

LITHRONE GX40

advance

EX Edition



40" Offset Printing Press

KOMORI

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Achieving improved productivity and digital transformation for package printing flagship model

The Lithrone GX40 advance offers a **World-class ROI***1

*1 ROI: Return on Investment

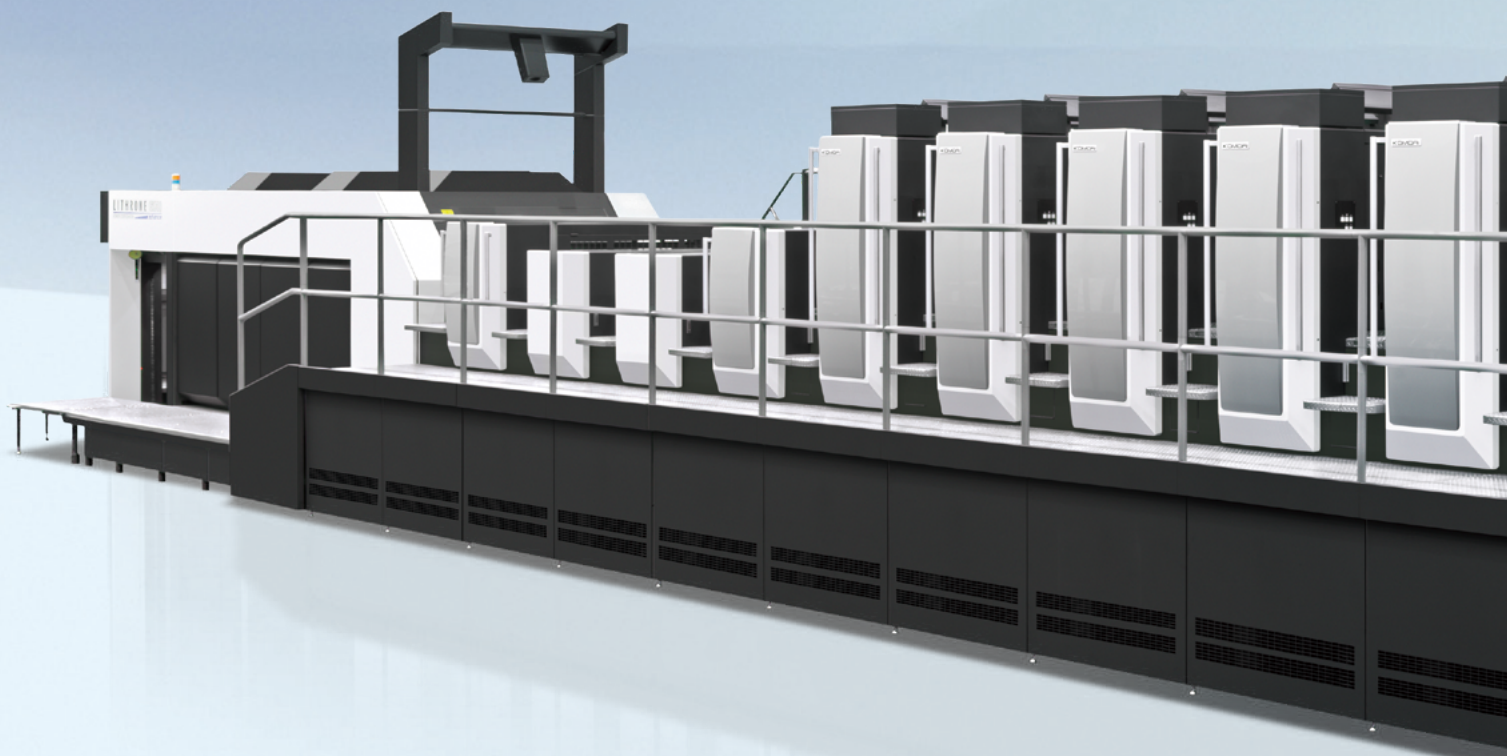


Photo: GLX-740A+C+DU+DU+C

* Model in photograph includes optional specifications.

- "Super short makeready*²" minimizes job changeover time, including special colors.
Capable of meeting various requirements in packaging printing, from short runs to large batches.
- A wide variety of configurations to suit your needs and achieve unparalleled productivity*³
- ①Feeder delivery, ②Dampening system Komorimatic, 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*⁴ that reduce power consumption, paper waste, and greenhouse gas emissions.

*² Makeready solutions that combine multiple functions to help reduce makeready time, even in short run package printing.

*³ Optional combinations are possible, such as 900 mm plinth, Automatic Non-stop feeder and delivery combined with logistics to enable non-stop production, multiple delivery piles and extended delivery specifications for the drying section.

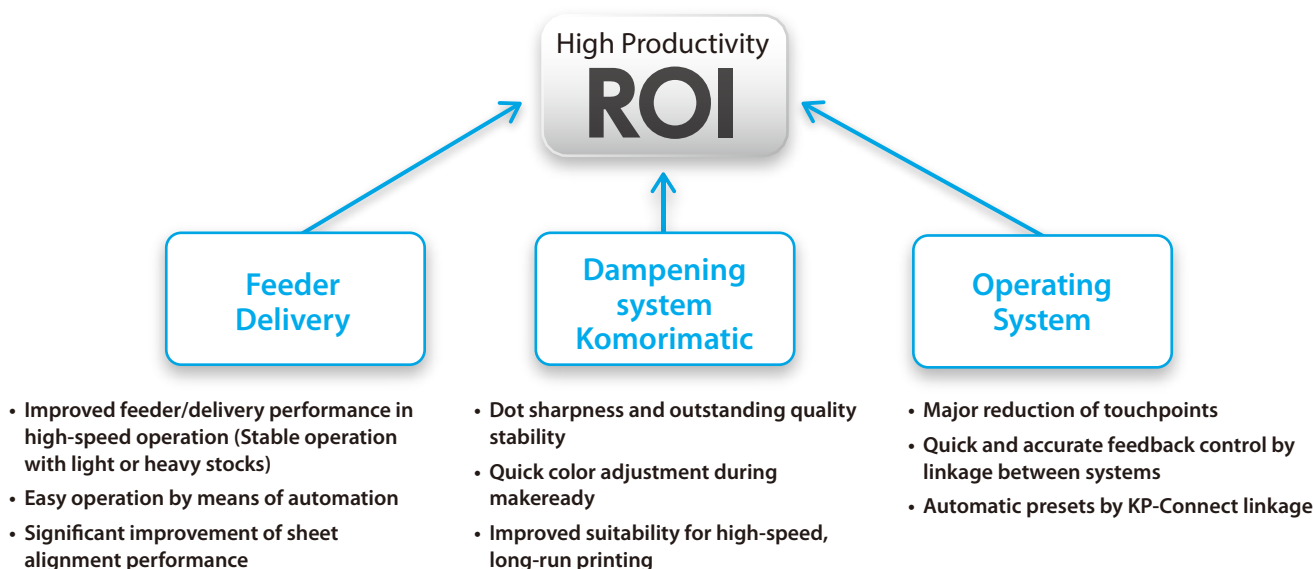
*⁴ Smart Inking Flow, DC Blower, e-Mist



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.



