

LITHRONE G37



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LITHRONE G37

37" OFFSET PRINTING PRESS

The Power to Meet Diverse Needs with Outstanding Performance

The Lithrone G37: 37-inch Press for the OffsetOnDemand Age

Introduction

The Lithrone G37 37-inch sheetfed press has joined the Lithrone G series lineup, the epitome of cutting-edge technologies and Komori know-how. Equipped with an evolved version of the KHS-AI integrated control system for quick print start-up, this OffsetOnDemand machine addresses the critical needs of short turnarounds, many different printed products, short runs and low cost.

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 CMS color bar on sheets with 8-up A4 or American letter size impositions, this machine is ideal for producing high page-count products with high print quality. Perfect for printing items in the international standard A1 poster size, plus total flexibility in layout criteria such as bindery register marks. The 15,000 sheets per hour maximum printing speed and stable operation afforded by 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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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. 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.

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 K-Station and preset data from PCC, which is linked to the CTP workflow. Linked to the optional PDC-LITEII, PDC-SII 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.

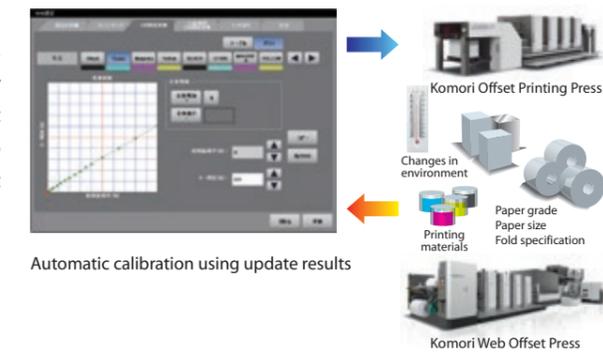
• The optional ink roller cooling system is necessary to maximize KHS-AI performance.



* Option

High Precision Preset Function (Self-Learning Function)

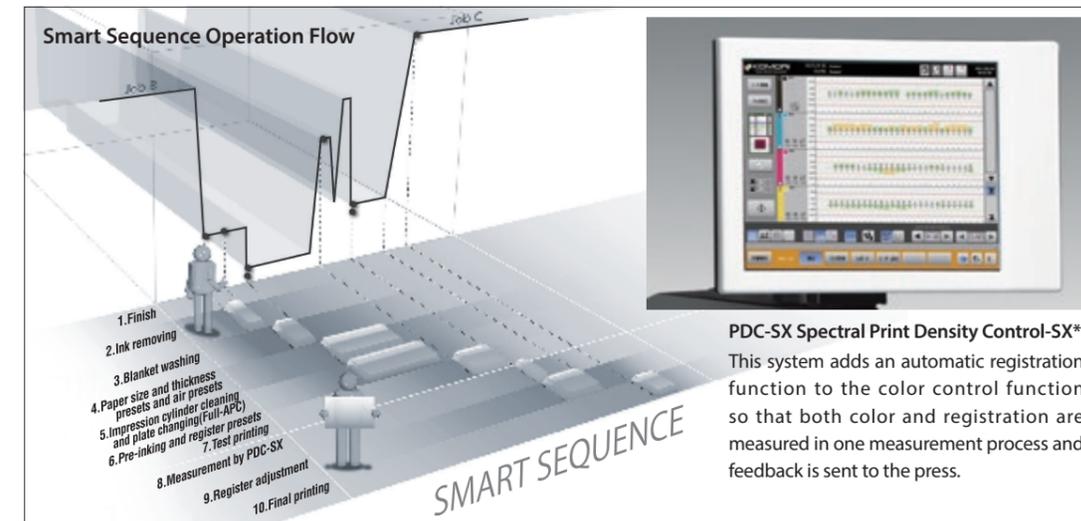
Paper waste at print start-up is reduced to an absolute minimum, makeready time is shortened, and resources are substantially saved by automatically analyzing and calibrating preset data and optimizing color matching according to changes in the machine, the printing environment and printing materials.



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 load and improves both print quality and productivity.



