

Specifications

LITHRONE GX40RP advance (40" Dedicated Perfecting Offset Printing Press) specifications								
Model		Thin sheet, high printing speed specification		Thin sheet standard specification		Thick sheet specification		
		GLX-840RP-A	GLX-1040RP-A	GLX-840RP-A	GLX-1040RP-A	GLX-740RP-A+C	GLX-840RP-A+C	
Number of colors		4 × 4	5 × 5	4 × 4	5 × 5	6 × 1	6 × 2	
Max. printing speed		sph	18,000		16,500			
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) (710 × 1,020 (28 × 40.2) special specification)					
Sheet thickness range		mm(in)	0.04 - 0.5 (0.0016 - 0.020)				0.2 - 0.8 (0.008 - 0.031)	
Plate size		mm(in)	811 × 1,055 (31.9 × 41.5) (800 × 1,030 (31.5 × 40.6) special specification)					
Blanket size		mm(in)	935 × 1,060 (36.8 × 41.7) (920 × 1,040 (36.2 × 40.9) special specification - including aluminum bar)					
Feeder pile height		mm(in)	1,850 (72.8)					
Delivery pile height		mm(in)	1,400 (55.1)					
Dimensions	Length (L)*1	mm(ft)	20,514 (67'4")	22,870 (75')	20,514 (67'4")	22,870 (75')	22,241 (72'12")	23,419 (76'10")
	Width (W)	mm(ft)	4,426 (14'6") (5,620 (18'5") with blower cabinet)					
	Height (H)	mm(ft)	3,264 (10'9")					

LITHRONE GX44RP advance (44" Dedicated Perfecting Offset Printing Press) specifications								
Model		Thin sheet specification		Thick sheet specification				
		GLX-844RP-A	GLX-1044RP-A	GLX-744RP-A+C	GLX-844RP-A+C	GLX-944RP-A+C	GLX-1044RP-A+C	
Number of colors		4 × 4	5 × 5	6 × 1, 5 × 2	7 × 1, 6 × 2	7 × 2	8 × 2	
Max. printing speed	sph	15,000	13,000	15,000		14,000	13,000	
Max. sheet size	mm(in)	840 × 1,150 (33.1 × 45.3) (820 × 1,130 (32.3 × 44.5) special specification)						
Min. sheet size	mm(in)	460 × 620 (18.1 × 24.4)						
Max. printing area	mm(in)	820 × 1,140 (32.3 × 44.9) (810 × 1,120 (31.9 × 44.1) special specification)						
Sheet thickness range	mm(in)	0.04 - 0.5 (0.0016 - 0.020)		0.2 - 0.8 (0.008 - 0.031)				
Plate size	mm(in)	900 × 1,150 (35.4 × 45.3) (900 × 1,130 (35.4 × 44.5) special specification)						
Blanket size	mm(in)	1,050 × 1,160 (41.3 × 45.7)						
Feeder pile height	mm(in)	1,850 (72.8)						
Delivery pile height	mm(in)	1,250 (49.2)						
Dimensions	Length (L)*1	mm(ft)	22,787 (74'9")	25,457 (83'6")	25,200 (82'8")	26,535 (87'1")	27,870 (91'5")	29,205 (96')
	Width (W)	mm(ft)	5,036 (16'6") (6,625 (21'9") with blower cabinet)					
	Height (H)	mm(ft)	3,334 (10'11")					

*1 Total press length includes the feeder/delivery steps and the operation stand. Dimensions will also differ if options such as a double coater, drying unit, automatic non-stop feeder, or double delivery are selected.

* Above specifications are for H-UV, H-UV L (LED) or UV.

* Total press length for thick paper specs includes coater and extended delivery.

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

* Performance and numbers may differ from specifications herein, and Komori reserves the right to change specifications for the purpose of product improvement.

Note:

Komori reserves the right to change specifications on machines, without notice, to improve reliability, function or design. Komori is under no obligation arising from use that does not correspond to the standard safety measures for the product noted herein and other precautions. The technical information in this catalog constitutes an explanation of the representative 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. Additionally, specifications are current as July 2023 and, along with photographs, are subject to change at a later date due to product improvement.



40"/44" Dedicated Perfecting Offset Printing Press

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

The Lithrone GX40RP/GX44RP advance provides **world-class ROI***1

Komori developed the advance series, which offers world-class ROI, in order to improve productivity and profitability for printing companies. In addition to the high return on press investment, advance presses fully support digitalization making the most formidable production press available. Using KP-Connect Pro to link prepress, press and postpress processes optimizes overall production, helping to create smart factories that achieve the highest overall productivity with the least amount of effort. The advance series is all about improving the many micro areas of the process to make a large impact. This is what makes advance series the clear frontrunner in achieving digital transformation for printing companies.

The Lithrone GX40RP/GX44RP advance enables dedicated two-sided printing, without the use of a traditional, convertible, perfecting unit. Because the press never flips the sheet, it delivers increased productivity for everything from thin paper to thick stock and packaging. The single-edge gripping system, used throughout the entire double-sided print process, eliminates the tail edge margin, increasing printable area and increases productivity through better sheet handling.

*1 ROI: Return on Investment

advance × KP-Connect for optimal productivity

According to the data, on average, only 33% of press operating time is spent on production printing*2.
In conjunction with KP-Connect Pro, the new advance press is able to transform makeready and idle time into production printing.

