

L I T H R O N E S 44



JQA - QMA10134
JQA - EM1949
Tsukuba Plant



World Class 44-inch Offset Printing Press

The Lithrone S44 delivers the inherent strengths of the Lithrone S Series sheetfed presses, the reference platform from the premier heavy offset press manufacturer. Extraordinary performance with a very wide range of paper stocks. Unwavering at the maximum printing speed of 15,000sph. High added value printing performance as well as environmentally friendly design and engineering. The ultra-high specification Lithrone that is poised to redefine the 44-inch market.



New Value in the 44-inch Market

LITHRONE S44



Major Features

Creating Value in the 44-inch Market

Perfectly at ease with a wide range of paper stocks and offering consistent high-speed printing, world-class short makeready, and high added value printing

The epitome of Komori's most advanced printing technologies, the Lithrone S44 will exploit the full potential of the 44-inch market. In addition to the superb all-around printing performance common to the Lithrone S Series presses, this press offers a stunning 15,000sph maximum printing speed and breathtakingly short makeready due to a newly designed Full-APC system. In addition to accommodating both light and heavy stocks, the Lithrone S44 is perfectly positioned to exploit the possibilities of added value printing such as UV. Furthermore, Komori has paid meticulous attention to optimization of the feeder and delivery, the key to maintaining print quality at high printing speed. A marvel of advanced technologies: Komori presents the ultimate 44-inch sheetfed offset press.

Environmentally friendly

Minimal Environment Impact

As a leading printing press manufacturer, Komori has long been devoted to the development of printing presses that reduce the impact of printing on the environment. Komori's aim — to create total printing systems that minimize the use of resources, energy and labor — is a basic theme in reducing the environmental footprint of the printing press.

Five Ways Komori Reduces Environmental Impact

- [1] **Reduced paper waste**
KHS-AI (Komori KHS Advanced Interface)
- [2] **Reduced energy consumption**
Use of high-efficiency inverter motors
Integrated automation and digital-ready structural design
- [3] **Reduced use of chemical compounds**
Komorimatic dampening system easily accommodates non-alcohol printing
- [4] **Reduced waste**
Automatic ink cartridge loading device (optional)
Oil-less bearings
New oil cleaner with integrated oil pump
- [5] **Noise countermeasures**
Soundproof cabinet (optional)



Photo: LS-644 + C + Extended Delivery

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LITHRONE S44

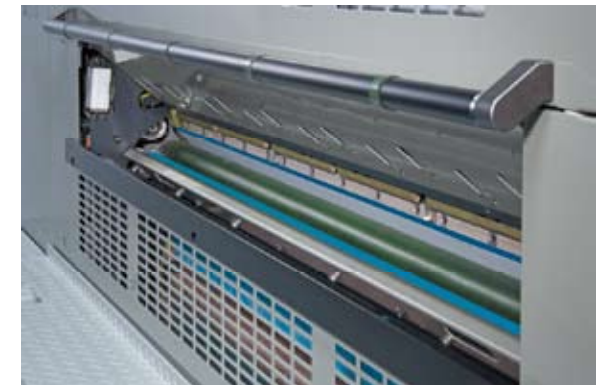
Shorter Makereadies for Today's Industry

Unrivalled state-of-the-art short makeready system

The Lithrone S44 is loaded with the powerful technologies developed for the acclaimed Lithrone S Series presses. Every function of the press incorporates a high level of automation. This includes benderless fully automatic platechanging (Full-APC), the first such system on any 44-inch press. Blanket, impression cylinder and ink roller cleaning are fully automatic, executed by simply pressing a button on the operation console touchpanel. These automated processes are seamlessly linked by Komori-developed technologies to produce absolutely unmatched short makeready times.



New Full-APC



Benderless APC Clamp



Automatic Blanking Washing



Automatic Impression Cylinder Cleaning



Automatic Ink Roller Cleaning

New Full-APC

Komori's benderless Full-APC eliminates plate bending. Moreover, platechanging is very quick — just 3 minutes for four colors and 3 minutes 30 seconds for six colors.

