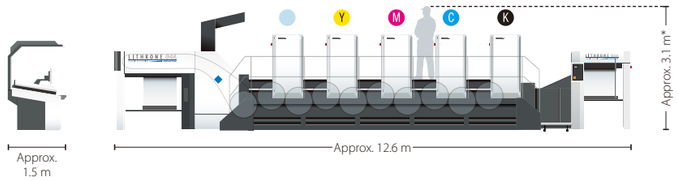
Examples of custom setups/major applications

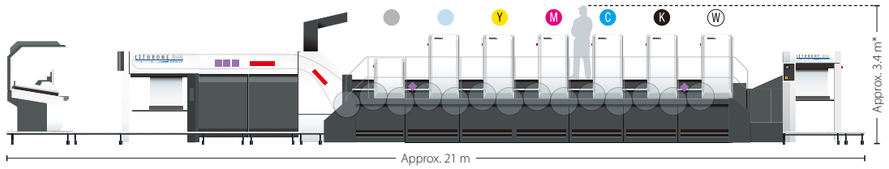
- H-UV L (LED)
- UV dryer
- IR dryer
- Overprint varnish
- Coater varnish

LITHRONE G44 advance (44" Offset Printing Press)

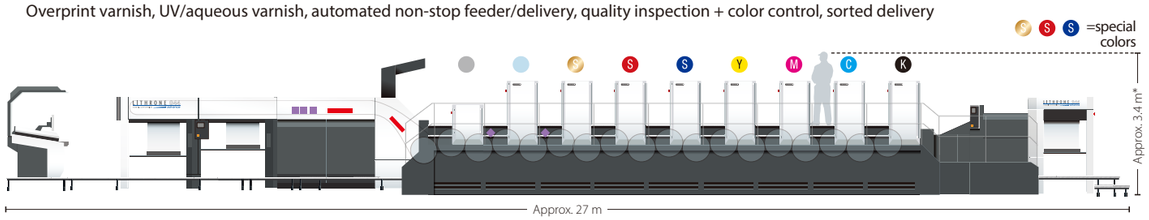
General commercial printing
5-color standard (example setup: GL-544A)
Special colors/overprint varnish,
quality inspection + color control



Package printing: Setup for printing using special colors, metalized paper/transparent film, various varnishes and other package needs
6-color with coater on 300 mm plinth (example setup: GL-644A + C + extended delivery)
White ink, overprint varnish, aqueous/UV varnish, quality inspection + color control



Package printing: Package printing setup for large runs, with automated, non-stop equipment
8-color with coater on 300 mm plinth (example setup: GL-844A + C + extended/double delivery)
Overprint varnish, UV/aqueous varnish, automated non-stop feeder/delivery, quality inspection + color control, sorted delivery



Specifications

LITHRONE G44 advance (44" Offset Printing Press) specifications							
Model			GL-444A	GL-544A	GL-644A	GL-744A	GL-844A
Number of colors			4	5	6	7	8
Max. printing speed		sph	15,000				
Max. sheet size		mm(in)	840 × 1,150 (33.1 × 45.3)				
Min. sheet size		mm(in)	460 × 620 (18.1 × 24.4)				
Max. printing area		mm(in)	820 × 1,140 (32.3 × 44.9)				
Sheet thickness range		mm(in)	0.04 - 0.8 (0.0016 - 0.031) (0.08 - 1.0 (0.0031 - 0.040) Skeleton transfer cylinder specification)*1				
Plate size		mm(in)	900 × 1,150 (35.4 × 45.3)				
Blanket size		mm(in)	1,050 × 1,160 (41.3 × 45.7) [including aluminum bar]				
Feeder pile height		mm(in)	1,250 (49.2)				
Delivery pile height		mm(in)	1,250 (49.2)				
Dimensions	Length (L)	mm(ft)	11,305 (37'1")	12,640 (41'6")	13,975 (45'10")	15,310 (50'3")	16,645 (54'7")
	Width (W)	mm(ft)	3,910 (13') [5,650 (18'6") with blower cabinet]				
	Height (H)	mm(ft)	2,368 (8') [2,850 (9'4") with safety cover open]				

*1 Transfer cylinder gripper pad adjustment is necessary when the printing paper is thicker than 0.5 mm.
* Maximum printing speed may differ depending on chosen specifications and printing conditions.
* Performance and values may differ depending on specifications. Specifications are also subject to change due to product improvements or other reasons.

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 October 2025. Specifications and photographs are subject to change at a later date due to product improvements.

