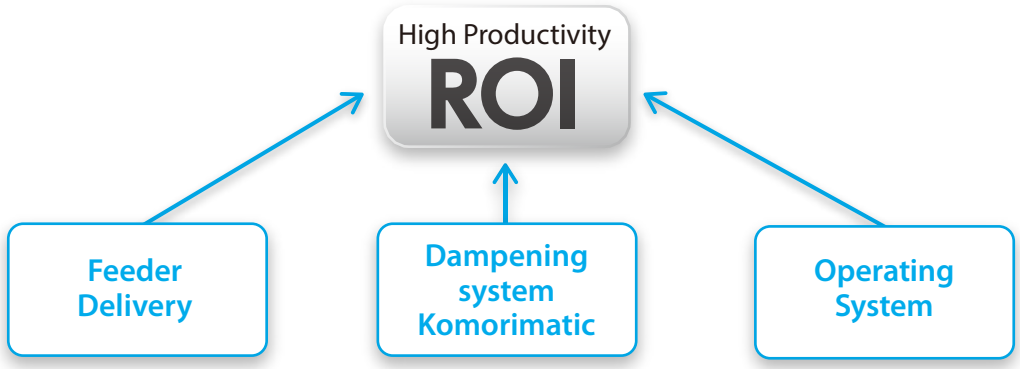
*2 Smart inking flow, DC Blower, and e-Mist

Photo: GL-640A+C
* Model in photograph includes optional specifications.

advance presses offer high ROI

ROI is the lifeblood of printing companies, and the advance series of presses is dedicated to providing world-class ROI. Komori achieves this high ROI by focusing on three areas.

Improved paper feed and delivery allow for shorter production printing time when printing speed is increased. Additionally, shorter makeready time allows for more jobs to be handled in the same amount of time. Improved production efficiency allows for downsizing, for instance by handling jobs previously carried out on three presses on two presses instead, thus increasing productivity. Additionally, shorter makeready time allows for more jobs within a given timeframe.



- **Improved feeder/delivery performance in high-speed operation (Stable operation with light or heavy stocks)**
- **Easy operation by means of automation**
- **Significant improvement of sheet alignment performance**

- **Dot sharpness and outstanding quality stability**
- **Quick color adjustment during makeready**
- **Improved suitability for high-speed, long-run printing**

- **Major reduction of touchpoints**
- **Quick and accurate feedback control by linkage between systems**
- **Automatic presets by KP-Connect linkage**

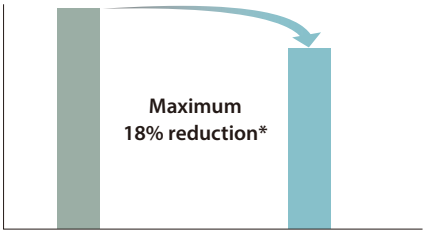
Three essential developments achieve sustainable printing

Komori has pioneered an eco-friendly offset printing press designed to support printers while reducing GHG (greenhouse gas) emissions. By means of three eco-conscious functions, the press reduces power consumption by up to 18%* while printing and realizes stable feeder and delivery operation to cut wastepaper usage, thus both achieving reduced GHG emissions and high productivity.

* Effect of Smart Inking Flow and DC blower together

Power consumption

Four-color press with oil-based ink



Smart Inking Flow

An optimized roller arrangement backed by state-of-the-art analysis, not only ensures enhanced print quality through stable density control, but reduces exhaust heat and energy consumption by alleviating the load on the rotary drive.

DC blower

Komori's DC blower achieves both economic and eco-friendly operation while maintaining the high-level airflow needed to properly stabilize the sheet. It significantly reduces power consumption through low-energy operation and minimal heat generation, all in a compact and lightweight design.

e-Mist

Komori's revolutionary micro-mist system directly controls the humidity of the paper to combat the effect of static electricity. By controlling the humidification time, power consumption and water usage, the system keeps energy usage to a minimum. An added advantage is its enhancement of sheet alignment during delivery.

Creating smart factories using CONNECTED **AUTOMATION**

The digital transformation is sweeping the print industry. Through Connected Automation, print providers will be able to take advantage and arrive at the new smart factory model. Komori's key to Connected Automation and achieving the smart factory model is through use of Komori's KP-Connect Pro. KP-Connect Pro software enables unified management of a range of devices and information, to better maximize productivity.

Three advantages of advance presses and KP-Connect Pro

Visualization

Link production processes and monitor operations

- Print room operating status can be checked in real-time, even when off-site
- Operators can grasp the progress of connected processes and status of important materials such as plates and paper, for more efficient makeready
- Automatically create a variety of reports, using actual results data, helping to improve productivity

Automation

Automatic job linking between prepress, press and postpress

- Job information from the scheduler is automatically carried over to the press, reducing time spent on configuring complex settings.
- Print operators can specify automatic output of printing plates without stopping production*1

*1 Conditions may apply in regard to compatible manufacturers.

Optimization

Digitalization of process management, for optimization overall production

- Shifting from analogue methods (such as job tickets) to digitalization greatly reduces time spent on process management
- Automatically scheduling optimal job order, with less time spent on makeready and arrangements, for instance by prioritizing fast turnaround jobs, or grouping together jobs that use the same ink or paper size

KP-Connect Komori Solution Cloud

KP-Connect Basic

Monitor operations remotely, anytime, anywhere

KP-Connect visually analyzes and graphs real print operation data, helping to improve productivity.