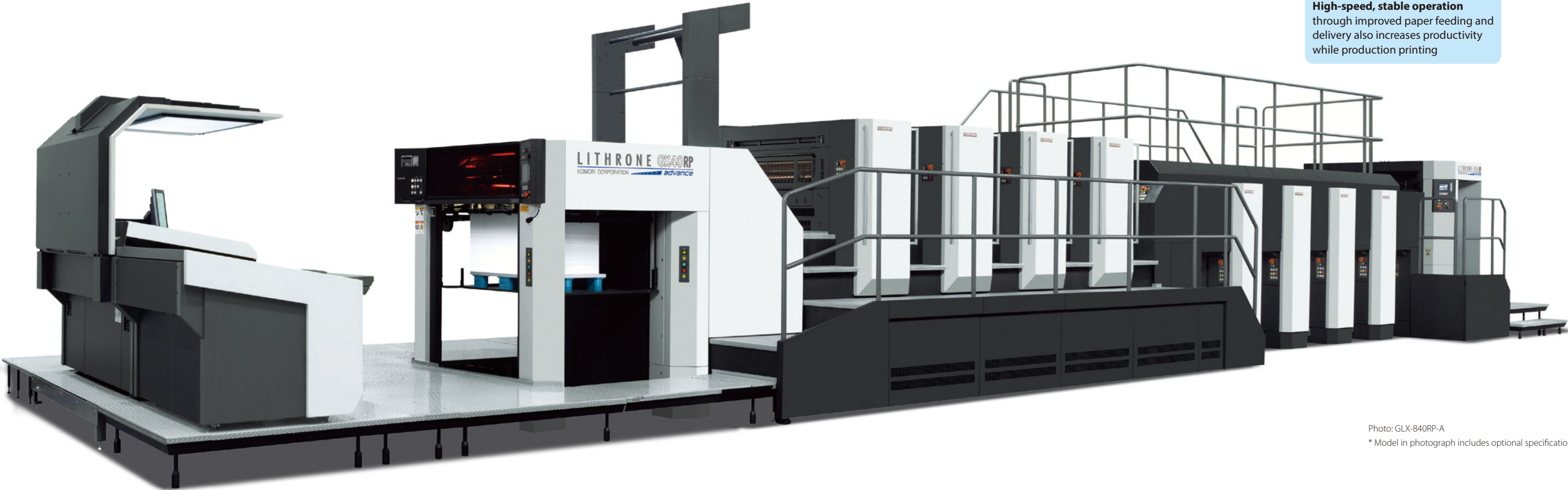
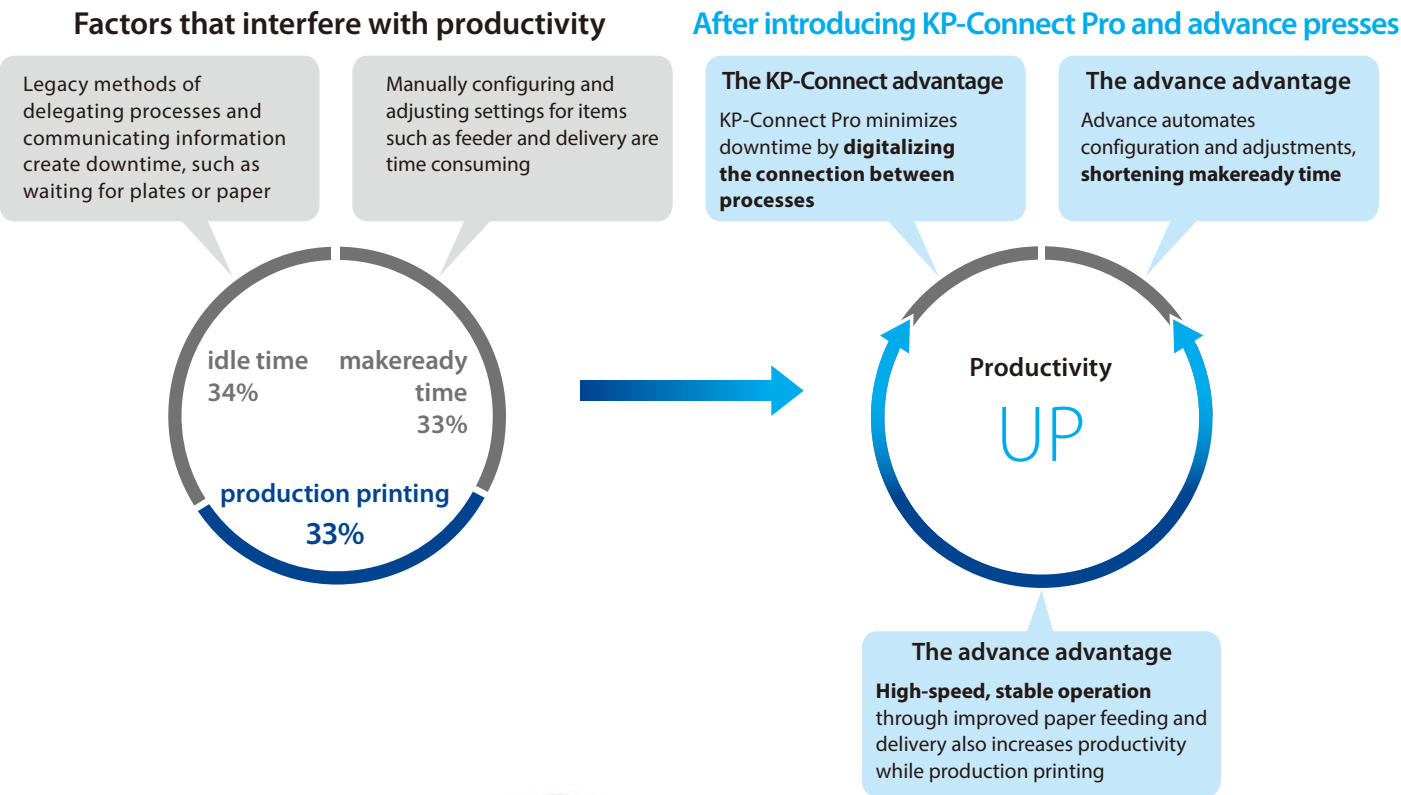


Photo: GLX-840RP-A
* Model in photograph includes optional specifications.

*2 In-house survey. Of the 45 companies that have the KHS-AI (51 machines), the results were calculated from 31 companies that mainly use four colors and excludes package users.

