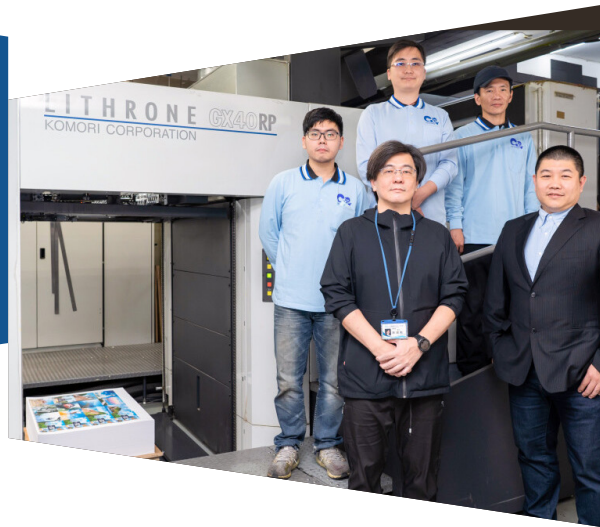


ON PRESS

Rapid Productivity Growth and Significant Loss Reduction with Taiwan's First Full-option Double-sided



Cardhome Company, in business for more than 20 years, operates a 6,620 square meter plant in the Zhonghe Industrial Zone in Taipei, Taiwan, an area crowded with printing companies. At its founding, Cardhome began with gang-run printing, focusing on business card printing using Internet technology. By installing a double-sided, one-pass Komori Lithrone GX40RP press equipped with advanced automation systems, the company has achieved a solid position in the fiercely competitive market.

In the face of a constantly changing market, the company adhered to two main ideals: technological innovation and quality first. To efficiently produce the high volume of work, Cardhome developed a printing system specifically for gang-run printing using its own ERP system.

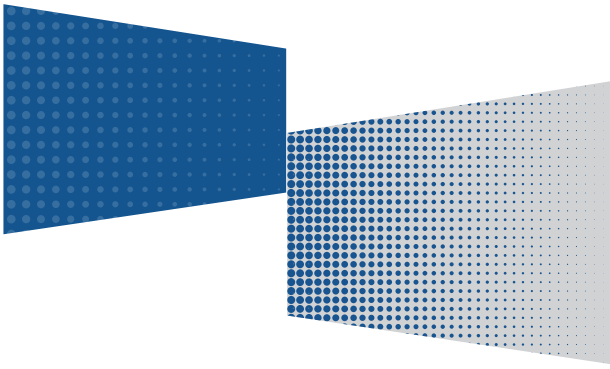
All processes are transparent for each order, from receipt of the request through printing, binding, shipping, warehousing, and payment, giving managers a comprehensive grasp of progress and enabling the company to meet rigorous deadlines, leading their peers and their competition. Business development in gang-run printing differs from that of a traditional printing business. Taking orders online means being unable to discuss the details of the job face-to-face with customers.

Therefore, only with a well-designed and easy-to-use ordering system can the company provide comprehensive printing services and convert customers into members.

Since its founding, Cardhome has been constantly improving itself and providing genuine service using its extensive and specialized printing knowledge to give customers detailed product plans, a wide variety of customized products, and convenient operating tools to meet their needs. This proves that the company's gang-run printing is no longer synonymous with "poor quality," but can meet quality requirements of almost no color difference compared to previous printing and no color difference whatsoever on all sheets after printing.

Labor shortage addressed by installation of full-option double-sided, one-pass press

The labor shortage in the printing industry is extremely serious in Taiwan and, in order to solve the challenges of insufficient workers, print quality, and efficiency, Cardhome has set extremely high standards for automation of its presses. The Komori eight-color Lithrone GX40RP is equipped with the A-APC (Asynchronous Automatic Plate Changer), KID (Komori Info-Service Display), PQA-S (Print Quality Assessment System), PDC-SX (Spectral Print Density Control SX model), PDF Comparator System, and LED-UV drying system, making it one of the world's most highly



featured presses of its type. In this interview, Chen Jianxun, Manager of the company's Sales Management Department, cited the following four reasons for the introduction of the Lithrone GX40RP.

- To break free from price wars by consistent print quality and printing jobs that other printing companies cannot print.
- To reduce paper waste and the incidence of defective jobs.
- To increase production efficiency and productivity by allocating the optimal number of workers, so that two people can perform the work of four people.
- To strengthen skills stability and speed up operator training.

The eight-color Lithrone GX40RP and automation systems not only guarantee stable print quality and provide strong support for production in gang-run work, the company's main business up to now, but its advanced automation systems also save labor and manpower. This has enabled the company to maintain its promise to deliver printed materials of the highest quality on time. With the Lithrone GX40RP as an axis, Cardhome seized the chance to expand the range of its printing operations. In the early days of the company, gang-run printing accounted for 100 percent of the company's business, but now the company provides comprehensive printing services that can present customized printing plans to meet customers' needs for discrete plate production.

"The A-APC, PDC-SX automatic registration function, and KHS-AI pre-inking allow us to reduce start-up adjustment time by 90 percent and increase productivity by 50 percent. As a result, customers' confidence in product quality has also increased and recalls due to defective products have been reduced by 20 percent."