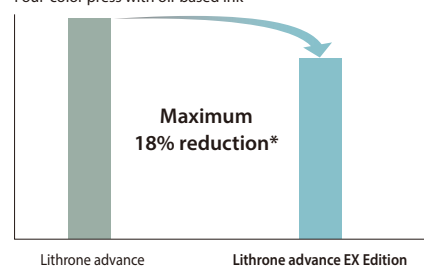
Three essential developments achieve sustainable printing

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



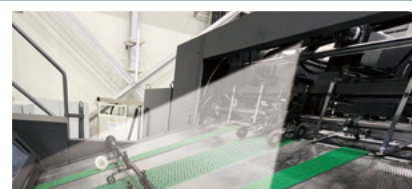
Smart Inking Flow

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 will print providers 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. The core of the system is "KP-Connect Pro," software that manages various devices and information in a unified manner to maximize productivity.

KP-Connect Basic

Visualizing printing press operations using IoT technology

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

KP-Connect Edge

Easy automation and visualization of Komori printing presses

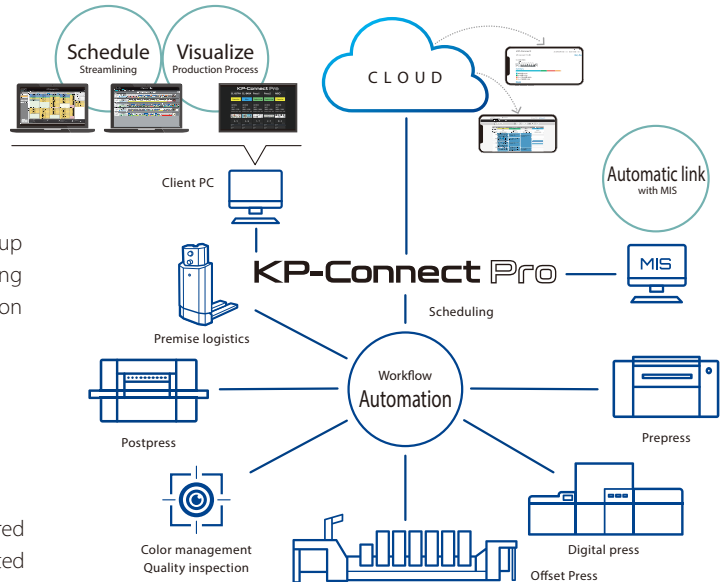
It supports the automatic operation of printing presses by linking up with the MIS (core system) of the printing company and automating the scheduling and setting up of the presses*. Various visualization functions streamline process management operations.

* Up to 10 Komori printing presses can be connected.

KP-Connect Pro

Links all devices, to visualize and optimize entire site

Monitor progress of all jobs at a glance, including presses manufactured by other companies from prepress through to postpress. Connected Automation, including MIS and production scheduling, increases overall site efficiency.



Three advantages of KP-Connect Pro

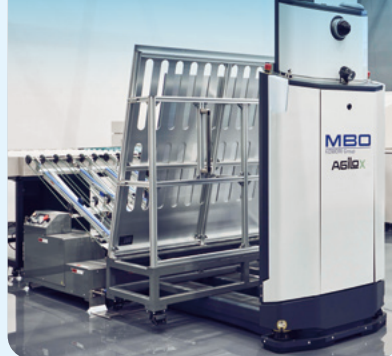
Visualization



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*

*Conditions may apply in regard to compatible manufacturers

Streamlining



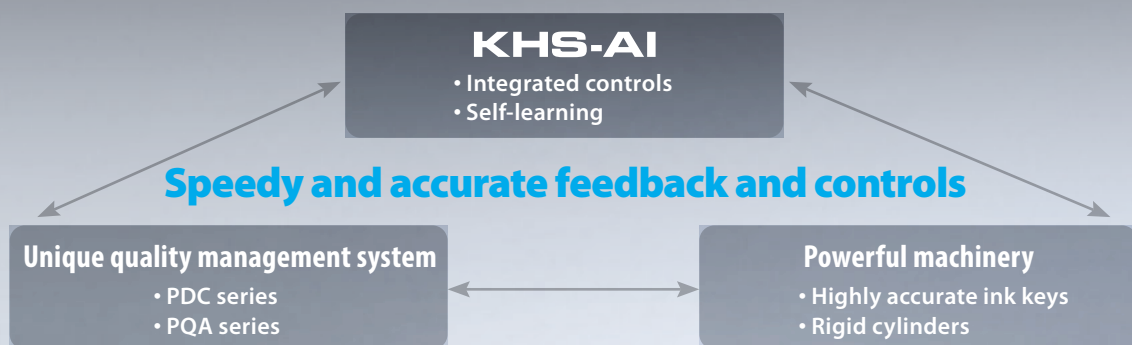
Digitalization of process management, for streamlining overall production

- 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

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. Furthermore, connecting to KP-Connect 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.

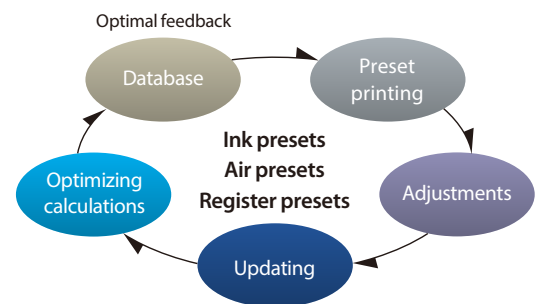


The KID screen that has significantly increased the amount of information on one screen

More efficient makeready through self-learning

KHS-AI, high precision preset function **Unique**

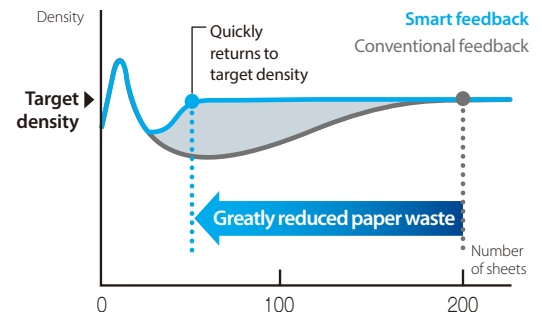
Ink key adjustments, air levels and registers can be automatically preset according to paper size/paper information from the job information, greatly reducing makeready time.