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. 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

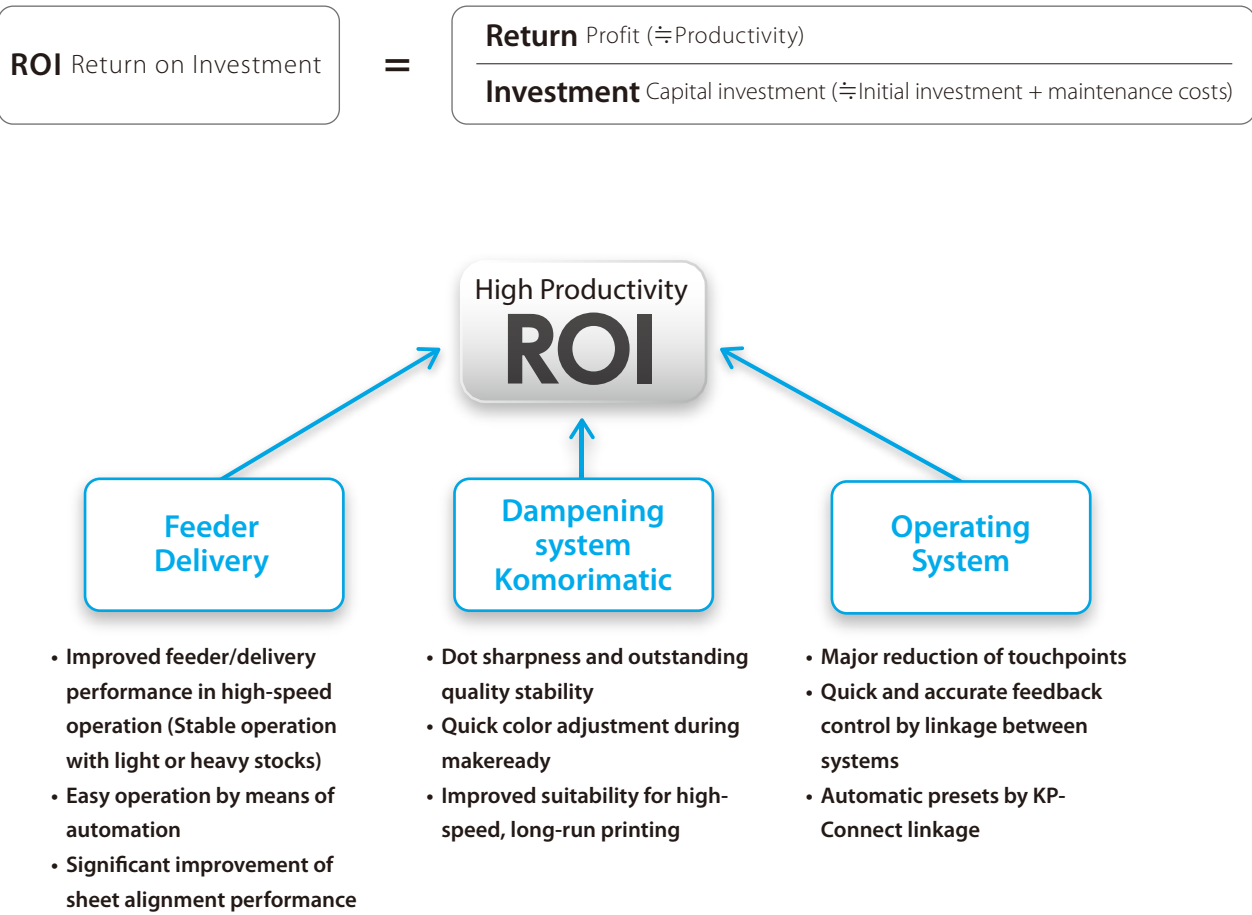
Digitalization of process management, for optimization overall production

- 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



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.



Reasons for increased production efficiency

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.

*Run length is the same

KP-Connect Komori Solution Cloud

KP-Connect Basic

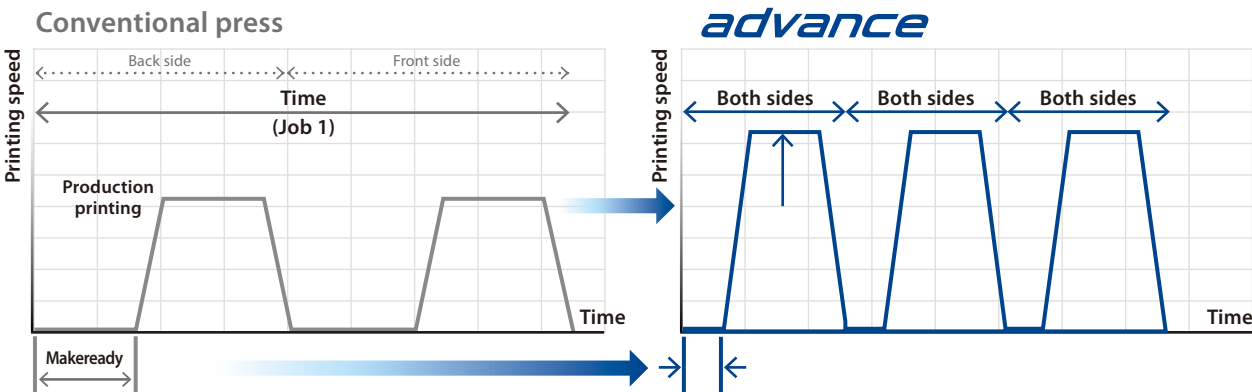
Monitor operations remotely, anytime, anywhere

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.



Superior sheet transport creates significant profits

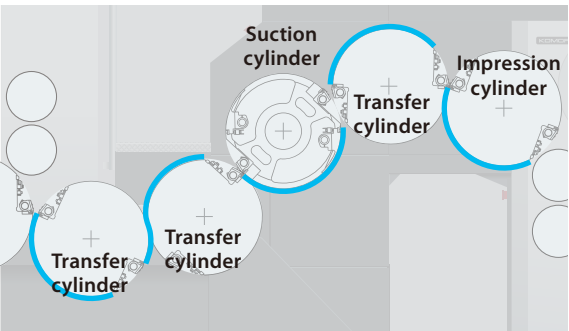
The Lithrone GX40RP/GX44RP advance combines Komori technology and expertise, utilizing a transfer mechanism that offers a powerful advantage when requiring stable, high-output double-sided printing. The simple, non-reversing sheet transport can flexibly adapt to a wide array of stocks from thin paper, to heavy board packaging, while maintaining high front-to-back register accuracy for the highest quality, double-sided printing. It furthermore minimizes paper costs and uniquely shares plates with its single-sided press counterpart for a more efficient production process.