Benderless APC Clamping

The new Full-APC system requires no plate bending, which makes plate feeding and discharge more efficient. In addition, the clamp is flat to improve leading-edge register accuracy.

Automatic Cleaning Systems

Komori knows that the world's shortest makeready time requires more than fully automatic platechanging. Optimized cleaning and washing functions are essential. Use of microencapsulated cloth for blanket washing and impression cylinder cleaning not only shortens setup time but also helps the environment by reducing the amount of cloth consumption. Automatically linking all of these processes significantly shortens overall setup time.

Enhanced Profitability through Greater Efficiency

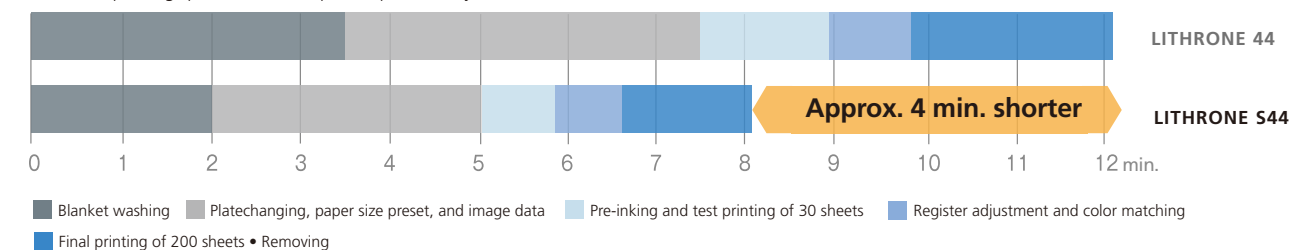
Productivity unprecedented in the 44-inch market

The printing industry today confronts the issues of short runs and short job cycle times, and the 44-inch market is no exception as these needs become increasingly important. The Lithrone S44 achieves exceedingly short job changeover times as a result of its very short makeready functions, 15,000sph maximum printing speed with consistent high quality, and high-speed pre-inking system. This incomparable job changeover performance is a powerful driver of high productivity and profitability even on short-run work.



Shorter makeready time

The Lithrone S44 delivers a makeready that is approximately four minutes shorter than the original Lithrone 44. This performance and the higher maximum printing speed result in improved productivity.

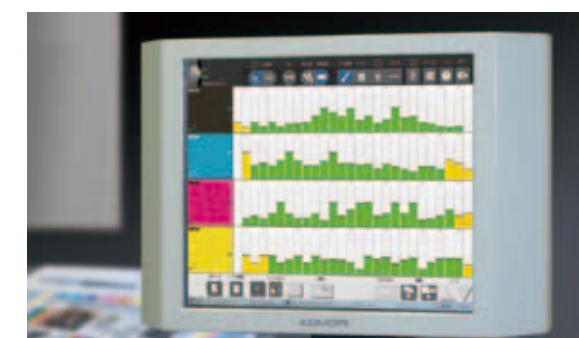


*Graph shows comparison of four-color machines

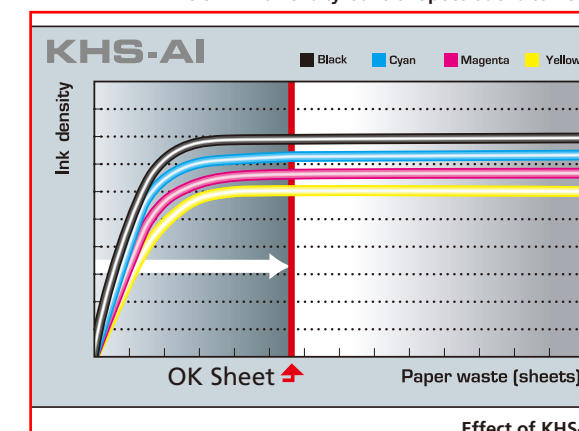
PDC-SII Print Density Control-Spectrodensitometer (Option)

PDC-SII incorporates a look-ahead sensor that steers the optics, eliminating the need to precisely position the color bar. Data transmission speed has also been improved, and graphs are displayed as soon as the instrument scans each patch on the color bar, providing a high degree of responsiveness.