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

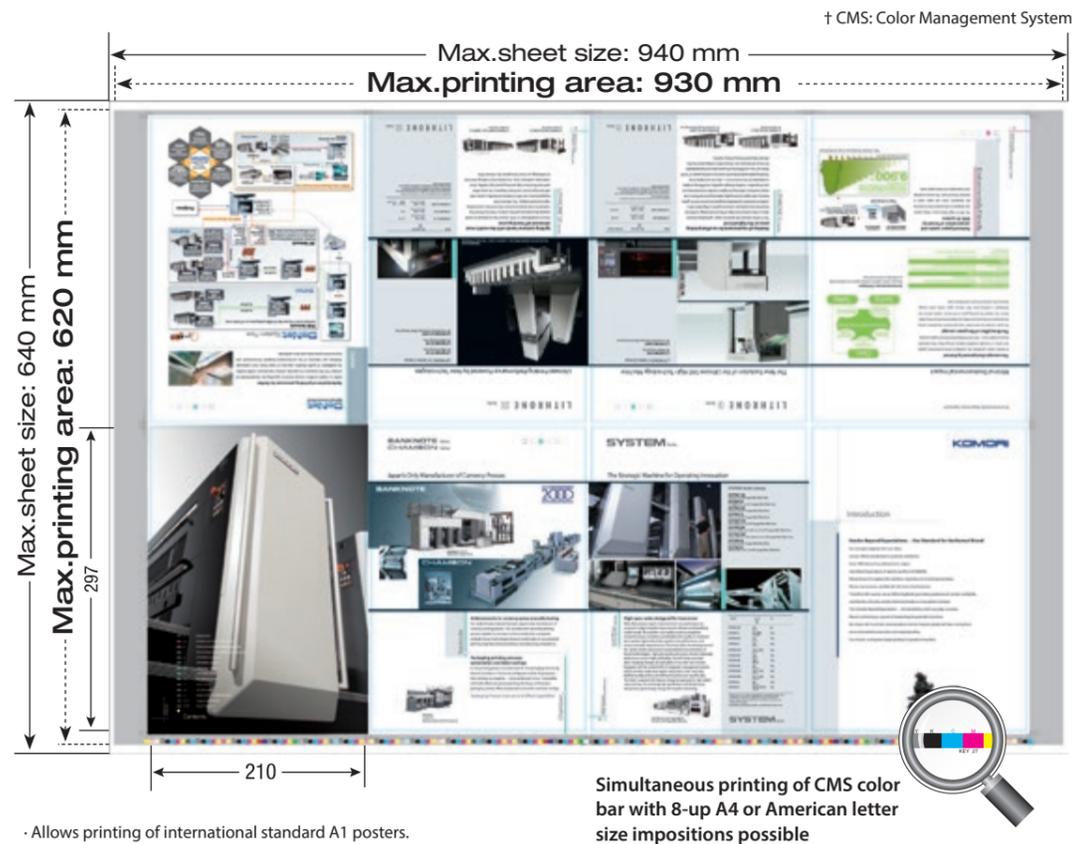
Dimensions Meet a Wide Range of Needs

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 CMS[†] color bar even on 8-up A4 impositions.

Maximum printing area of 620 x 930 mm accommodates the simultaneous printing of a CMS color bar with 8-up A4 or American letter size impositions. May be equipped with PDC-SX Spectral Print Density Control or PDC-LITEII Scanning Density Control for producing high page-count products with high print quality by means of digital control.



PDC-LITEII (Scanning Density Control System)*

PDC-LITEII is a color control system that measures the CMS color bar in the margin of the sheet and converts the densities and color tones to digital data for assessment and analysis. Integrated into the operation stand, PDC-LITEII is an effective tool for print standardization and short makeready due to digital control (of densities, dot gain, trapping etc.). In addition, the system enables smart feedback and is compliant with the ISO 12647-2 print standard.

· Can also be equipped with the PDC-SX* or PDC-SII* Spectral Print Density Control.



* Option

The Ultimate Answer to Short Runs and Quick Turnarounds

OffsetOnDemand

OffsetOnDemand is Komori's system to facilitate short runs and quick turnarounds by shortening makeready time, cutting paper waste and reducing the printing process to the absolute minimum while maintaining the high print quality and productivity of offset printing.

Komori's OffsetOnDemand is a new solution that is easy on people and the environment and brings valuable opportunities to the company. The core of OffsetOnDemand is the combination of the KHS-AI system, Komori's independently developed H-UV instant UV curing system and the advanced color management system. This allows the Lithrone G37 to perform as a highly reliable OffsetOnDemand machine.