Simple construction, for stable, high-speed operation and high front and back registration accuracy

single-edge gripping, non-reversing sheet transport Unique

The simple design of the paper transfer mechanism ensures stable, high-quality and high-speed double-sided printing, with minimal scratching or marking, on everything from thin paper to heavy stock packaging. The single-sided gripper system and lack of sheet reversal also ensures high front and back registration, regardless of paper type or printing speed.



No tail edge margin means reduced paper costs due to more effective impositions

 Unique

The single-sided gripper system does not flip paper during transport, eliminating the need for tail edge margin and allowing for more effective use of paper when creating impositions. This means that an 8-up imposition of A4 sheets including a color bar can be printed on A full size. Special sizes of cardboard for package printing can also be kept to the minimum, greatly reducing paper costs.



Double-sided UV drying system for fast runs and shorter turnaround

The UV / H-UV / H-UV L (LED) curing system by the suction drum provides instant drying of the first print side, making impression cylinder jackets on the downstream printing units unnecessary. This also leads to high print quality with virtually no front to back differences. Double-sided UV / H-UV / H-UV L (LED) curing is particularly effective for stable, high-speed, short run printing. The instantly cured ink allows for short runs, fast turnaround and immediate finishing.



Share plates with single-sided presses for more efficient printing

Because sheets aren't reversed while printing, plates can be made with the same front and back orientation as single-sided machines. This allows printing plates created for double-sided printing to still be used on single-sided machines when sudden changes to scheduling occurs, helping ensure more efficient operations.



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

* Use the 2D barcodes on pp. 16-17 to view video of each feature.

Impressively fast and more stable production

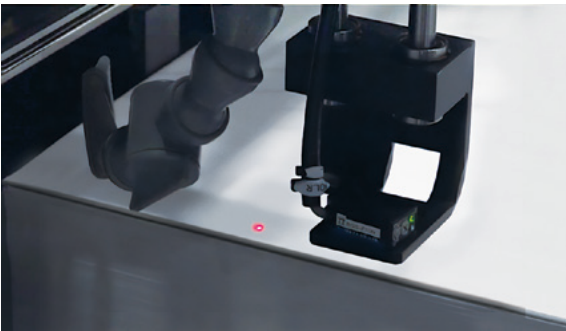
High-performance paper feed and delivery is indispensable for more productive, high-speed operation. The high-speed technology of the Lithrone GX series has been fully applied to the advance series, it enables stable, high-speed printing on both thin and thick paper alike. Komori also paid particular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

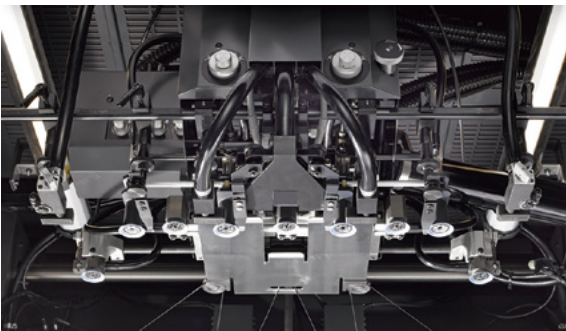
Operators can load paper into approximate position using two pointers on each side of the feeder pile. The press will automatically take over lateral paper feed adjustments, reducing the operator skillset and workload.



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

Sucker box New

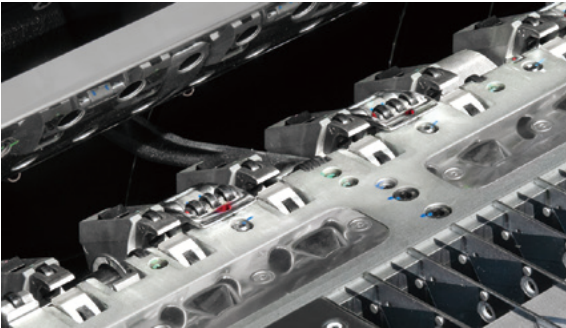
Redesigned air efficiency for paper handling allows for stable, sheet-by-sheet separation, whether dealing with a thin, supple paper or a thick, rigid paper. Optimization of suction head position also helps stop the paper from bending within the sucker box, for stable operation at the highest speeds.



Stable paper feed, even with wrap or wave curled product

Front lay New

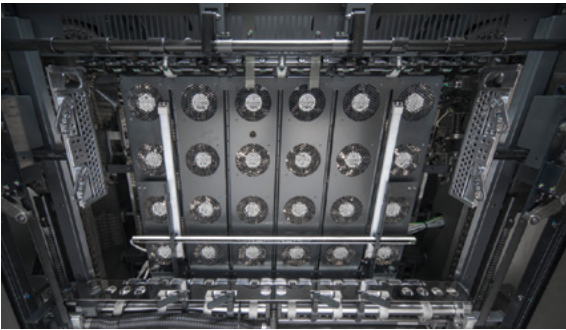
The register front lay has also been radically redesigned. Structural improvements to the lay hood, at the point of contact with the paper, ensures a stable feed, even for difficult paper that tends to warp or wave.



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.



* Use the 2D barcodes on pp. 16-17 to view video of each feature.

Supports digitalization.

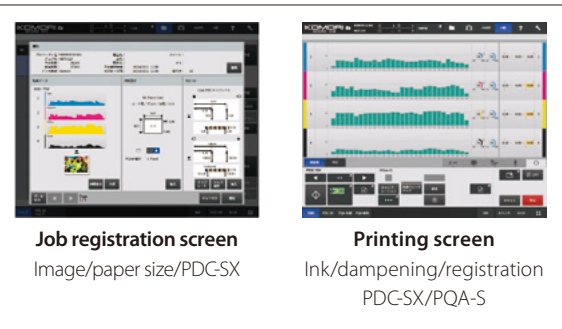
Unique Komori systems drastically reduce operator workload

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.