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

ISO 9001
ISO 14001
JQA - QMA10134
JQA - EM1949
Tsukuba Plant

GL-44A	en	JPN	16P	M11	2	Oct.2025	-	-

LITHRONE G44 advance EX Edition

44" Offset Printing Press

KOMORI

LITHRONE G44 advance EX Edition

Unique format size offers unmatched production efficiency

The Lithrone G44 advance provides **world-class ROI**[*1]

*1 ROI: Return on Investment

- **Unique maximum paper size of 840 mm x 1,150 mm, specifically designed for semi-large package printing.**
- **Innovative productivity improvements with usability similar to a 40-inch press, but with better imposition efficiency.**
- **Along with high-speed stability when printing on thin stock in the commercial market, the press delivers consistent performance even in complex, multi-up impositions for packaging.**
- **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[*2] that reduce power consumption, paper waste, and greenhouse gas emissions.**

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

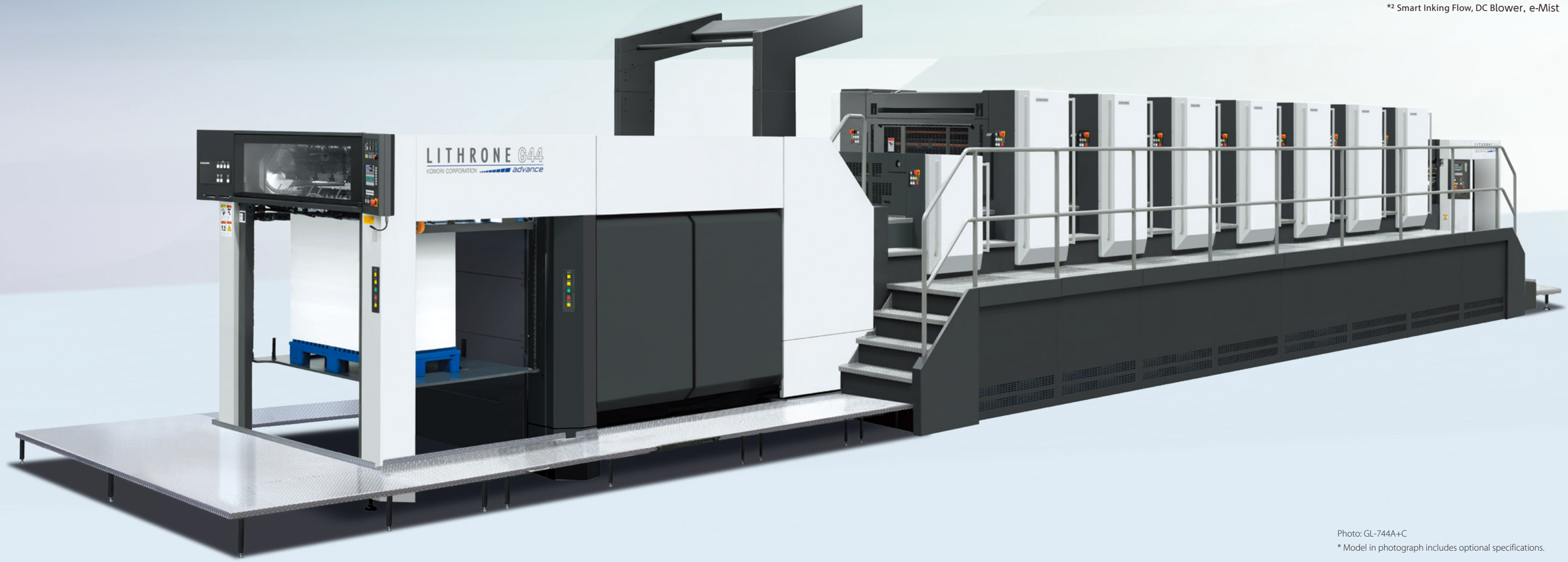
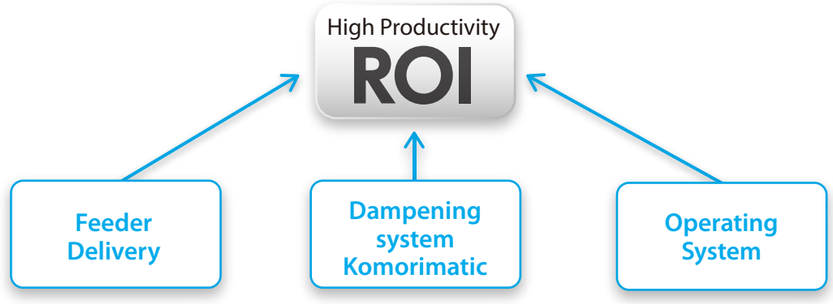


Photo: GL-744A+C
* Model in photograph includes optional specifications.

