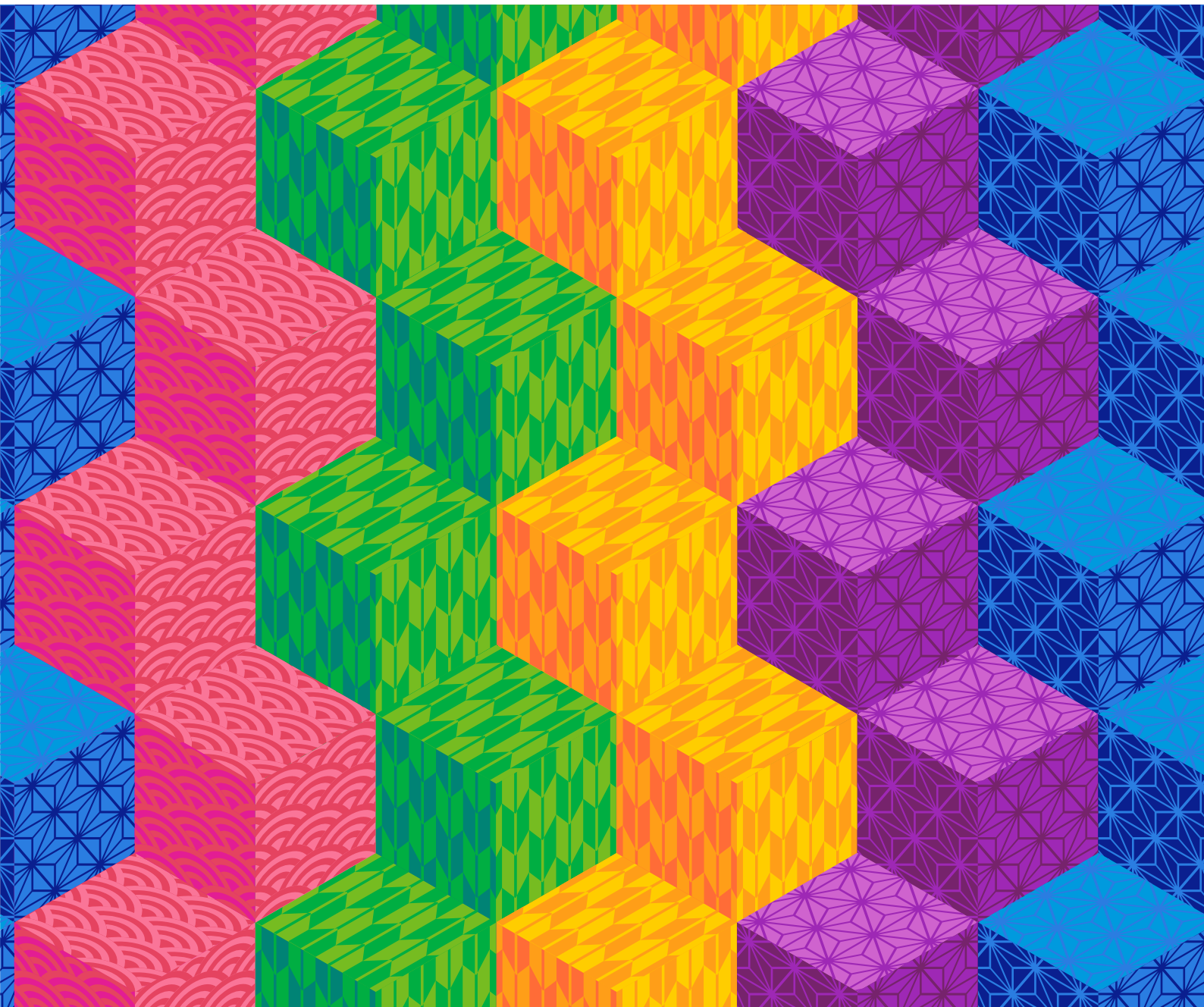
ON PRESS

KOMORI 2022 | No. 98

Decarbonization in the Packaging Industry

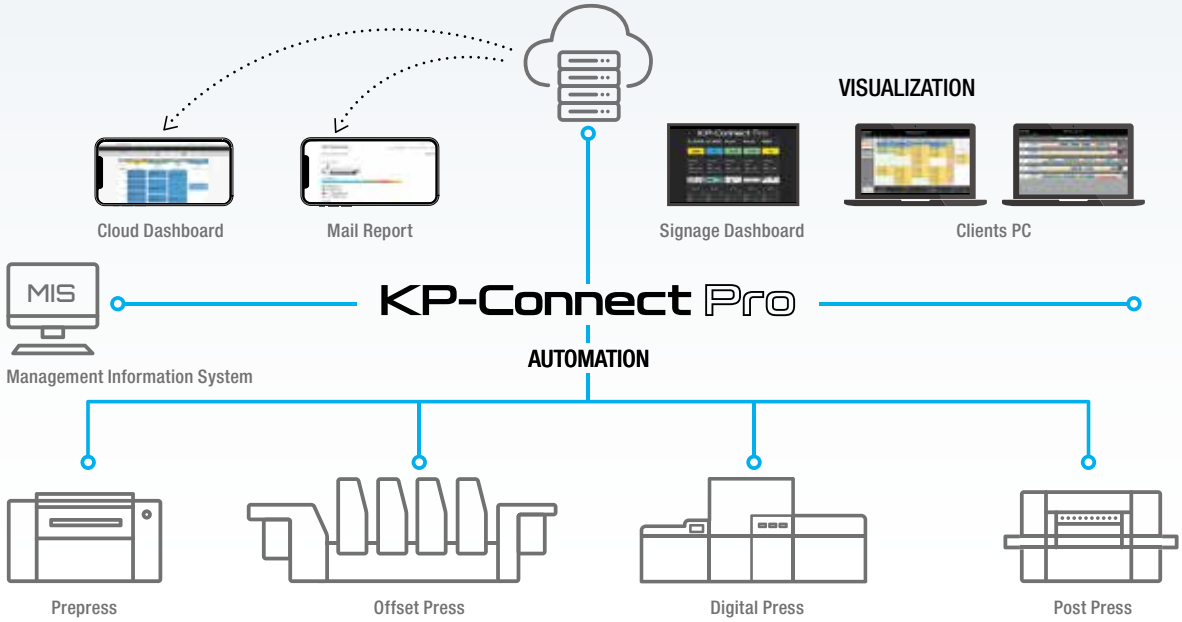


KOMORI

KOMORI
KP-Connect

CONNECTED **AUTOMATION**

— The Door to a New World of Printing DX —



Data Centralization/Visualization/Streamlining/Automation

advance SERIES

GLX-640A

LITHRONE GX40 advance

Connected Automation is the concept of massively increasing customer productivity by connecting presses and production systems equipped with manpower-saving technologies such as KP-Connect Pro. Komori cooperates and creates together with manufacturers and vendors throughout the industry by providing an open environment. Even greater effectiveness is possible in combination with the latest Lithrone GX/G advance model presses equipped with sophisticated automatic functions.

MADE IN JAPAN WITH STATE-OF-THE-ART TECHNOLOGY

Details on Connected Automation.
https://www.komorisolutions.com/ca/en/

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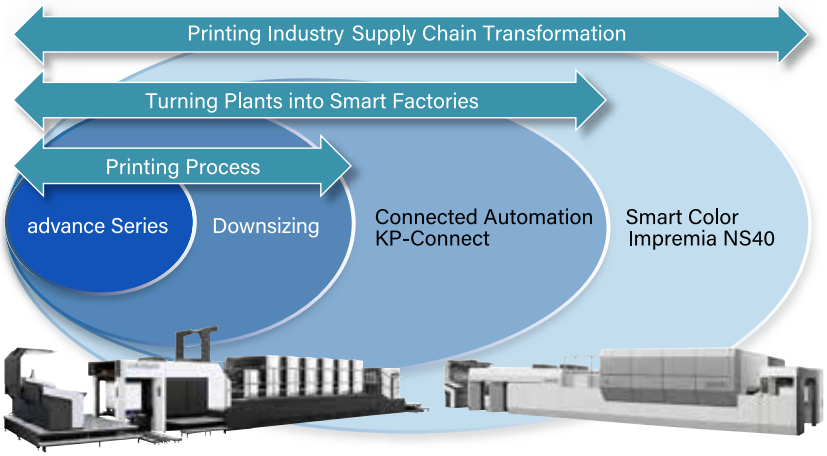
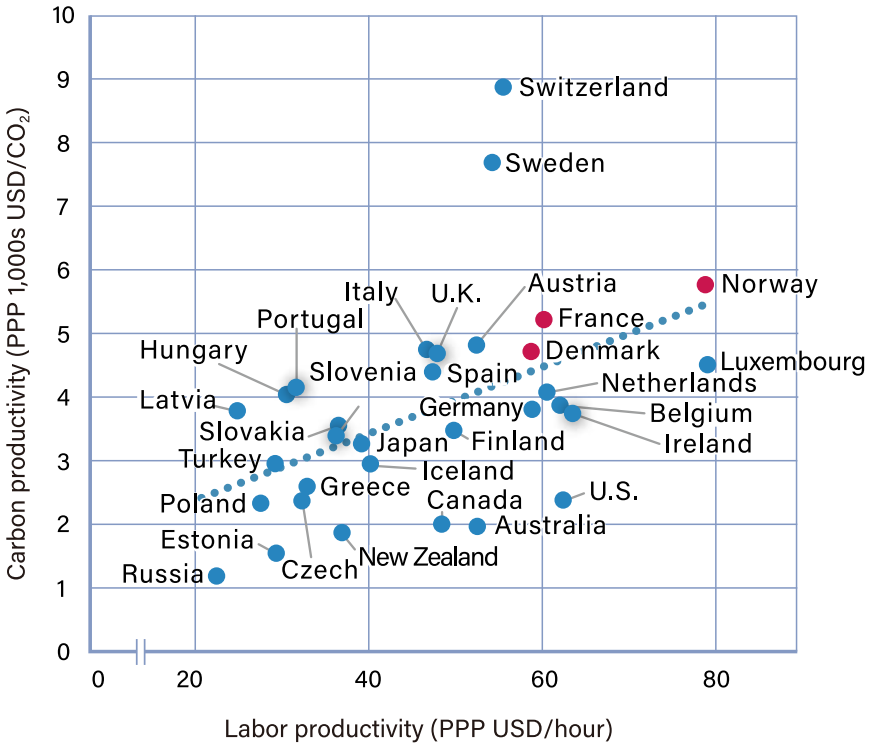
Packaging Industry Decarbonization

Komori Decarbonization Solutions

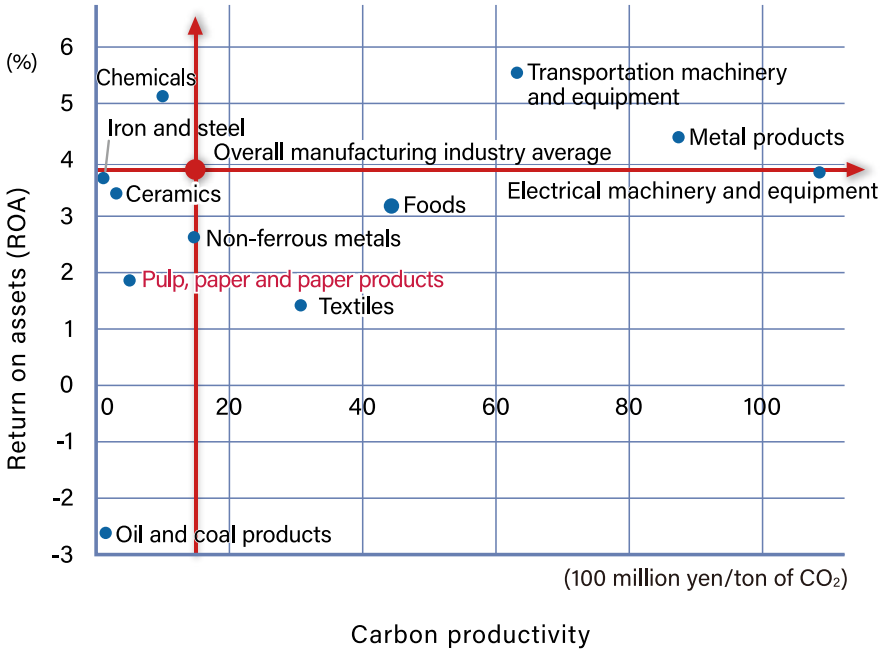


Movement toward a decarbonized society is gaining speed around the world. Most companies have responded to this movement and declared decarbonization and a commitment to carbon neutrality as one measure in their transformation and growth strategy. The printing industry is also feeling the effects of this general trend. For example, industry-leading brand owners in sectors such as daily necessities, foods, cosmetics, and pharmaceuticals have begun moving to adapt. To achieve their own decarbonization goals, they are asking stakeholders, including package printing companies, to cooperate and respond to their demands to reduce CO_2 emissions. For the printing industry, decarbonization is already a familiar topic. Although decarbonization is a serious matter that must be addressed, many are concerned that environmental measures will impose extra costs. Is this true?