Simple, one-screen operation, for ease of use

KHS-AI, ease of use New

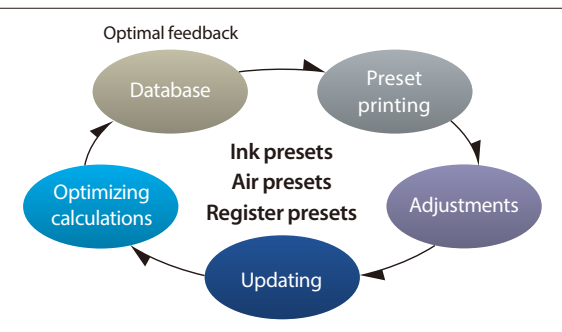
During job registration, makeready and production printing, all necessary information for each phase is gathered onto a single screen. Adjustments can be made during production printing while monitoring registration, ink and dampening. The number of touches required to switch screens has also been reduced, shortening configuration time and helping to prevent human error. Additionally, job settings can be automated via KP-Connect Pro, reducing configuration time by approximately 85% compared to previously.



More efficient makeready through self-learning

KHS-AI, high precision preset function Unique

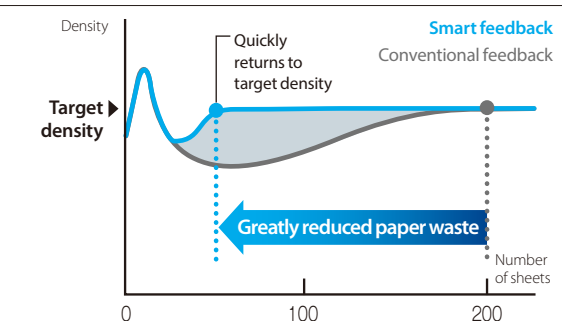
Ink key adjustments, air levels and print register can be automatically preset according to paper size and stock information taken from job data, greatly reducing makeready time. Self-learning tools are also installed to update data with each use, further fine-tuning presets.



Machine-regulated density, saves on time and paper

KHS-AI, smart feedback feature Unique

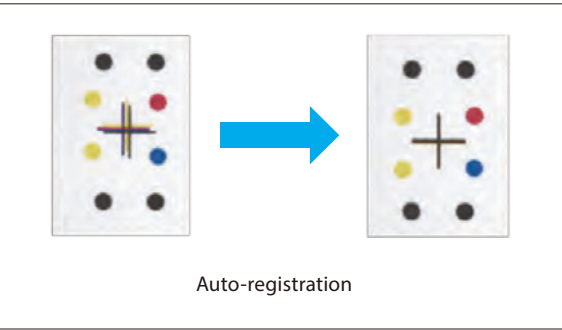
A unique Komori feature that provides quick feedback when density levels differ from target density, and is capable of responding even to initial falloffs in density. Density is measured with PDC-SX, and the amount of ink applied to the roller is then adjusted based on any calculated excess or shortcoming. 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.



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

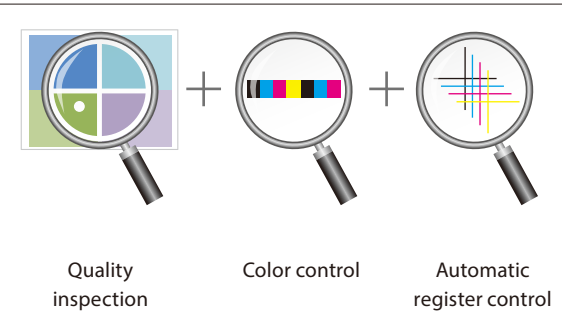
Automatic register control*1: Measures dedicated registration marks to automatically adjust for and maintain unit-to-unit registration

*1 Only available for Lithrone GX40RP advance

* Includes options.

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

* Use the 2D barcodes on pp. 16-17 to view video of each feature.



Two cutting-edge systems to transform production

With increased demand for short run jobs, printing companies have experienced an increase in time spent changing jobs and performing make-readies. Minimizing make-ready time and maximizing production print time is key for improving profitability. Two systems are available to free workers to focus on other tasks: Parallel Makeready, which drastically shortens changeover time by simultaneously carrying out multiple processes, and Autopilot, which streamlines human work through the power of automation.



Greatly shorten the time required to job changeover

Parallel Makeready

Plate changing, blanket washing, pre-inking and air/register presetting can all be carried out simultaneously with the press of a button. Parallel Makeready can also be combined with faster color startup via the KHS-AI to reach production printing as quickly as possible. This greatly reduces makeready times and significantly contributes to improved ROI. The more job changes required for short runs, the more Parallel Makeready's advantage becomes apparent, streamlining operator work-load.

Shorten makeready time

The graph below shows the Lithrone GX40RP advance (40" 8-color double-sided printing press with KHS-AI) compared to other systems.