KP-Connect Pro

Links all devices, to visualize and optimize entire site

Monitor progress of all jobs in realtime, at a glance, including prepress, press and postpress. Connected Automation, including MIS and production scheduling, increases overall site efficiency.

Impressively fast and more stable production

High-performance paper feed and delivery is indispensable for more productive, high-speed operation. The high-speed technology of the Lithrone GX series has been fully applied to the advance series, it enables stable, high-speed printing on both thin and thick paper alike. Komori also paid particular attention to ease of operation, reducing operator workload to even allow for one-man operation.

Smart and easy paper loading

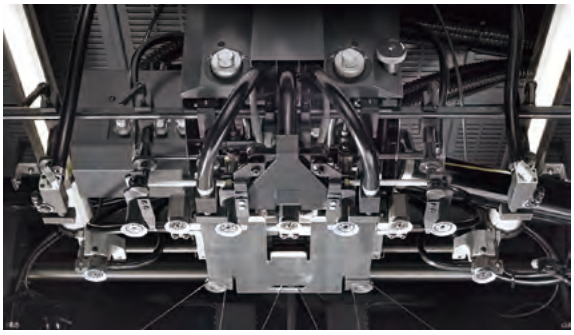
Feeder pile guide pointer New

Operators can load paper into approximate position using two pointers on each side of the feeder pile. The press will automatically take over lateral paper feed adjustments, reducing the operator skillset and workload.

Better air flow, for stable, high-speed feeding of all types of paper

Sucker box New

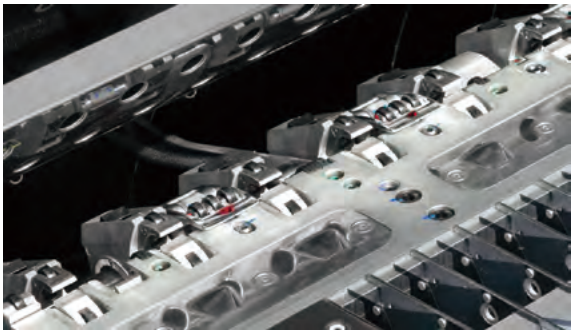
Redesigned air efficiency for paper handling allows for stable, sheet-by-sheet separation, whether dealing with a thin, supple paper or a thick, rigid paper. Optimization of suction head position also helps stop the paper from bending within the sucker box, for stable operation at the highest speeds.



Stable paper feed, even with wrap or wave curled product

Front lay New

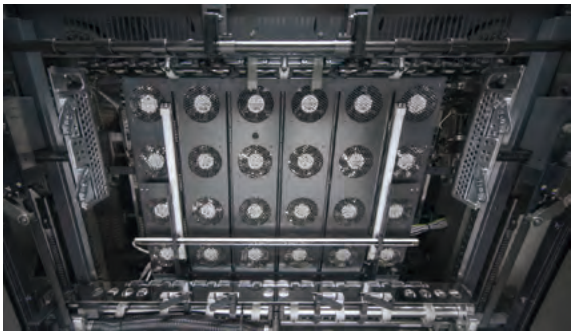
The register front lay has also been radically redesigned. Structural improvements to the lay hood, at the point of contact with the paper, ensures a stable feed, even for difficult paper that tends to warp or wave.



Exceptional sheet alignment even during high-speed printing

Delivery fan zone New

Fan control zones have been increased to 11 areas. Optimal air controls allow paper alignment to be fine-tuned for type and size. High-performance paper delivery improves efficiency during high-speed printing.

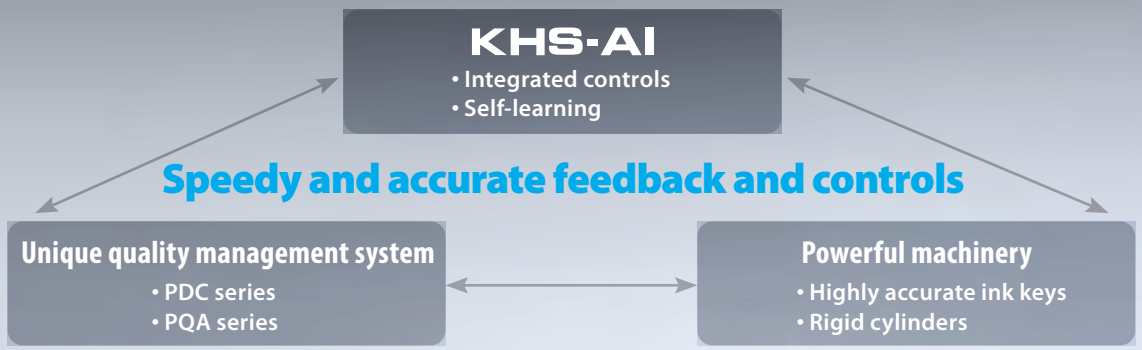


New : New feature Unique : A unique Komori feature. Applies to following pages.

* Use the two-dimantional codes on pp. 12-13 to view video of each feature.

Supports digitalization.
Unique Komori systems drastically reduce operator workload

KHS-AI is an integrated, self-learning control system that fully supports operators, from job start-up to production printing, reducing makeready time and paper waste. Further, connecting to KP-Connect also allows production information to be shared digitally, helping to optimize production. All color measurement and control devices are originally developed by Komori. Synergy between reliable production (such as ink keys with high accuracy and followability) and systems ensure faster color and registration adjustment and dramatically shorter makeready times. The systems also provide swift and accurate, automatic feedback, freeing operators from time consuming, in-run, adjustments.



