LITHRONE G37P advance

EX Edition

37" Convertible Perfecting Offset Printing Press

KOMORI

LITHRONE G37P advance

EX Edition

Unparalleled 16-page A4/letter size printing solutions

The Lithrone G37P advance provides **world-class ROI**[*1]

[*1] ROI: Return on Investment

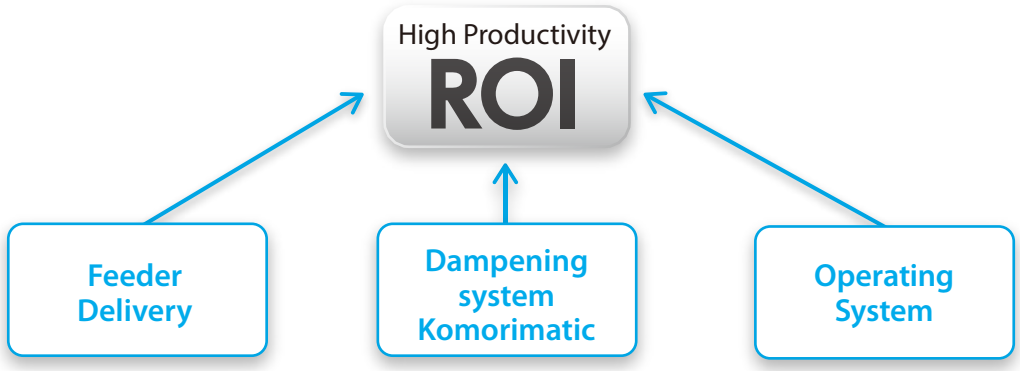
- **Reasonable plate sizes and one-pass two-sided printing maximize production efficiency, especially for A4 x 16-page printing.**
- **①Feeder delivery, ②Dampening system Komorimatic, and ③Operating systems were enhanced. Promotes high-speed production, along with reduced makeready time, and reduced waste, providing a world-class ROI.**
- **Compact perfecting press for space saving and low running costs.**
- **Using KP-Connect Pro to link prepress, press and postpress, optimizes the overall production process, helping to create smart factories that maximize productivity.**
- **Enhanced KID screen layout helps operators move through press functions faster, improving overall work efficiency.**
- **An eco-friendly offset printing press with three environmentally responsible press functions*2 that reduce power consumption, paper waste, and greenhouse gas emissions.**

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

Photo: GL-837P-A
* 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**

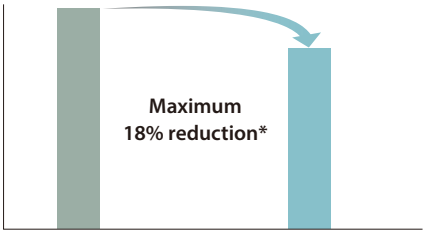
- **Major reduction of touchpoints**
- **Quick and accurate feedback control by linkage between systems**
- **Automatic presets by KP-Connect linkage**

Three essential developments achieve sustainable printing

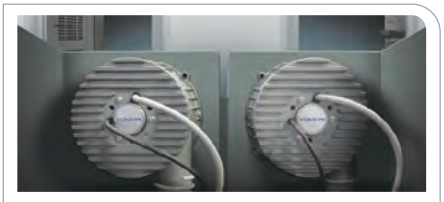
Komori has pioneered an eco-friendly offset printing press designed to support printers while reducing GHG (greenhouse gas) emissions. By means of three eco-conscious functions, the press reduces power consumption by up to 18%* while printing and realizes stable feeder and delivery operation to cut wastepaper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