Machine-regulated density, saves on time and paper

KHS-AI, smart feedback feature **Unique**

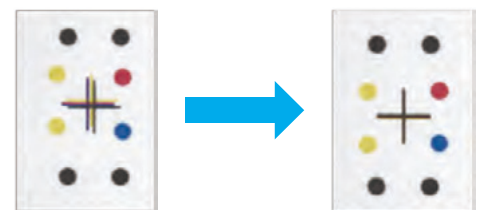
A unique Komori feature that provides quick feedback when density levels differ from target density, and is capable of responding even to initial falloffs in density. Density is measured with PDC-SX, and the amount of ink applied to the roller is then adjusted based on any calculated excess or shortcomings. 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. Moreover, by feeding back the measured color difference to the printing press, it is possible to efficiently approximate the $L^*a^*b^*$ values of the target color, which strongly assists printing in accordance with the international standard ISO12647-2, G7, and Japan Color standards.



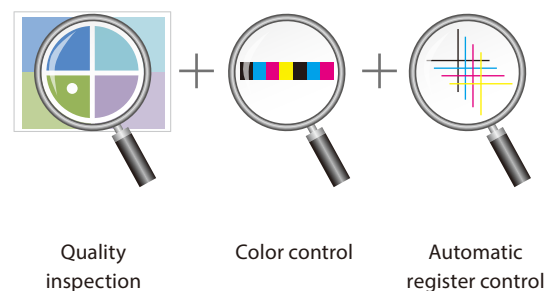
Auto-registration

Operator-free quality while printing while printing **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 registration: Measures dedicated registration marks to automatically adjust for and maintain unit-to-unit registration



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

* Includes optional features. * Use the 2D barcodes on pp. 12-13 to view video of each feature.

Super Short Makeready dramatically improves efficiency in short run production of package printing

One of the challenges in the package printing process is the long start-up time due to cleaning, special color matching and varnish preparation during job changeovers. To reduce the time needed for this common process, Komori proposes a "Super Short Makeready" solution, which combines multiple functions to help reduce start-up time even for short run package printing.

Changeover operations are performed in parallel (concurrently) to minimize changeover time

Parallel Makeready

Package printing is becoming increasingly diversified and short run, requiring very fast changeovers that include special colors and coating. With Komori's parallel makeready, plate changing, blanket washing, pre-inking and air/register presets can all be carried out in parallel (concurrently) with the press of a button. Furthermore, the ink roller can run independently for cleaning, which allows simultaneous operation with coater plate changes. This can significantly reduce job changeover time, including that of the coater.

Shorten makeready time

The below graph compares Lithrone GX40 advance 6-color plate changing, 3-color changing, and coater plate changing.

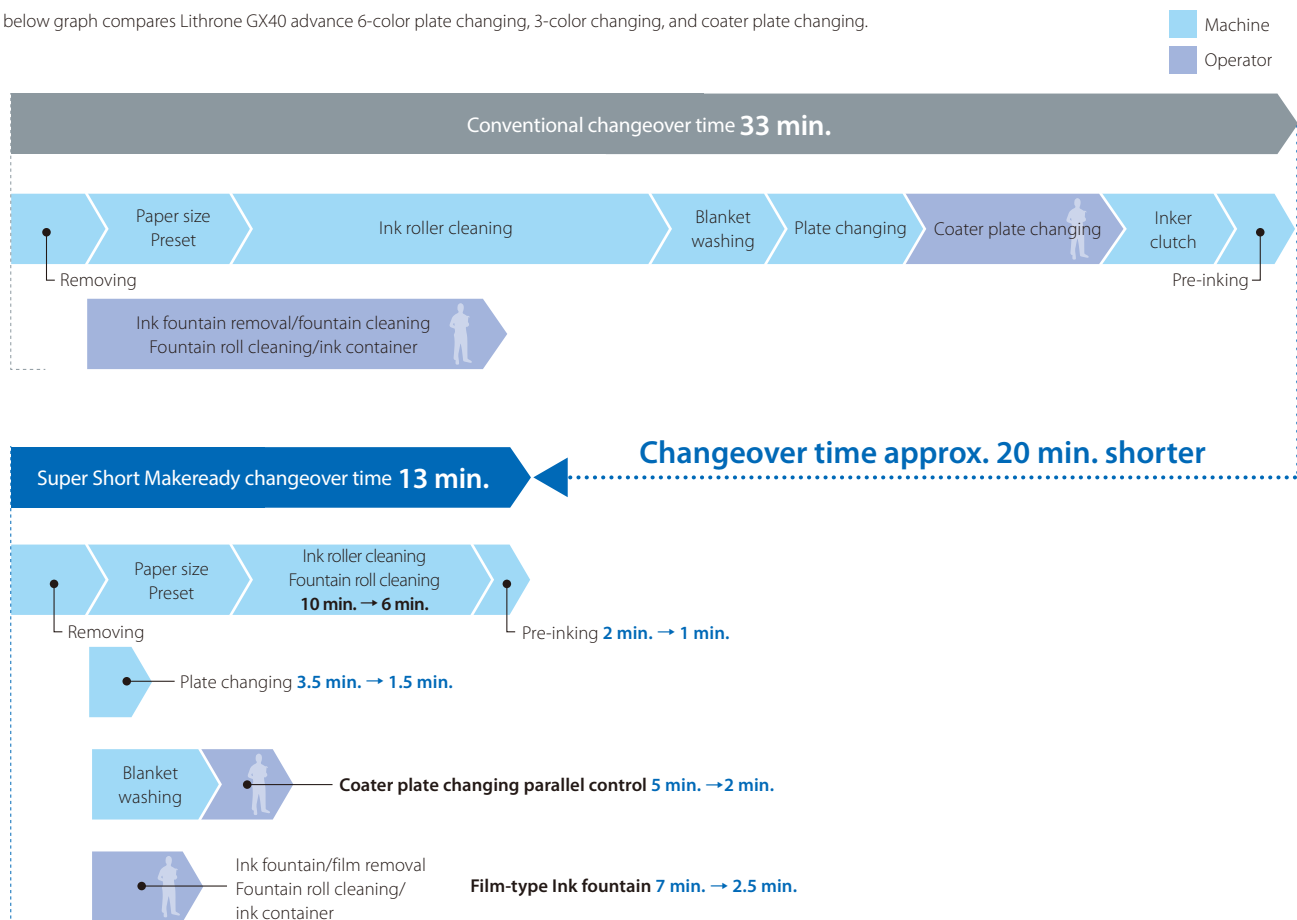


Plate changing completed in 1 min. 25 seconds regardless of number of colors

A-APC (Asynchronous Automatic Plate Changer)

The A-APC carries out fully automated, simultaneous, multi-color plate changes, greatly reducing non-productive time and increasing efficiency.