[Figure 1] Labor productivity and carbon productivity

From Japan Ministry of Health, Labour and Welfare "2016 Analysis of Labor Economy" (summary)



[Figure 2] Carbon productivity and return on assets by industry

Carbon productivity and return on assets (ROA) of 11 largest CO_2 emitting industries

Opinion exchange forum with young people regarding "long-term strategy as a growth strategy based on the Paris Accord" held on May 14, 2019 (tentative) (draft)

Decarbonization as the growth strategy; from materials of Professor Toru Morotomi, Kyoto University Graduate School of Global Environmental Studies/Kyoto University Graduate School of Economics

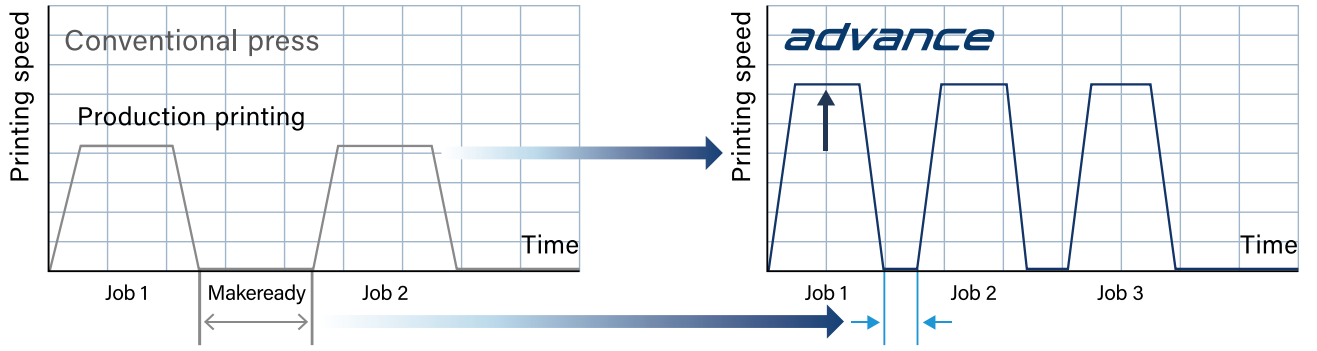
Will decarbonization increase costs?

Up to now, environmental measures and improved profits have been considered contradictory. However, recent analysis has shown a different picture. As a specific example, we will explain the relationship between labor productivity and carbon productivity. [Figure 1]

In this figure, the horizontal axis shows labor productivity, and the vertical axis indicates carbon productivity per ton of CO_2 emissions. First, we can see a positive correlation between countries with high labor productivity and high carbon productivity. Switzerland, Sweden, and Germany are likely to have high labor productivity and high carbon productivity. This means they tend to reduce their CO_2 emissions while being highly productive and profitable. Many countries have already made progress in both productivity and decarbonization.

Now, let's look at the relationship between carbon productivity and return on assets (ROA) by industry. [Figure 2] This figure shows carbon productivity (horizontal axis) and ROA (vertical axis) in Japan. The transportation machinery and equipment manufacturing industry, which includes car makers, as well as the metal products manufacturing industry generate profits more efficiently than other industries and tend to have higher carbon productivity. Unfortunately, the pulp, paper, and paper products manufacturing industry, which is related to printing, at present has a low ROA and low carbon productivity. On the other

* Graph represents jobs from same lot.



[Figure 3] Productivity per unit time

When the printing speed is higher, the time spent on one job is shorter, makeready time is shorter, and more jobs can be run.

Case of two of the latest Lithrone G40 advance presses replacing three old presses

Improved profitability	Improved productivity	Improved work environment	Reduced environmental impact
Sales↑ Cost↓	200%	Transformation of work style	CO_2 reduction
→ Uptake of new jobs → Making outsourced work in-house → Reduction of operation costs	→ Shorter makeready and adjustment times → Increases printing speed → Improved productivity with 2/3 of press crew	→ Shorter working hours → Improved employee satisfaction → Contributes to SDGs	→ 40% reduction in power consumption → 85% reduction of spare paper and paper waste → Contributes to SDGs

[Figure 4] Effects of downsizing

*The effects of installation and improvement described herein have been estimated and measured under fixed conditions for the purpose of providing information for reference in making investment decisions and are not a guarantee of actual effects.

hand, there is more upside potential than in other industries.

From these examples, we can see that by increasing productivity and eliminating waste, it is possible to increase profits and decarbonize at the same time. Therefore, the printing industry appears able to achieve both increased profits and decarbonization.

This article focuses on three areas of the packaging industry: the printing process, the printing plant, and supply chain transformation in printing. Solutions are proposed for productivity improvement, that is, decarbonization, in each area.

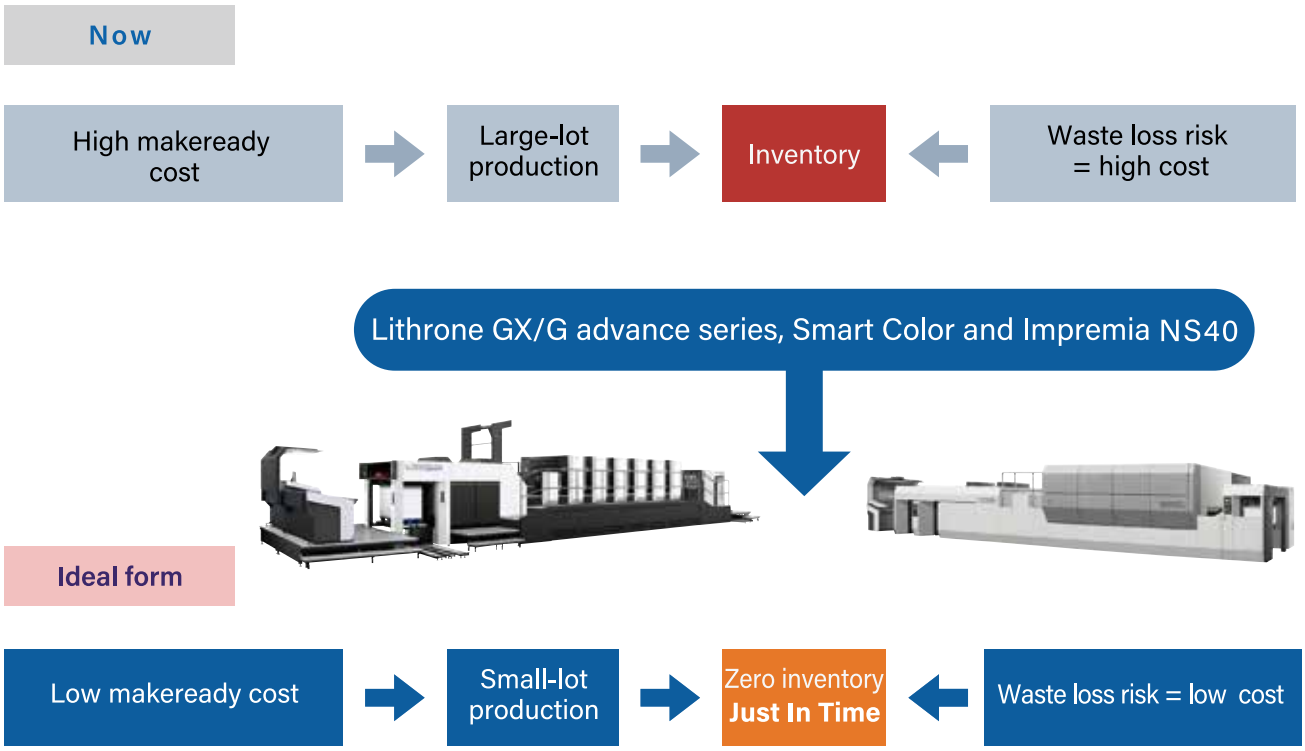
What is productivity improvement in the printing process?

First, we will focus on the productivity of the printing process. In the printing industry, the demand for small-volume production and quick delivery is increasing. To increase productivity, presses that focus on higher printing speeds and shorter makeready times have the highest return on investment (ROI).

The Komori Lithrone GX/G advance series presses deliver world class ROI. Improvements to the high-speed stability of the feeder, delivery, and Komorimatic dampening system have enabled stable, high-speed printing. The operating system has also been updated, and operator touchpoints have been significantly reduced. In addition, automatic job presetting in coordination with KP-Connect Pro dramatically reduces makeready time. With these improvements, the Lithrone GX/G advance series presses achieve critical productivity goals. [Figure 3]

This overall increase in productivity allows 'downsizing,' the consolidation of older technology into the latest technology with high production efficiency. For example, by consolidating three old presses with low productivity into two new presses with high productivity, greater production volumes can be achieved while significantly reducing paper waste and power consumption, resulting in higher profits and a major reduction in CO_2 emissions. [Figure 4]

This kind of downsizing can only be realized with the performance of the Lithrone GX/G advance series presses, which have greatly improved productivity.



[Figure 5] Printing industry supply chain transformation

Turning the entire printing plant into a Smart Factory

There are many processes at the printing site, and with analog process management using job tickets and telephone calls, coordinating before and after processes and responding to changes in conditions is difficult, so there is a limit to raising overall productivity. In other words, to improve productivity on the printing floor, optimizing the entire process is more important than improving the productivity of individual processes. Innovation through Digital Transformation (DX) of the entire production process is the key to solving this problem.

Komori's Connected Automation concept turns printing plants into Smart Factories by connecting the entire printing process, which is fragmented into individual processes, using digital technology. KP-Connect Pro is the middleware that forms the core of this concept.

Based on an open platform concept, KP-Connect Pro is currently being connected to many manufacturers and vendors. Printing companies can then freely combine and connect not only new devices but also existing devices. When each process is connected digitally, the entire process can be visualized and optimized. Real-time information on operation enables bottlenecks to be identified and immediate action to be taken. This not only prevents losses but also leads to increased profits.

KP-Connect Pro has already been installed in printing companies both in Japan and overseas, and in many cases it has significantly improved productivity and profitability. Komori believes that the digital transformation of the entire production process is already a real prospect and that its effects will be extremely significant.

KP-Connect Pro has become a more practical system because its functions have evolved in response to the opinions of customers. In pursuit of the ideal form of digitalization of the printing process, we continue to make progress.