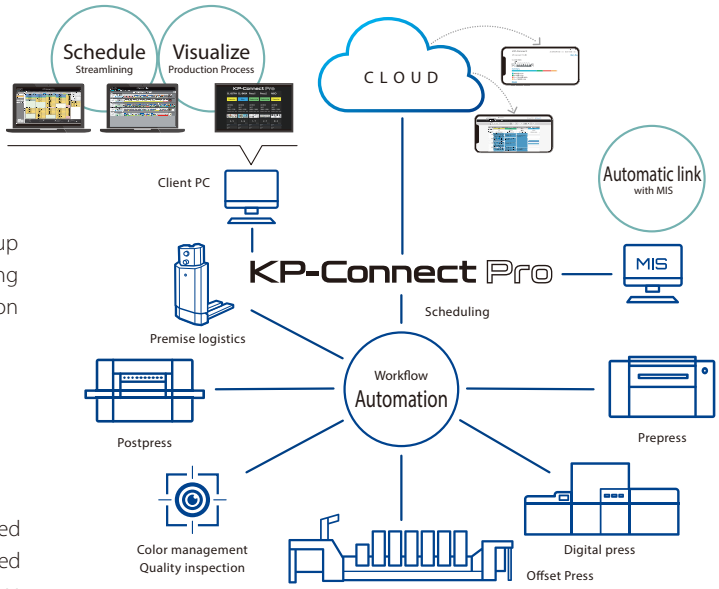
It supports the automatic operation of printing presses by linking up with the MIS (core system) of the printing company and automating the scheduling and setting up of the presses*. Various visualization functions streamline process management operations.

* 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

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

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

Superior performance creates significant profits

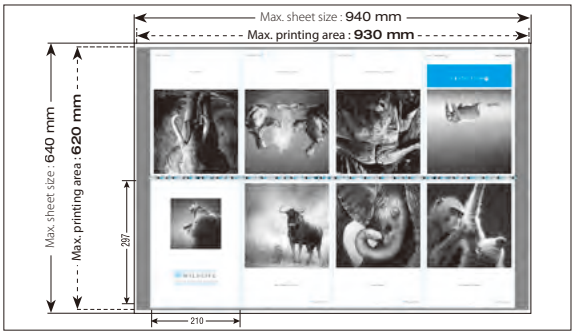
Improving productivity while staying cost-competitive in cut-throat markets, and carving out new markets by offering superior services, both require flexible, multi-functional presses capable of sophisticated automation. The Lithrone G37P advance does just that by incorporating Komori's world class advance series automation features and systems that reduce operator workload while increasing productivity.

Allows a color bar on 8-up A4 impositions even on double-sided prints

Back side (pre-printing), center color bars

The maximum printing area of 620 mm x 930 mm accommodates simultaneous printing of a color bar with 8-up A4. The press' color bar scanner is equipped with a tracking sensor function, so center color bars*1 can be scanned automatically along with register marks for automatic color registration. The Lithrone G37P advance enables imposition for both front and back sides in the same manner as a single-sided press.

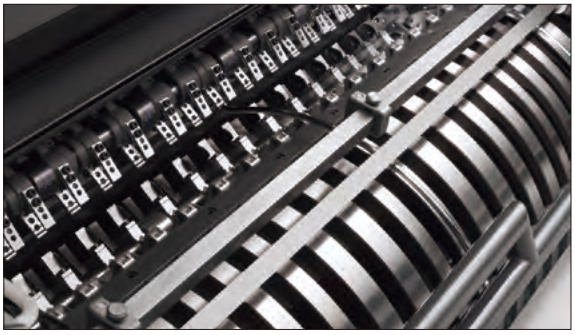
*1 Center color bar is compatible when equipped with H-UV/H-UV L (LED).



Optimal transfer paths due to highly stable perfecting mechanism

Perfecting mechanism

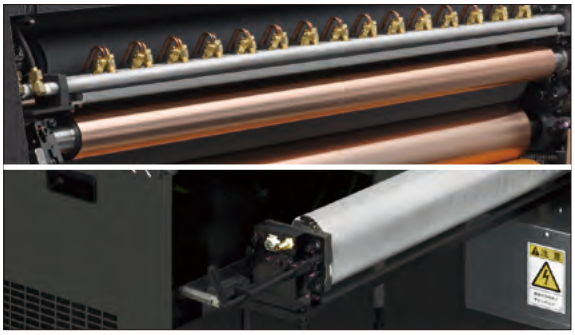
A simple double-double-single, gripper-based perfecting mechanism, and transfer/suction/perfecting cylinder structure, ensures a stable sheet path even during double-sided printing, with minimal scuffing and marking. The new design also helps reduce maintenance.