KHS-AI for Very Short Makereadies with Minimum Paper Waste
The KHS-AI (Komori KHS Advanced Interface) was designed to raise productivity by reducing job changeover times and paper waste to absolute minimum levels. CTP produced plates and preset data calculated from CIP4 data enable one-step register adjustment and color matching. The program-controlled pre-inking and removing function creates the proper ink film thickness on the ink rollers, thus enabling very fast startups. This ensures amazingly short makereadies, reduces paper waste, and extracts the full potential of the press, thus significantly raising total productivity.



PDC-SII Print Density Control-Spectrodensitometer



*Figures in this catalog reflect Komori measurements under specific conditions. No warranty is implied.

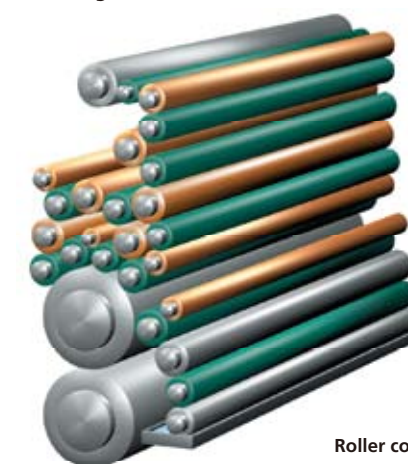


Deepening the Lithrone Tradition of High Print Quality

Meeting the increasing demand for enhanced print quality

The most important advantages of the Lithrone S44 include high print quality, high image reproduction, superior inking and distribution, and color brilliance along with high productivity. The printing units are at the core of this quality. They incorporate an optimized roller configuration derived from computer analysis to create the optimum balance of ink and water, ensuring sufficient ink retention and attaining high print quality. In addition, the Lithrone S44 printing units are equipped with the Komorimatic dampening system, which provides a consistent supply of dampening solution directly to the plate and also enables high-quality non-alcohol printing with the minimum necessary amount of water. The printing units also exhibit very high rigidity due to micron-order machining accuracy. The essence of the Komori pursuit of high print quality.

No effort has been spared to perfect the Lithrone S44's sheet transport system, another key to high print quality. The suction tape feeder design ensures stable sheet feeding and the air side lay eliminates the problem of pull roller marking and improves ease of operation. The delivery features a new vacuum wheel design and an air control system that allows individual adjustment of the angle of blow. This series of improvements from the delivery to the feeder effectively addresses the need for higher print quality.



Roller configuration



Komorimatic and ink/dampening roller configuration



Suction tape feeder



Air side lay



Skeleton transfer cylinder/Air guide

Komorimatic and Ink/Dampening Roller Configuration

The configuration of rollers determined by computer analysis maintains a constant balance of ink and dampening solution and ensures the exact quantity of ink. This guarantees stable high print quality.

Suction Tape Feeder

Paper transport by the suction tape feeder ensures stable sheet feeding regardless of the grade or size of the paper. Setup time for changing the sheet size is also shorter.

Air Side Lay

The press features a new air vacuum design that ensures stable side-lay precision and eliminates the problem of marking by conventional pull rollers. Adjustment according to the paper weight is possible even during the run.

Skeleton Transfer Cylinder/Air Guide (Option)

Use of the skeleton transfer cylinder allows non-contact sheet transfer — free of scratches and marking. The cylinder is combined with a venturi air guide to enable smooth sheet transfer free of flapping. This technology makes the Lithrone S44 capable of handling a wide range of paper thicknesses.