Improved operator efficiency through an improved interface

KID (Komori Information Display) New

All necessary printing information is available on a single screen

The KID screen layout has been redesigned for enhanced operational efficiency. Now, all vital printing information is conveniently consolidated onto a single screen. Operators have visibility to inline quality inspections, density control, next job data, register, presets and more. There is no need to unnecessarily toggle between screens—our intuitive interface ensures that all essential data is easily accessible, optimizing operator workflow and productivity.

Operators on all levels can efficiently switch between jobs

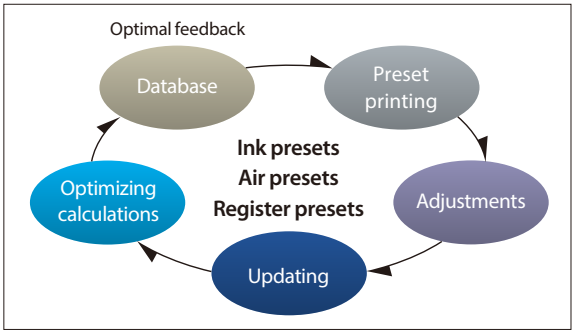
All necessary data for a job including current job progress, estimated time remaining and timing of operator actions, can be visualized. Even inexperienced operators can efficiently navigate between jobs.

The KID screen that has significantly increased the amount of information on one screen

More efficient makeready through self-learning

KHS-AI, high precision preset function Unique

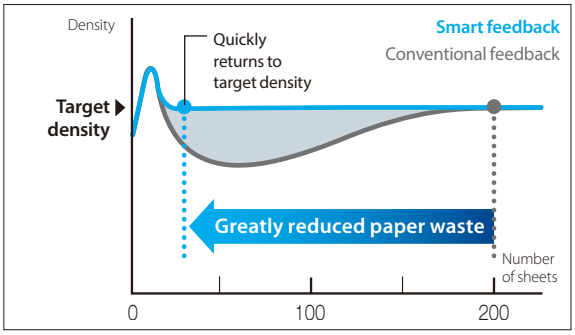
Ink key adjustments, air levels and registers can be automatically preset according to paper size/paper information from the job information, greatly reducing makeready time. Self-learning tools are also installed to update data with each use, further fine-tuning presets.



Machine-regulated density, saves on time and paper

KHS-AI, smart feedback feature Unique

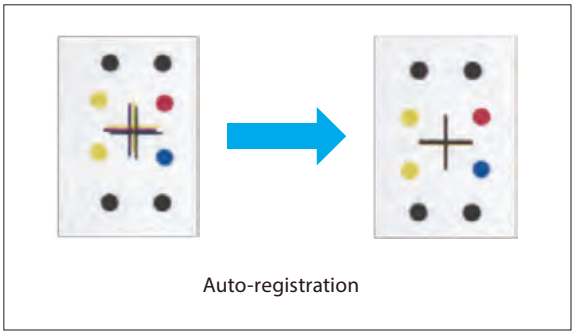
A unique Komori feature that provides quick feedback when density levels differ from target density, and is capable of responding even to initial falloffs in density. Density is measured with PDC-SX, and the amount of ink applied to the roller is then adjusted based on any calculated excess or shortcoming. These unique ink fountain controls can re-adjust to target density within around 30 sheets, dramatically reducing paper waste.



Automatic color and register controls, with no need for a loupe

PDC-SX (Spectral Density Control) Unique

PDC-SX not only measures color but also registration, feeding results back to the press. This also applies to register on the back of the sheet. This reduces wasted time, workload and paper when registration does not match.



Auto-registration

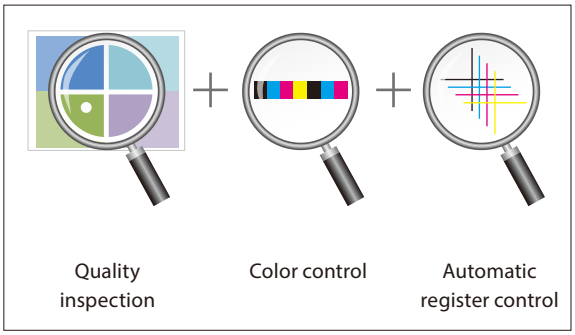
Operator-free quality while printing

PQA-S V5 (In-line Print Quality Assessment System for Sheetfed) Unique

Quality inspection: Checks for printing problems and prevents misprints from passing to postpress

Color control: Measures color bar and automatically adjusts to match and maintain target density

Automatic register control: Measures dedicated registration marks to automatically adjust for and maintain unit-to-unit registration



Quality inspection | Color control | Automatic register control

* Includes options.

* Figures show Komori measurements under specific conditions. No warranty is implied.