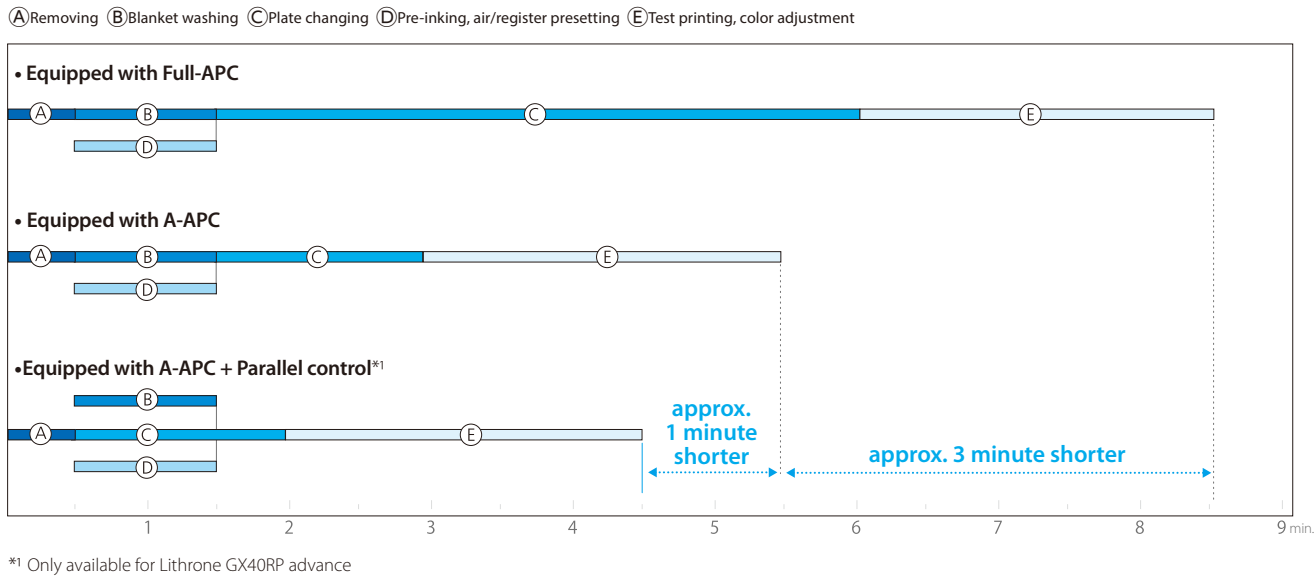
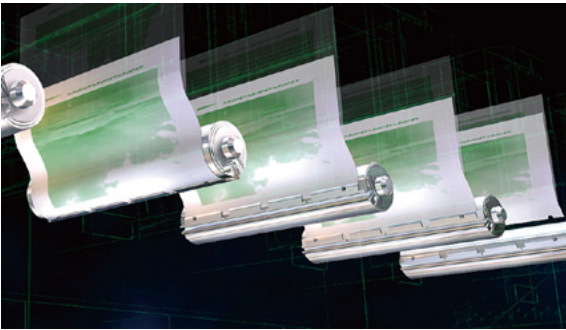


Plate changing completed in 1 min. 25 seconds regardless of number of colors

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.

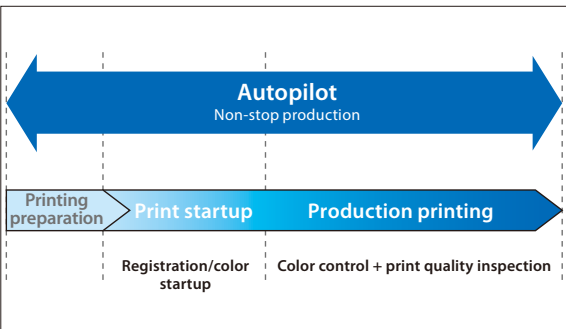


Cutting-edge automation, from makeready to production printing

Autopilot Unique

After automatically switching jobs, the press automatically assesses whether registration and color values are within permissible range and begins production printing. Quality and colors are also automatically maintained during printing. Komori's new inline PDF comparator system allows the press to automatically check reference images before production printing, limiting the risk of noticeable defects being included in the final product.

* Only available for Lithrone GX40RP advance



* Includes options.

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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. Lithrone GX40RP/GX44RP advance lineup includes models capable of handling heavy stocks ranging from 0.2 to 0.8 mm thick, allowing highly accurate, double-sided, one-pass printing even on card or other heavy stock.

*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

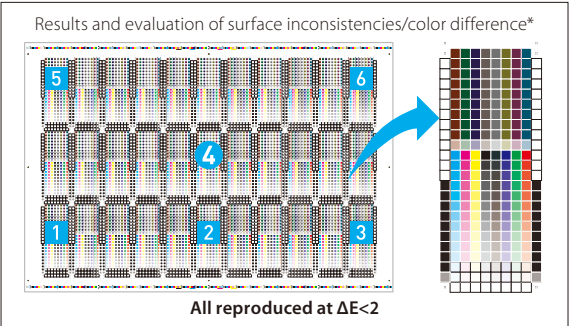
Komorimatic, Komori's unique dampening system offers the sharp dots and fast color acquisition, with increased effectiveness for high-speed long runs. The four dampening rollers and reverse-slip system creates a thin film of water that is uniform in both the lateral and vertical directions while using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

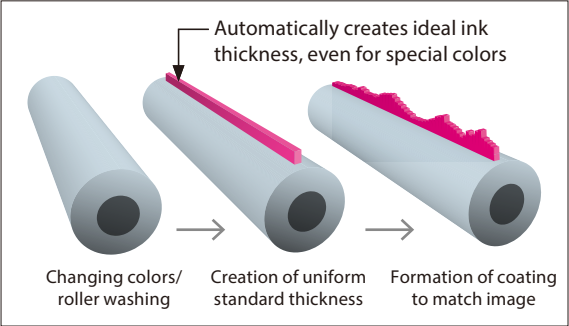


Quick color acquisition for repeat jobs

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.

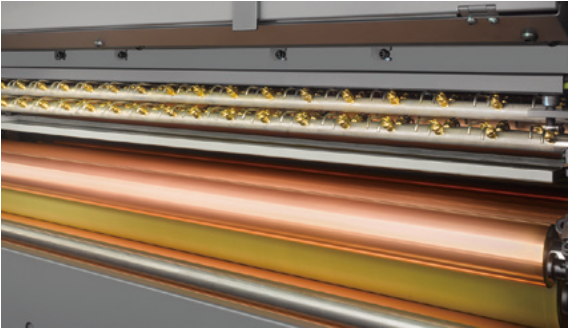
* Requires PDC-SX (optional).



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 carried out with the touch of a button

Coater Semi-APC

Previously, plate changing needed to be carried out by hand. 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 minutes). This system supports operators by simplifying this previously difficult task.



* Includes options.