New Ways of Creating Added Value

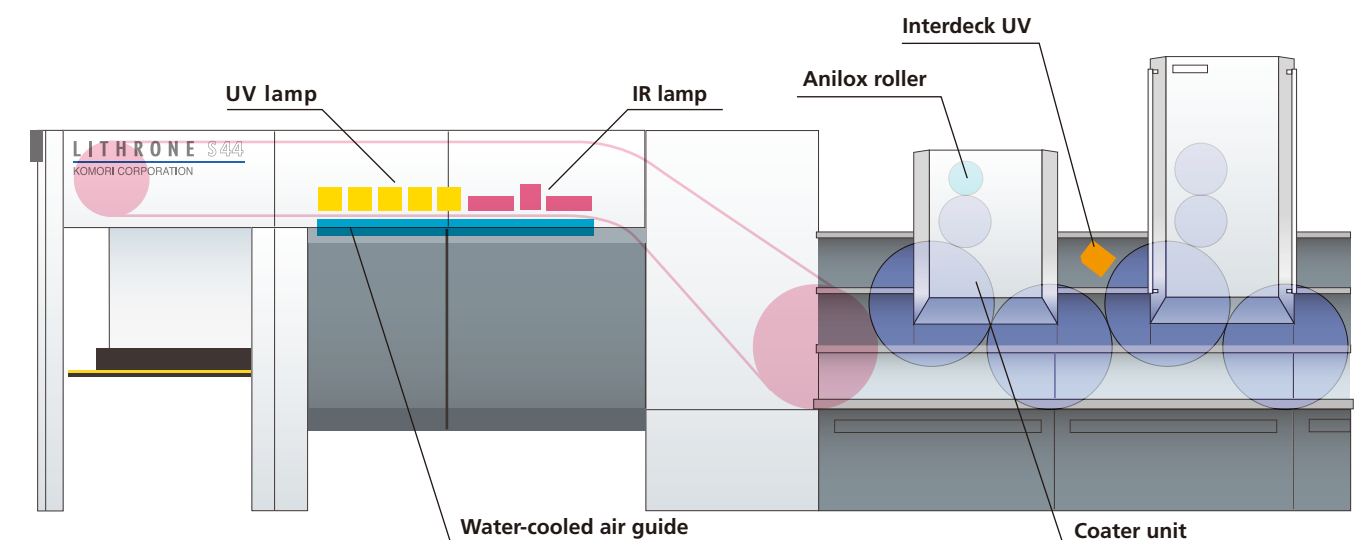
Meeting the increasing demand for high print quality

The Lithrone S44 is the perfect solution to the need for high added value printing. The press is capable of incomparable UV printing on packaging, cards- and labels. When configured with the chambered doctor blade coating system equipped with an anilox roller, the amount of coating applied can be easily controlled, and consistent application is possible with both UV and aqueous coating. In addition, coater cylinder skewing can be adjusted by means of the transfer cylinder cocking system. When configured with a horizontal IR/UV dryer in the extended delivery immediately following the rise of the printed sheets, varnish flow characteristics are improved and enhanced gloss can be attained. The delivery design also affords much easier maintenance access. Interdeck UV dryers may also be specified, allowing the press to handle nonabsorbent substrates and significantly broadening the potential work mix.

Exceptional performance with a wide range of paper thicknesses

The renowned capability of the LS Series to handle a wide range of paper thicknesses has been transplanted intact to the Lithrone S44. This press is extraordinarily competent with papers ranging from light stocks used for publishing and wrapping paper to heavy stocks employed for packaging and cartons. When equipped with the skeleton impression cylinder and water-cooled air guide system in the delivery, the Lithrone S44 is capable of noncontact sheet transfer and can maintain the highest levels of print quality. In addition, gripper pad height can be adjusted quickly and easily when changing paper thickness. Scrupulous attention has been paid to every detail that contributes to high productivity.