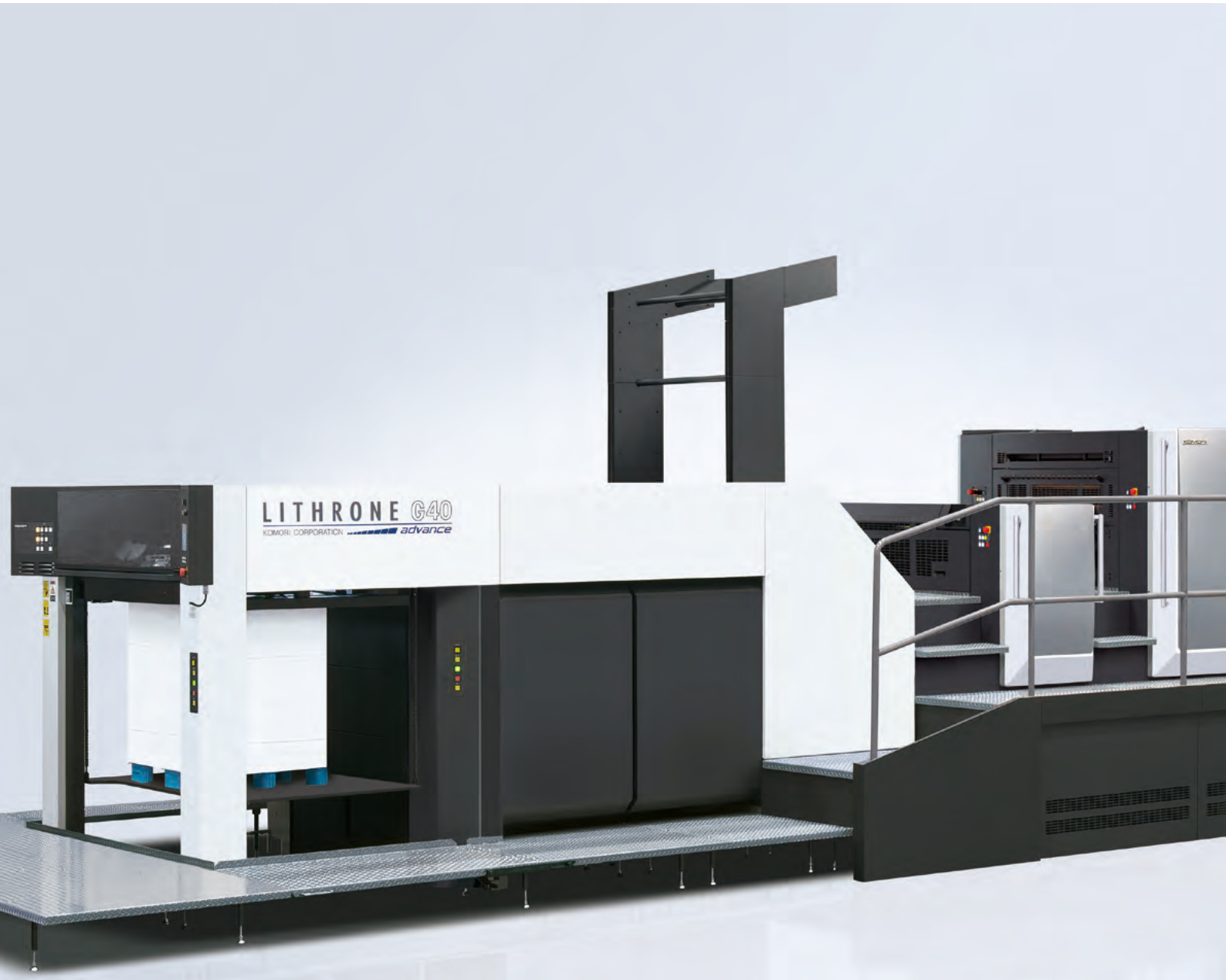
* Use the two-dimantional codes on pp. 12-13 to view video of each feature.

A new package production machine for the SDGs*1 era

Komori's advance series enhances package printing. Makeready costs have been minimized by reducing time and work spent on processes such as changing and cleaning special colors, preparing coaters or changing out thick paper, helping to increase profitability even during short-run printing. Additionally, by standardizing ink types, Komori's new Smart Color*2 technology can eliminate the need for color changing and allow for color controls similar to those used for process colors, further shortening makeready time.

*1 SDGs : Sustainable Development Goals

*2 This is a solution that reproduces a wide range of special colors by adding orange (O) and green (G) to CMYK.



Stable, high quality with Komori's unique dampening system

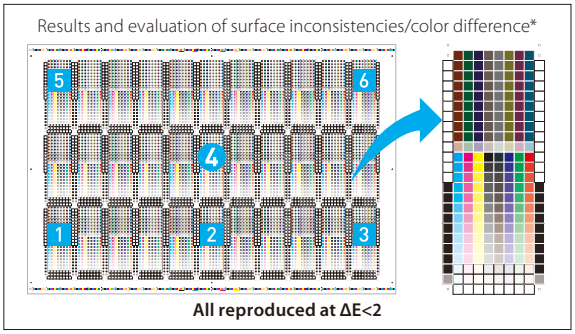
Komorimatic Unique

Komorimatic, Komori's unique dampening system offers the sharp dots and fast color acquisition, with increased effectiveness for high-speed long runs. The four dampening rollers and reverse-slip system creates a thin film of water that is uniform in both the lateral and vertical directions while using the minimum required amount of water. Maintaining a stable water and ink balance minimize surface inconsistencies. Also well-suited for environmentally friendly, alcohol-free printing.

Superior dot shape reproduction reduces waste of a portion of the product due to color variation in step and repeat jobs. Unique

When printing multi-up images for packaging, it is important to minimize color difference from lead to tail. The Komorimatic dampener on advance presses minimizes color inconsistencies by providing a highly consistent and stable water layer. When coupled with precise ink key and ink film control from the Komori inker, color consistency is optimized providing expert color reproduction, less waste, and increased profitability.

* Color difference compared to standard density is measured at 6 locations when printing 500/2,000 sheets, using ④ on the 500th sheet as standard.25%, 50% and 75% CMY gray patches are used.

