

# LITHRONE G37



37-inch Offset Printing Press

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**KOMORI**

# LITHRONE G37

37" OFFSET PRINTING PRESS

## The Power to Meet Diverse Needs with Outstanding Performance

### The Lithrone G37: The Standard in 37-inch Printing Presses

## Introduction

An A1-size machine, the Lithrone G37 addresses the critical needs of short turnarounds, many different printed products, and short runs at a low cost. The Lithrone G37 combines both functionality and a good design, and is a highly functional printing press that includes the basic performance of the Lithrone G series. A compact press that can produce A1-size products, the Lithrone G37 offers a 640 x 940 mm maximum sheet size. Capable of printing sheets up to 37 inches in width, this press has the power to address the full span of requirements in the publishing and commercial printing segments. Since color management can be implemented by including a color bar on sheets with 8-up A4 or American letter size impositions, this machine is ideal for producing high page-count products with excellent print quality. Perfect for printing items in the international standard A1 poster size, plus total flexibility in layout criteria such as bindery register marks.

Even in package printing, this press handles sheet thicknesses up to 0.8 mm and configured in 6 or 7 colors with in-line coater to flexibly deliver high added-value printing for packaging, labels, and cards, and aims directly at higher earnings. The 15,000 sheets per hour maximum printing speed and stable operation afforded by press automated systems with KHS-AI at their core make the Lithrone G37 the ultimate high technology machine for outstanding productivity and consistent bottom-line performance.



Photo: GL-437

\* Model in photograph includes optional specifications.

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## Dimensions Meet a Wide Range of Needs

Maximum sheet size accommodates everything up to A1 and 37-inch sheet width.

Maximum sheet size of 640 x 940 mm. Capable of printing sheets up to 37 inches in width, the Lithrone G37 has the power to address the full range of requirements in the publishing and commercial printing segments.

Maximum printing area allows use of a color bar even on 8-up A4 impositions.

Maximum printing area of 620 x 930 mm accommodates the simultaneous printing of a color bar with 8-up A4 or American letter size impositions. May be equipped with PDC-SX\* or PDC-SG\* (Spectral Print Density Control) for producing high quality products with large page counts.



- Allows printing of international standard A1 posters.
- Sufficient space for marks for postpress.

### PDC-SG

#### (Spectral Print Density Control - SG Model)\*

Measures color of printed items and provides feedback to press. Komori's proprietary color feedback technology contributes to shorter changeover time and reduced paper waste.

- Color feedback by density and Lab measurement results
- Spot measurement
- Space-saving

- Can also be equipped with the PDC-SX\* Spectral Print Density Control.



\* Option

## Designed to Deliver Outstanding Print Quality

Komori pursues high print quality to meet high-level printing needs. Thanks to high reproducibility and highly precise printing expression distinguished by excellent inking and distribution along with beautiful coloring, the Lithrone G37 shows its exceptional capabilities in meeting printing needs that are growing ever more diverse and sophisticated. The printing units employ the ideal array of ink and dampening rollers determined by computer analysis to maintain the optimum balance of ink and water and perform high quality printing. The new Komorimatic continuous dampening system is equipped with a special roller on the low rider. Moreover, Komori's unbounded insistence on quality, through improvement of dot reproduction for example, enables unsurpassed high print quality. The sheet transport system ensures the highest print quality through attention to every detail – from the stable sheet feeding of the suction tape feeder and the air side lay used in the feeder for improved operability to the delivery equipped with an aerodynamic gripper shaft. The new strategic partner for the future, ready to meet all needs with consistent print quality.



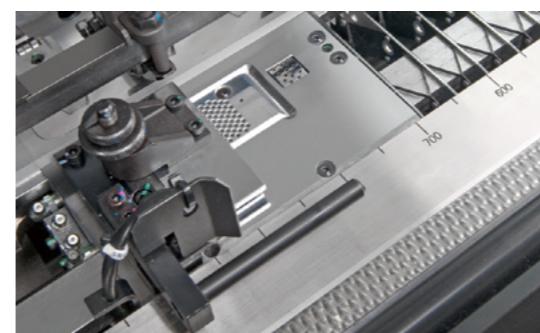
Register adjustment advance cylinder

Enables adjustment of leading edge register by controlling the effect of mis-register during printing caused by characteristics of the paper, facilitating high register accuracy.