Technologies and systems that support OffsetOnDemand

- Automation: Benderless fully automatic plate changing (Full-APC)* reduces the number of processes and shortens makeready time.
- Standardization: KHS-AI, the PDC-SX Spectral Print Density Control-SX* and the PQA-S Print Quality Assessment system* improve print quality and productivity.
- Innovation: Innovative H-UV Curing System* significantly shortens production time.

Can be specified with the H-UV* Innovative Curing System

The Lithrone G37 can be equipped with Komori's H-UV Innovative Curing System for the immediate inline drying of printed work. H-UV is a new UV curing system that uses Komori-developed H-UV lamps and high-sensitivity UV inks. With one lamp mounted in the upsweep of the delivery, the system provides economy and green credentials as well as high print quality and reliability. By improving quality thanks to the powderless technology, meeting the need for quick turnarounds by cutting total lead times, adding value because of the ability to print on heavy stocks and special substrates, lightening the operator workload and trimming the environmental impact, and improving productivity by enhancing working efficiency, H-UV printing solves many different printing issues. In addition, the H-UV lamps are housed in drawer-type enclosures, making it very easy to change lamps.



* Option

Short Makeready for Future Needs

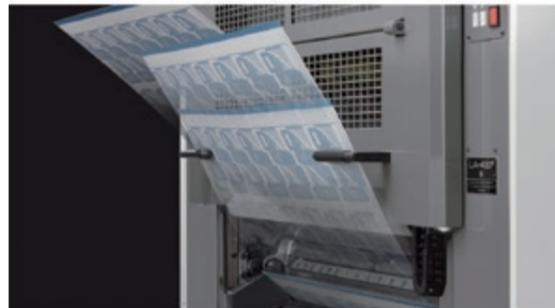
In today's intensely competitive business climate, to open up new markets by increasing productivity, becoming more cost competitive and offering advantageous services, the printing press must be multifunctional, flexible and loaded with advanced automation systems. The Lithrone G37 is generously equipped 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 automatic, operated by simply pressing 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. In addition, the sheet size preset function lightens the operator workload and dramatically shortens the changeover time when changing the sheet size. Moreover, the high-speed print start-up function shortens test printing time, reduces paper waste and raises productivity and efficiency.

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.



Automatic ink roller cleaning*



Automatic blanket washing*



Automatic impression cylinder cleaning*



Automatic cleaning systems*

Efficient and automatic cleaning is ensured thanks to an automatic control program. The quickest 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

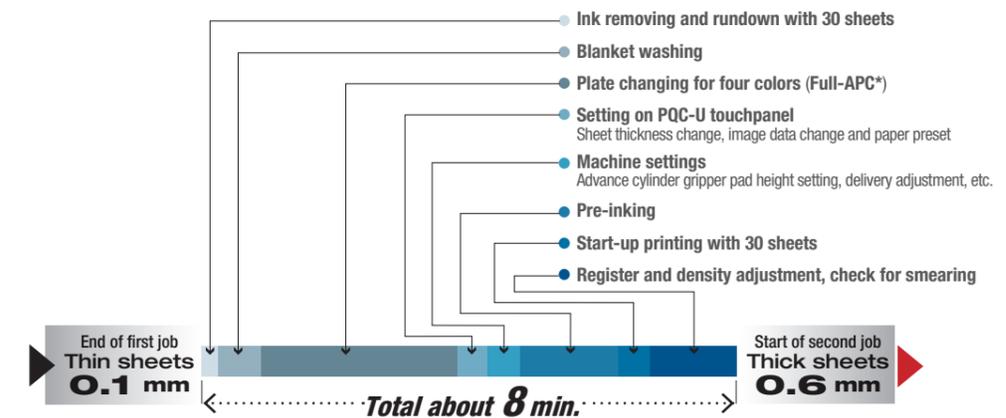
The benderless clamp used with the Semi-APC system eliminates the need to bend the plates, making plate discharge and feeding more efficient. The flat plate clamping also improves plate registration accuracy and reduces preparation time. Preservability is also improved, making reprint orders easy to handle.

Exceptional job changeover performance even with heavy stock

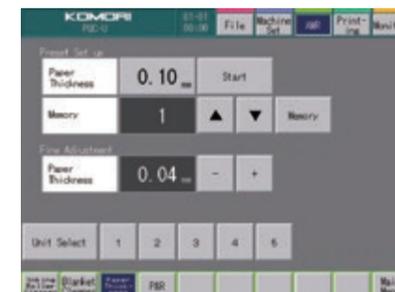
Handles paper thicknesses from 0.04 mm to 0.6 mm. Equipped with the benderless Full-APC*, the press changes four plates in three minutes and completes job changeover in an astounding eight minutes. With its highly usable maximum printing speed of 15,000 sph, the Lithrone G37 makes available the functionality 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*, PDC-SII* (Spectral Print Density Control) or PDC-LITEII* (Scanning 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)



- Test printing by the standard specification 12,000 sph high-speed print start-up
- Changeover without gripper pad adjustment for sheet thicknesses of 0.04 mm to 0.6 mm



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.