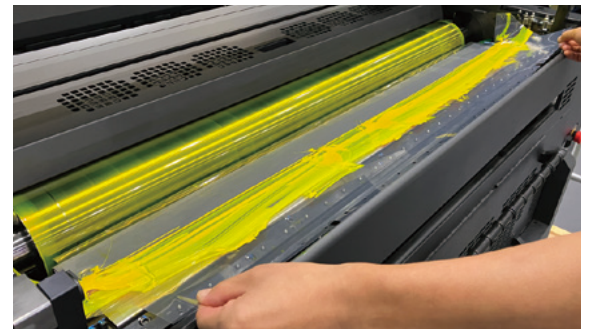
Note that parallel makeready allows operators to perform color change operations simultaneously.



Simply peel off the film to easily clean the fountain

Ink fountain film New

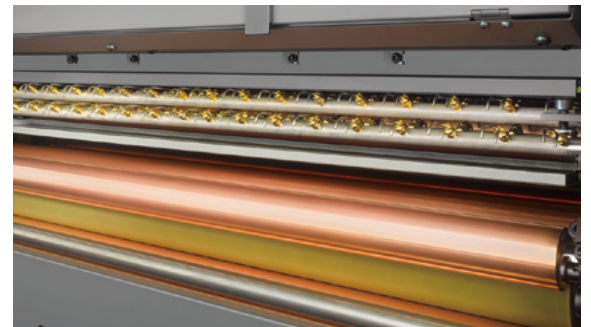
Ink fountain film can speed up color changes. The next ink color can be loaded simply by replacing the dedicated film and cleaning the ink roller easily, reducing the operator's workload and work time.



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 Semi-APC

Previously, plate changing needed to be carried out by two people. However, a new tension mechanism automates the process, allowing plates to be changed quickly by a single operator. Simply open the cover, line up the plate with the guides and press the button (the process takes approximately 2 min.).

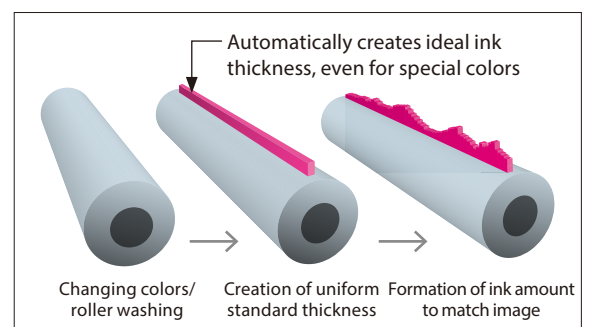


Quick color acquisition for repeat jobs

Pre-inking Plus 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, even for special color. This greatly reduces paper waste and shortens time required for color matching.

* Requires PDC-SX (optional).



* Includes optional features.

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

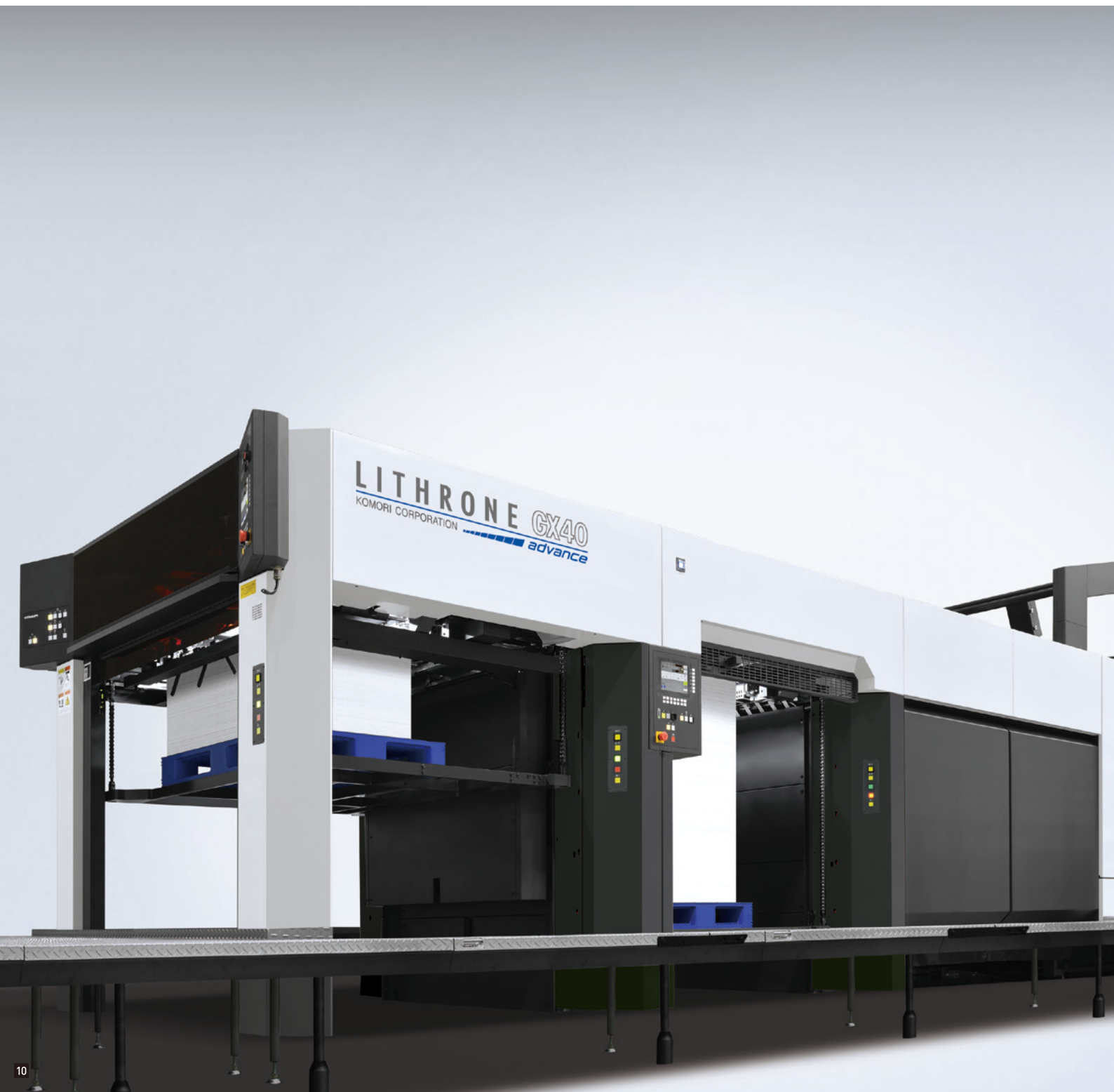
* Use the 2D barcodes on pp. 12-13 to view video of each feature.