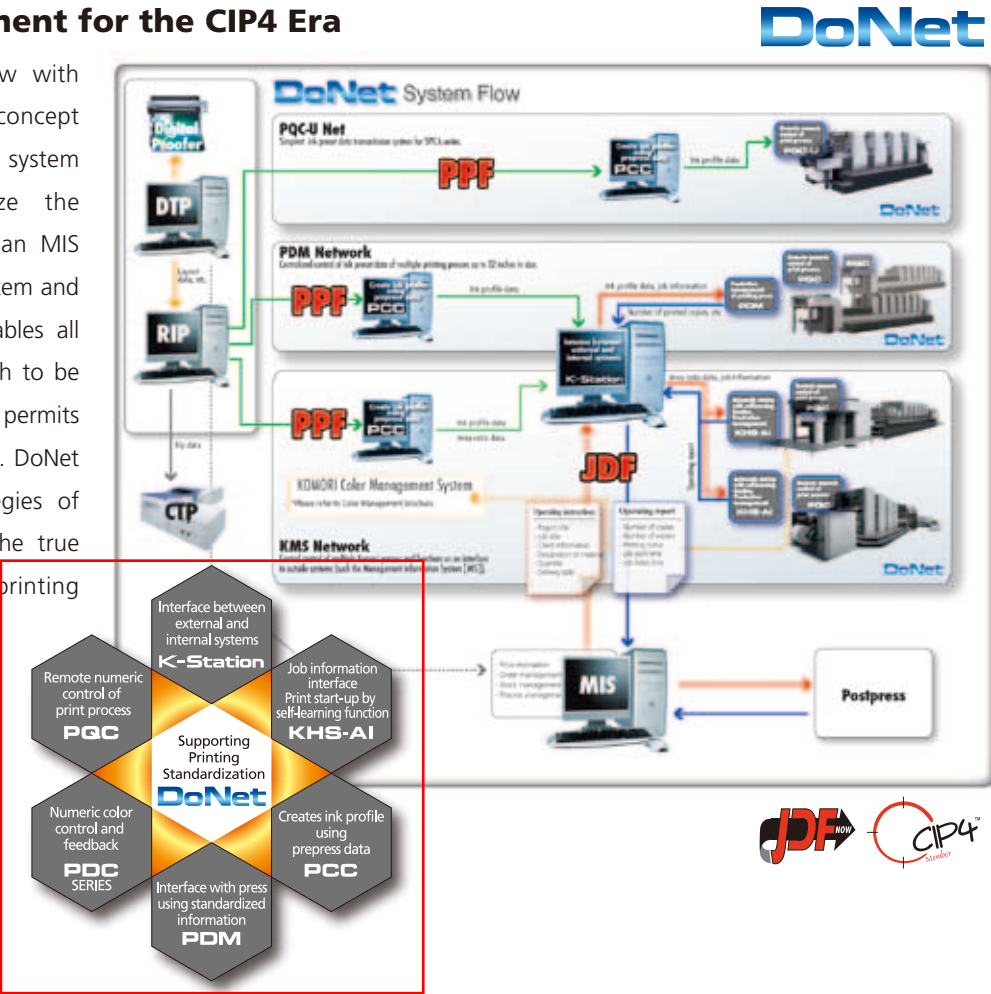
* The above description includes optional specifications.



AUTOMATION AND DIGITALIZATION
Integrated Command Center for Increased Efficiency

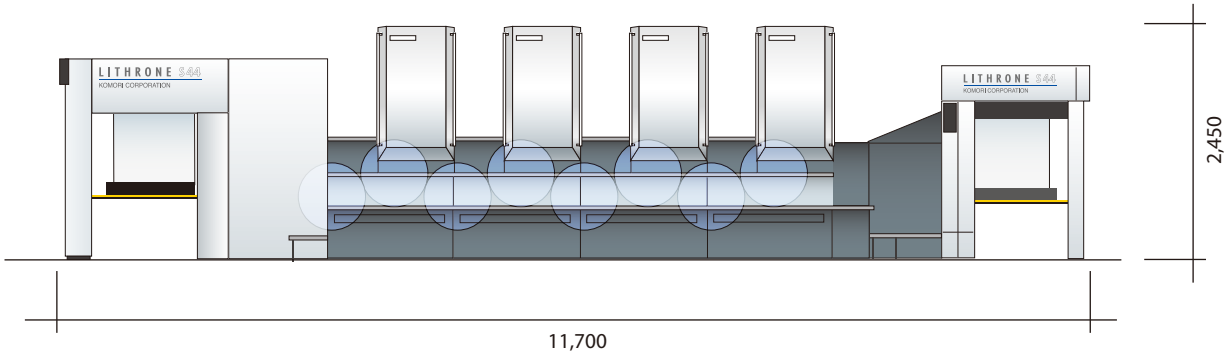
DoNet-based Environment for the CIP4 Era

Building a DoNet digital workflow with products based on the DoNet concept enables the creation of a unique system environment that will maximize the potential of CIP4/JDF. Combining an MIS system, for example, with a CTP system and a digital proofing environment enables all printing tasks for runs of any length to be digitally networked. CIP4/JDF even permits unified control through to postpress. DoNet offers powerful support to strategies of differentiation and optimization, the true requisites for the successful printing business of the future.