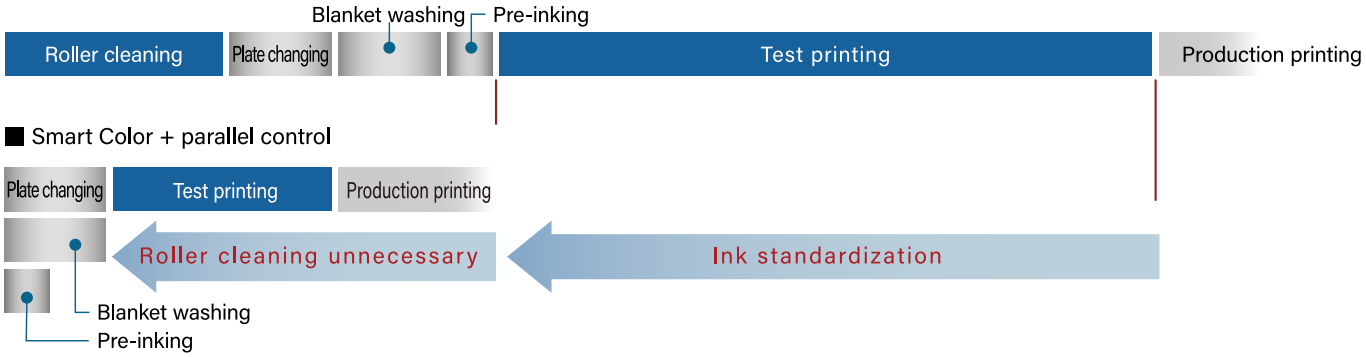
As noted, Komori believes that if the productivity of the printing plant is improved, energy efficiency will be increased, which in turn will reduce CO_2 emissions, thereby contributing to a decarbonized society.

KP-Connect Pro will greatly contribute to the transformation of printing plants into Smart Factories.

Supply chain transformation in the printing industry

One of the greatest challenges in package printing is the use of special colors. The makeready cost for color changeover and roller cleaning with special colors can be very high. Printing companies often must produce in large lots to meet budgets, and, for example, producing six months' worth of products that are to be delivered once a month. However, if there is a change in the design midway, the inventory must be scrapped, resulting in a loss, which further drives up costs.

Minimizing makeready costs and implementing a production system that is profitable for small quantity runs is ideal. If printers can produce in small lots and deliver on a just-in-time basis, there will be no need to hold inventory, and inventory risk can be

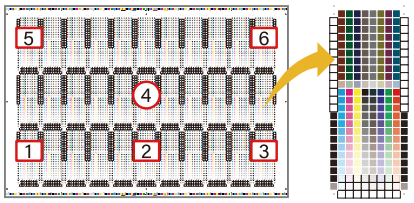


[Figure 6] Effect of Smart Color

Evaluation of color difference by chart

Color difference (⊿E) of six positions in the figure below is shown at right.

- Patches are 25%, 50%, and 75% CMY gray.
- Standard is position No. 4 on 500th sheet.



Gripper

Position	CMY 25%		CMY 50%		CMY 75%	
	500th sheet	2,000th sheet	500th sheet	2,000th sheet	500th sheet	2,000th sheet
1	0.39	0.62	0.35	1.07	0.44	0.65
2	0.50	1.51	0.19	1.87	0.56	1.64
3	0.82	1.23	0.89	1.98	0.40	1.44
4	Standard	0.85	Standard	1.46	Standard	1.08
5	0.42	0.67	0.17	0.61	0.95	1.35
6	0.26	1.05	0.41	1.08	1.08	1.30

⊿E<2 : ⊿E ≦3 : ⊿E >3 : [⊿E]

[Figure 7] Minimal unevenness

* The effects of installation and improvement described herein have been estimated and measured under fixed conditions for the purpose of providing information for reference in making investment decisions and are not a guarantee of actual effects.

eliminated, and costs reduced drastically. This is Komori's concept of supply chain transformation in the printing industry. [Figure 5]

Komori can provide two solutions for supply chain transformation. One is Smart Color, a technology that simulates the reproduction of special colors, and the other is the Impremia NS40 digital printing system.

Smart Color reproduces a wide gamut of special colors using seven colors – CMYK+O (orange), G (green), and V (violet). Seven colors can reproduce 88 percent of the Pantone color palette (*1), and six colors can reproduce 80 percent of the Pantone color palette.

Fixing the ink types eliminates the need for color changes and roller cleaning, and the ability to numerically control colors dramatically reduces makeready time. When equipped with parallel control of advanced functions, plate changing, blanket washing, and pre-inking can be performed simultaneously, enabling more efficient changeover. [Figure 6]

Although the idea of process color production of special colors has been around for a long time, it was thought difficult to implement in practice because it could not accurately and stably reproduce colors.

To express a variety of special colors using a combination of dots, the printing press must have high-precision dot shape reproduction and highly stable water film control. Komorimatic uses a unique configuration of four dampening rollers and a reverse-slip system to form a uniform water film thickness in both the lateral and vertical directions, minimizing unevenness. The accuracy of the Komorimatic dampening system and the ink keys and the film thickness control system that precisely form the ink film thickness enable pseudo-reproduction of special colors within ΔE3. This technology leads to realizing Smart Color. [Figure 7]

For ultra-small-lot package printing, the Impremia NS40 digital printing system offers the ultimate in makeready cost reduction.

The Impremia NS40 is a digital printing system that enables ultra-small-lot printing and quick turnaround on B1 stock and delivers a printing speed of 6,500 sph. In addition to the features of digital printing that minimize the makeready process, the Impremia NS40 can reproduce 96 percent (*1) of Pantone's special color palette using seven colors, making it the digital packaging printing machine for the future. It is capable of printing small lot jobs on demand, enabling operation without holding product inventory and without waste loss.

The direction of decarbonization in the packaging industry

In April 2021, the Japanese government announced an ambitious greenhouse gas reduction target of 46 percent by 2030 (compared to fiscal 2013) amid growing awareness of environmental issues worldwide, accelerating the movement toward decarbonization of society. The printing industry, especially the package printing industry, is expected to be greatly affected by this. To achieve this goal in less than ten years from now, it is imperative to start decarbonization efforts now, and companies that fail to respond may face harsh criticism from brand owners and end-product consumers.

As mentioned above, the key to the solution is maximizing productivity and eliminating waste to improve profits and ultimately achieve decarbonization. There is no contradiction between business and decarbonization, and, in fact, it is thought to be driving enhanced competitiveness in leading countries.

*1: Pantone coverage figures are current as of September 2021 and are subject to change without notice.

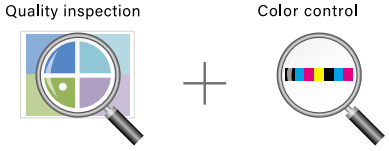
Asahi Printing Story

Asahi Printing, Japan's leading manufacturer of packaging materials for pharmaceuticals and cosmetics, has installed an eight-color Lithrone GX40 and an eight-color Lithrone GX40RP perfecting press. See the story here.

Komori technologies for package printing issues

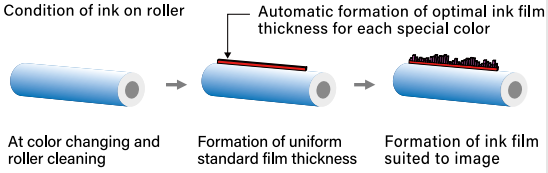
PQA-S Print Quality Inspection and Color Control

Komori's independently developed inline inspection system. The synergy of the highly accurate feedback system and the Komorimatic dampening system producing stable evenness in color reproduction enables quick color control even with special colors. Widely adopted by packaging users, there are than 400 PQA-S systems in operation worldwide.

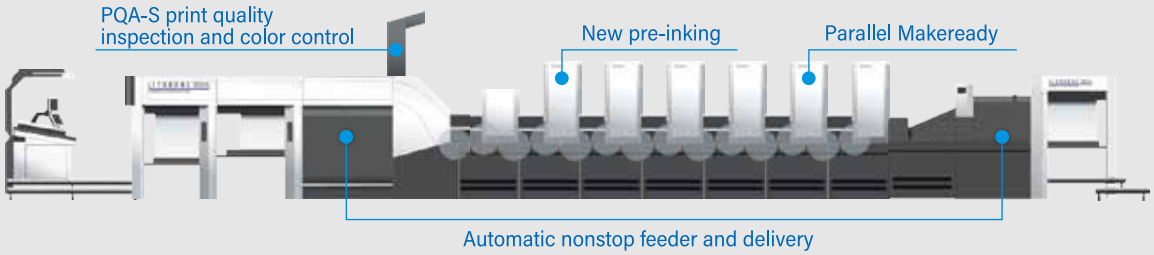


New pre-inking usable with special colors

Intelligent system quickly reproduces special colors on repeat jobs. Digitalization of color know-how and automatic formation of optimal ink film thickness for each special color. Improves profitability by drastic shortening of print start-up time and reduction of number of waste sheets.



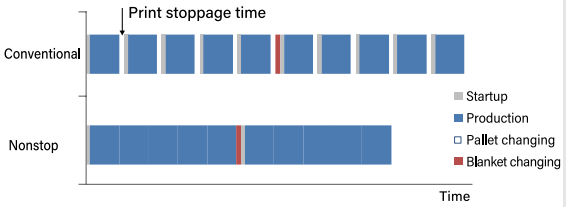
Example of press configuration (6 colors + coater + double delivery)



* Specifications of available options differ by model and type.

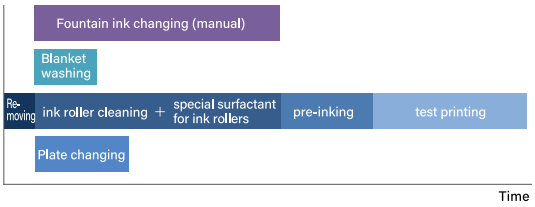
Automatic nonstop feeder and delivery

Automatic nonstop mechanisms capable of high-speed printing at 18,000 sph. Reduces stoppage losses when replenishing paper in package printing, where paper changes are frequent.
Well received in package printing due to tremendous effectiveness in productivity improvement.



Parallel Makeready

Simultaneous blanket washing and plate changing during ink roller cleaning due to independent drive of inker.
Synergy of significant shortening of changeover time and special surfactant for ink rollers is effective in further shortening makeready time.



Just Shine Printing Enterprise Co., Ltd., Taiwan | Lithrone G40 advance [GL-640A+C]

Just Shine: proactive **transformation** and innovation

Founded in 1970 with offset litho printing as its core business, Just Shine Printing in Taichung, Taiwan, is equipped with automated production equipment that handles art and design, prepress, press, and postpress. The company prides itself on its commitment to quality and its philosophy of proactive innovation. They respond to customer needs based on deep professional experience and a solid foundation of well-equipped facilities, strict quality control, and smooth communication.

Magic Wu, Manager

More than 90 percent of Just Shine's output is packaging. The product range covers folding cartons, plastic corrugated boxes, gift boxes, PP clear files, company catalogs, direct mail, desktop calendars, and tarot fortune-telling cards.

Just Shine installed its first Komori six-color Lithrone G40 with coater in 2015. Magic Wu, Manager of Just Shine, explains why they chose a Komori press: "Komori presses meet our needs because they are constantly upgrading their performance and becoming more automated. Komori has always been at the top of our list because of their stability and durability as well as the ease of maintenance."

Lithrone G40 advance production 20% to 30% higher

In July 2021, Just Shine installed the latest six-color Lithrone G40 advance press with coater. According to Wu, the KHS-AI pre-inking function has quicker ink data feedback, reducing paper waste by 14 percent and shortening makeready. Furthermore, since the installation of the new Lithrone G40 advance press, production has proved to be 20 to 30 percent higher than their other presses, according to Chen. The Lithrone G40 advance database stores a wide range

Chen Ming-yang, Plant Manager

of job data, so when a customer requests a reprint, the previous data files (ink volume parameters, paper thickness and size, air quantity, printing pressure, and side lay position) can be easily recalled, allowing speedy job completion. According to KHS-AI production data, production efficiency of the new advance press is more than 30 percent higher.

Lithrone G40 advance simplifies operation

Chen shared his thoughts on the significant functional improvements of the Lithrone G40 advance.