Specialized for package printing, stable over long runs

Komori's advance series enhances package printing. This reduces machine downtime and work processes, such as paper changeover during final printing, and ensures production time, thereby increasing profitability even for short run package printing.

Additionally, by standardizing ink types, Komori's new Smart Color*¹ 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 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**

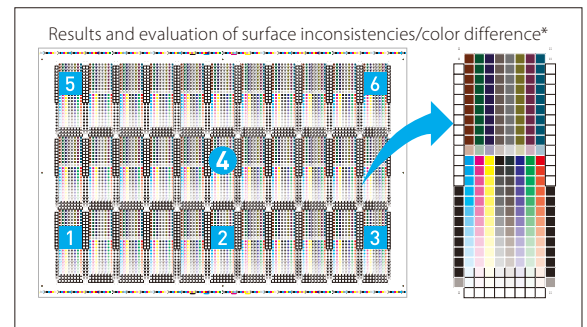
Komori's unique dampening system, Komorimatic, offers the sharp dots and fast color acquisition, with increased effectiveness for high-speed long runs. The four dampening rollers and reverse-slip system creates a thin film of water that is uniform in both the lateral and vertical directions while using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



Zero stops for restocking increases productivity

Automated non-stop feeder/delivery/pusher

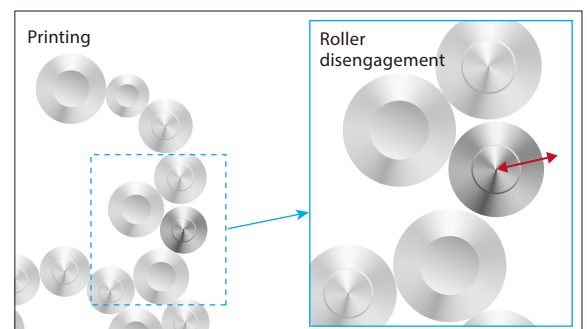
Komori's non-stop feeder and delivery allows paper to be restocked while the press remains running, significantly increasing production rates. Not only are heavy manual tasks reduced for the operator, but waste is reduced and production rates increase because the press remains in a steady-state condition throughout the run. By using a pusher together with the feeder, the circumferential directions of the delivered paper are automatically aligned, thereby reducing the operator's workload.



Accurately returns to proper ink density at re-start

Ink roller disengagement mechanism during production stops **New**

When the press is stopped, the ink roller is disengaged to prevent ink transfer to the form rollers during non-run time. Suppressing ink transfer during downtime preserves the original ink train state so it is quicker to return to savable print quality.



Dust removal increases productivity

Dust removal unit **New**

A dust removal unit is located prior to the printing unit to clean the sheet surfaces and prevent contaminants from entering the print process, increasing consistency, quality and productivity. This feature is particularly beneficial to package printing environments where the higher volume of dust, debris and lint from converting heavy stocks can quickly degrade the performance of ink, water and plates in the offset process.

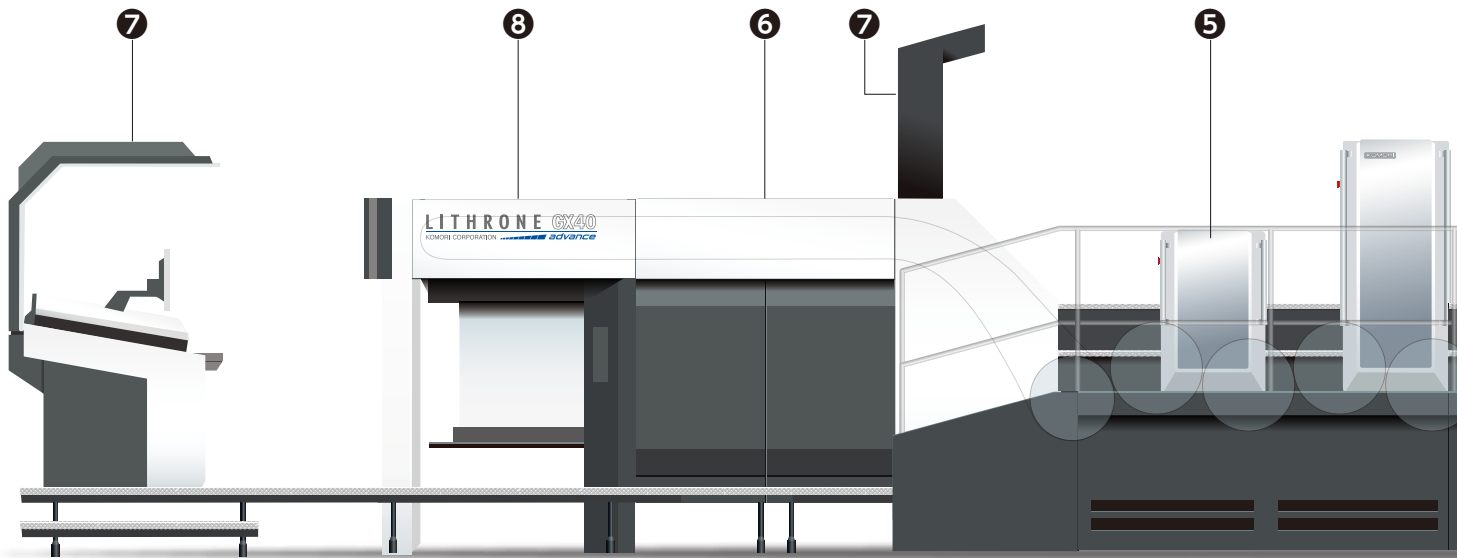
* Includes optional features.

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

* Use the 2D barcodes 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.