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**

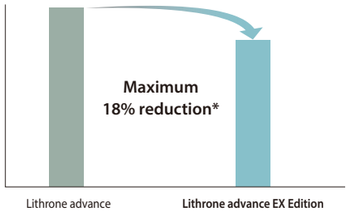
- **Major reduction of touchpoints**
- **Quick and accurate feedback control by linkage between systems**
- **Automatic presets by KP-Connect linkage**

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 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.

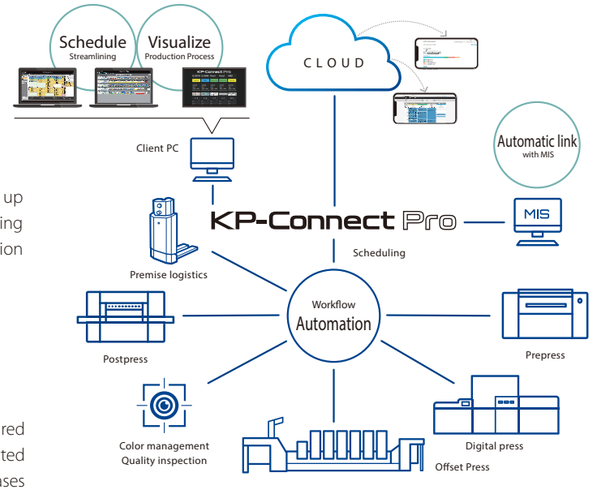
KP-Connect Edge

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.

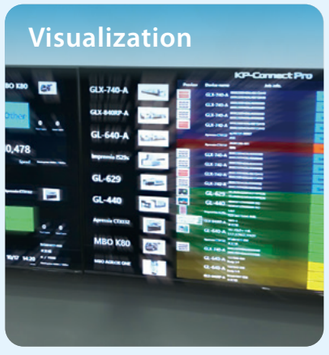
* Up to 10 Komori printing presses can be connected.

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



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

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

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

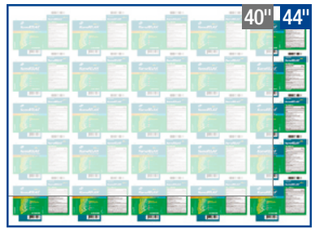
Wide, 44-inch model for superior flexibility, with excellent productivity for package and commercial printing

With its unique format size, the Lithrone G44 advance is not only excellent for commercial printing, but significantly streamlines production for the packaging market. It is well suited to use folding carton stocks and card grade stocks and, the additional image area can greatly reduce paper costs through better impositions. Despite its wide size, the Lithrone G44 advance is easy to operate and does not require special large format equipment and installations.

Unique format size allows more efficient imposition, increasing profitability Unique

The wide 840 mm x 1,150 mm max printing size is effective for a variety of impositions including package printing, publishing, the growing gang-run printing market and many B sizes.

Optimal size for impositions for packaging for daily necessities (small boxes)



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

Cost effective printing of large boxes

Paper size	40"	44"	56"
Impositions	1	2	2
Paper area	100%	120%	200%
Imposition ratio	100%	200%	200%

Most efficient

Greatly shorten the time required for job changeover

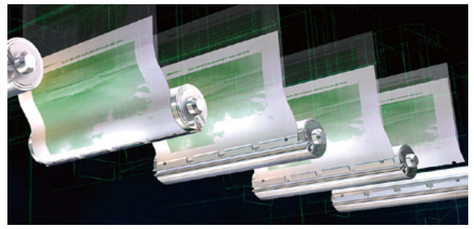
Parallel Makeready

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.

Change plates simultaneously in minimal time, regardless of the number of press units

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.



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

* Includes optional features.
* Figures show Komori measurements under specific conditions. No warranty is implied.
* Use the 2D barcodes on pp. 14-15 to view video of each feature.