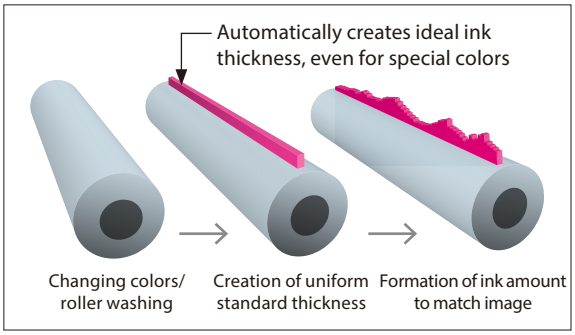


Quick color acquisition for repeat jobs

Spot color-compatible pre-inking New

Pre-inking has been further strengthened, allowing for a variety of special colors to be reproduced with a high degree of accuracy. Past data can be called up when repeating jobs to automatically create the ideal ink thickness, special color. This greatly reduces paper waste and shortens time required for color matching.

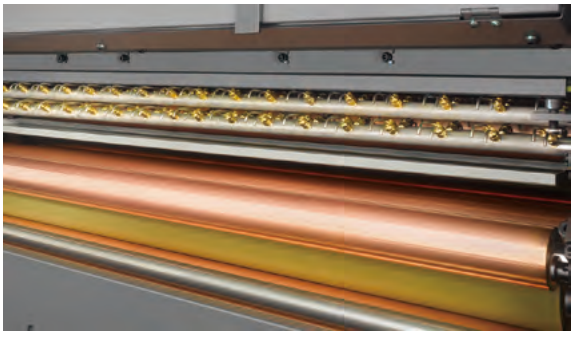
* Requires PDC-SX (optional).



Eliminates turbidity after roller washing

Special surfactant for ink rollers Unique

Package printing involves a large number of color changes, making roller washing very time-consuming, particularly when changing from a deep color to a lighter Komori's special surfactant lifts surface staining to deep clean the roller, minimizing turbidity.



Coater plate changing can be quickly handled by a single operator

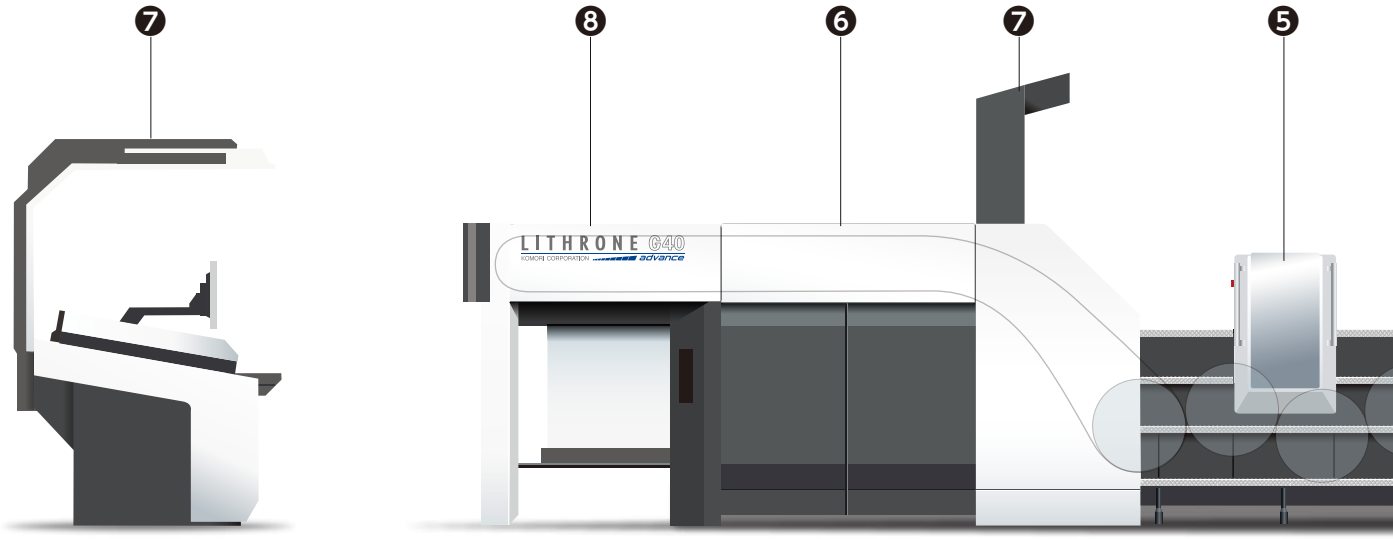
Coater clamp system advance New

A new tension mechanism was adopted for coater clamping. Plate tension can be adjusted by manipulating a single adjustment on the gripper and tail side, allowing for easy plate changing by a single operator. Coater blanket and resin plate changing time is shortened by approximately 40% compared to previous.

* Includes options.
* Figures show Komori measurements under specific conditions. No warranty is implied.
* Use the two-dimantional codes on pp. 12-13 to view video of each feature.

Functionality to meet a wide range of needs and further increase ROI

The advance presses offer a wide line-up of features to increase ROI, making them suited to all types of printing, including commercial, publishing and package printing.



❼Quality control

A variety of systems to drastically increase productivity.
All uniquely developed by Komori, these systems allow for quick and highly accurate register and color matching and maintain quality during production printing.

- **KHS-AI** KHS-AI
- **PDC-SG** Spectral Print Density Control-SG
- **PDC-SX** Spectral Print Density Control-SX
- **PDF comparator system**
- **PQA-S V5** Print Quality Assessment System (Sheet) V5
  - **①Quality inspection**
  - **②Quality inspection + color control**
  - **③Quality inspection + color control + automatic register control**
- **Automatic mask creation**
- **Sheet numbering system**
- **KID** Komori Info-Service Display

❺Coater

Coater blankets and resin plates can be easily changed by a single operator, greatly reducing makeready time. Also compatible with aluminum-based blankets and resin plates.