Suction tape feeder

Improved operability due to the use of one bar-type brush wheel. Stable sheet feeding even in high-speed operation.



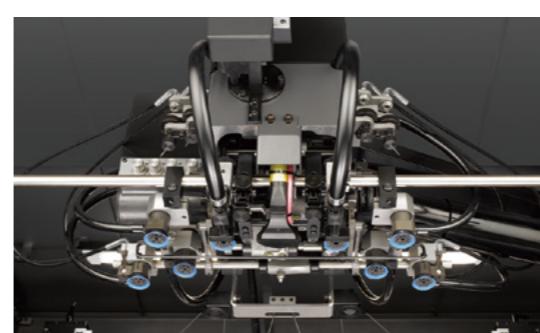
Air side lay

Air vacuum-type side lay maintains stable register accuracy. Since rollers are not used, marking and smearing by the side lay are prevented.



Gripper shaft

Stable sheet transport is achieved by the shape of the gripper shaft, which was determined through air simulation. Improves sheet alignment.



Sucker box

Incorporation of a sucker box that provides extremely stable high-speed feeding ensures consistent feeding performance across the full range of sheet thicknesses — from ultra-thin to thick sheets.



Komorimatic

Provides a consistent supply of dampening solution directly to the plate, thus ensuring high quality printing with the minimum necessary amount of water. The new Komorimatic, starting from the new vibrating dampening rider roller, provides a stable ink film. An environmentally responsible solution, the system is also suited to non-alcohol printing.

## KHS-AI — The Solution to Today's Printing Needs

The Lithrone G37 embodies the development concepts of the Lithrone G series — high-speed stability, high print quality, suitability to short runs, mechanical reliability, solid environmental credentials and enhanced production efficiency. Equipped with a new feeder and delivery, this press offers a maximum printing speed of 15,000 sheets per hour and stable high-speed operation over its sheet thickness range of 0.04–0.6 mm<sup>†</sup>. The new feeder and delivery ensure high-speed stability.

Equipped with the KHS-AI system, the PDC-SX Spectral Print Density Control-SX\* and the PQA-S Print Quality Assessment system\* for sheetfed presses, the Lithrone G37 maintains high print quality with today's less experienced operators. The press has improved operability and maintenance thanks to the adoption of low operating-side steps, the underneath positioning of impression cylinder cleaning systems, and the new operating panel at the front of the delivery.

<sup>†</sup>0.06–0.8 mm capability (gripper pad adjustment necessary with sheet thickness of 0.5 mm or more) by optional specification.

### KHS-AI Integrated Control System: Evolving to support higher productivity and print quality

KHS is an innovative productivity enhancement system developed to reduce job changeover time and paper waste to an absolute minimum by using job data from the MIS-linked KP-Connect Pro and preset data from PCC, which is linked to the CTP workflow. The system that evolved KHS even further is KHS-AI (KHS with a self-learning function). Linked to the optional PDC-SG or PDC-SX, color matching is optimized by constant analysis and automatic compensation of the image area ratio and ink key openings matched to the machine condition, the printing environment and changes in the printing materials. In addition, KHS-AI manages the operating record, status history and maintenance data of the press. The system includes a self-diagnostic function for troubleshooting. The system also supports a remote diagnostic function for immediate response in an emergency.

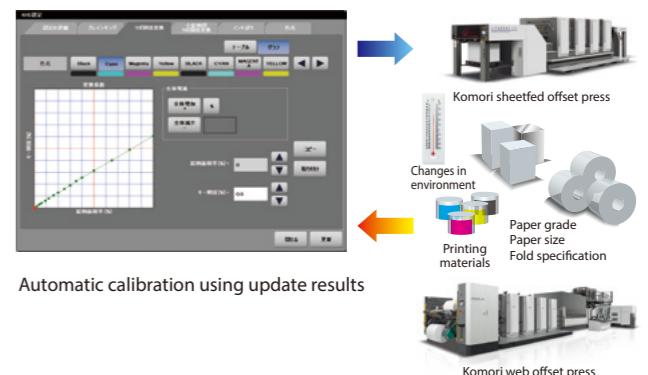
\* The optional ink roller cooling system is necessary to maximize KHS-AI performance.