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

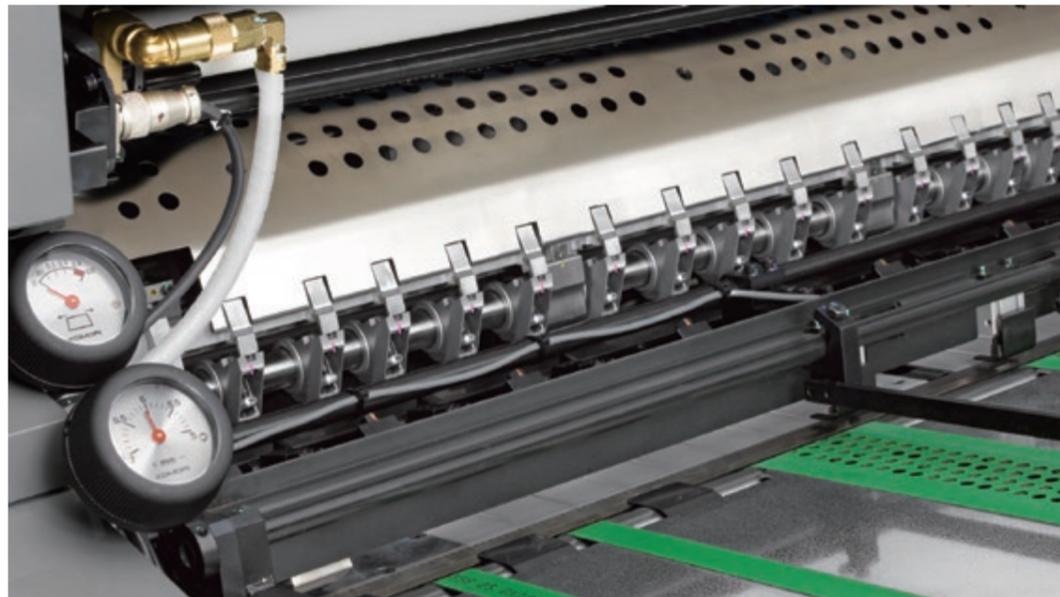
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Designed to Deliver Outstanding Print Quality

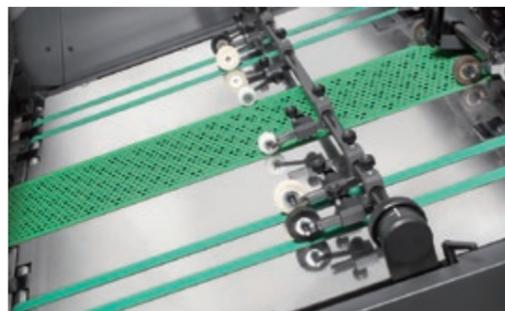
Komori pursues high print quality to meet high-level printing needs. Thanks to high reproducibility and highly precise printing expression distinguished by excellent inking and distribution along with beautiful coloring, the Lithrone G37 shows its exceptional capabilities in meeting printing needs that 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.



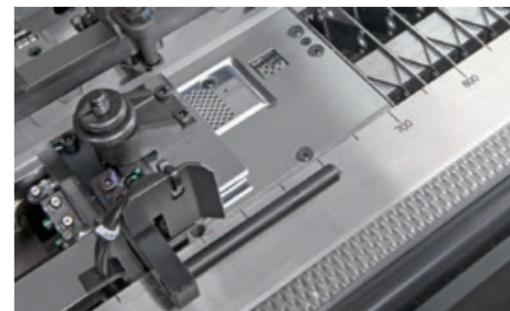
Register adjustment advance cylinder

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.