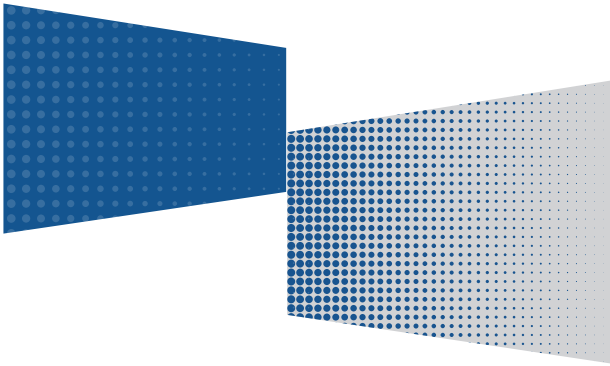
- CHEN JIANXUN, *Manager of Sales Management Department*

Advanced automation systems slash startup adjustment time by 90%

The Lithrone GX40RP mainly handles catalog printing with large lots of multipage impositions, business card gang-run printing with small lots of multipage impositions, and direct mail printing. Job changeovers, makeready, and cleaning are frequent tasks that traditionally require considerable time and manpower in small-lot projects. However, with the introduction of the Komori press, things have changed.

"The Lithrone GX40RP can print on both sides with just the start-up adjustment time of a single-sided press, so it can do twice as much work as a single-sided press. Automatic plate changing by A-APC, blanket washing by the automatic washing system, and pre-inking by





KHS-AI have reduced operation time and increased efficiency. With the PQA-S inline quality inspection system, we can reliably check the quality of each sheet, eliminating the uncertainty of human checking and effectively increasing the satisfactory rate. The PDF Comparator System automatically checks against the data and displays the results on the KID display for the operator to see, ensuring excellent print quality,” says Plant Manager Hong Yingyao.

Chen Jianxun assesses the Komori double-sided, one-pass press and the automation systems as follows: “Double-sided printing and LED-UV realize one-pass printing and avoid shortages of deliverables and postprocess processing delays caused by wet ink after the reverse side is printed. PQA-S automatically checks the quality of each sheet against the PDF data, detects in real time and adjusts when necessary. The system also detects defects such as color differences, color imbalance, and scratch, which are often missed with visual inspection.



With the Lithrone GX40RP, Cardhome is now able to do the work of four people with two.”

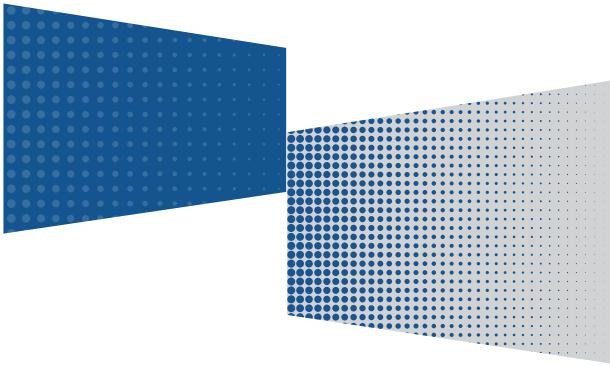
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Lithrone GX40RP production support system halves paper waste

The Lithrone GX40RP has not only wowed customers with its excellent print quality and attracted Top 100 companies but it is also an excellent press in terms of material savings. Chen Jianxun says, “After installation of the Lithrone GX40RP, we reduced paper waste by 40 to 50 percent, and our monthly paper costs were reduced by NT\$200,000 to 400,000 (US\$7,050 to US\$14,100). In the past, we needed 60 sheets of waste paper for double-sided printing, but after installing the Lithrone GX40RP, we were able to immediately reduce that by half.”

“PDC-SX automatic color management gives all of our printed materials the same high quality from the first to the last sheet, and together with the double-sided, one-pass printing we have been able to save even more money in materials and time,” says Hong.





According to Chen Shengdeng, Cardhome manages all color data, from digital proofing to final printing, according to ISO standards, and after installing the Lithrone GX40RP, proof color approximates production print by more than 90 percent. This not only saves the company valuable printing materials but also earns praise and orders from customers.

LED-UV system saves energy and helps the environment

Until Komori introduced H-UV printing technology to the market, Cardhome had always printed with regular oil-based inks due to the environmental impact of conventional UV printing and its effects on operators. In recent years, environmental issues have become a matter of concern for all companies in Taiwan as they are required to comply with all laws and regulations related to environmental protection. Therefore, when installing the Lithrone GX40RP, Cardhome purposely installed the optional LED drying system as an option.

“The LED-UV system not only saves energy but also reduces heat and odor emissions, thus helping to protect the global environment,” says Chen Jianxun. The LED drying system dries the paper instantly, providing a powder-free environment, and, moreover, the company uses low-odor, non-irritating inks, thus protecting the health of operators and users of printed materials. This also has a positive effect on the surrounding environment in the densely built-up Zhonghe Industrial Zone, which is “good evidence of corporate social responsibility.”

Utilizing online technology, striving for perfection and self-improvement

Cardhome uses a unique ERP system to monitor and track all production equipment in the factory in real time, so that all job progress can be controlled, and a clear work tempo can be established for all employees to achieve self-management. Therefore, in plant management and production efficiency, the company leads its web-to-print competitors in gang-run printing, meeting deadlines and demonstrating the superiority of Internet technology. In order to more accurately grasp market trends and further enhance its capabilities, the company is seeking to improve its one-stop service using the latest technology and to bring its work processes closer to perfection.

After witnessing the performance of KP-Connect at Komori’s IGAS 2018 booth, the company hopes that KP-Connect will reach the Taiwan market as soon as possible. Then Cardhome can entrust KP-Connect with the management of all presses, realize the automation of work processes, share visible operating information and performance in real time, and more accurately manage materials and jobs, effectively increasing productivity and reducing losses.