The feeder on the new press is very stable even at high speeds. With the addition of more wheels and two feeding belts, both stability and speed during paper transport have been greatly improved. “The operation panel of the feeder is also much easier to read and operate,” says Chen. “Front lay adjustment can be accomplished directly using the touchscreen, which saves time. The feeder operator says that the new pile pointer function provides easy operation, so paper preparation is optimal and very quick.”

Regarding delivery, the suction wheels and the newly added sheet guide device on the delivery ensure more stable paper delivery. “The effect is obvious when printing on thick paper," he continues. "The impact when the sheet is released is significantly reduced and it can fall more smoothly, resulting in more stable paper alignment.”

The newly added single rider roller on the dampening mechanism is very easy to use. “This has made it easier for the operator to manage the water and ink supply, shortening makeready time and reducing waste paper," says Chen.

Register is very easy for the operator to control because touchscreen operation has been improved. “Color management has become easier and more stable.” he adds. Print quality and efficiency have also been greatly improved.”

Automated production solves staff management issues

Since a shortage of labor is an ongoing issue in Taiwan's printing industry and a potential threat to printing companies, highly automated production is a must-have solution. The press is equipped with easy color-matching software, the PDC spectral print density control system, and ink control devices, allowing Just Shine to accurately control color differences and precisely calculate ink usage.

With regard to labor, Wu says, "The Komori machines have a high level of automation, which makes it easy to manage staff. Moreover, because jobs can be adjusted flexibly, the company is well situated to handle market expansion over the next few years." The new six-color Lithrone G40 advance with coater is helping to improve Just Shine's production capacity due to its high level of automation and new enhanced functions. According to Chen, the Lithrone G40 advance has brought new business opportunities. He says that the efficiency and quality of the new machine can be used to win the hearts and minds of customers and also help them to diversify their product development, opening up a wider range of markets.

Wu hopes that Komori will continue to develop even better and more automated presses and provide effective maintenance services. Just Shine will continue to create more products and, with the help of Komori Taiwan, will develop its markets, adhere to its environmental protection policy, and confront the challenges of an ever-changing market.

Nakatani Printing, Japan | Lithrone G40s advance [GL-540A · GL-240A]

Two Lithrone G40 advance packaging presses launched

Nakatani Printing, Inc., with multiple plants and warehouses in Osaka, has built an integrated production system covering everything from printing to postpress and finishing. The company stands strong as a printer specialized in packaging. In March of 2021, the company became the first to install two Lithrone G40 advance offset presses from Komori, one in a two-color configuration and one in a five-color configuration, both targeted for the production of paperboard products. Both presses are equipped with the H-UV L (LED) curing system and feature low power consumption.

Shingo Nakatani, Representative Director and President

Integrated packaging production system delivers quick turnaround with total quality control

Nakatani Printing, Inc. runs a wide range of postpress equipment, including surface finishing, die-cutting, gluing, and carton-making machines, in addition to printing presses for paperboard. With its strengths in high quality and short turnarounds, the company is capable of integrated in-house production. Mr. Nakatani says, "We compete with added value by specializing in small-lot, high-quality, and quick delivery work, including niche products, for which customers have strict requirements. Our most common job is food packaging, where high quality is required because of hygiene demands for cartons that come into direct contact with food. The next most common job is packaging for cosmetics and pharmaceuticals, which feature stylish design and also have high quality requirements."

To meet these requirements, each process employs inspection equipment to ensure thorough standardization and quality control. In addition, Nakatani Printing promotes the use of multiskilled operators, enabling personnel to work flexibly without barriers between printing and processing. These systems are contributing to more efficient production and shorter delivery times.

H-UV L (LED) lamp

Lithrone G40 advance improves productivity by 30%-40%

Mr. Nakatani commented on the new presses: "We were thinking of updating our two aging UV machines and became very interested in the latest Lithrone G40 advance printing press, eventually installing two of these new presses. As a result, since we do a lot of small-quantity and spot color work, the automation on the Lithrone G40 advance has significantly reduced our makeready time, providing us with important benefits. The speed of color matching using printing systems such as KHS-AI has been staggering, and productivity has increased by 30 to 40 percent compared to our previous machines. The two new presses we installed can handle huge volumes of work, so we retired one more old machine," he says.

The company decided to replace the existing three machines with two Lithrone G40 advance series presses due to the presses' high productivity. This is a case of successful downsizing, where current production machines are replaced by more efficient presses that deliver higher productivity.

Regarding operation, Chief Operator Tomokazu Shirasawa says: "Everything takes just one touch of a button. The machine automatically adjusts job settings and all the necessary feeder settings, so operation is very easy. We often print on difficult paper, but paper feeding stoppages are a thing of the past." At the time of the interview, the machines were printing at the maximum speed of 16,500 sph.

Rock-solid quality in multi-imposition printing

The previous presses did not have a colorimeter, and the operator had to adjust the colors by feel, which was quite difficult. Mr. Shirasawa says: "With repeat jobs, the KHS-AI pre-inking function sets up the colors, so we get accurate color right away. For some jobs, the second test printing is OK, and we have been able to significantly reduce waste in terms of the number of test prints."

In addition, in packaging printing, maximizing the imposition on the sheet is key to productivity. To achieve this element, color tones must be uniform over the entire sheet. "With our previous presses, sometimes the color on the leading edge and tail edge did not match. With the new machine, we don't have to worry about this kind of unevenness of color, and color after start-up printing is stable throughout the run," says Shirasawa.

Komori has advanced development to raise color reproduction accuracy on repeat jobs, a point that users have often requested. Such color reproduction accuracy would not have been possible without the formation of a uniform ink film thickness by KHS-AI, start-up color accuracy ensured by the ink key arrangement, and the thin, uniform water film enabled by the Komorimatic dampening system.

LED-UV slashes power consumption

The company has now adopted LED-UV technology. "The power consumption of UV presses is almost three times that of conventional oil-based machines. We have determined by monitoring power consumption in each building that our new LED-UV presses clearly use less power than UV machines. Not only that but I believe we are also seeing a reduction in standby power consumption because LED-UV can be turned on and off instantly," says Nakatani.

Mastering small-lot packaging printing with the Lithrone G40 advance

In evaluating the Lithrone G40 advance printing press, Nakatani says, "It was an extremely good installation. We were able to not only remove an additional machine due to the increased production efficiency of the new presses but also significantly reduce power consumption. In the future, we want to further train our operators in maintenance, and, of course, we look forward to continued support from Komori."

Installation of these two machines proved that the performance of the Lithrone GX40 advance presses and the effects of downsizing can lead to increased productivity and profits in small-quantity packaging printing, where increasing production efficiency is especially challenging.

Sirivatana Interprint Public Co., Ltd., Thailand | Lithrone G40 / Lithrone G44 [GL-640+C · GL-844+C]

The **power** behind Sirivatana's package printing strategy with 44-inch press

Pornthep Samatiyadekul, Managing Director and Chairman of Sirivatana Interprint, describes the vision and values that drove the company's growth: "Thanks to love, cooperation, determination, care, and honesty in our profession of printing, we have become one of the largest printing companies in the Asia-Pacific region."

Pornthep Samatiyadekul, Managing Director and Chairman

Sirivatana Interprint Public Company Limited was founded 40 years ago as a small print shop. Managing Director and Chairman Pornthep Samatiyadekul remembers the humble start of the enterprise: "We had only 32 square meters of space and two employees. Now we have thousands of employees working to improve our capabilities and focusing on doing everything in-house. We are also developing printing technology and launching social and environmental initiatives to raise Thailand's printing industry to meet international standards and to gain worldwide recognition."

Being able to handle all aspects of production in-house is the basis of Sirivatana's business model and the key to its expansion. The company headquarters is located in Bangkok, and the production plant is in Bang Pakong in central Thailand. In addition, a plant in Vientiane, Laos, producing pop-up books was established in 2005.

Chairman Pornthep explains the early growth of the printer. "We opened our first overseas sales office in Santa Monica, near Los Angeles, some 30 years ago and opened another in New York before expanding globally.

Pornthep details the essentials of the business model: "Sirivatana is a total solutions provider, capable of handling everything from creative design to logistics, all in-house. Our work covers a multitude of segments, such as commercial printing and books for export. Because we maintain very high standards, those who require premium

quality usually come to us. Moreover, with our large facilities as well as our large-format presses, we are able to accept a wider variety of jobs and also offer our customers economy of scale. This is the core of our competitive edge."

"As we all know, printing began to encounter strong headwinds about 10 years ago. The emergence of digital technology, especially the rise of online marketing and shopping, had a negative impact on demand for magazines and commercial printing. We were aware of these changes, so we set our sights on packaging, where we already had some experience, albeit on a small scale. Forty percent of our work is in packaging, but we have set a target to increase this to 60% of our total output. To succeed in this field, we invested in printing presses that can print not only on paper but also on plastic sheets," adds Pornthep.

Purpose in installing Lithrone G40 and Lithrone G44

Sirivatana's first Komori packaging press was the six-color Lithrone G40, specified as a UV press capable of printing on plastics and metallized materials. This machine addresses a range of applications, including boxes.

The company soon followed up with an eight-color Lithrone G44, a B1 press. Pornthep explains this investment: "This press has been in constant use since the day it was installed. I plan to purchase a new press and since most of our jobs are six or seven colors, an eight-color press will definitely give us more flexibility as well as faster output."

Boontham Siriso, Production Director

Six-color Lithrone G40: flexibility and ease of operation

Sirivatana had already maximized the capacity of its existing presses, so investing in the Lithrone G40 became the logical choice. Flexibility and ease of operation come with technology, which is inherent in new presses. New technology enhances the workflow and management processes.

The packaging industry is enormous, and it will continue to expand further, especially for e-commerce and exports. Therefore, Sirivatana is determined to draw from its experience and build teams of highly qualified personnel. Already 12 acres of land have been put to use and the company's facility has been expanded by adding a second floor. However, Sirivatana needs to expand further to accommodate its growing operations.

Eight-color Lithrone G44: competitive edge on cost and colors

The Lithrone G44 prints B1 size sheets without trimming, so it is very versatile. The outputs are the size that the company wants, allowing them to achieve the productivity levels needed. It is synchronized very well with the production workflow. Although Sirivatana constantly achieves its targets, the workload lately has been increasing tremendously as the company reaches out to an ever-growing market.

Pornthep details the specific features of the press: "There are two major factors that need to be considered separately. The first is the 44" size, which reduces production costs because we can make better, more economical job layouts, with more jobs per sheet. The second factor that led to the Lithrone G44 is the capability of running multi-color jobs. These jobs increase the product value for our customers.

Advantages of the PDC-SX

There are two important benefits of PDC-SX (Spectral Print Density Control SX-model), which is installed on both presses. The auto-register enhances the ability to work faster by cutting paper waste to less than 30 sheets. The ability to scan ink densities also helps to reduce paper waste. Only about 50 sheets are used to achieve the color okay and start production printing.

Gansu Jinshitai Packaging & Printing Co., Ltd., China | Lithrone G44 [GL-544+C]

Dual Lithrone G44s: **Unique** size boosts productivity by 50%

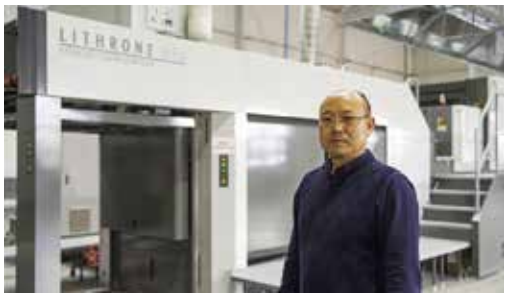
Ningxia Jinshiji Packaging & Printing Co., Ltd. was founded in 1998 and has been engaged in the package printing industry for 23 years. The company is a comprehensive package printer integrating product development with design, production and manufacturing.