Dramatically increases productivity by shortening cleaning and makeready times

Automatic cleaning programs

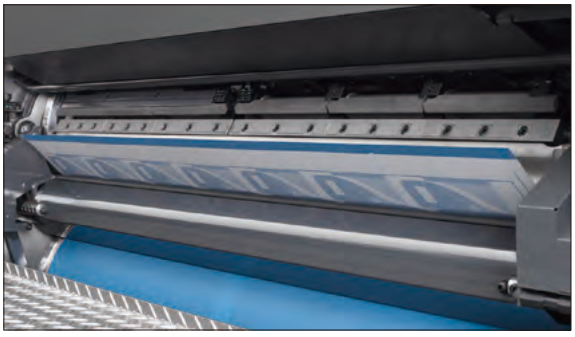
Blanket washing, along with impression cylinder and ink roller cleaning, are fully automated and initiated with just the touch of a button. For blanket washing and impression cylinder cleaning, the impregnated cloth cleans more effectively, not only shortening cleaning times but reducing the amount of cloth consumed. Cleaning protocols are preset, increasing productivity, increasing efficiency and drastically decreasing total makeready time.



Eliminates need for burdensome plate tail-edge bending

Benderless clamp

Benderless clamps streamline plate preparation. The flat plate clamping also improves plate registration accuracy and reduces preparation time. Additionally, storing plates for reprints is much easier without a tail bend, making reprint orders easy to handle.



* Includes optional features.

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

Equipped with a variety of features for stable, high-speed production

High-performance paper feed and delivery is indispensable for more productive, high-speed operation. The Lithrone G37P advance is equipped with a range of unique Komori technologies, including sucker box that ensures stable paper feed, air blower and wire guides to reduce scuffing and marking and improve transfer, and the latest paper alignment systems. Stable operation dramatically increases productivity and helps reduce operator workload. The Komorimatic dampening system achieves stable water control quickly, shortening makeready times, maintaining stability and reducing paper waste.

* H-UV, H-UV L (LED) and oil-based models available.

Automatically adjust optimal feeder air levels

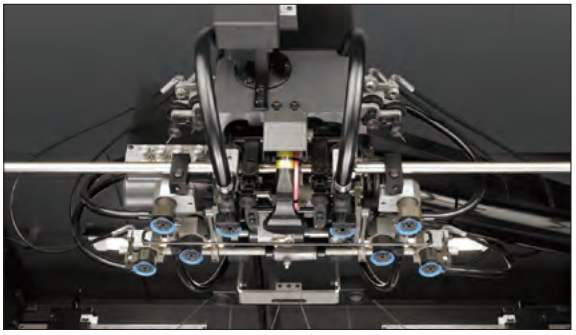
Simple air presets New

Presetting feeder and registration air levels allows optimal air levels to be adjusted at the touch of a button. This makes adjusting air levels for different types of paper, ensuring even inexperienced operators can efficiently load paper.

Paper feeding that enables high-speed printing regardless of paper type

Sucker box

A redesigned pump layout ensures sufficient air to stably separate even maximum size sheets during high-speed printing. The system is designed for a wide range of stocks.



Transfer systems for stable feeding and delivery

Air side lay 1

The vacuum style side-lay maintains stable register accuracy without the use of rollers, preventing marking and smearing.