\* Option

### High Precision Preset Function (Self-Learning Function)

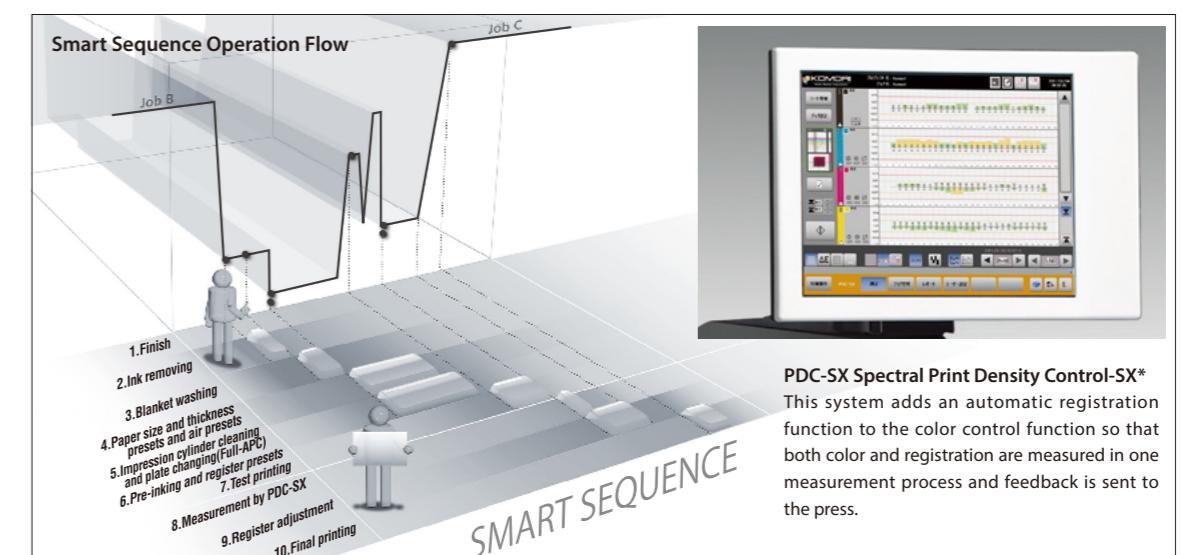
Paper waste at print start-up is reduced to an absolute minimum, makeready time is shortened, and resources are substantially saved by automatically analyzing and calibrating preset data and optimizing color matching according to changes in the machine, the printing environment and printing materials.



Automatic calibration using update results

### Smart Sequence

Smart Sequence is the ultimate short makeready system, allowing the main makeready processes from the end of one job to the start of the next job to be started with just the touch of a button. Virtually the entire makeready process is accomplished automatically and seamlessly. This reduces operator workload as well as greatly reducing changeover time and improving productivity and print quality.



**PDC-SX Spectral Print Density Control-SX\***  
This system adds an automatic registration function to the color control function so that both color and registration are measured in one measurement process and feedback is sent to the press.

### Self-Diagnostics

In addition to managing the operating record, this function provides graphs of trend data to assist in understanding the press status. It also informs the operator of press maintenance conditions. By providing a self-diagnostic to prevent the occurrence of problems, the system also helps to minimize press down time.



\* Option

## Short Makeready for Future Needs

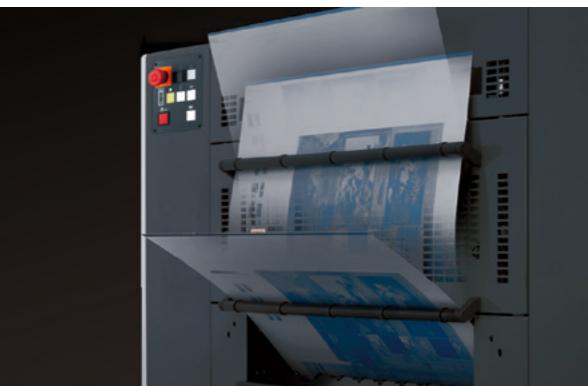
In today's intensely competitive business climate, to open up new markets by increasing productivity, becoming more cost competitive and offering advantageous services, the printing press must be multifunctional, flexible and loaded with advanced automation systems. The Lithrone G37 is generously equipped with cutting-edge short makeready systems.