The main product is paper packaging, and the main business categories include fine packaging of Chinese Baijiu (white liquor) and cardboard cartons for daily consumables such as food and milk as well as colored boxes. Ningxia Jinshiji General Manager Wu Bin says, "Jinshiji is committed to being the premier packaging print provider in western China. Yili, Daliyuan, Qingdao Beer, Snowbeer, and other famous domestic brands are our main customers. 'Offering customers high-quality printing' is our motto, and these well-known brands have very exacting print quality requirements."

The pursuit of high print quality

Print quality is crucial to the value of packaging products, and a high-end press is a fundamental guarantee of stable production and cost-efficient performance. "In 2005, we introduced our first Komori press, a four-color Lithrone S40. In more than 10 years of use, we have become very confident in the quality, stability and operability of Komori presses." The pressure of competition in the packaging industry has only intensified in recent years, so the application of offset printing in packaging must develop in the direction of larger formats. Only in this way can efficiency be improved and costs reduced.

In 2019, Jinshiji established Gansu Jinshitai Packaging & Printing Co., Ltd. in Wuwei City, Gansu Province, and the new plant implemented an eco-friendly smart factory. Wu Bin says, "In the new factory, we are introducing more smart equipment. The Lithrone G44 is the first offset press we've installed here. Ever since it was put into



Wu Bin, General Manager

Wu Bo, Plant Manager

production, it has exceeded all of our goals, such as cost-performance and quality. As the scale of our operations in the market continues to expand, we believe that our cooperation with Komori will grow even deeper."

Lithrone G44's 840 x 1,150 mm maximum sheet size just right for double-imposition jobs

Wu Bin says: "The reason we introduced two Lithrone G44 presses at one time is that the maximum sheet size is just right for milk cartons. Our previous 40-inch press could only handle a single imposition, but the 44-inch Komori press can accommodate two, which nearly doubles overall productivity from printing to postpress. The use of plates is very economical, and the press's power consumption is the lowest of its type. All these make the enterprise more competitive in the market in terms of cost and efficiency."

Wu Bo, plant manager of Gansu Jinshitai, says, "The press is the core production machine for packaging printers, so we are very careful in the purchase of equipment. For this reason, we chose the Lithrone G44 press after taking into consideration and carefully analyzing the characteristics of the entire industry that we serve and our own product structure." "At the beginning, our company used presses with a maximum sheet length of 1,060 mm, and all milk cartons were printed with a single imposition. Customers came under pressure each year to reduce costs and boost efficiency, so it was necessary for the printing industry to change from conventional single-imposition to double-imposition presses, and our existing equipment was not able to meet our requirements. For printers, there were only two options: one was to choose a large-format 1,450 mm press to perform double-imposition printing. The other was to install the 44-inch Lithrone G44. Our existing products were concentrated mainly in the 800 x 1,000 mm format. The Lithrone G44 press, with its 840 x 1,150 mm maximum sheet size, was a perfect fit for the size requirements of our double-imposition carton printing."

Lithrone G44: economic benefits very substantial

Wu Bo uses the actual output of one of his products to illustrate the huge changes in production efficiency brought about by the Lithrone G44: "Take the carton for 16 packs of 250 ml mini drinks as an example. The press can print this product with three impositions due to the 840 x 1,150 mm maximum sheet size. In the past, when other models were used for double-imposition printing, we output 90,000 sheets that produced 180,000 cartons. Now with three-imposition printing, the 90,000 sheets produce 270,000 cartons. Productivity has been instantly increased by 50 percent. In addition, paper waste has also been reduced by 50 percent due to smaller margins, making the economic benefits quite substantial!"

"In addition," Wu Bo also points out, "it has been in operation for more than six months, and my sense is that the Lithrone G44 is very simple to operate and easy to manage. Automatic functions such as automatic cleaning, automatic plate changing, and automatic color changing greatly reduce the operator workload and makeready time. Compared with previous presses we've used, the Komori ink train is more clear-cut, the dots are sharper, and the print quality is great!"

Zhejiang Kanggu Packaging Products Co., Ltd., China | Lithrone G40 [GL-740+C · GL-840+C]

Lithrone **packaging** presses in state-of-the-art smart factory

Shanghai Hongli and Shanghai Kanggu created a joint venture that's setting a blistering pace for efficiency, innovation and easier operation and also gaining a fast-growing clientele. As it prepares to install its third maxed-out Lithrone G40, the company is also planning new breakthroughs in its state-of-the-art operations and renowned service.

Founded in 1992, Shanghai Hongli Packaging Co., Ltd. has transformed itself into a full-service specialty provider of folding cartons, colored board, instruction manuals, top sheet labels, kraft boxes, and EPS/EPE products for the commercial print and packaging markets.

The company's warehousing and distribution center completes its total support service model such as home appliances, automobiles, entertainment products, daily necessities and food products, including brands such as SONY, Panasonic, Sharp, Ricoh, Daikin, Roewe, Delphi, Group Cebu, GANSO and TOP – an impressive lineup indeed.

Through close association with its affiliate, Shanghai Kanggu Industry Ltd., Shanghai Hongli creating a strong foundation for business growth by first printing instruction manuals and later producing colored board.

In 2017, Shanghai Hongli and Shanghai Kanggu founded a joint venture to expand their capability and consolidate their processes. The new company, Zhejiang Kanggu Packaging Products Co., Ltd., built an up-to-date factory in Pinghu, Zhejiang Province, which integrated the carton packaging and EPS/EPE packaging operations previously handled separately. This was an important milestone for achieving their corporate vision of "becoming a leading company providing total printing and packaging solutions."

Advanced capabilities for high performance

Cai Tingwei, president of Zhejiang Kanggu, says: "With our quality and reliability in board packaging production, we are expanding our business in package printing for daily necessities, food and cosmetics."

"In 2019, we purchased two Komori presses at the same time, a seven-color Lithrone G40 with coater LED UV and an eight-color Lithrone G40 with coater LED UV, and put them into operation to improve board productivity, enhance our package printing technical capabilities, and raise the

Cai Tingwei, President

Tian Rui, Deputy Manager

competitiveness of Zhejiang Kanggu in the new market environment."

"With the introduction of Komori UV presses, our printing processes now include high quality UV printing, giving our customers more options and laying the foundation for further business expansion."

The new presses are bender-less, eliminating the plate bending process, and are equipped with state-of-the-art automation systems such as the latest Komori KHS-AI (Advanced Interface) integrated control system, automatic register control and spectral color control system (PDC-SX), automatic ink swing roller phase adjustment, and nonstop feeder and delivery. Commenting on this, President Cai emphasizes: "Additionally, we installed the press on a 450 mm raised base, increasing the overall paper loading height to have longer running time between paper loads. By incorporating these advanced specifications and functions, we have raised the level of automation, reduced dependence on operator skills, significantly shortened makeready time, and maximized production efficiency."

Outstanding ease of operation

"In terms of operability, the presses offer an excellent and easy-to-use operator interface." Tian Rui, deputy manager of the Zhejiang Kanggu Printing Department, says: "First, the non-stop delivery enables us to achieve stability and speedy sheet discharge without stopping the machine, significantly increasing our production efficiency. Second, the Komori feeder has met all our goals in terms of stability, ease of operation and printing speed. And finally, since the new press is equipped with KHS-AI (Advance Interface), we have reduced our dependence on the operator's experience to adjust ink and water balance. KHS-AI allows automatic operation of the press through the press console, and by just pressing once on the screen, the operator's working hours are shortened, and production efficiency is improved. We are very pleased with the results."

"Since the presses were officially put into operation, production efficiency has gradually improved to meet our needs for accurate, fast and efficient printing," says Cai.

"We will be a leading company providing comprehensive solutions for printing and packaging."

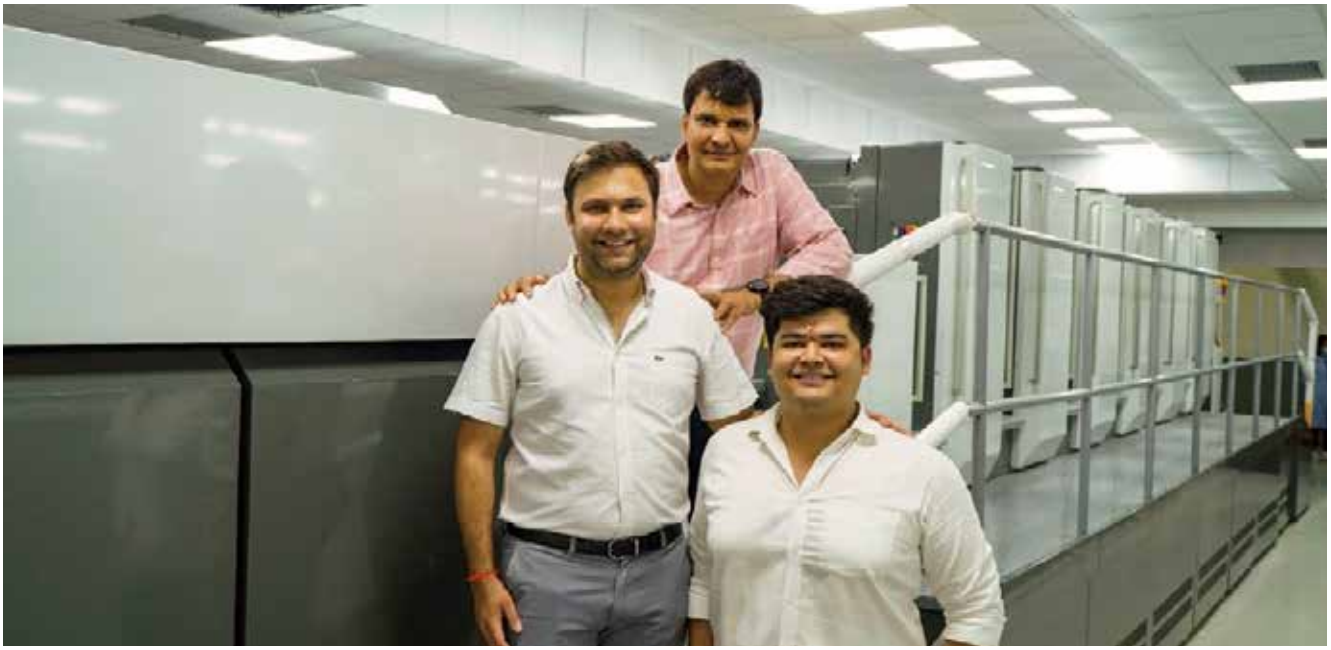
As for the future growth of Zhejiang Kanggu, Cai says: "With Industry 4.0 and China Manufacturing 2025, we have launched smart manufacturing with a mission to 'provide colorful printed products to support a happy life.' We intend to pursue the best through positive action and change the old manufacturing style to smart manufacturing. We will aim not just to expand our scale but to grow our business based on digitalization, definition and specialization."

"In order to achieve this, we need to rely on the expertise of the Komori Graphic Technology Center in Japan and continue to learn, practice and create to provide high quality, high added-value products that satisfy our customers and increase our overall strength and industry ranking in the package printing field. We intend to realize our grand goal of becoming a leading company providing total solutions for printing and packaging as soon as possible."

"With the delivery of a third press, a six-color Lithrone with coater, in November 2021, I sincerely hope that Zhejiang Kanggu and Komori will build a deeper partnership and contribute to the bright future of the printing industry," concludes Cai.

High-spec Lithrone G40 **transforms** Vijayshri Packaging

Vijayshri Packaging Ltd. is a fully integrated packaging company providing paperboard packaging solutions to a very demanding market. They specialize in offering the complete solutions which includes folding cartons and their corrugated outers. In addition, the folding cartons include many upgrades such as windows, liners, and litho-laminations. Their attention to quality has allowed them to successfully partner with customers in the food processing, fast-moving consumer goods production, pharmaceuticals manufacturing, and white goods industries. To meet the demands of their growing business, even amidst the Covid pandemic, Vijayshri installed a new six-color Lithrone G40 with coater UV offset press.