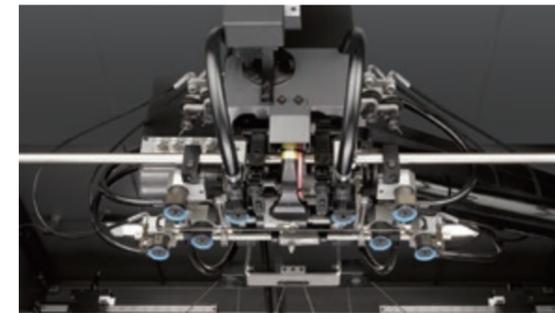
Gripper shaft

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



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.



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.



Delivery

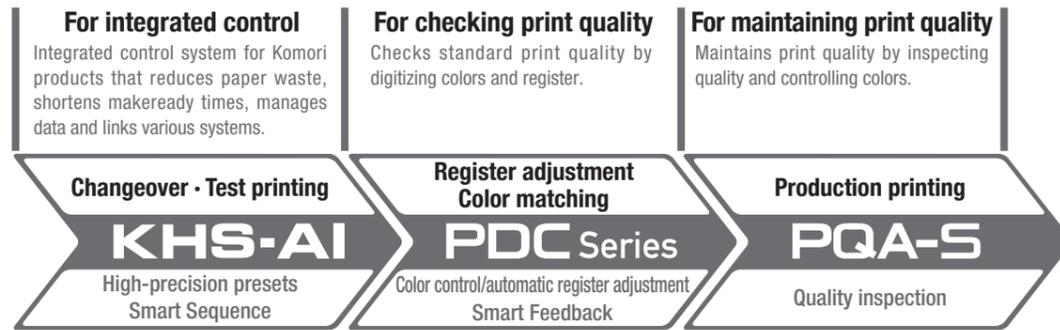
Stable delivery performance even at high speed due to the reliable sheet restraining effect of the fans and individually adjustable air blow as well as the reliable sheet braking of the suction wheels.

* Option

OffsetOnDemand Machine for Short Run and Fast Turnaround Needs

For OffsetOnDemand to enable short runs and quick turnarounds, the combination of PDC Series products and PQA Series products that support digital control of print quality and high-level print quality control drives print process optimization and dramatically raises productivity.

Optimization of Printing Tasks by Komori Products



PDC-SX* (Spectral Print Density Control - SX model)

Shorter changeovers and reduced paper waste through print standardization
PDC-SX is the indispensable system for print standardization that automatically digitizes colors by scanning the color bar on the sheet. In addition, the system facilitates automatic register control and automatic front/back register adjustment on double-sided printing presses. By means of the Smart Feedback function linked to KHS-AI, the system significantly contributes to quicker color matching and reduced paper loss.



PDC-SII* (Spectral Print Density Control - SII model)

Feedback function for print standardization
PDC-SII quickly scans the color bar on printed sheets and displays densities, dot gain, color tones and color differences in an easy-to-understand way on the monitor. The feedback function sends the press the amount of adjustment necessary for density changes during the print run. The spectral design allows measurement of special colors, and the handheld measuring unit enables the measurement of any location on the sheet. Incorporates a measurement results printout function.



PQA-S* (Print Quality Assessment System for Sheetfed)

High-level print quality control through in-line quality inspection
PQA-S ensures high-level print quality control and maintains colors by inspecting all sheets according to the same criteria. The system checks for smears, ink splashes, water drops, oil spots, hickeys and color variations, automatically activates the tape inserter in the delivery, and prevents the consecutive printing of NG sheets during the run and the inclusion of NG sheets with production sheets that are sent to postpress.



KID* (Komori Info-Service Display)