Suction-based tape feeder 2

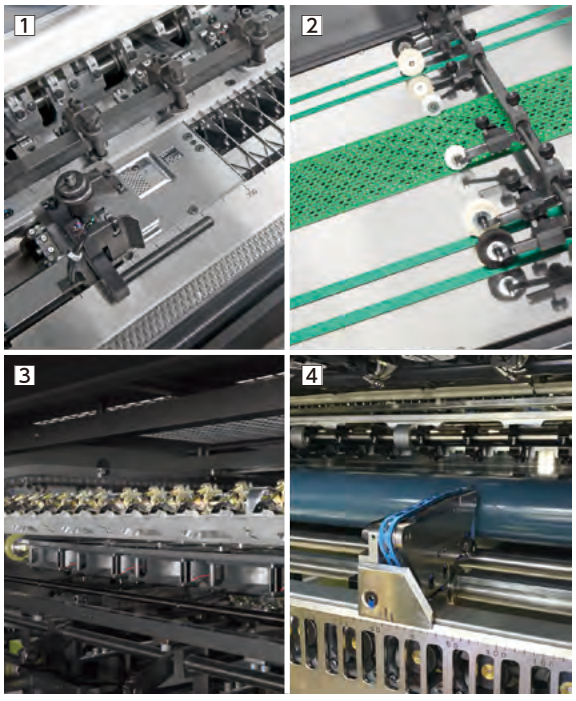
Eight bar-type rollers improve operability, ensuring stable paper feed even during high-speed operation.

Gripper bar 3

Gripper bars, developed using in-depth air simulations, ensure excellent sheet alignment.

Sheet travel belt/belt suction wheel (oil-based models) 4

A paper transfer that utilizes a synchronized belt (matching the surface speed of the paper) and suction wheel that improves paper alignment, ensures stable, high-quality paper delivery.



Stable, high quality with Komori's unique dampening system

Komorimatic Unique

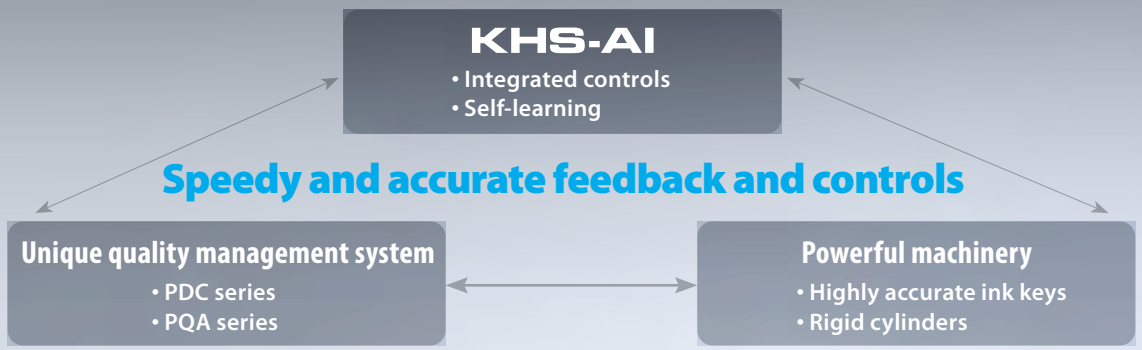
A uniform water layer helps minimize color inconsistencies. The system offers sharp dots and fast color acquisition, with increased effectiveness for high-speed long runs.

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.

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

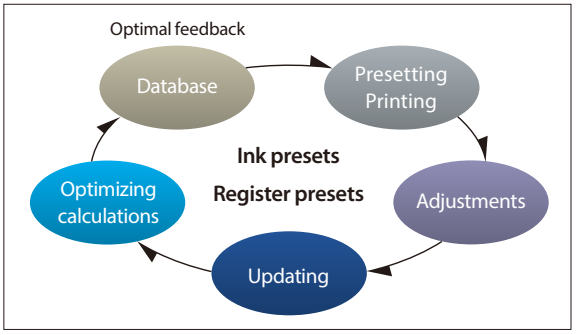
All necessary data for a job including current job progress, estimated time remaining and timing of operator actions, can be visualized. Even inexperienced operators can efficiently navigate between jobs.