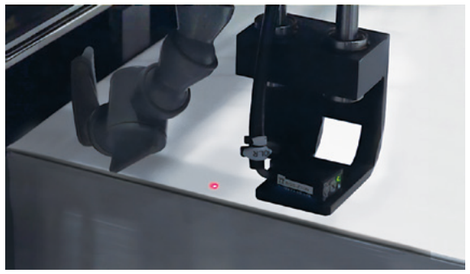
Impressively fast and more stable production

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

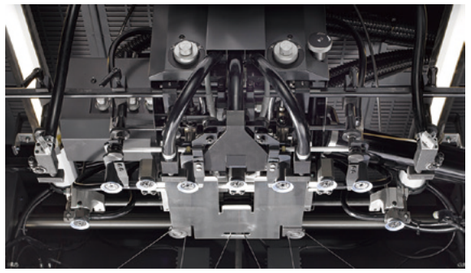
Operators can load paper into approximate position using two pointers on each side of the feeder pile. The press will automatically take over lateral paper feed adjustments, reducing the operator skillset and workload.



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

Sucker box New

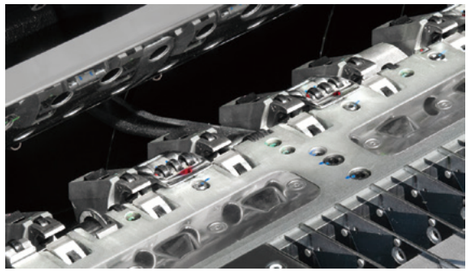
Redesigned air efficiency for paper handling allows for stable, sheet-by-sheet separation, whether dealing with a thin, supple paper or a thick, rigid paper. Optimization of suction head position also helps stop the paper from bending within the sucker box, for stable operation at the highest speeds.



Stable paper feed, even with wrap or wave curled product

Front lay New

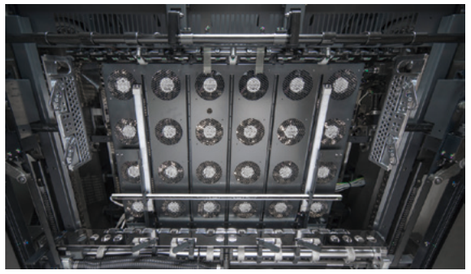
The register front lay has also been radically redesigned. Structural improvements to the lay hood, at the point of contact with the paper, ensure a stable feed, even for difficult paper that tends to warp or wave.



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. 14-15 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. 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

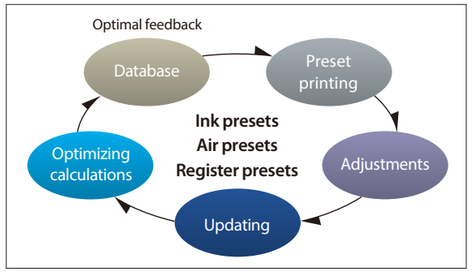
All necessary data for a job including current job progress, estimated time remaining and timing of operator actions, can be visualized. Even inexperienced operators can efficiently navigate between jobs.

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

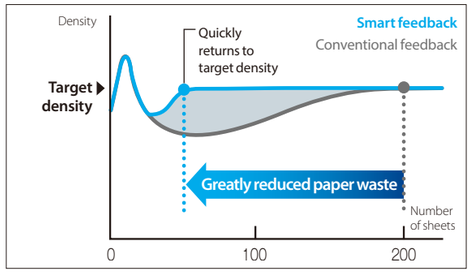
Ink key adjustments, air levels and print register can be automatically preset according to paper size and stock information taken from job data, greatly reducing makeready time. Self-learning tools are also installed to update data with each use, further fine-tuning presets.



Machine-regulated density, saves on time and paper

KHS-AI, smart feedback feature Unique

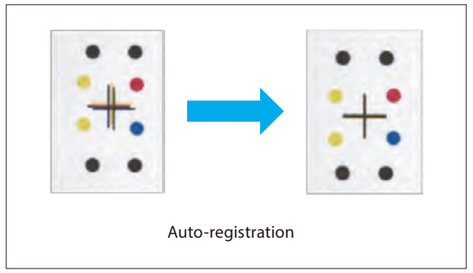
A unique Komori feature that provides quick feedback when density levels differ from target density, and is capable of responding even to initial falloffs in density. Density is measured with PDC-SX, and the amount of ink applied to the roller is then adjusted based on any calculated excess or shortcomings.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

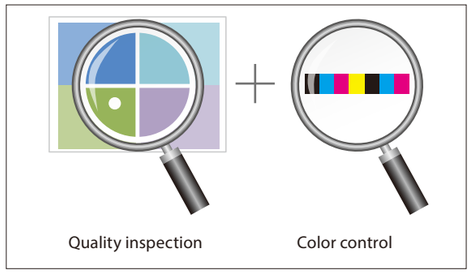


Operator-free quality while printing

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



* Includes optional features.
* Figures show Komori measurements under specific conditions. No warranty is implied.
* Use the 2D barcodes on pp. 14-15 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.