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

5 Coater

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



- **Coater Semi-APC** ●
- **Anilox roll changer** ●
- **Coater body stop mode** ●

8 Delivery

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** ● ●
- **Double delivery** ●

6 Dryer

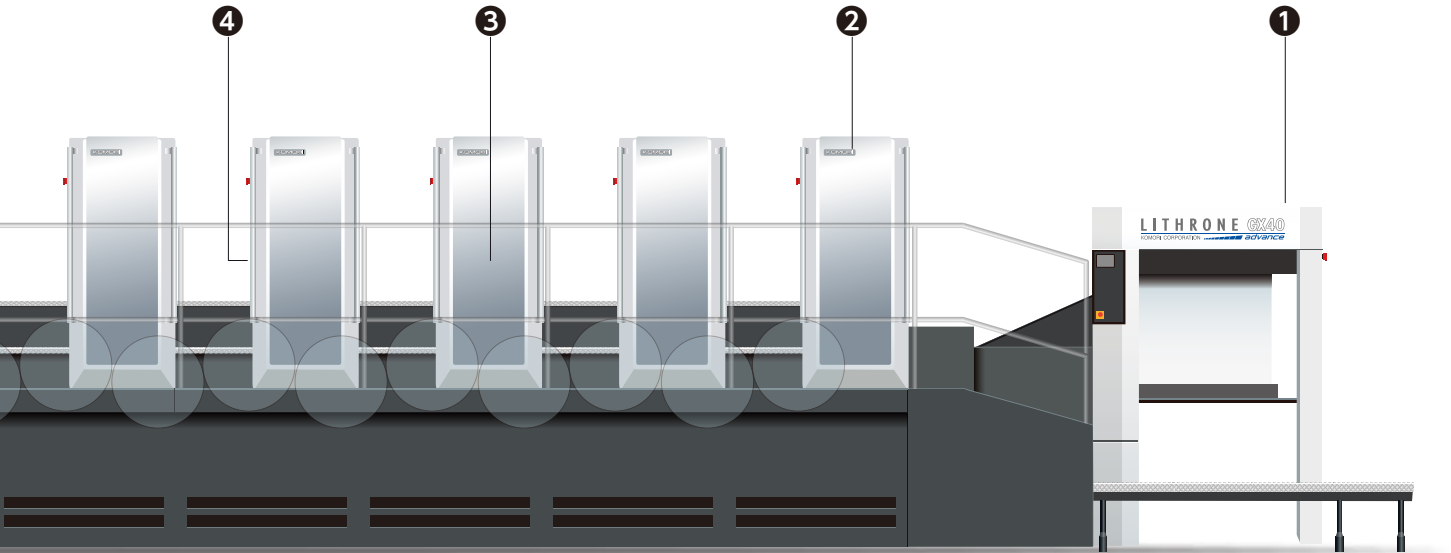
Komori's unique drying system, combines ecology, economy, quality and reliability.



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

*URL for above QR codes: <https://www.komorisolutions.com/video/en/gx40a.html>

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



3 Automatic 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**
- A-APC/automatic blanket washing parallel control^{*1}

^{*1} If parallel control is equipped, A-APC enables plate changing and blanket washing to be performed simultaneously.

4 Plate changing system

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

- Full-APC Fully Automatic Plate Changer
- A-APC Asynchronous Automatic Plate Changer

1 Feeder

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 non-stop feeder system**
- Automatic pile height control
- Sucker box
- Front lay

2 Unit/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**
- **Ink fountain film**
- Inker stand-alone drive

^{*} Restrictions apply regarding availability on different models and available combinations of features.

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

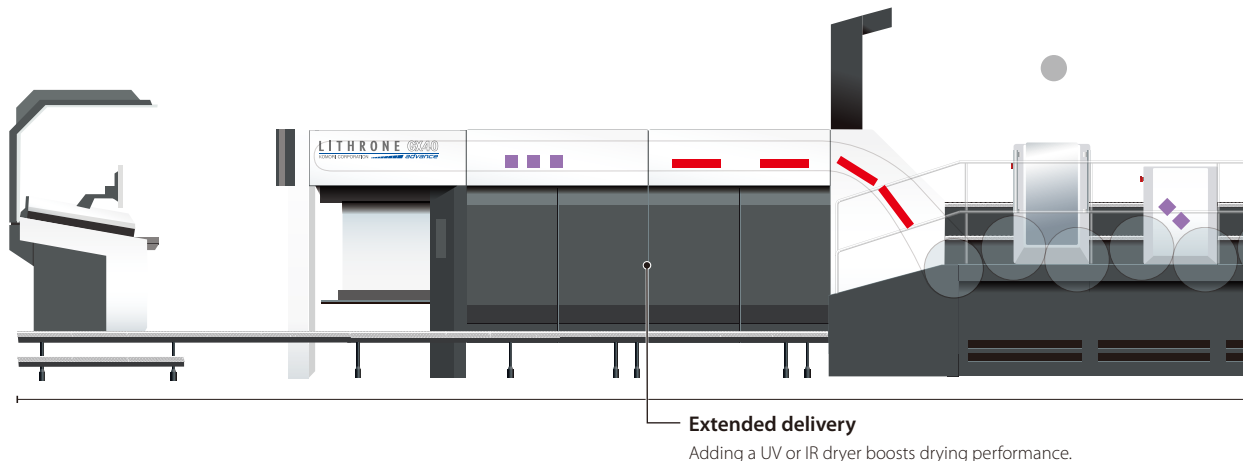
Examples of custom setups/major applications

LITHRONE GX40 advance (40" offset printing press)

Single-pass printing with multiple varnishes and multiple curing stations

7-color coater plinth 450 mm specification(configuration example: GLX740 + C + DU + DU + C + extended delivery)

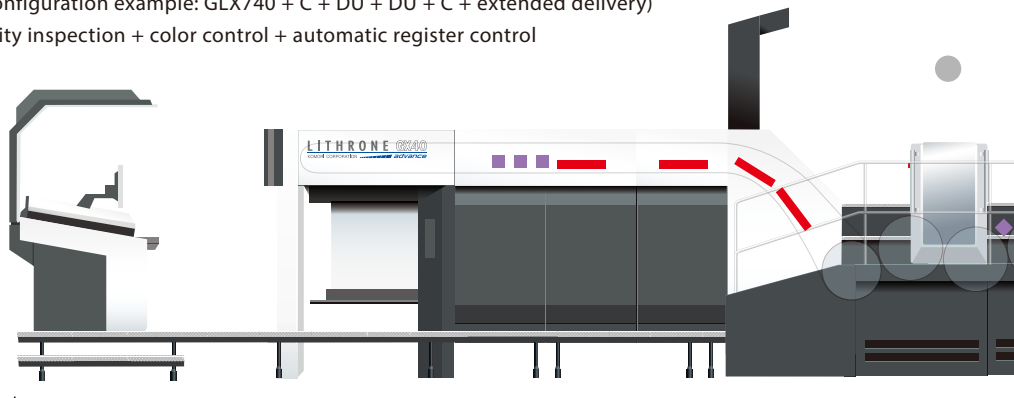
White ink, overprint varnish, aqueous/UV varnish, quality inspection + color control + automatic register control