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

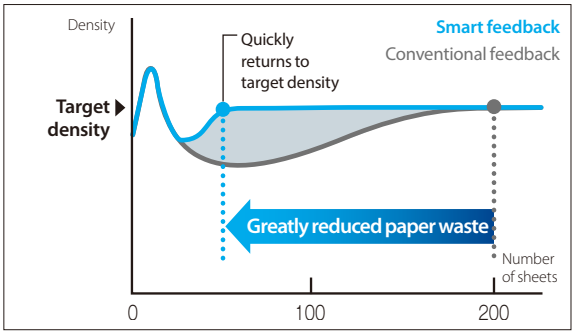
Ink key adjustments, air levels and print register can be automatically preset according to paper size and stock information taken from job data, greatly reducing makeready time. Self-learning tools are also installed to update data with each use, further fine-tuning presets.



Machine-regulated density,saves on time and paper

KHS-AI, smart feedback feature Unique

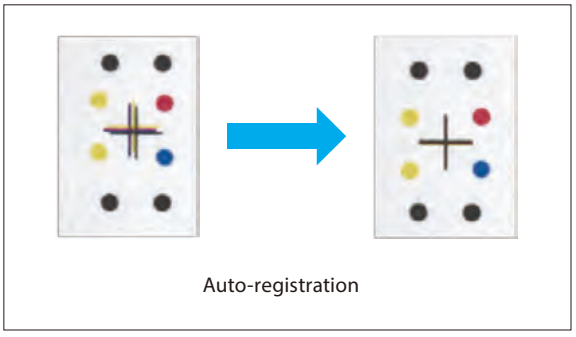
A unique Komori feature that provides quick feedback when density levels differ from target density, and is capable of responding even to initial falloffs in density. Density is measured with PDC-SX, and the amount of ink applied to the roller is then adjusted based on any calculated excess or shortcomings.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



Auto-registration

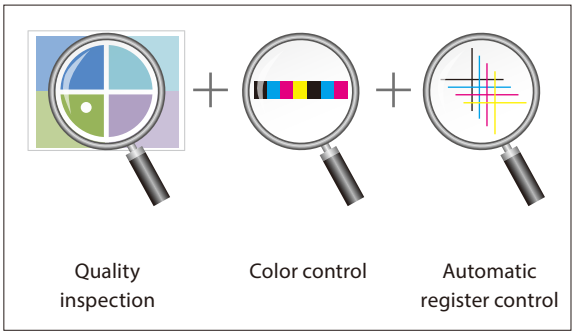
Operator-free quality while printing

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

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

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

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



Quality inspection | Color control | Automatic register control

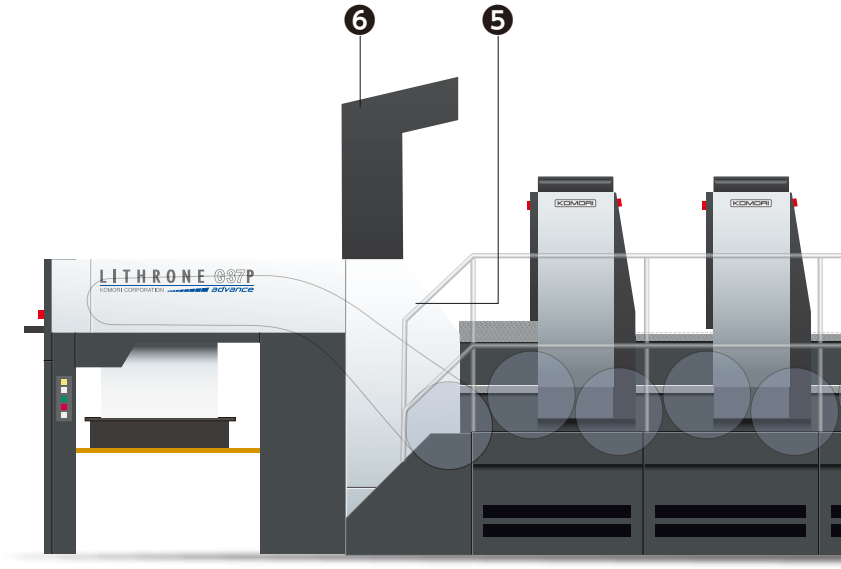
* Includes optional features.