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

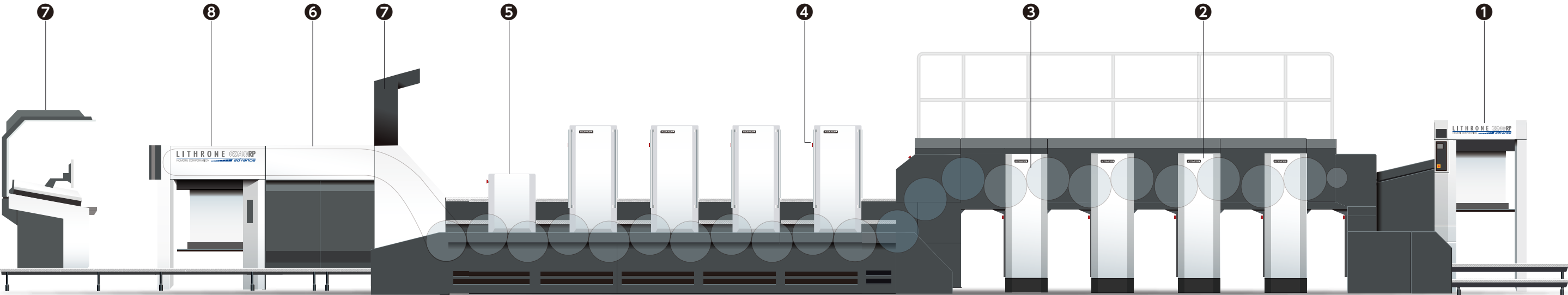
* Use the 2D barcodes on pp. 16-17 to view video of each feature.



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.

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



7Quality 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

5Coater

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 Semi-APC

3Automatic 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

1Feeder

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

8Delivery

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

6Dryer

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

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

4Plate 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).

- Full-APC fully automatic plate changer
- A-APC Asynchronous Automatic Plate Changer

2Unit/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
- DC blower
- Parallel Control

* URL for above 2D barcodes: <https://www.komorisolutions.com/video/en/gx40rpagx44rpa.html>

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

Wide, 44-inch model for superior flexibility.
Offers high productivity in a variety of fields

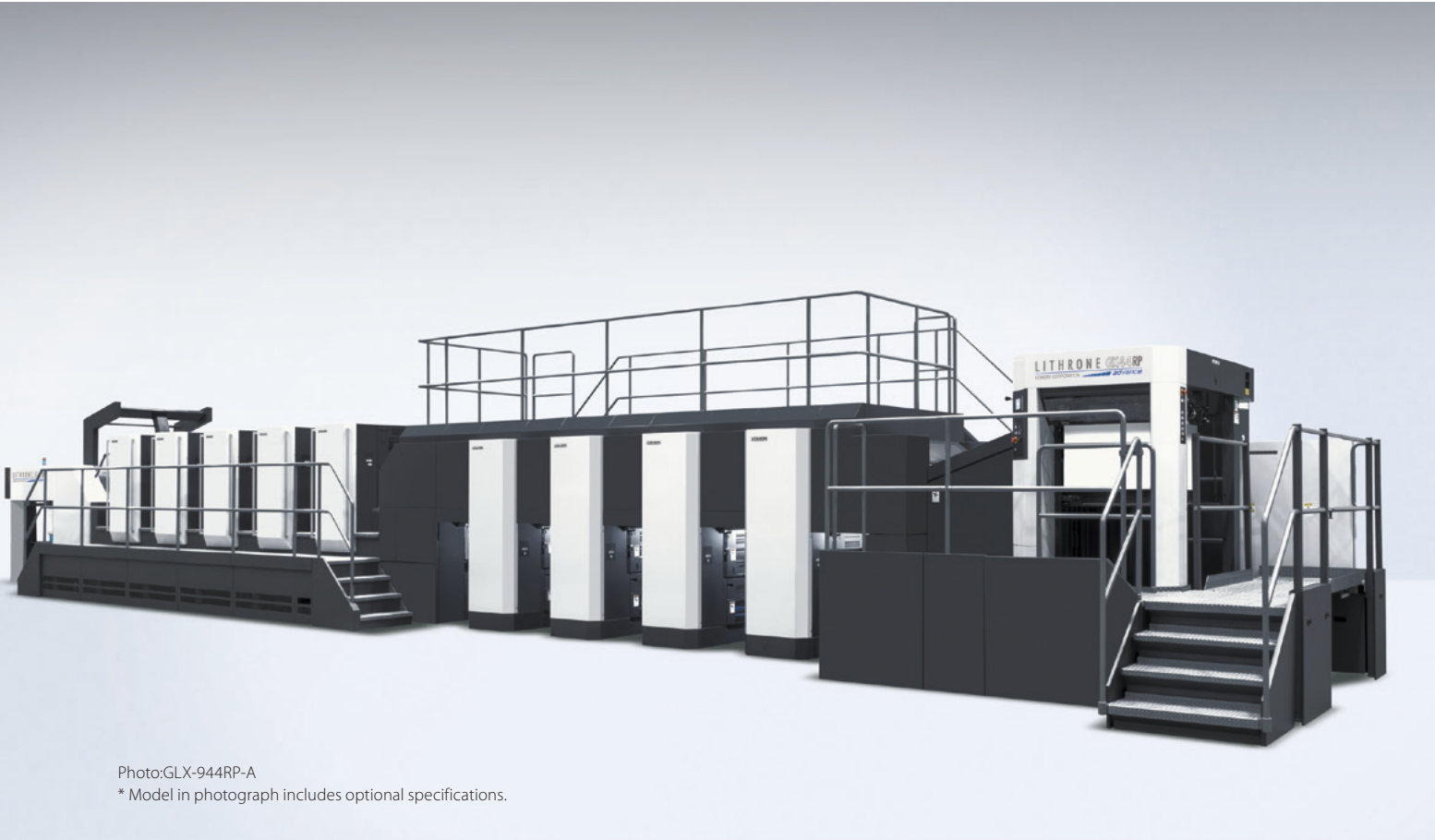
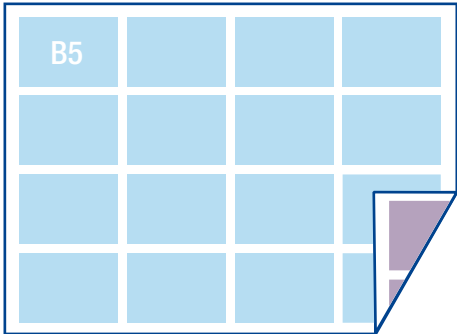


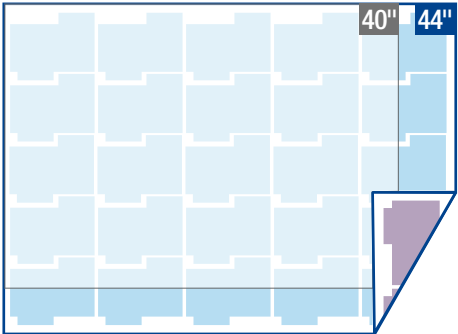
Photo:GLX-944RP-A
* Model in photograph includes optional specifications.