- **Coater clamp system advance**
- **Coater Semi-APC**

❽Delivery

Allows for high-speed printing on thin or thick paper.
The automatic non-stop delivery system is particularly well-suited for package printing, which requires frequent paper changes.

- **Delivery fan zone**
- Manual non-stop delivery system
- Automatic non-stop delivery system
- Extended delivery

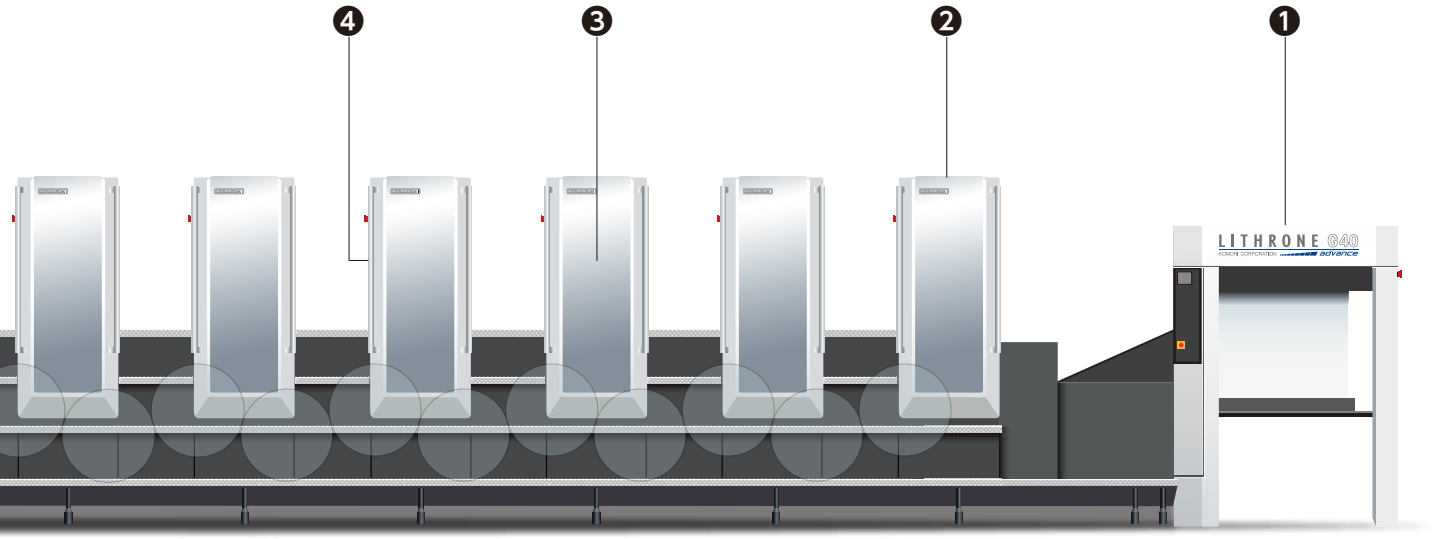
❻Dryer

Komori's unique drying system, combines ecology, economy, quality and reliability.

- H-UV
- H-UV L (LED)
- UV
- IR

* URL for above two-dimantional codes: https://www.komorisolutions.com/video/en/g40ag40ap.html

… High-speed printing
… Short makeready
… Quality
… Reduced paper waste
… Environment/safety



❸Automatic Washing/Cleaning System

Efficient automatic washing/cleaning by means of an automatic control program.
Use of pre-soaked cloth for automatic blanket washing and automatic impression cylinder cleaning shortens cleaning time and reduces cloth consumption, making it friendlier on the environment.

- Automatic blanket washing
- Automatic impression cylinder cleaning
- Automatic ink roller cleaning
- **Special surfactant for ink rollers**

❶Feeder

Automates paper settings and adjustments during printing.
Easy to operate, and assists stable, high-speed printing on thick or thin paper.

- **Feeder pile guide pointer**
- Automatic height adjustment of feed board entry guides
- Manual non-stop feeder system
- Automatic pile height control
- Sucker box
- Front lay

❹Plate changing system

Uses a benderless clamping mechanism, for more efficient plate changing without the need for plate tail-edge bending. The line-up includes semi-APC (semi-automatic), full-APC (fully automatic) and A-APC (which allows plates to be changed for all colors at once in 1 minute and 25 seconds).

- Semi-APC
- Full-APC
- **A-APC**

❷Unit/other

Includes a system to prevent UV ink mist from scattering, for increased environmental friendliness. DC blowers also help to reduce power consumption and heat levels.

- **Komorimatic**
- Ink mist extractor fans
- Ink mist removing device
- Smart inking flow
- e-Mist
- **DC blower**

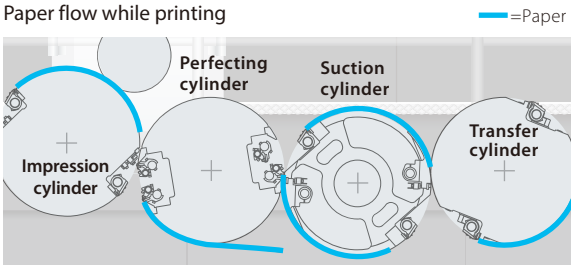
* Restrictions apply regarding availability on different models and available combinations of features.
* Figures show Komori measurements under specific conditions. No warranty is implied.

An adaptable perfecting press capable of handling both two-sided printing and one-sided multicolor printing

Photo: GL-840P-A
* Model in photograph includes optional specifications.