Cutting-edge Digital Operation Console

The newly designed operation console features dual large-screen touchpanels, from which almost all adjustments of the press can easily be performed remotely. Combining this console with the CIP4/JDF-compliant K-Station (option) and the KHS-AI (option) and loading external data give real-time visibility to the operating status of the press. This allows centralized control and improves management efficiency. These operating environment improvements also reduce the operator's work load. When equipped with the optional PDC-SII and K-ColorProfilerII, the console becomes capable of easy-to-use numerical color management. Such tools are essential for print standardization. The command center ready for the promise of digitalization.



LITHRONE S44 Specifications

| Model | LS-244 | LS-444 | LS-544 | LS-644 | LS-744 | LS-844 |
|------------------------|--|-----------------|------------------|------------------|------------------|------------------|
| Number of colors | 2 | 4 | 5 | 6 | 7 | 8 |
| Max. printing speed | SPH 15,000* | | | | | |
| Min. printing speed | SPH 3,500 | | | | | |
| Max. sheet size | mm(in.) 820 x 1,130 (32 ⁹ / ₃₂ x 44 ¹ / ₂) | | | | | |
| Min. sheet size | mm(in.) 460 x 620 (18 ¹ / ₈ x 24 ¹³ / ₃₂) | | | | | |
| Max. printing area | mm(in.) 810 x 1,120 (31 ²⁹ / ₃₂ x 44 ³ / ₃₂) | | | | | |
| Sheet thickness range | mm(in.) 0.04~0.3 (0.0016~0.01) option 0.08~1.0 (0.003~0.04) | | | | | |
| Plate size | mm(in.) 900 x 1,130 (35 ⁷ / ₁₆ x 44 ¹ / ₂) | | | | | |
| Blanket size | mm(in.) 1,050 x 1,160 (41 ¹ / ₃ x 45 ² / ₃) - including aluminium bar | | | | | |
| Feeder pile height | mm(in.) 1,250 (49 ⁷ / ₃₂) | | | | | |
| Delibery pile height | mm(in.) 1,250 (49 ⁷ / ₃₂) | | | | | |
| Dimensions : Width (W) | mm(ft.) 3,870 (12'7") | | | | | |
| Height (H) | mm(ft.) 2,450 (8') - 2,900 (9'5") with cover open | | | | | |
| Length (L) | mm(ft.) 9,000 (29'5") | 11,700 (38'4") | 13,000 (46'7") | 14,400 (47'2") | 15,900 (52'2") | 17,200 (56'4") |
| Weight | kg(lb.) 25,800 (56,879) | 44,000 (97,003) | 53,100 (117,065) | 62,200 (137,128) | 71,300 (157,190) | 80,400 (177,252) |

*Maximum printing speed may differ from specifications herein.

LITHRONE S44 Coater Configuration Specifications

| Model | LS-44 |
|---------------------------------|---|
| Max. sheet size | mm(in.) 820 x 1,130 (32 ⁹ / ₃₂ x 44 ¹ / ₂) |
| Min. sheet size | mm(in.) 460 x 620 (18 ¹ / ₈ x 24 ¹³ / ₃₂) |
| Max. coating size | mm(in.) 805 x 1,120 (31 ¹¹ / ₁₆ x 44 ³ / ₃₂) |
| Sheet thickness range | mm(in.) 0.1~1.0 (0.004 ~ 0.04) |
| Blanket size with aluminium bar | mm(in.) 910 x 1,160 (35 ¹³ / ₁₆ x 45 ² / ₃) |
| Photopolymer plate | mm(in.) 935 x 1,150 (36 ¹³ / ₁₆ x 45 ⁹ / ₃₂) |

Note:

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