Ayush Jain, Director (left); Pritesh Jain (Ayush's uncle) (top); Prakher Jain (Pritesh's son)

Strategic investments: upgrades and modernization

Technology has been a very crucial part of the Vijayshri story. Their biggest advancement was taken when the company decided to expand its operations and construct a new, world-class 25,000 square meter printing factory on a 43,000 square meter site. Operating from this facility, Vijayshri now provides comprehensive printing and packaging solutions, covering everything from design concept to delivery logistics while maintaining strict quality control throughout every stage.

Ayush Jain, Director of Vijayshri Packaging, speaks at length about the many features and benefits of the new Komori press and its impact on their business:

"We have unfailingly invested in automation and modernization of its printing equipment. The key to our growth is our ability to choose the right equipment at the right time.

"The investment in the new Lithrone G40 is an important upgrade from conventional

presses – achieved in partnership with Komori. With increased capacity of 1,800 metric tons (36 million cartons) per month, the company is delivering a world-class experience to its customers. The plan to strategically invest in modernization and cutting-edge technology began even before the beginning of the Covid-19 pandemic.

"Our new Lithrone G40 is by far the biggest technological shift in the packaging arena in central India. Upscaling is a constant process, and now with Komori we have the tools and techniques to deliver on time without any compromise in quality. Our investment in this press certainly contributes to the modernization of the factory and creates new markets and opportunities.

Increased productivity and reduced paper waste

"Reduced press downtime and faster makereadies are the key reasons we upgraded our technology. We are very happy with the performance of our Lithrone G40. We have seen a significant improvement in productivity as compared to our other machines. For the same jobs and inputs, we have seen a productivity jump of almost 45 percent. Another advantage we have discovered is the very significant reduction of start-up waste. We now use up to 80 percent less paper for makeready thanks to KHS-AI, which has features such as Smart Sequence. The Lithrone G40 is our solution for enhancing productivity and delivering absolutely predictable quality.

High-speed operation

"The Lithrone G40 has a maximum operating speed of 16,500 sheets per hour, which increases our output capacity. With the presets for the feeder and delivery, we don't have to rely on manual settings. We just provide the sheet size and thickness, and all the settings are done automatically – from feeder through to side lay, printing units, and delivery joggers. Even when the machine is running at full speed, the quality of printing is not adversely affected, which was a problem with our conventional presses.

Quick job changeovers and fast makereadies with KHS-AI

"KHS-AI technology incorporates a self-learning function and automatically sets repeat jobs. This enables very efficient paper changeover, which is crucial for work that includes many short-run orders for a variety of different products. Due to the automated processes, job changeovers are very fast. KHS-AI stores all the information of previous jobs, making the operator's job very easy. For repeat jobs, the ink settings have already been saved. Compared to conventional presses, our makereadies have become very quick. The skeleton cylinder ensures there are no scratches or smearing on the sheets. And with the new Lithrone G40, we can reproduce 90 to 95 percent of the special colors on repeat jobs. The paper cost in packaging is considerable. KHS-AI minimizes paper waste, reducing costs significantly.

PDC-SX for automatic color control and registration

"PDC-SX automatically checks color, front/back register, and image positioning on the paper and provides feedback to the press if any deviations are found. This system supports multiple jobs with differing printing conditions and ensures smooth operation. The color bar measurement function in PDC-SX reduces any color variation, which had to be done manually on conventional presses. In the past, we had to use 30 to 40 sheets for fine registration, but with the new Lithrone G40 we achieve the desired registration in just 10 sheets. Because of this, we get early job approvals, reducing the job run time and increasing the production efficiency of the press.

" Productivity, ease of use, and reduced paper consumption – the Lithrone G40 has it all," says Ayush Jain, Director of Vijayshri Packaging.

Vijayshri's 10 acre site near Indore international airport

Williams Commercial Company Inc., Philippines | Lithrone G40 [GL-640+C]

New Lithrone G40 **boosts** production for packaging printer

Founded as a bookstore and school supply store by William Lim and his son Johnny Limchesing, Williams Commercial Company expanded into a small printing shop and catered to the printing requirements of print buyers in Cebu.

From left: Daniel Ching, Manager of Plant 2, and Tristan Limchesing, Manager of Plant 1

Due mainly to their passion to provide the best possible products for their clients and their dedication to constantly improving their capabilities, they are now one of the biggest printing companies in Cebu, supplying packaging products for food and other products both locally and in other countries as well. Williams Commercial has been operating older vintage offset printing presses, but since growth and the demand for packaging products are constantly increasing, their 15 to 20-year-old machines (two six-color Lithrone 40s with coater and two other Japanese presses) could not cope with the rigorous 24 hours a day, 6 days a week schedule. The non-automated machines take an average of 1.5 hours for every job changeover and have a maximum production speed of 7,500 sph, dragging down the company's production rates and proving to be non competitive in the market. Anticipating the increasing demands of their customers, Williams Commercial decided to invest in a new offset press with the latest automation technology.

Pandemic drives food packaging demand

"Packaging for food products and other consumer products is among the jobs that are constantly increasing, most notably

since the onset of the Covid-19 pandemic. We noticed that some of our clients' orders were becoming smaller and requiring shorter delivery times. This is one of the reasons we invested in a brand-new Komori press," says Tristan Limchesing, Manager of Plant 1.

Owing to their experience on their current Japanese machines, they decided to go to Japan to check out the latest model of Komori. They joined the Packaging Open House held at the Komori Tsukuba Plant in 2019. The visit to Tsukuba turned out to be an enlightenment as they saw the latest Lithrone G40 model with all the automated features that are lacking on their old machines. They were impressed by the performance of the highly automated press and amazed by the short changeover time between jobs. Right then and there, they were convinced that their next machine would be a Komori. When they returned home from the Japan trip, they started preparing for the anticipated new investment. And after a little more than a year, they signed the contract for the new six-color Lithrone G40 plus coater (IR) with Full-APC.

After its installation in early 2021, their excitement was rewarded with an increase of 35 percent in total plant production. They expect it to increase by another 15 percent by year end as new jobs keep coming in.

Printing speed and set-up time big factors

"With the new machine, our production has significantly increased, and backlog issues were addressed. Production before the new investment was much slower in terms of output capacity. The superior print speed and considerably shorter set-up time of our new machine significantly improved production," says Daniel Ching, Manager of Plant 2.

"We have an average speed of 7,500 sheets per hour with our old Komori press, but with our new Lithrone G40 with coater, we can run at almost twice that speed with fewer rejects and shorter set-up time. Comparatively, we have increased our production capacity by 35 percent with the new press."

"We have several years of experience with Komori presses, and we are impressed with their high print quality, ease of operation, and low maintenance cost. The new press with the latest automation drastically shortens makereadies and minimizes waste. The operator was totally overwhelmed with the exceptional print quality, the ease of operation, and the short makeready time with minimal downtime. With this press, we have no reason to look anywhere else." The owners are now inclined to continue to replace the older fleet of machines and will begin the process of acquiring their next Lithrone G40 advance. "We are at the stage of looking at how far this new machine can take us in terms of profitability, efficiency, and flexibility, after which we will decide on how we will go forward," concludes Ching.

Lithrone G40 advance increases efficiency of **art printing** by 30%

Founded in 1993, the Artron Art Group has made a name for itself around the world as an integrated company committed to the enterprise of culture. Artron's mission is to "serve the people with art by serving the people's art." By integrating a range of technologies, Artron has become one of the world's top cultural and art-related service providers, conveying the beauty of art to the world.

Artron Shanghai was established in 2006 and is their third integrated operation base in China after Shenzhen and Beijing. Artron's policy throughout is to serve companies in the fields of high-quality art, fine art, art auctions, and luxury brand products as well as prestigious businesses.

Artron: leader in fine art printing

Zhang Yao-kang, Executive Vice President of Artron Shanghai, says, "We have been using Komori presses since our founding, and recently we introduced the Lithrone G40 advance series press. The Shanghai plant is now running a total of eight Komori presses. The main reason for the introduction of the five-color Lithrone G40 advance press with coater is that we are printing 'The Collection of Chinese Historical Paintings.' This work has been designated a national publication fund project.

The collection demands a very high degree of integrity and requires the use of 280-line high-definition screen printing and very sophisticated reproduction of the original paintings. In addition, the customer is also making demands regarding the performance, condition, and operating life of the printing presses. Against this background, we proactively contacted Komori and they overcame a number of difficulties amidst the Covid-19 pandemic, arranged a variety of resources, and installed the Lithrone G40 advance machine for us in July 2021."

Lithrone G40 advance features improved feeder and delivery performance

Commenting on the effects of the new press, Zhang Yao-kang says, "The introduction of the new press has greatly helped to improve our overall efficiency, which has increased by 30 percent. In the past, we were limited to five or six jobs per shift, but now we can print up to eight jobs. We also feel that the advance model has significantly improved feeder and delivery performance and the overall stability of the press's operation has been significantly improved. This goes a long way in ensuring our overall productivity and efficiency.

Zhang Yao-kang,
Executive Vice President of Artron Shanghai

In addition, dot and color reproduction is excellent, and our customer is very satisfied with the print quality of the finished product for our most important project, 'The Collection of Chinese Historical Paintings.'"

Technology such as the unique Komorimatic continuous dampener maintains the minimum water supply required and provides a more stable supply of dampening solution. By reducing UV ink smearing and maximizing the benefits of the Komori dampening system, the press achieves even faster color reproduction and more reliable color management. This kind of subtle differentiation and design, which is not easily captured, has resulted in the sharp halftone dot reproduction of Komori presses and has contributed significantly to Artron winning numerous printing awards.

Lithrone G40 advance more convenient and intuitive

This overall increase in efficiency is closely related to the wide range of performance improvements that the advance series press brings to the table. Liu Lei, a printing manager who has operated different series of Komori presses, commented on a number of improvements in the new model. "With the feeder, we can now track paper automatically with the monitoring sensors on both sides and with automatic adjustment to the proper pile position, which is very convenient. The delivery enables more stable and neater paper delivery even at high printing speeds."

"The operation screen of the PQC Print Quality Control System allows us to visually check the current and preset values of each ink application quantity. Another major improvement is the checking of the ink distributing roller, which can be checked simply by touching the screen, reducing maintenance time. Also, for replacing the blanket, we now use a fixed gap cover, which reduces manual operation and significantly reduces the safety risk. By simply scanning the color bar with the PDC Print Density Control System scanner, the density and Lab values are neatly displayed on the screen, and with the P4 pre-inking function, the balance between the dampening solution and ink quickly reaches an OK level, leading to reduced paper loss."