With increasing worker shortages, improving production efficiency is more important than ever. The Lithrone G40P advance allows you to handle two-sided printing and one-sided multicolor printing with a single machine. Komori's unique three double-size cylinder are perfect for a wide variety of jobs, from thin paper to thick, with minimal scuffing and marking. The impressive productivity achieved through one-pass printing makes it possible to downsize, covering work previously handled on two or three single-side presses on a single machine. This improves productivity and profitability, while also contributing to the environment by reducing electricity consumption and paper waste. In addition to perfecting presses, Komori offers a lineup of double-sided presses built to increase productivity depending upon the paper used. The Lithrone GX40RP/GX44RP advance is made for commercial printing, publishing and full-scale package printing, while the Lithrone S40SP/S44SP is perfect for one to two color, double-sided publishing printing.

Paper flow while printing



Three double-size cylinder Unique

Equipped with Komori's unique, high-performance perfecting mechanism. All double-size cylinder create a gentle sheet path with minimal scuffing and tearing, allowing for high-speed two-sided printing on thin and thick paper, alike.

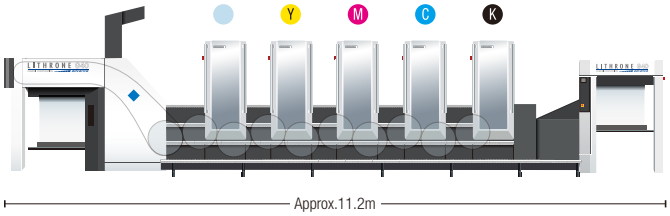
Examples of custom setups/major applications

H-UV L (LED)
UV dryer
IR dryer
Overprint varnish
Coater varnish
Primer
Silver varnish

Lithrone G40 advance (40-inch Offset Printing Press)

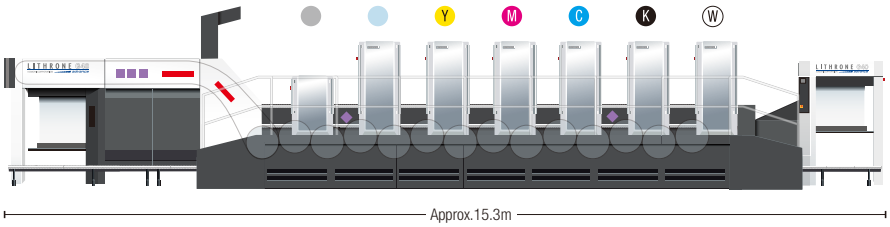
General commercial printing

5-color standard (example setup: GL–540A)
Special colors/overprint varnish, quality inspection + color control



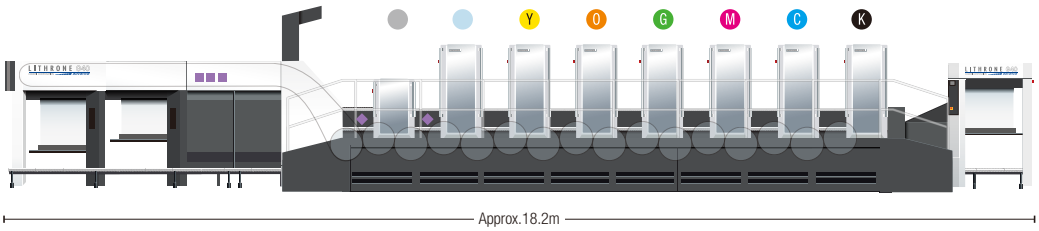
Package printing: Standard setup for package printing covering a wide variety of needs, such as printing using special colors, metalized paper/transparent film and various varnishes

6-color with coater on 300 mm plinth (example setup: GL–640A + C + extended delivery)
White ink, overprint varnish, aqueous/UV varnish,
quality inspection + color control



Package printing: Setup for package printing using Smart Color technology, which does not require color changing

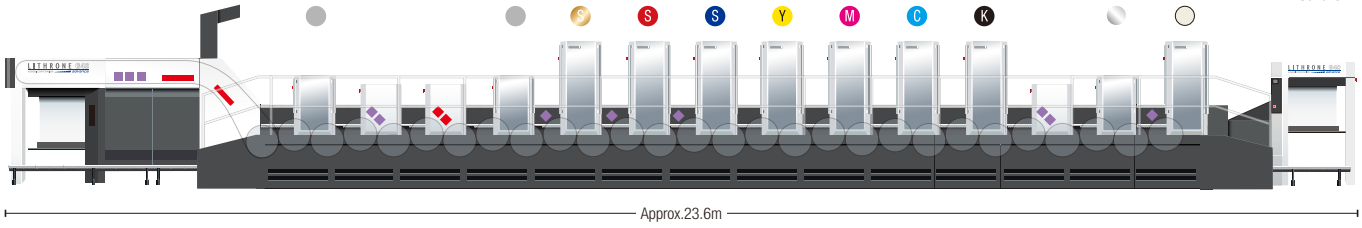
7-color with coater on 300 mm plinth (example setup: GL–740A + C + extended/double delivery)
Smart color 6-colors, overprint varnish, UV varnish, quality inspection + color control, sorted delivery



Package printing: Setup for high added–value package printing using elements such as silver underprint or matte+gloss varnish

8-color with coater on 300 mm plinth (example setup: GL–840A: 1C + C + DU + 7C + C + DU + DU + C + extended delivery)
Primer, underprint UV silver varnish, special colors aqueous/UV varnish (matter + gloss), quality inspection + color control

