



DRUPA 2008 PRESS RELEASE

Hall 15, stand D04

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Komori's Five Solutions Revealed at Drupa

Komori will impress visitors to Drupa 08 with a wide range of new technologies aimed at improving productivity and profitability and reducing the environmental load of print. With over thirty live demonstrations per day in the 2,000 square meter stand in Hall 15, Komori will present five solutions that deliver on its message of "Kando"—exceeding customer expectations. Showcasing its most advanced printing systems, Komori will exhibit eight offset presses ranging in size from the small format Spica 529P right up to the System 38S 16-page web. Drupa will also be the launch pad for the next generation of award-winning LS technology and the KHS-AI advanced intelligence print start system,

Five Solutions for Success

Under the banner of "Five Solutions", demonstrations will focus on the five most important issues facing today's print marketplace:

- Extra Added Value
- One-pass High Productivity
- On Demand Changeover
- Flexible Multi Print
- Preserving the Environment

Central to the five demonstration theatres is the Komori "DoNet Zone", the command centre for Komori's JDF workflow. JDF management of all Drupa presses, using three

MIS vendors, will be networked through Komori's K-Station, which provides a bi-directional interface moving digital data throughout the entire production process. When used in conjunction with the software systems of our job management partners, information is sent from the press back through K-Station and delivers real-time press productivity and pressroom management data.

The DoNet zone also offers visitors off-press demonstration opportunities to run through all the latest Komori network and integration software through a stand alone PQC Print Quality Control console, including the new KHS-AI print start system, and three different JDF programmes from our three MIS partners.

Drupa Exclusive Innovations not to be missed

- ***KHS-AI advanced intelligence on sheet fed presses.*** This system enables even faster make ready and job changeover than the previous KHS as it has a self-learning function, memorising any changes which the operator makes to CIP4 download information and using this for subsequent jobs. This is the main feature in the On Demand Changeover Theatre.
- ***Lithrone SX629*** with inline Cold Foiling, UV Coating and Embossing
- ***Lithrone SX640 + Coater*** – new addition to the LS40 range, with a higher speed, larger sheet size and, through Komori's new KHS-AI fast print start system, and even quicker job-to-job changeover..
- ***The System 38S 16-page web*** - with high speed single chopper folder and for the first time with Komori flying paster, integrated infeed, Web guides and cut-off control. Job change over is further enhanced with KHS-AI link, and sequence control allowing multiple job change-over. Komori PQA-W will ensure that all levels of quality are monitored during make-ready and production.
- ***Lithrone S540*** – now with software and mechanical upgrades to capitalise on the new KHS-AI system.
- ***Lithrone S529*** – also with new features and software for the even quicker changeover made possible with the new KHS-AI fast print start system.
- ***New print quality assessment systems*** – on Komori web and sheet fed presses. PQA-W on the Komori System 38S has been upgraded and fully integrated into the KHS-AI LINK. PQA-S has been introduced on the Komori Lithrone S40 presses for the first time.
- ***Videoscope*** – launch of the new Komori monitoring system, which shows real-time details of the running conditions in key zones.

SOLUTION 1:

EXTRA ADDED VALUE – Six colour Lithrone SX29 and six colour Lithrone SX40 with coater

The **Lithrone SX629 CF+C+E** with in-line cold foiling, in-line UV coating and in-line embossing is the latest addition to the LS29 series - Komori's most successful range since its launch at Ipex 2006.

The Lithrone SX29 has a larger sheet size of 610 x 750mm, providing a maximum image area of 585 x 740mm, which is 12.5% larger than the LS29 models, and a size which fits the standard spec in several markets, including America where it enables 6-up printing of the most popular page size used in the United States. The larger print area is also useful for multi-image layouts, such as labels, smaller cartons, such as pharmaceutical, paper back, DVD and CD covers. In addition to cold foiling, coating and embossing, further added value can be provided with in-line die-cutting. The press can, of course, be used as a conventional six colour as the special cold foiling and embossing units do not have to be used on all jobs.

The **Lithrone SX40** has a new higher running speed. The new, faster fully automatic plate change (F-APC), with non-stop plate removal, helps increase the speed for job to job changeover. The automated coater plate change increases speed, precision and ease of use. All controls are integrated and automatic through the new PQC console's touch screen. The new KHS-AI fast print start system, integrated into the Lithrone SX40 has a self-learning function which progressively updates all press settings.