Komori's benderless Semi-APC (Semi-Automatic Plate Changer) or Full-APC (Fully Automatic Plate Changer) improves plate register accuracy and significantly reduces makeready time. Blanket washing and impression cylinder and ink roller cleaning are fully automated, operated with just the touch of a button. The sheet thickness preset function enables sheet thickness adjustment to be performed by just inputting a digital value, and transfer cylinder gripper pad adjustment is not necessary<sup>t</sup>. In addition, the sheet size preset function lightens the operator workload and dramatically shortens the time required before first sheet inspection after a makeready. Moreover, the high-speed print start-up function shortens test printing time, reduces paper waste and raises productivity and efficiency.

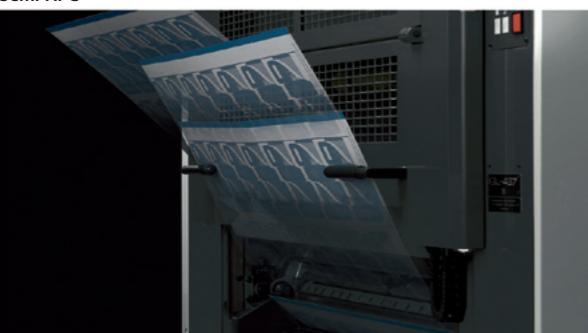
As difficult jobs, short run jobs and short turnarounds increase, the Lithrone G37 delivers world-class performance, accurately and efficiently.

<sup>t</sup> 0.06–0.8 mm capable (gripper pad adjustment necessary with sheet thickness of 0.5 mm or more) with the use of an optional extra.

Full-APC\*

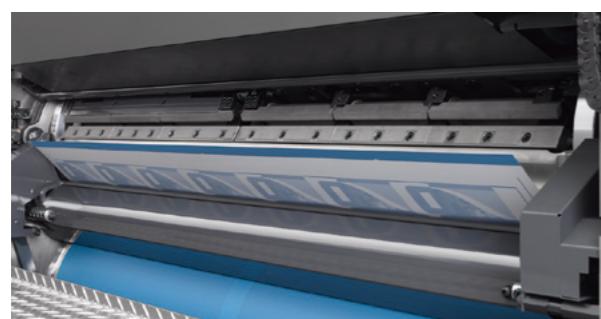


Semi-APC



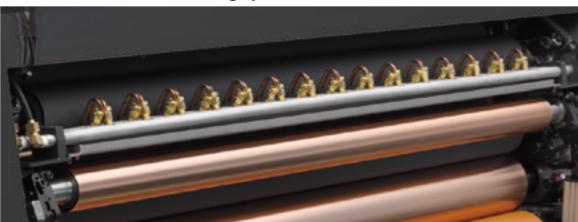
Automatic plate changer

Highly efficient automatic plate changer that performs plate changing quickly. The automatic plate changer substantially reduces makeready times and improves productivity by raising the actual working efficiency of the press.

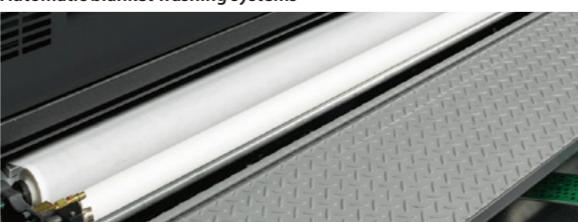


\*Option

Automatic ink roller cleaning systems\*



Automatic blanket washing systems\*



Automatic impression cylinder cleaning\*



Automatic cleaning systems\*

Efficient and automatic cleaning is ensured thanks to an automated control program. The quick automatic blanket washing system in the industry is further enhanced by the use of pre-soaked cloth for blanket washing and impression cylinder cleaning. This shortens the cleaning time and also protects the environment by reducing cloth consumption. Komori automation links all of these processes to dramatically shorten overall makeready times.