* 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 perfect for commercial and publishing.



❻Quality 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**
  - **③Quality inspection + color control + automatic register control**
- **Automatic mask creation**
- **Sheet numbering system**
- **KID** Komori Info-Service Display

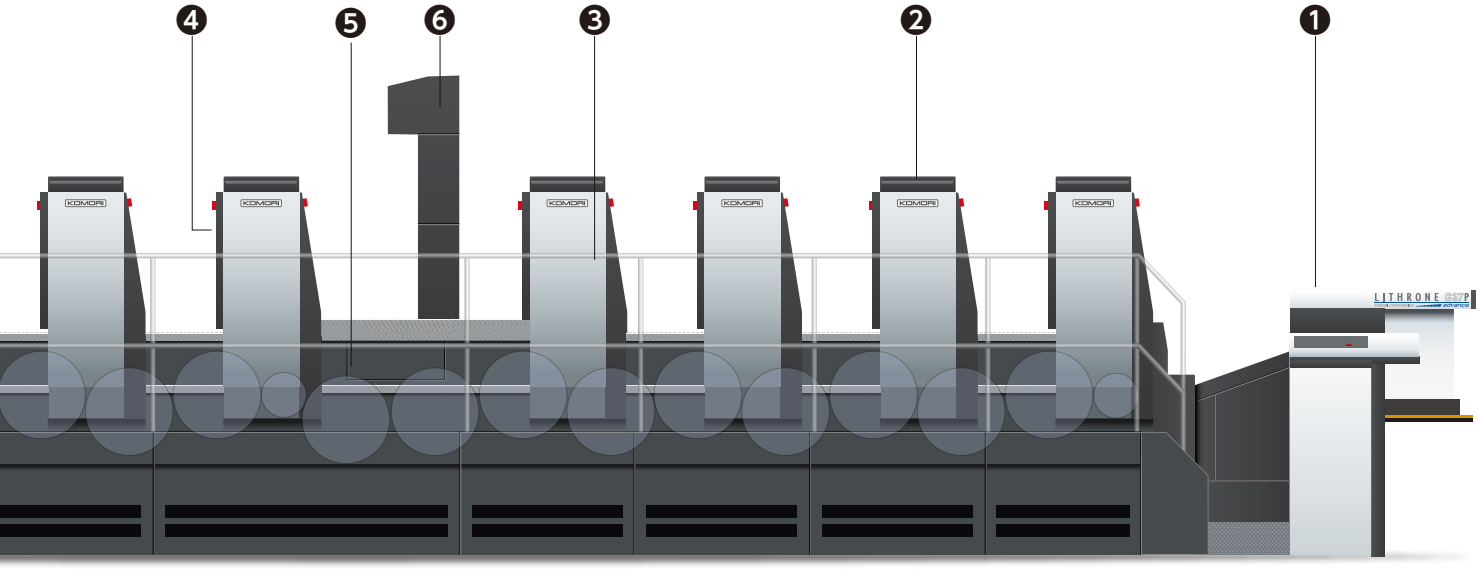
❺Dryer

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

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

*URL for above QR codes: https://komorisolutions.com/video/en/g37pa.html

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



❸Automatic Washing/Cleaning System

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

- Automatic blanket washing
- Automatic impression cylinder cleaning
- Automatic ink roller cleaning

❶Feeder

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

- Manual non-stop feeder system
- Sucker box
- Front lay
- Simple air presets

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/Asynchronous Automatic Plate Changer
- Ink mist extractor fans
- Smart Inking Flow
- e-Mist
- **DC blower**

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

Two cutting-edge systems to transform production

With increased demand for short run jobs and fast turnaround times, minimizing press make-ready time and maximizing production print time has become key for improving profitability. Komori provides two systems to minimize make-ready time: Parallel Makeready, which drastically shortens changeover time by simultaneously carrying out multiple processes, and Autopilot, which streamlines human work through the power of automation.