Artron and Komori: a strategic partnership

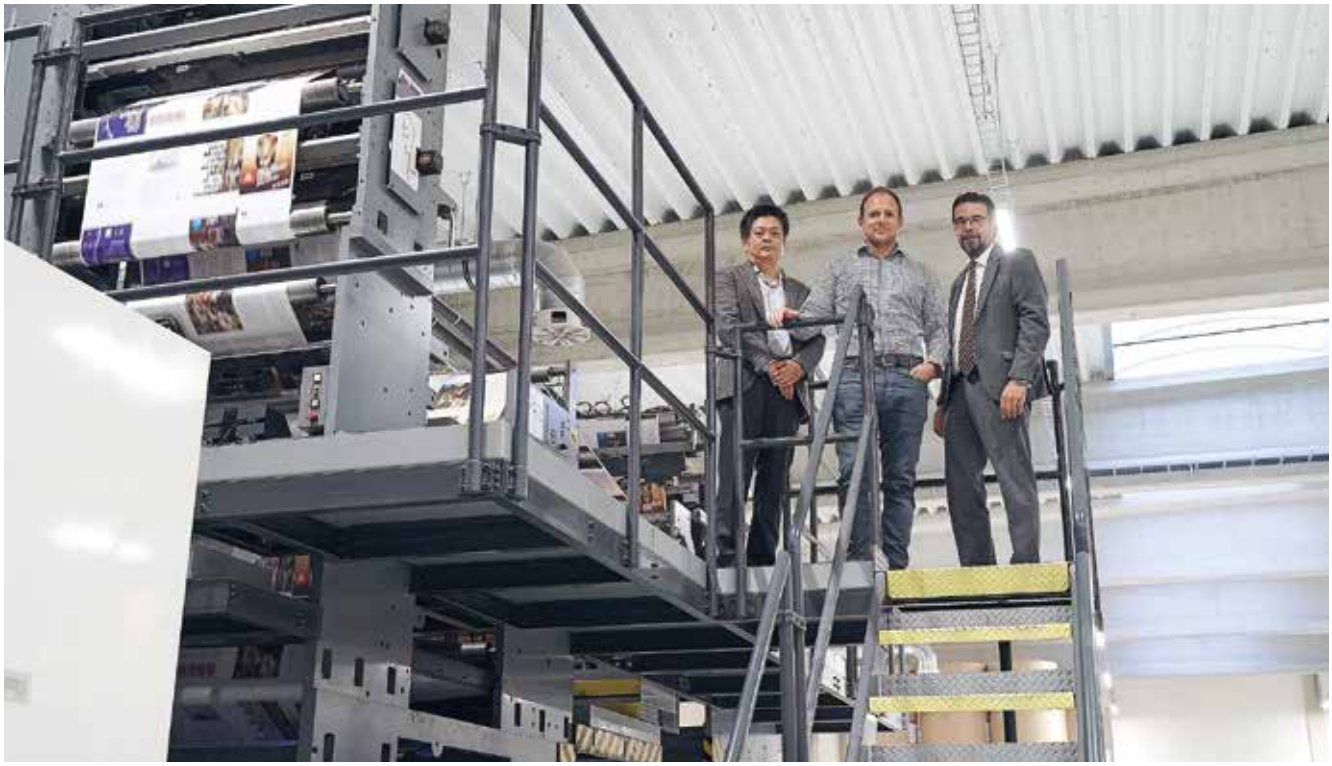
Artron and Komori first met 25 years ago in 1996. Commenting on the partnership between Artron and Komori over the years, Zhang Yao-kang says, "Komori has played a very important role in our growth process, providing us not only with the indispensable printing presses but also a great deal of support. Several years ago, Artron and Komori collaborated on a project called 'Chomolungma Action.' Komori's technical and production experts advised us on the overall management of production technology, printing site management, and efficiency, and this was very helpful."

"In the past few years, Komori has also started sales of digital printing systems. Artron Beijing has already installed two Komori Impremia IS29 digital printing systems, and we are planning to install a Komori Impremia NS40 digital printing system using nanotechnology in the spring of 2022. I think there are better opportunities for both companies, not only in the area of production equipment but also in exploring business models."

In 2022, four Lithrone G40 advance presses will be newly installed to contribute to Artron's art business.

Czech printer Triangl **differentiates** with System G38

Prague-based sheetfed printing specialist Triangl has a deep background in magazines, catalogs, brochures, publications, and calendars. With a strategically located facility, Triangl has exceptional distribution capabilities. A clear vision and a focus on highly efficient production have led to an investment in game-changing technology, the System G38 web offset press.



From left: Ken Sagawa, then-President of Komori Europe; Petr Kotýnek, Chairman of Triangl; Neil Sutton, Chief Operating Officer, Komori Europe

Having more than 30 years of experience, Triangl is a leading printing house in the Czech Republic. Highly qualified professional staff and management have been cultivated in the 27 years since the company was officially founded. Regular investments in automated technologies have guaranteed sustainable development, consistent quality, and high productivity.

The ownership of Triangl passed to the Kotýnek family in 2007, with Chairman Petr Kotýnek running the company as sole proprietor since 2019. Under his leadership, Triangl has realized a new worldwide benchmark for efficiency and the operating of sheetfed machines, reaching heights of 86,000,000 printed sheets per year on a single machine.

'A machine that would open a new channel for us'

Petr Kotýnek: "Specializing in printing midrange magazines and catalogs, we experience constant pressure with strict deadlines. With advertisements always arriving at the last moment, we really have only three days to produce. As we cannot afford to miss anything, we have made significant investments over the last years to maintain quality and deadlines. But because we could not develop further in our segment, we were looking for a machine that would open a new channel for us."

Following a detailed study and investigation, the decision was taken to invest in Europe's first System G38 H-UV L (LED). The installation of the state-of-the-art web offset press not only ensures that Triangl remains one of the biggest print houses in the Czech Republic but also takes the company to new levels in efficiency and productivity.

Streamlined inline process

The System G38 press has shown its strength and competitive advantage, with average production of 11,000,000 sheets per month. Equipped with an inline folder, the sheets are printed on both sides in full color, cut and folded to a finished product. This is the pinnacle of a streamlined inline process with pure offset quality.

"Since its founding, Triangl's greatest strength has been optimized process management. The long-term investment in automated technologies has allowed us to maintain a strong market presence and deliver products of the highest quality. To make ourselves visible in a saturated market, we push ourselves to be the best in our industry and maximize our production and productivity," says Kotýnek.

Unique strategic advantage

The System G38 combines high productivity and quality, leading to endless possibilities. Double-sided offset printing with automatic color and register control, short makeready, and unmatched productivity give the System G38 unique strategic advantages. The LED drying significantly shortens the entire production process because time-consuming drying in the drying tunnel is eliminated. This completely new press also features exceptional accuracy and sheetfed print quality.

'Only press of its kind in Europe and America'

"During an economically challenging time we made the decision to invest in a game-changing press by Komori. The fully autonomous rotary press is currently the only press of its kind in Europe and America. Folding sheets during the same run is something that is unthinkable with older rotary presses, but the System G38 is equipped with an inline folder. When I look at our current production capabilities and goals, it's impossible to imagine not having a web offset press equipped with an inline folder. In the first year since the installation of the System G38, we already see its benefits in accelerating our production. We can see exactly what possibilities this technology will bring us in the future," adds Kotýnek.

With nearly 100 years of experience in sheetfed and webfed, Komori has adhered to its origins, manufacturing products of superior quality and reliability. The new System G38 drives evolution in print technology. A web offset press with stunning productivity and equipped with Komori's H-UV L (LED) curing system is key to greater profitability. With a maximum printing speed of 30,000 sheets per hour, the reel-to-sheet printing of the compact System G38 generates outstanding value on short to medium runs with the same footprint as an eight-color sheetfed perfector.

Komori's expertise and knowledge have ensured a leadership position when it comes to efficiency, reliability, and profitability. The introduction of sheetfed technology into the design of the webfed System G38 has obliterated equipment boundaries, making a web offset press succeed in domains originally dominated by sheetfed machines. With a total length of just 20 meters, the System G38 is an unrivalled powerhouse and true game changer.

Komori-Chambon, France

Komori-Chambon launches **KCUBE** Competence

Komori-Chambon designs and manufactures webfed presses for the packaging industry. Printing and converting are performed inline, without any interruption. A roll of cardboard is thus transformed into ready-to-ship blanks in less than 10 seconds for the liquid packaging, food and tobacco industries. One line can produce up to 15,000 tons of cardboard per year.

Similar to sheetfed solutions, inline printing and converting is less common and convertors might not be familiar with the concept. Therefore, we decided to create a Competence Center in order to share our experiences. A 5,000 sqm building hosts the headquarters and the Competence Center, inspired by the Komori Graphic Center.

The KCUBE (for Komori-Chambon Competence Center) comprises three divisions: a demo zone (worKCshop), a training center (aKCademy) and a service center (Customer KCare).

The worKCshop represents a 1,500 sqm surface where up to three production lines (with an average length of 45 meters) can be installed in parallel.

One production line is fully dedicated to customer visits and demonstrations. The printing section is made of six offset units with two flexo units for finishing. Rotary die-cutting comprises two stations, creasing and cutting, and can include embossing. Finally, the delivery section ensures shingling and stacking of the blanks.

For maximum flexibility in the organization of demonstrations, the worKCshop production line offers two configurations: roll-to-blanks or roll-to-roll.

Komori-Chambon always offers custom development. Customers can even provide a specific cardboard or particular inks for tailor-made tests. These tests can utilize offset, flexo or rotogravure printing in any combination with the rotary die-cutting and delivery units. Close cooperation is the best way to help convertors meet all of their challenges.

The aKCademy center provides many types of training and is a great opportunity to combine theory and hands-on sessions. From basic information for newcomers to programs designed for experts, teams are available and focused on performance and the best working conditions for operators.

The Customer KCare division gathers all teams to ensure 24/7 support to customers: remote assistance, installation and commissioning, and spare parts. Komori-Chambon delivers premium services worldwide, in line with the high quality of its presses.

Early visits were very successful. Komori-Chambon is convinced that KCUBE will help to establish multiple long-term partnerships.

KCUBE demo web offset press

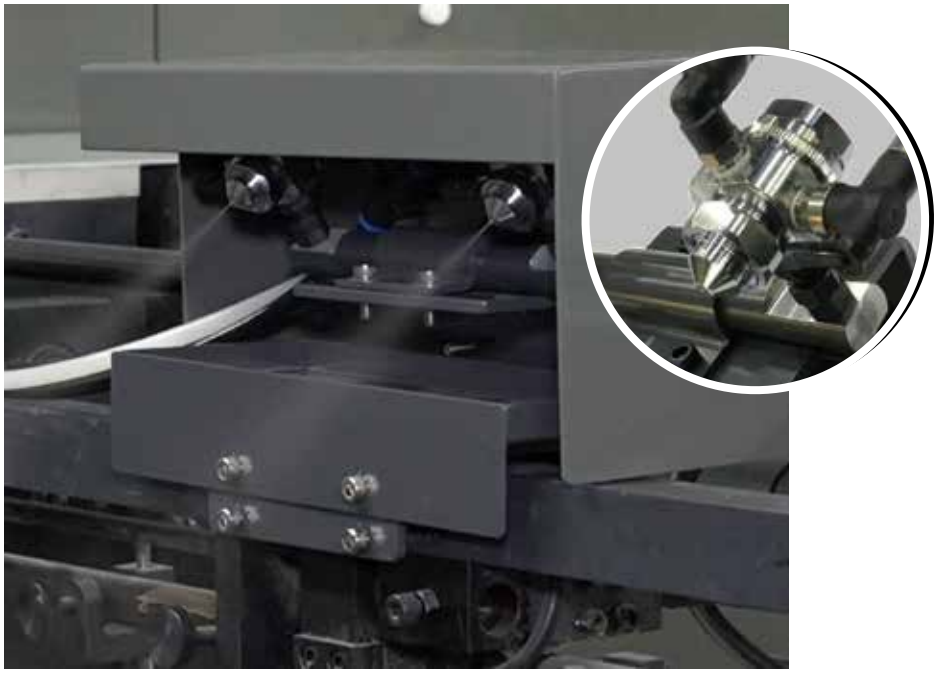
Rotogravure line

K-Supply

e-Mist

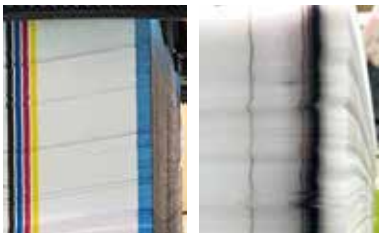
Static suppressor wins **praise** from users for efficiency

K-Supply is the wide range of Komori-brand consumables and comprehensive printing solutions that have been thoroughly tested and certified to deliver optimum performance from Komori presses. The lineup covers inks – for both H-UV and H-UV L (LED) printing presses – H-UV lamps, chemicals, rollers, cleaning cloths as well as a wide selection of accessories.