Benderless clamp

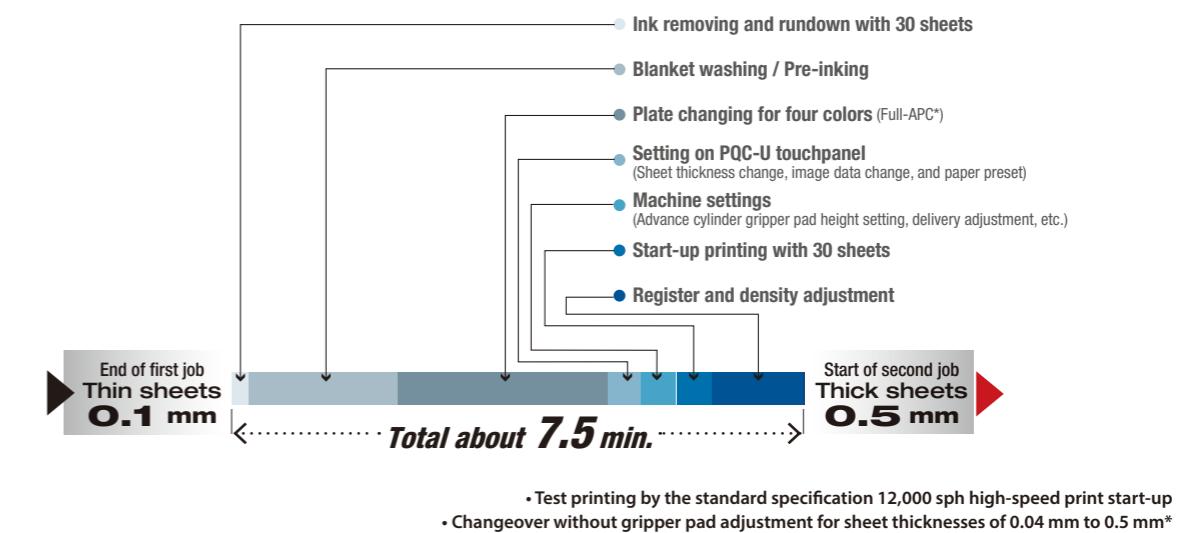
The benderless clamp used with the Automatic plate changer eliminates the need to bend the plates, making plate discharge and feeding more efficient. The flat plate clamping also improves plate registration accuracy and reduces preparation time. Storing plates for reprints is much easier without a tail bend, making reprint orders easy to handle.

### Exceptional job changeover performance even with heavy stock

Handles paper thicknesses from 0.04 mm to 0.6 mm<sup>t</sup>. Equipped with the benderless Full-APC (Fully Automatic Plate Changer)\*, the press changes four plates in three minutes and completes job changeover in an astounding eight minutes. With its highly efficient maximum printing speed of 15,000 sph, the Lithrone G37 makes available the functionality and operability required to smoothly meet the needs of short turnaround and short- and medium-run work, which is continuously growing as a share of the market.

Further, combining the standard KHS-AI integrated control system with PDC-SX\* or PDC-SG\* (Spectral Print Density Control) enables both print standardization by means of digital control and very quick print start-up.

### Flow of job changeover from thin to thick paper (four colors, no change in sheet size)



<sup>t</sup> 0.06–0.8 mm capable (gripper pad adjustment necessary with sheet thickness of 0.5 mm or more) with the use of an optional extra.



Sheet thickness preset

The sheet thickness preset function flexibly provides unfailing support for operation with a wide range of sheet thicknesses — from ultrathin to thick sheets. Stress-free sheet thickness adjustment between the blanket and impression cylinder is performed by simply inputting a digital value from the touchpanel.

Sheet size preset

The sheet size preset function significantly shortens the paper size changeover time. Inputting the number on the touchpanel allows simultaneous adjustment of the sucker box, side lay, delivery side jogger and suction wheel position.

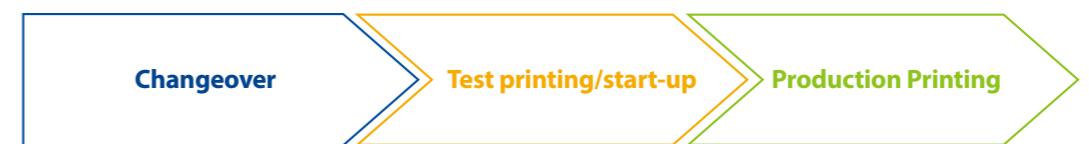
\* Option

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



## Short-Run and Fast-Turnaround Printing

Komori Print Management Solutions dramatically improves productivity through optimization of the printing environment and objectively analyzing print quality. KHS-AI is the system handling overall control of the printing process; PDC series checks and adjusts print quality; and PQA series continuous inspection features maintain quality throughout the run, continuously supporting operator tasks. By utilizing KHS-AI, PDC and PQA together, high-quality prints can be continuously and reliably produced in less time than ever before.