SOLUTION 2 – ONE-PASS HIGH PRODUCTIVITY ON EIGHT-COLOUR SHEET AND WEB PRESSES

In the One Pass High Productivity theatres, visitors will see the **Lithrone S440SP and Lithrone S840P, plus the System 38S 16-page web**, all featuring several new control systems developed to reduce material waste and improve sheet by sheet print quality and consistency.

The Lithrone S40SP dedicated double deck perfecter provides exceptional front-to-back colour matching, and saves pressroom space. At drupa, the four-over-four Lithrone S440SP features the launch of the new Komori PQA-S Print Quality Assessment System, available on all Komori Lithrone S40 presses.

PQA-S inspects the sheet in-line, creates a digital memory of the sheet, and then every subsequent sheet is automatically compared with the memorised data, with any incorrect sheets identified for the printer.

The **Lithrone S40P** eight colour perfecter, featuring Komori's unique 3 x double size perfecting mechanism, provides the drupa launch pad for the new Komori Videoscope monitoring system. This enables real-time simultaneous monitoring of the four most critical air zones through which the sheet passes and provides slow motion playback, memory and on-the-run touch screen adjustment.

The System 38S 16 page Web with 625mm cut-off takes the process of make-ready on Web Offset presses to new levels of efficiency.

- Through the integration of KHS-AI LINK, Komori has created a platform for all the major process elements to be efficiently controlled.
- Introducing at the same time the world launch of the Komori FPI-40 paster with integrated infeed, web guides and cut-off control.
- Komori Smart Sequence control will be shown to full effect with the demonstration of multiple job change-over.
- Also demonstrated at drupa will be the world launch of PQA-W giving high levels of quality control for production issues including colour control.
- Komori will show all the above features during the make-ready of three different jobs including a fold format change on the new high speed single chopper.

SOLUTION 3 – ON DEMAND CHANGEOVER ON THE FIVE COLOUR LITHRONE S40 AND FIVE COLOUR LITHRONE S29

On the Lithrone S540 at drupa, which is demonstrated with the Lithrone S529 in the On Demand Changeover theatre, Komori has introduced several new features to utilize the fast print start benefits of the KHS-AI system.

The On Demand Changeover zone has been so named because of the ever increasing demand for quick turnaround. Printers require not only quick job changeover but also production flexibility coupled with the need for both mid size and larger size presses to be used for shorter run jobs. Ever increasing pressures for quicker job turnaround and the need for further reductions in wastage are addressed in the theatre demonstrations where each press will print three different jobs in ultra-fast time, utilising the new KHS-AI fast print start system.

Komori KHS-AI is the new, self-learning version of Komori's superb KHS fast print start system. This further reduces waste sheets prior to printing and ensures earlier precision of ink, water and register settings. KHS was initially developed through joint research

and development between Komori's electronics division and Japan Printing Academy, and KHS-AI has been designed and manufactured by specialist company, Komori Electronics Ltd. It now incorporates automatic intelligence software to progressively update the press to help attain almost immediate production quality on all jobs even on initial test sheets, and even when changing between jobs which have vastly different formats, ink coverage and paper characteristics.

Part of the KHS-AI function is to provide Smart Feedback – which allows the operator to temporarily recalibrate the ink profile on any or all units at a single key stroke, at the random request of customers.

KHS-AI also has Komori Smart Sequence - which enables the printer to select job-by-job the most appropriate of three pre-programmable automatic operations for complete press set up. These include de-inking, wash ups, pre-inking, plate changing and full automatic make-ready so that, for example, the operator can select the pattern for 'start of the day', job change or the 'end of the day',

SOLUTION 4 – FLEXIBLE MULTI PRINT ON THE NEW FIVE COLOUR SPICA 29P PERFECTOR

Komori is showing the five colour version of the Spica 29P Perfector for the first time at a world show. Following the phenomenal success the four colour Komori Spica has enjoyed since its launch in 2002, the press has earned a reputation as the most adaptable and capable perfecting press in its class and has now evolved to enable printers of all sizes to offer added value by varnishing or printing special colours on the fifth unit. The entry level press still benefits from the same small footprint and high levels of automation but will allow printers to step up a gear and enter new markets with a decisive competitive edge. The Spica is perfectly suited to an on-demand environment and is completely compatible with digital workflows. For smaller print shops that have been handling mostly one and two-colour work, the Spica is the ideal press for transitioning to four or five-colour printing. Its compact dimensions and small footprint make the Spica the most efficient use of shop floor space. For medium-size printers, the Spica is a highly nimble and adaptable machine that is very adept at meeting tight turnaround times when the work consists of many short to medium runs of a wide variety of jobs. Automation as standard includes tool free plate clamping, automated plate changing, automatic ink roller and blanket wash as well as a fully automatic 60-second changeover between straight printing and perfecting.