Lithrone GX44RP advance utilizes its wide 840 x 1,150 mm max printing size to create more effective impositions for a variety of sizes, including B sizes. This is particularly effective in the publishing and gang-run printing markets where demands are increasing. The press streamlines production and greatly reduces paper costs, particularly when printing on heavy package and card stocks, yielding higher productivity and profitability.

Publishing (B sizes, 44")



Package printing



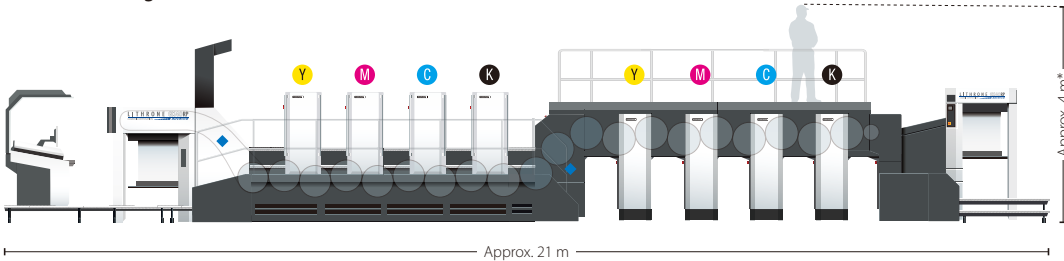
Paper size	40"	44"
Impositions	16	25
Paper area	100%	120%
Imposition ratio	100%	156%

Examples of custom setups/major applications

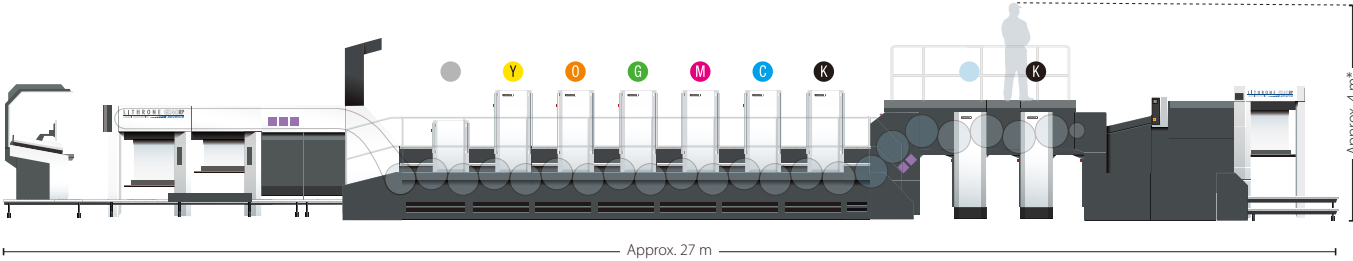
Lithrone GX40RP advance (40"/44" Dedicated Perfecting Offset Printing Press)

- H-UV L (LED)
- Overprint varnish
- UV dryer
- Coater varnish

General commercial printing/publishing: 4-color double-sided one-pass printing
4-color front/4-color back specification (example setup: GLX-840RP-A [4/4])
Print quality inspection + color control + automatic register control

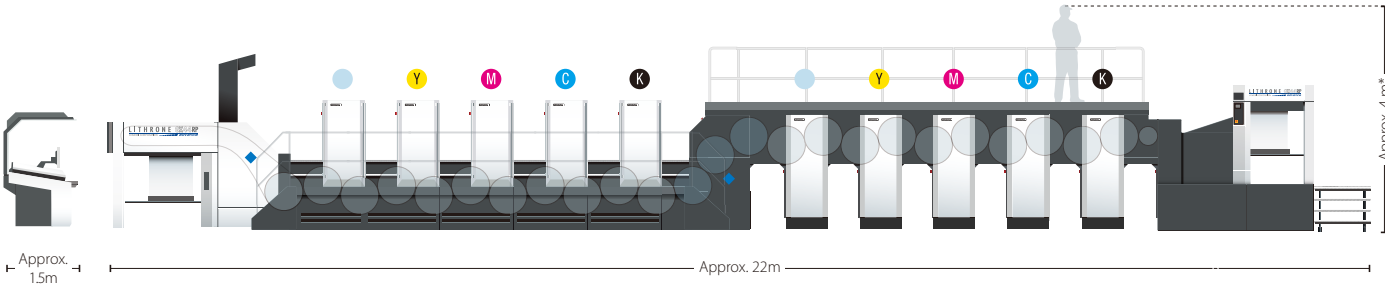


Package printing: Setup for package printing using Smart Color technology, which does not require color changing
6-color front/2-color back coater specification (example setup: GLX-840RP-A [6/2] + C + non-stop operating system + extended/double delivery)
Smart color 6-colors, overprint varnish, UV varnish, automated non-stop feeder/delivery, quality inspection + color control, sorted delivery



Lithrone GX44RP advance (40"/44" Dedicated Perfecting Offset Printing Press)

Publishing printing: Double-sided 5-color one-pass printing of magazine covers (front: 4-color process + special colors/overprint varnish, back: 4-color process + special colors/overprint varnish), inside pages, etc.
5-color front/5-color back specification (example setup: GLX-1044RP-A [5/5])
Special colors, overprint varnish, quality inspection + color control



* Assuming a standing, 180 cm tall operator. For machine dimensions, see specifications on p. 20.
* Additional workspace, not included in machine dimensions, is required for installation, such as for operator stands, surrounding equipment/cabinets and paper transport.