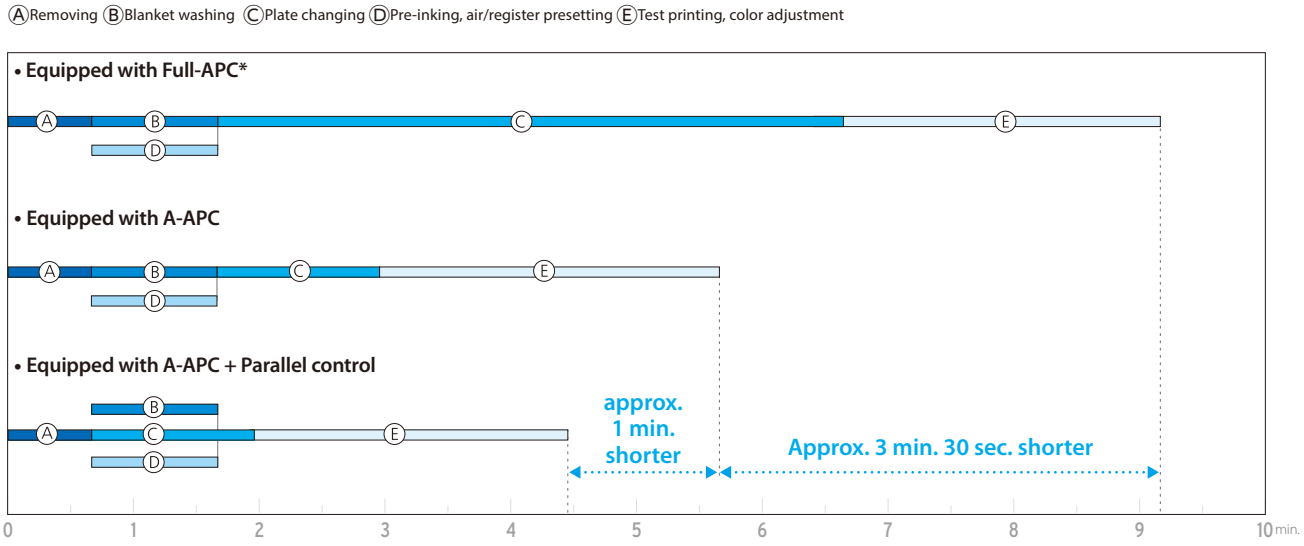
Greatly shorten the time required to job changeover

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 G37P advance (37" 8-color double-sided press with KHS AI) compared to other systems.



* Time shown for Full-APC is for fast mode.

Change plates simultaneously in minimal time, 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.

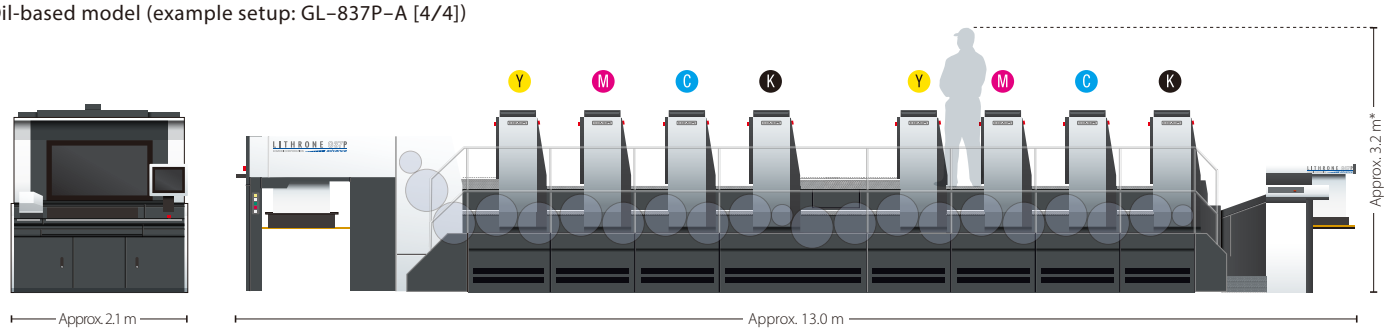
Examples of custom setups/major applications