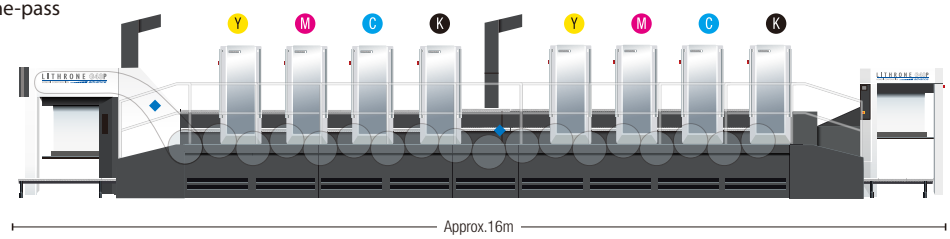
S S S =special colors



Lithrone G40P advance (40-inch Convertible Perfecting Offset Printing Press)

General commercial printing/publishing

8-color standard (example setup: GL–840P–A)
One-sided multicolor printing, double-sided one-pass printing, quality inspection + color control



* Additional workspace, not included in machine dimensions, is required for installation, such as for operator stands, surrounding equipment/cabinets and paper transport.

Specifications

LITHRONE G40 advance (40-inch Offset Printing Press) specifications									
Model				GL-240A	GL-440A	GL-540A	GL-640A	GL-740A	GL-840A
Number of colors				2	4	5	6	7	8
Max. printing speed			sph	17,200					
Max. sheet size			mm(in)	750 × 1,050 (29.5 × 41.3)					
Min. sheet size			mm(in)	360 × 520 (14.2 × 20.5)					
Max. printing area			mm(in)	710 × 1,020 (28 × 40.2)					
Sheet thickness range			mm(in)	0.04 - 0.8 (0.0016 - 0.0315) (0.06 - 1.0 (0.0024 - 0.0394) option)					
Plate size			mm(in)	800 × 1,030 (31.5 × 40.6)					
Blanket size			mm(in)	920 × 1,040 (36.2 × 40.9) (including aluminum bar)					
Feeder pile height			mm(in)	1,100 (43.3)					
Delivery pile height			mm(in)	1,100 (43.3)					
Dimensions	Length (L)*1	Standard	mm(ft)	7,640 (25'1")	9,996 (33')	11,174 (36'8")	12,352 (40'6")	13,530 (44'5")	14,708 (48'3")
		Standard + coater + extended delivery	mm(ft)	10,546 (34'7")	12,902 (42'4")	14,080 (46'2")	15,258 (50'1")	16,436 (53'11")	17,614 (57'9")
	Width (W)	Standard	mm(ft)	3,945 (12'11") (5,675 (18'7") with blower cabinet)				4,095 (13'5") (5,675 (18'7") with blower cabinet)	
		Plinth 300	mm(ft)	3,800 (12'6") (5,530 (18'2") with blower cabinet)				3,950 (12'12") (5,530 (18'2") with blower cabinet)	
	Height (H)	Standard	mm(ft)	2,153 (7'1") (2,634 (8'8") with cover open)					
		Plinth 300	mm(ft)	2,453 (8'1") (2,934 (9'8") with cover open)					

LITHRONE G40P advance (40-inch Convertible Perfecting Offset Printing Press) specifications						
Model				GL-440P-A	GL-840P-A	GL-1040P-A
Number of colors				4	8	10
Max. printing speed			sph	15,000		
Max. sheet size			mm(in)	720 × 1,030 (28.3 × 40.6)		
Min. sheet size			mm(in)	360 × 520 (14.2 × 20.5)		
Max. printing area			mm(in)	710 × 1,020 (28 × 40.2) (single-sided) 700 × 1,020 (27.6 × 40.2) (double-sided)		
Sheet thickness range			mm(in)	0.04 - 0.3/0.06 - 0.6 (0.0016 - 0.0118/0.0024 - 0.0236)		
Plate size			mm(in)	800 × 1,030 (31.5 × 40.6)		
Blanket size			mm(in)	920 × 1,040 (36.2 × 40.9) (including aluminum bar)		
Feeder pile height			mm(in)	1,400 (55.1)		
Delivery pile height			mm(in)	1,400 (55.1)		
Dimensions	Length (L)*1	Oil-based	mm(ft)	10,699 (35'1")	15,411 (50'7")	17,767 (58'3")
		H-UV Specification	mm(ft)	11,191 (36'9")	15,903 (52'2")	18,259 (59'11")
	Width (W) plinth 300		mm(ft)	3,800 (12'6") (5,530 (18'2") with blower cabinet)	3,950 (12'12") (5,530 (18'2") with blower cabinet)	
	Height (H) plinth 300		mm(ft)	2,453 (8'1") (2,934 (9'8") with cover open)		

*1 Total press length will differ depending on inclusion of options, such as double coaters or DU.

* When performing two-sided printing on the Lithrone G40P advance using oil-based ink, a margin is required on the back of the sheet for the suction wheel.

* Maximum printing speed may differ depending on chosen specifications and printing conditions.

* Performance and numbers may differ from specifications herein. Specifications may also be modified for product improvements.

* Please contact a sales representative for information on specs not listed.

KOMORI CORPORATION
11-1, Azumabashi 3-chome, Sumida-ku, Tokyo 130-8666, Japan Tel: +81-3-5608-7817~19 Fax: +81-3-3624-6955
https://www.komori.com

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GL-40A/GL-40P-A | en | JPN | 16P | M31 | 4 | Oct.2024 | 0.3K | MP