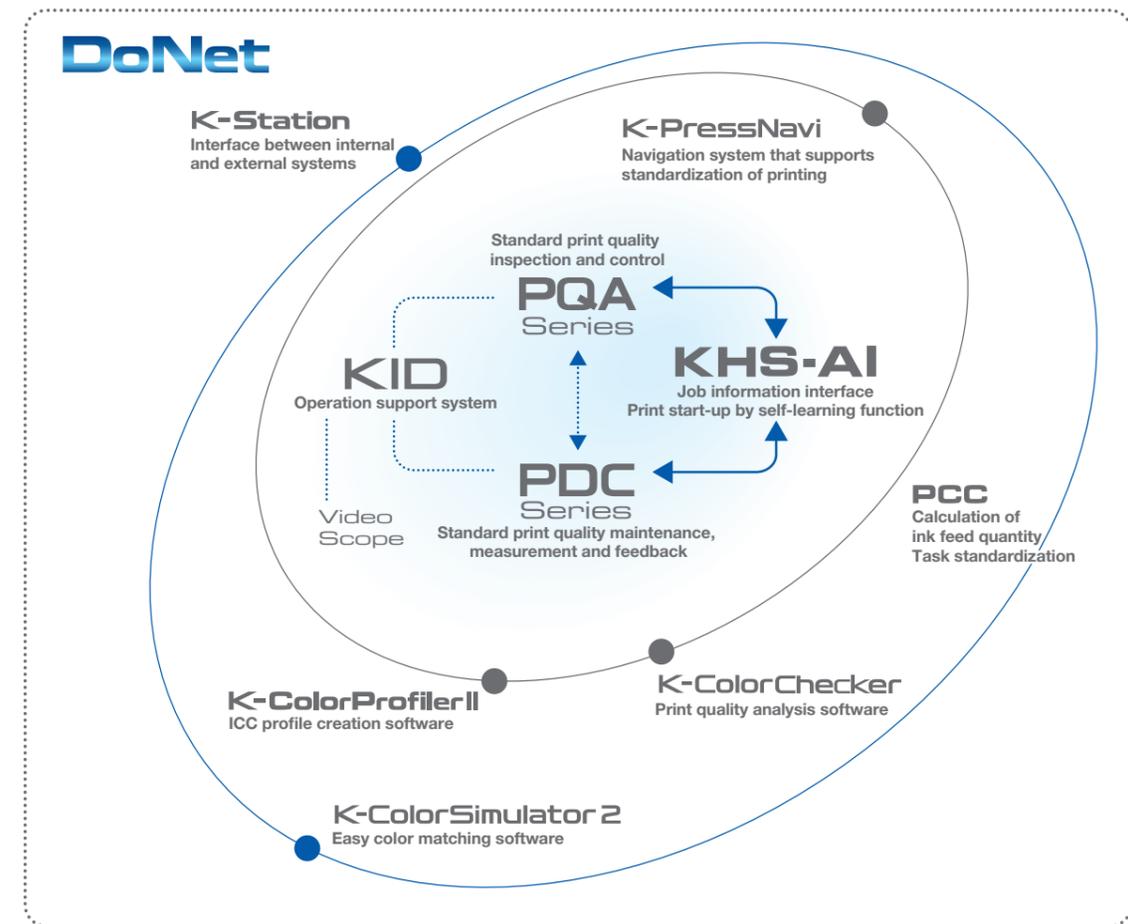
Support system with optimized information presentation
KID is an operation support system that provides information needed by the operator at just the right time in an easy-to-understand format. Supporting multifunctional, complex printing systems, KID enables high productivity by contributing to quick,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



* Option

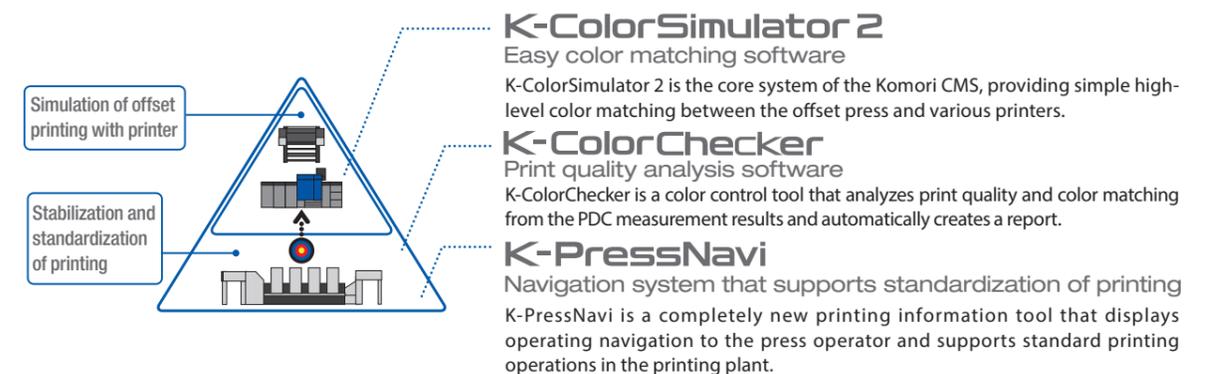
Building a Digital Workflow with the DoNet Concept

DoNet is a digital workflow concept centered on digital-ready, high-performance printing presses — the final output device of printed items — based on Komori's commitment to printing standardization. For linkage with prepress and postpress equipment, Komori assures world-class JDF connectivity and conducts frequent interoperability testing with systems from other manufacturers and vendors. This way Komori implements open architecture thinking with the priority on users' operating environments.