LITHRONE G37P advance (37"Convertible Perfecting Offset Printing Press)

■ H-UV L (LED)

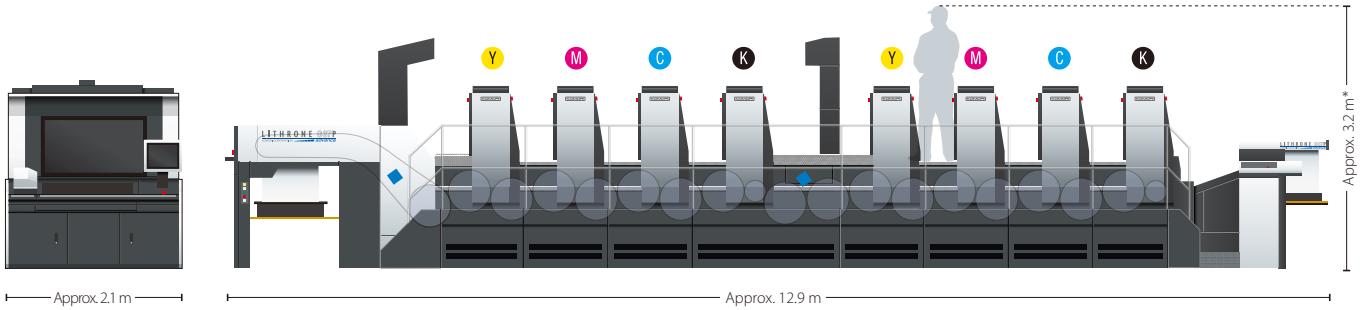
General commercial printing/publishing:

Oil-based model (example setup: GL–837P–A [4/4])



General commercial printing/publishing:

H-UV L (LED) model (example setup: GL-837P-A [4/4])
Print quality inspection + color control + automatic register control



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

Specifications

LITHRONE G37P advance (37"Convertible Perfecting Offset Printing Press) specifications			
Model			GL-837P-A
Number of colors			8
Max. printing speed		sph	15,000
Max. sheet size		mm(in)	640 × 940 (25.2 × 37)
Min. sheet size		mm(in)	297 × 420 (11.7 × 16.5) (350 × 420 (13.8 × 16.5) Reverse)
Max. printing area		mm(in)	620 × 930 (24.4 × 36.6) (620 × 916 (24.4 × 36.1) Oil-based reverse)
Sheet thickness range		mm(in)	0.04 - 0.45 (0.0016 - 0.018)
Plate size		mm(in)	700 × 945 (27.6 × 37.2)
Blanket size		mm(in)	780 × 955 (30.7 × 37.6) [including aluminum bar]
Feeder pile height		mm(in)	1,100 (43.3) (900 (35.4) without plinth)
Delivery pile height		mm(in)	1,100 (43.3) (900 (35.4) without plinth)
Dimensions	Length (L)*1	mm(ft)	12,829 (42'1") (13,011 (42'8") conventional ink-based specification)
	Width (W)	mm(ft)	3,471 (11'5") (3,419 (11'3") without plinth)
	Height (H)	mm(ft)	2,161 (7'1") [2,436 (7'12") with safety cover open] 1,961 (6'5") (2,236 (7'4") without plith, with safety covers open)

* When performing two-sided printing using oil-based ink, a margin is required on the back of the sheet for the suction wheel.
* Maximum printing speed may differ depending on chosen specifications and printing conditions.
* Performance and 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 April 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 - QM3657
JQA - EM3213
Komori Machinery Co.,Ltd.

GL-37P-A	en	JPN	16P	N01	1	Apr.2025	0.1K	KPE