### KHS-AI

- High-precision preset
- Smart sequence
- Parallel makeready

### PDC Series

- Color management/automatic register adjustment
- Smart feedback
- PDF comparator system

### PQA Series

- Quality inspection
- Color control/automatic register adjustment

### PDC-SX (Spectral Print Density Control System)

High-end multifunction model with automatic registration function

The PDC-SX system adds an automatic registration function to the color control function so that both color and registration are measured in one measurement process and feedback is sent to the press. For the color control function, an automatic X-Y travel system is used so that measurement can be performed regardless of the position of the color bar to maximize the image area of the sheet. On a perfector, the bar can be located in the center of the sheet to cut waste. In addition, spot measurement of particularly important points on the image is possible. The automatic registration function works by using special register marks so that register is measured together with color in the same scan and any adjustments are automatically fed back to the press.



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

Advanced model meeting a wide range of needs

Includes automatic air control preset function based on sheet size, thickness, grade and grain direction for stability at the inspection point. Komori software compensates for individual problem sheets, further enhancing detection accuracy. Specific areas of the sheet can be designated for different levels of inspection sensitivity. Lineup includes Inspection/Color Control Model, providing print quality inspection and color control, as well as All-in-One Model, providing print quality inspection, color control and automatic register adjustment.



### Sheet Numbering System/Automatic Mask Creation Software

Quality management system that supports packaging is also part of the lineup

The sheet numbering system that numbers each sheet on the feeder board and PQA-S masking software that automatically creates the inspection area in advance from the die-cutting data may also be specified with PQA-S. This further strengthens print quality control for packaging.

(PQA-S option)

### KID (Komori Info-Service Display)

Support system with optimized information presentation

KID is an operation support system that provides information needed by the operator at just the right time in an easy-to-understand format. Supporting multifunctional, complex printing systems, KID enables high productivity by contributing to quick, accurate decisions by the operator. Information from KHS-AI, PDC Series and PQA Series can, of course, be displayed on KID.

• Above lineup includes options and selected specifications.

• Restrictions apply to presses on which these products can be equipped and combinations of models and functions.



Photo: GL-637+C+PQA-S

\* Model in photograph includes optional specifications.

## Strategic Press for High Value Added Packaging

Package printing demands especially high print quality and stability since heavy stocks, special substrates and special inks are frequently used and diverse postpress processes as well as repeat jobs are common.

The Lithrone G37 meets these needs perfectly.

Handling sheet thicknesses up to 0.8 mm and configured in 6 or 7 colors with in-line coater, this press features extraordinarily high print quality and productivity to flexibly deliver high added value printing for packaging, labels and cards. In addition, use of skeleton transfer cylinders enables very stable sheet transfer with no smears or scratches even with heavy stocks or special substrates.

Further, equipping the machine with the PQA-S Print Quality Assessment System, the PDF comparator system and a PDC series Print Density Control System enables stable quality and defect extraction, thus facilitating construction of a high-level package printing system.

The Lithrone G37 provides compact size and energy saving in a packaging press.

An environmentally friendly strategic machine aimed directly at higher earnings.

## Versatile Drying System for High Added Value



Extended Delivery



Interdeck UV

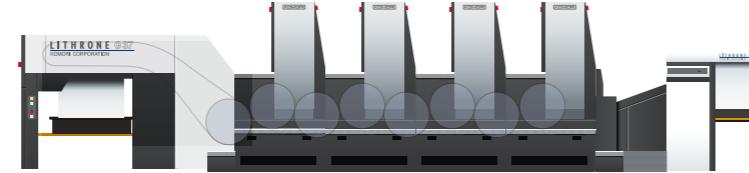
IR/UV dryer equipped in horizontal position just after upswing in extended delivery, providing powerful support for enhanced glossiness through improved varnish leveling. Also, delivery maintenance is exceptionally easy. Handling of non-absorbent substrates is enabled by the intermediate curing of the interdeck UV curing unit, significantly broadening job prospects.