*1 SDGs : Sustainable Development Goals

Stable, high quality with Komori's unique dampening system

Komorimatic Unique

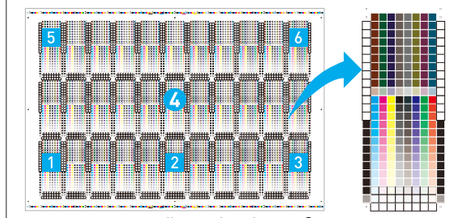
Komori's unique dampening system, Komorimatic, offers the sharp dots and fast color acquisition, with increased effectiveness for high-speed long runs. The four dampening rollers and reverse-slip system creates a thin film of water that is uniform in both the lateral and vertical directions while using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

Results and evaluation of surface inconsistencies/color difference*



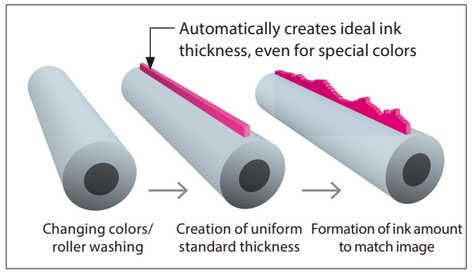
All reproduced at ΔE< 2

Quick color acquisition for repeat jobs

Special 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, even for special color. This greatly reduces paper waste and shortens time required for color matching.

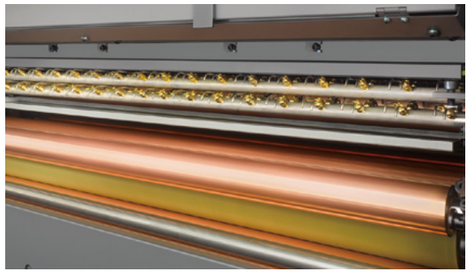
* Requires PDC-SX (optional).



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

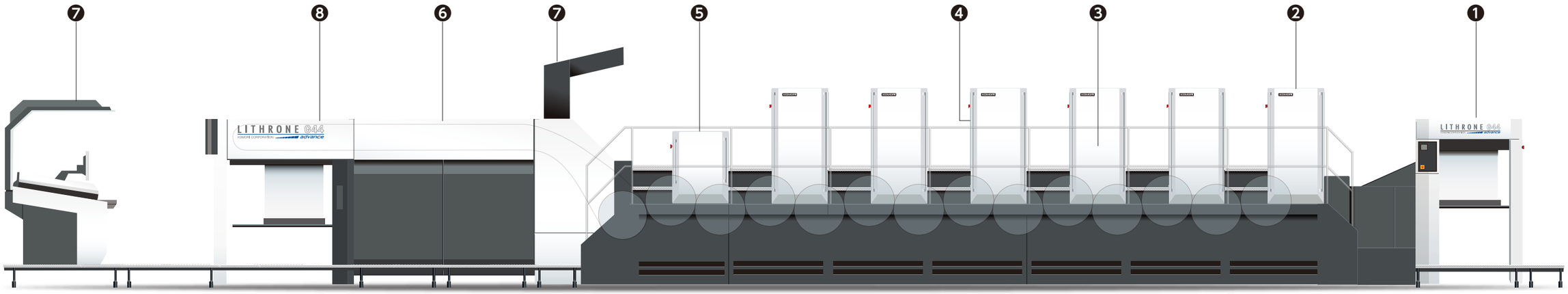
A new tension mechanism was adopted for coater clamping. Plate tension can be adjusted by manipulating a single adjustment on the gripper and tail side, allowing for easy plate changing by a single operator. Coater blanket and photopolymer plate changing time is shortened by approximately 40% compared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

* Includes optional features.
* Figures show Komori measurements under specific conditions. No warranty is implied.
* Use the 2D barcodes on pp. 14-15 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



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** Advanced Interface
- **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**
  - **Automatic mask creation**
  - **Sheet numbering system**
- **KID** Komori Info-Service Display

❺Coater

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 Clamp System advance**
- **Coater Semi-APC**

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

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 zones**
- Manual non-stop delivery system
- Automatic non-stop delivery system
- Extended delivery
- Double delivery

❻Dryer

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

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

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

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**
- A-APC/automatic blanket washing parallel control
- Ink mist extractor fans
- Ink mist removing device
- Smart Inking Flow
- e-Mist
- **DC blower**

*URL for above QR codes: https://komorisolutions.com/video/en/g44a.html

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