Before

After



e-Mist: ultra-fine mist spray for paper feed

The e-Mist particle humidification-type static suppressor directly sprays a mist of ultra-fine particles to inhibit static by humidifying each sheet of paper. The system was developed on the concept of humidifying when necessary, where necessary, and in only the amount necessary. The paper and press do not get wet because ultra-fine water particles directly penetrate the paper fibers and prevent dripping, excessive humidification, or oxidation. Since humidification is localized to the paper, the system is more effective than humidification of the entire plant in terms of the time, power consumption, and water consumption. The effect is to solve the problems of unstable behavior of paper in the feeder and uneven paper in the delivery, which are caused by static. It improves the feeding and delivery of mainly thin stock and special papers, thereby increasing the efficiency of the user's operation.

Users who have tested e-Mist report, "Previously we were unable to run two passes without discharging static for an entire day, but now we can print the same day." Another user says, "We couldn't raise the printing speed of the press due to static, but we tried e-Mist and were able to." Stressful static is reduced, leading to improved operating efficiency and productivity.

The effect lasts in postpress and finishing processes. Another user says, "In seasons with much static electricity, we used to work by being very careful about static, but when we used e-Mist, this anxiety was reduced." The system is effective beyond printing.

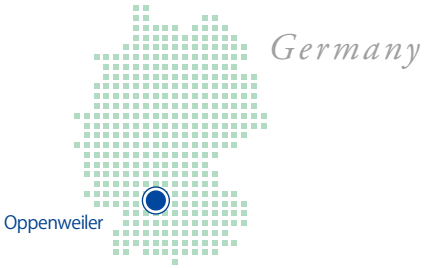
e-Mist automatically turns the mist on and off by linkage with the press and automatically cleans the valves by means of an automatic cleaning function, reducing the operating and maintenance load on the user.

* For areas where e-Mist is sold, contact the Komori overseas subsidiary or the distributor.

MBO

One-stop service for all processes: MBO joins Komori Group

Through the use of Connected Automation, Komori makes possible the Smart Factory, connecting all production processes to increase the productivity of the entire printed product workflow. After many years of providing new offset press systems that increase the efficiency of the pressroom many times over, Komori understands that the largest bottleneck in production is postpress.



Located in a lush green environment: MBO headquarters in Oppenweiler, Germany.

In 2020, MBO Postpress Solutions GmbH (MBO), a leading postpress manufacturer in Germany that develops and manufactures high-end folding machines and digital finishing systems that support automation and digitalization, became a member of the Komori Group. The MBO Group is a leading global company with three manufacturing and assembly bases in Europe, as well as a worldwide sales network of more than 100 countries through distributors and direct sales channels.

MBO: the industry-leading brand trusted by customers

MBO, founded in 1965 by Heinz Binder in Oppenweiler, Germany, is the world's leading manufacturer of digitalized and automated high-end folding machines and digital finishing systems.

In 1972, MBO established the MBO Portugal manufacturing facility with the capabilities of making all parts and performing all assembly. From 1984 to 1985, sales offices were established in the United States, and the Portugal plant was expanded to take on the additional volume. Herzog+Heymann (now H+H GmbH & Co. KG), a German provider of special solutions for the direct mail and pharmaceutical markets, became a subsidiary of the MBO Group in 2000. More recently, in 2020, MBO Group became a wholly owned subsidiary of Komori, who can now offer an expanded solution portfolio to its customers for a wide range of printing and finishing processes.

Manufacturing powerhouse Germany: high development capabilities and quality control for the world

Thomas Heininger, CEO of MBO Group, says, "We have received several awards in Germany for our manufacturing, including the World Market Leader Champion award. The reliability of our machines is our greatest strength, and our production plant in Portugal manufactures according to German quality standards.

Datamanager 4.0: digitalization and automation of postpress

"Datamanager 4.0 is an open software platform that provides connectivity with postpress, KP-Connect Pro, and other related finishing equipment, enabling

the visualization of production information to improve production efficiency.

* Some devices may not be able to be connected.

Postpress Alliance Partners: providing a wide range of postpress equipment

"The Postpress Alliance was formed in 2020 by seven machine manufacturers in the finishing sector: Baumann Maschinenbau Solms, Bograma, H+H, Hohner Maschinenbau, MBO Postpress Solutions, Perfecta, and Wohlenberg. The aim is to offer a wide variety of postpress products to meet a range of customer needs. The Postpress Alliance brand is gaining ground in the marketplace. We invite you to visit our virtual showroom at any time.

[MBO Products]

Freeing operators from heavy labor: collaborative robot MBO CoBo-Stack

"Until now, stacking after folding has been a very heavy workload for operators. MBO partnered with a Danish automation company to automate this task, and in just one year commercialized the MBO CoBo-Stack. Since its market launch in 2019, over 100 units have been sold.

"With the MBO CoBo-Stack, all you have to do is set basic data such as pallet size and fold size, and the cobot hand then picks up stacks of folded signatures and loads them on pallets. The CoBo-Stack is a collaborative robot which is designed to work alongside a human workforce and is safe without a protective cage, unlike a classic robot.

"Operators can increase productivity by having more time to perform other tasks such as administrative processes, paper feeding, or quality control.

MBO K80: one of the world's highest speed paper folding machines

"The MBO K80 offers a high ROI due to its reduced preparation time by the automation of various presets and high-speed operation. The K80 can be used with the MBO CoBo-Stack and other peripheral options to further improve production efficiency depending upon the application and is suitable for 24/7 production.

THE POSTPRESS ALLIANCE we connect.

The Postpress Alliance joint website is available in English and German.
https://www3.postpressalliance.com/

CEO Thomas Heininger Biography

- Born March 20, 1962, in Munich, Germany
- Active in the printing industry since 1982
- 2003–2017
  Involved in the restructuring and management of various SMEs
- CEO of MBO Group since 2017

Komori and Spectrum Printing capture award

2021 DIGITAL PACKAGING SUMMIT

U.S.

Komori America and Spectrum Printing of Tucson, Arizona, took home the award for the Best Case Study in the Folding Carton Segment at the Digital Packaging Summit held November 8-10 in Ponte Vedra Beach, Florida.

Ken Huizenga, operations manager for innovative packaging producer Spectrum Printing, presented data, samples, and a video case study of the production of a small dietary supplement folding carton application. The case study highlighted how the Komori Impremia IS29 UV inkjet printing system provides Spectrum Printing the freedom to print on a variety of substrates with exact color matching, making it possible to produce its highly creative packaging applications. The dietary supplement package was a perfect example of the flexibility and high print quality that makes the IS29 perfect for short-run package printing.

Range of packaging solutions

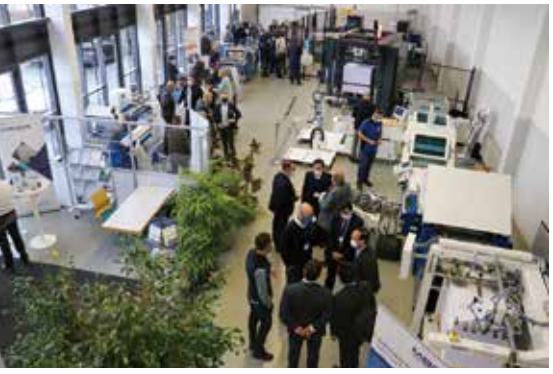
"We have always found the Digital Packaging Summit to be such a great venue for sharing how Komori's packaging solutions offer the press technology needed to successfully meet the evolving requirements of packaging production," said Lance Martin, vice president of marketing for Komori America. "We were excited and proud to win this prestigious award and thank our friends at Spectrum Printing for making the win possible by sharing their Impremia IS29 success story."

Komori's packaging solutions address market demands by offering both offset and digital press technology. They include the upgraded Impremia IS29s, a 29-inch sheetfed inkjet printing system with UV capability, the Lithrone GX/G advance series of offset presses and the new-to-market Impremia NS40 40-inch sheetfed inkjet Nanographic Printing® system.

The Postpress Alliance looks back on successful Alliance Days 2021

ALLIANCE DAYS 2021

Germany



The Komori Group companies MBO and H+H exhibited at the Postpress Alliance's Alliance Days 2021 event. On November 16–19, 2021, the Alliance partners presented their machines live in Solms, Germany, at baumannperfecta as part of an Open House, and at a virtual event that was streamed on November 30 and December 1, 2021.

At the Alliance Days, five Postpress Alliance partners, MBO, H+H, baumannperfecta, BOGRAMA and Wohlenberg, showcased their latest technologies. MBO and H+H introduced products on the themes of shortening makeready, automation and energy saving.

H+H: S45 for folding small products

H+H presented the S45 small folding machine for the production of small, folded products (such as instructions for medicines or manuals for small electronic devices). This machine features convenient operation and shortens the makeready process. The small folding machine can be expanded with various peripherals, such as a belt press, a labeler, or a parallel knife folding unit.

MBO: Autonomous production and environmentally friendly palletized feeder

MBO showed their unique autonomous postpress finishing system for signatures. Two completely new inline, integrated components: optical Fold Quality Control and the Autopilot make it possible.

MBO also used Alliance Days to unveil its optimized palletized feeder. A timed high-performance pressure vacuum pump and optimized air flow ensure energy savings of up to 50 percent compared to conventional pumps. The feeder head and the double Vacubelt have also been improved for a significant increase in energy efficiency and productivity.

Komori People

Catch a Wave

Naomasa Hashimoto,
General Manager, Asia/Latin America Sales Department, Overseas Sales Group

Since joining Komori in 1993, I worked as a sales representative in the Japanese market for 18 years, and since 2011 I have been working as a sales representative in the Overseas Sales Group. My greatest treasures are the many colleagues and customers I have met in the Asia-Pacific region, Greater China, and the Americas. I am passionate about understanding the diversity of our relationships and serving as a bridge to bring *Kando* through Komori products.

Customers' sense of value is changing from "product" to "experience." My mission is not only to improve the performance of products but also to create new values by integrating new technologies such as IoT and robotics and to deliver them to customers around the world.

After joining the company, I was assigned as a sales representative to a department dedicated to one of the largest customers in Japan. I remember having meetings with engineers from both the customer and Komori from morning until night. Since then, in my work I experience the philosophy of perfectionism, *omotenashi*, and continuity, which are the strengths of Japanese companies.

I started surfing when I was 16 years old. I continue to go to the beach throughout the year. What I have developed through surfing is the spirit that 'the same wave will never come again, so let's cherish every moment.' The spirit and adaptability of seizing opportunities when surfing can also be used in business.

Editor's Note

What do you think of this issue featuring package printing of the future? Although the Covid-19 pandemic made coverage difficult, we were able to deliver this issue thanks to the cooperation of packaging printers around the world. In the opening feature, we focus on the hot topic of the printing industry's response to the "decarbonized society," a subject that the printing industry cannot avoid. We hope that you find it useful. The customer case studies introduced in this issue and the latest information on Komori are available on our YouTube channel and other social media.

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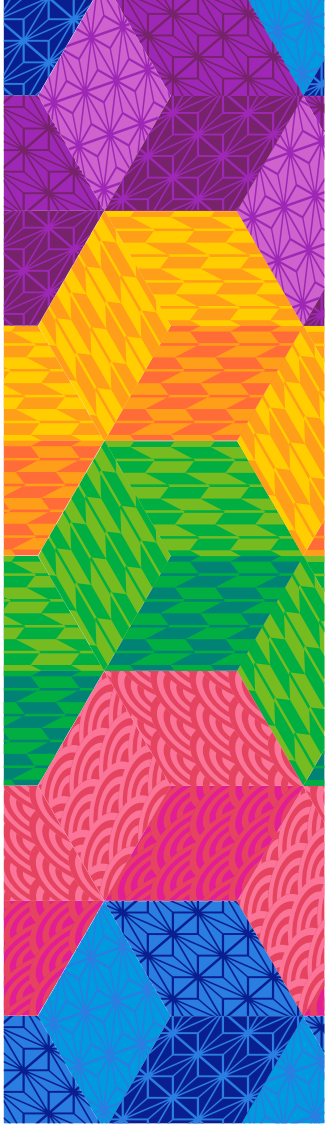

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