## Custom Configurations and Lineup

## LITHRONE G37 (37-inch offset printing press) specifications

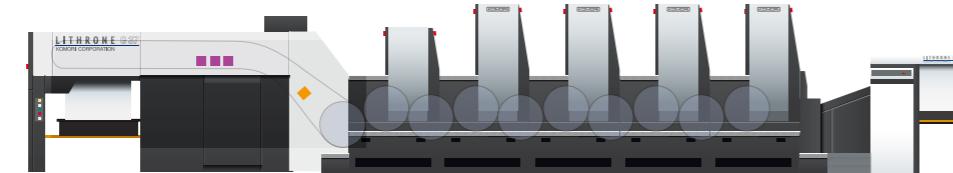
## Standard Oil Based Ink Specification

GL-437



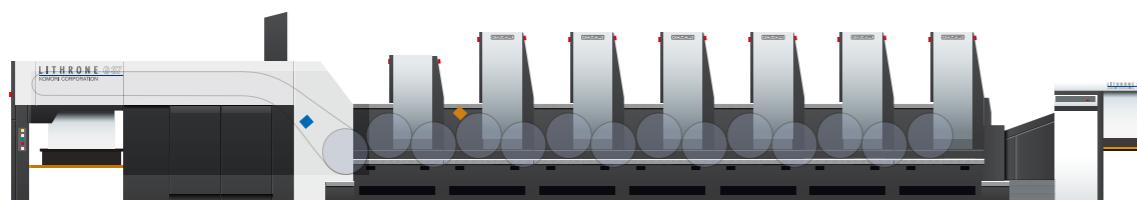
## Four-Color UV Specification

GL-437 + UV + IR + Semi-Long Extended Delivery



## 6-Color Coater Specification

GL-637 + Interdeck + C + H-UV + Extended Delivery + PQA-S



\*Availability of the Custom Configurations and Lineup shown above may vary depending on area, please contact sales for further details.

## Specifications

## LITHRONE G37 (37-inch offset printing press) specifications

| Model                 | GL-237                 | GL-437  | GL-537         | GL-637        | GL-737  |
|-----------------------|------------------------|---|----------------|---------------|---|
| Number of colors      | 2                      | 4   | 5              | 6             | 7   |
| Max. printing speed   | sph                    |   |                |               |   |
|                       |                        | 15,000  |                |               |   |
| Max. sheet size       | mm (in)                | 640 x 940 (25 <sup>3</sup> / <sub>16</sub> x 37)  |                |               |   |
| Min. sheet size       | mm (in)                | 297 x 420 (11 <sup>11</sup> / <sub>16</sub> x 16 <sup>17</sup> / <sub>32</sub> )                          |                |               |   |
| Max. printing area    | mm (in)                | 620 x 930 (24 <sup>13</sup> / <sub>32</sub> x 36 <sup>5</sup> / <sub>8</sub> )                            |                |               |   |
| Sheet thickness range | mm (in)                | 0.04 - 0.6 (0.06 - 0.8) (0.0016 ~ 0.0236)*1   |                |               |   |
| Plate size            | mm (in)                | 700 x 945 (27 <sup>9</sup> / <sub>16</sub> x 37 <sup>7</sup> / <sub>32</sub> )                            |                |               |   |
| Blanket size          | mm (in)                | 780 x 955 (30 <sup>45</sup> / <sub>64</sub> x 37 <sup>19</sup> / <sub>32</sub> ) [including aluminum bar] |                |               |   |
| Feeder pile height    | mm (in)                | 900 (35 <sup>7</sup> / <sub>16</sub> ) (1,100 Option) (43 <sup>5</sup> / <sub>16</sub> )                  |                |               |   |
| Delivery pile height  | mm (in)                | 900 (35 <sup>7</sup> / <sub>16</sub> ) (1,100 Option) (43 <sup>5</sup> / <sub>16</sub> )                  |                |               |   |
| Dim.                  | Length (L)<br>mm (ft.) | 6,236 (20'6")   | 8,173 (26'10") | 9,154 (30')   | 10,136 (33'3")                                |
|                       | Width (W)<br>mm (ft.)  |   |                | 3,450 (11'4") |   |
|                       | Height (H)<br>mm (ft.) |   |                |               | 1,877 (6'1") (2,236 (7'4") : with 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 from specifications herein.

• Performance and values may differ depending on specifications. Komori reserves the right to change specifications for the purpose of product improvement.

## Note:

Komori reserves the right to change specifications on products listed in this catalog without notice to improve reliability, functionality, and/or design. Komori is not liable for the use of this product outside of the prescribed safety regulations and precautions. The technical information in this catalog explains the general operation of the product and does not constitute a guarantee or license of rights possessed by Komori or a third party.

The photographs in this catalog include some special specifications. Figures in specifications are valid as of April 2022. Photographs are subject to change at a later date.