A wide range of configurations using special colors, aluminum vapor deposition, transparent films, and various varnishes

7-color coater plinth 450 mm specification(configuration example: GLX740 + C + DU + DU + C + extended delivery)

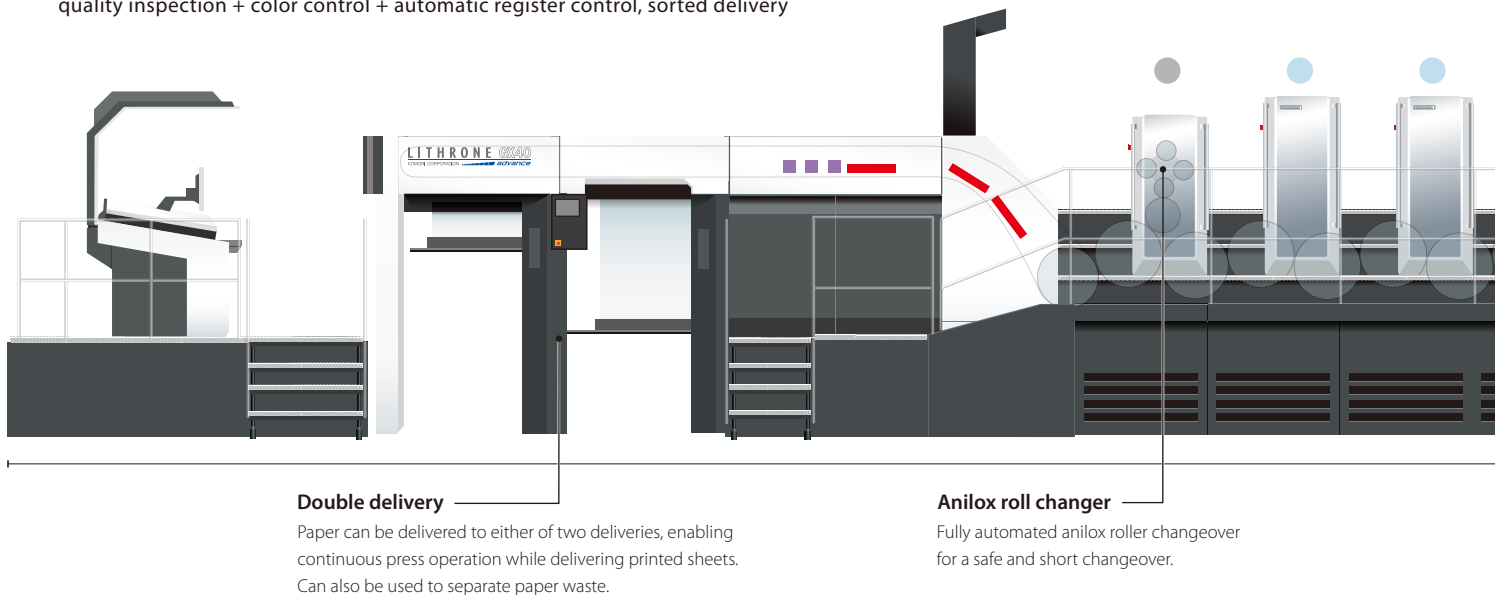
White ink, overprint varnish, UV varnish, quality inspection + color control + automatic register control



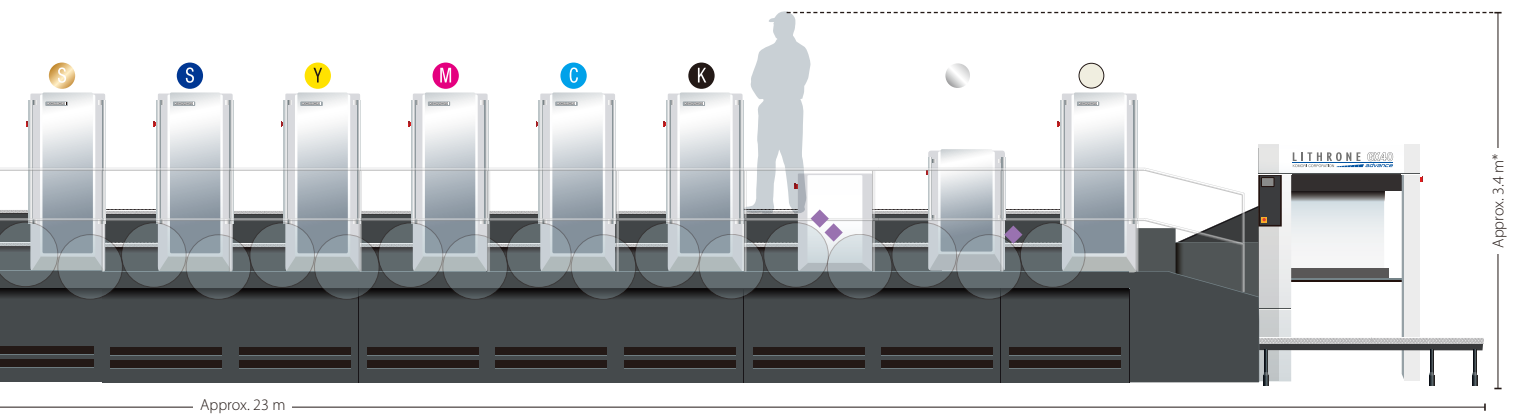
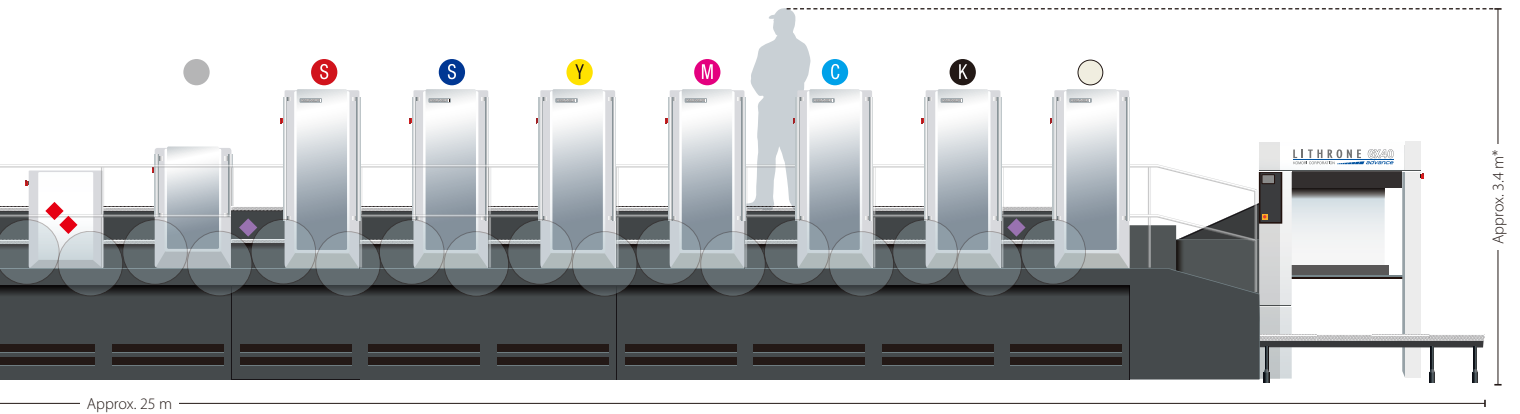
Configuration for package printing using Smart Color technology, which does not require color changing