KOMORI CMS Solutions

To profit from 'color,' Komori's Total Color Management based on real printing standardization

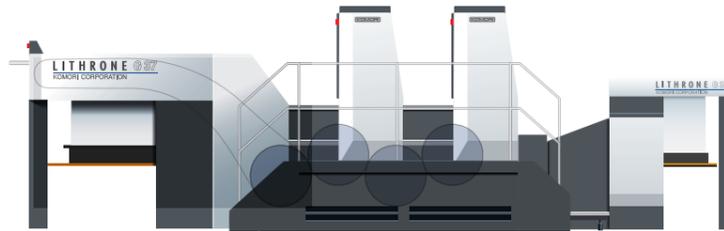


* All DoNet and CMS products other than KHS-AI are options.

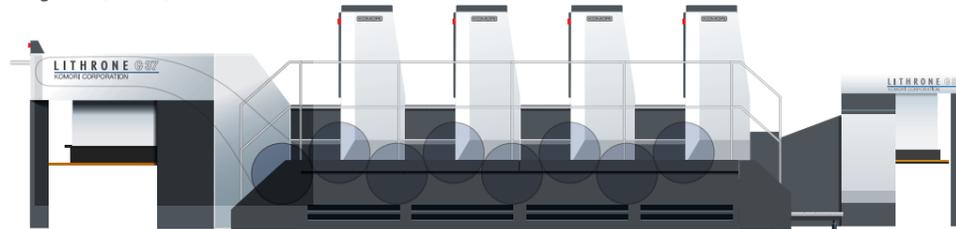
Custom Configurations and Lineup

LITHRONE G37 Standard Specification

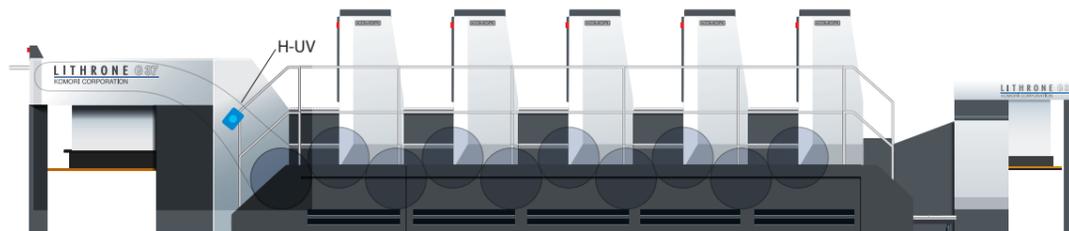
Two-Color 37-inch Offset Printing Press (GL-237)



Four-Color 37-inch Offset Printing Press (GL-437)



Five-Color 37-inch Offset Printing Press (GL-537+H-UV)



Specifications

LITHRONE G37 (37-inch offset printing press) specifications

Model	GL-237	GL-437	GL-537	
Number of colors	2	4	5	
Max. printing speed	sph 15,000			
Max. sheet size	mm (in.) 640 x 940 (25 ³ / ₁₆ x 37)			
Min. sheet size	mm (in.) 297 x 420 (11 ¹ / ₁₆ x 16 ¹⁷ / ₃₂)			
Max. printing area	mm (in.) 620 x 930 (24 ¹³ / ₃₂ x 36 ⁵ / ₈)			
Sheet thickness range	mm (in.) 0.04 ~ 0.6 (0.0016 ~ 0.0236)			
Plate size	mm (in.) 700 x 945 (27 ⁹ / ₁₆ x 37 ⁷ / ₃₂)			
Blanket size	mm (in.) 780 x 955 (30 ²³ / ₃₂ x 37 ¹⁹ / ₃₂) including aluminum bar			
Feeder pile height	mm (in.) 1,100 (43 ⁵ / ₁₆)			
Delivery pile height	mm (in.) 1,100 (43 ⁵ / ₁₆)			
Dim.	Length	mm (ft.) 6,236 (20'5")	8,199 (26'11")	9,181 (30'1")
	Width	mm (ft.) 3,499 (11'6")		
Weight	Height	mm (ft.) 2,196 (7'2") [2,436 (8') : cover open]		
	kg (lb.)	13,200 (29,101)	22,200 (48,943)	26,700 (58,863)

- 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:

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