8-color coater plinth 900 mm specification(configuration example: GLX840 + paper dust remover + C + non-stop operation system + extended/double delivery)

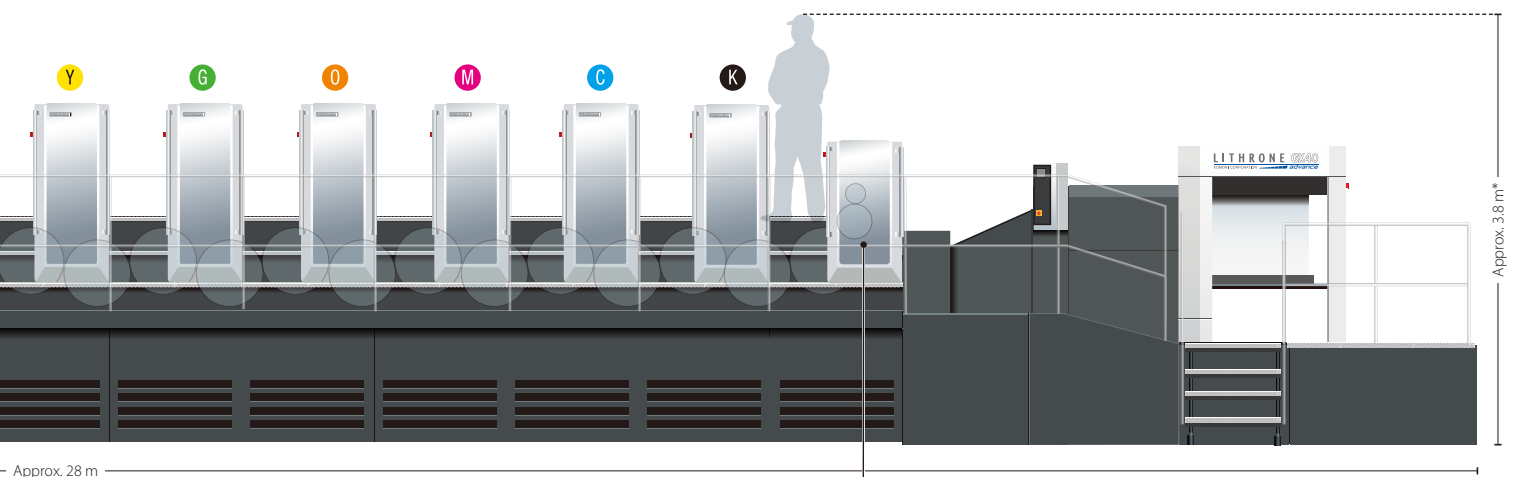
Smart color 6-colors, overprint varnish, UV varnish, paper dust remover + anilox changer, automated non-stop feeder/delivery, quality inspection + color control + automatic register control, sorted delivery



- UV dryer
 ■ Overprint varnish
 ● Primer
 ● Special colors
- IR dryer
 ● Coater varnish
 ● Silver varnish
 ●



(delivery)



Sheet cleaning unit

A dust removal unit is located prior to the first unit to clean the sheet surfaces and prevent contaminants from entering the print process, increasing consistency, quality and productivity.

Specifications

LITHRONE GX40 advance (40" Offset Printing Press) specifications						
Model			GLX-540A+C	GLX-640A+C	GLX-740A+C	GLX-840A+C
Number of colors			5	6	7	8
Max. printing speed		sph	18,000			
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)	740 × 1,040 (29.1 × 40.9)			
Sheet thickness range		mm(in)	0.06 - 1.0 (0.002 - 0.039)			
Plate size		mm(in)	811 × 1,055 (31.9 × 41.5)			
Blanket size		mm(in)	935 × 1,060 (36.8 × 41.7) (including aluminum bar)			
Feeder pile height		mm(in)	1,550 (61) (Plinth 450 (17.7))			
Delivery pile height		mm(in)	1,550 (61) (Plinth 450 (17.7))			
Dimensions	Length (L)*1	mm(ft)	17,640 (57'10")	18,818 (61'9")	19,996 (65'7")	21,174 (69'6")
	Width (W)	mm(ft)	3,980 (13'1") (5,710 (18'9") with blower cabinet)			
	Height (H)	mm(ft)	2,603 (8'6") (3,084 (10'1") with cover open, plinth: 450 (1'6"))			

*1 Total press length includes the feeder/delivery steps and the operation stand. Dimensions differ when options such as a double coater or drying unit are selected.
The total length of the press differs depending on the region.

* Dimensions include 450 mm plinth and Extended Delivery.

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

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

Note:
Komori reserves the right to change specifications on machines without notice to improve reliability, functionality or design. Komori carries no obligation for use that does not correspond to the standard safety measures for products noted herein and other precautions. The technical information in this catalog constitutes an explanation of the general operations of the product and grants no rights or license belonging to Komori Corporation or third parties. The photographs in this catalog include some special specifications. Specifications are current as of March 2025. Specifications and photographs are subject to change at a later date due to product improvements.