SOLUTION 5 - PRESERVING THE ENVIRONMENT

Print Innovations for your Best Creations

Developing the best printing machines has always been the key to Komori's success. Our long-running devotion is imprinted in manufacturing products that reduce the eco-impact of the printing industry. Our fundamental belief is that cutting waste and improving efficiency throughout the life of the press is the most effective way to achieve greener results.

How is this accomplished? Our total printing systems minimize the use of resources, energy and labour over time, which in turn reduces the environmental footprint throughout the life of the press. Komori's advanced technology shortens make-ready times, which reduces paper waste and saves valuable resources. We're also able to cut volatile organic compounds from printing operations in the process.

We address green issues on corporate and research levels, too. In addition to issuing an annual environmental report, we use in-depth research and product development programs to address and advance green issues. In fact, our newest manufacturing facility located in Tsukuba Science City, a Tokyo suburb, is a testimony to green manufacturing. This state of the art plant reduces power consumption with an electricity generation system that uses solar and wind power designed to cut CO2 emissions, a known cause of global warming. We're further reducing carbon dioxide emissions by utilizing an energy efficient gas air conditioning system at the plant and employing an oil recycling system for zero emissions. Plus, we separate our plant waste and reuse and recycle materials and resources. Our commitment runs deep, and enhances the quality and reliability of our processes every step of the way.

ENVIRONMENTAL SPOTLIGHTS

Once our products are manufactured and put into use, our work to protect the environment doesn't stop. At Komori, we continue paving the way toward accomplishing green goals with innovation. The Lithrone S Series of sheet-fed offset presses incorporate next-generation technologies and functions that produce environmentally friendly results. They meet market needs for both single and two-sided printing, incorporating advanced automation and delivering unrivalled quality. With features like fully automatic plate changing and the new Komori high performance system (KHS-AI) for incredibly fast make-readies, the Lithrone S models cut time, cost and most importantly waste, by cutting make-readies dramatically.

Our green initiatives work hard to cut paper losses. The KHS-AI LINK for total integration on our System 38S 16-page web offset press at drupa greatly reduces paper waste during make-ready operations, cutting delivery times and costs to enhance

productivity while lowering environmental impact.

The Komori original Komorimatic Dampening System enables non-alcohol printing by using a reverse slip technique to create a uniformly controlled and micro adjustable water film.

Helping customers achieve ISO 14001

- KHS-AI on a Lithrone S40 can save 1000 trees a year through reduced waste
- KHS-AI also reduces operator stress and manual operations on the press
- Komorimatic dampening eliminates 500 litres of alcohol a year
- KHS / F-APC accuracy – reduces ink volumes
- Reducing noise emissions enhances the pressroom environment
- Preventive maintenance, through the Komori On Press Management System (KMS) increases productivity
- BG emission certificates confirm conformity
- Eco-friendly chemistry capability
- Long term policy and responsibility of Komori Corporation

Komori production to ISO 14001

- ISO 14001 in every Komori manufacturing plant
- Zero waste emissions at all manufacturing sites since 2004
- Komori Group has code of environmental conduct encompassing
 - safety, hygiene, respect, corporate wellbeing, environmental awareness
- BG certificate on new presses before launch
- New Tsukuba manufacturing plant has solar and wind power generation, gas-powered air conditioning and re-circulation systems
- Komori green purchasing policy

KOMORI CHAMBON

Komori Chambon, Komori's French-based specialist in high quality web fed presses, has a reception zone within the Komori stand at Drupa where full information will be available on its full product range, including:

- The recently designed **Mark I and Mark II gravure presses**, whose success is proven by several highly credited installations in Europe, Asia and Africa. Combined with a recently developed **state-of-the art stacker**, these presses can attain production speeds of up to 350 m/min.

- The new **sleeve web offset press** - the first installation of which has already proved extremely successful. The press is suitable not only for general folding boxes and liquid packaging but for several other markets.

These two main technical and reliable inroads offer new levels of profitability to the end-users, through

- versatility (gravure and/or combined offset with inline converting)
- short make ready times with minimal waste
- high-speed
- user-friendly production lines through enhanced automation

All these technical benefits come along with typical environmental friendly presses which reflect the concern by both Komori and Komori-Chambon to reduce the impact of printing on nature.

FURTHER PRODUCT DETAILS

KOMORI KHS-AI ADVANCED INTELLIGENCE START SYSTEM – NOW ALSO LAUNCHED TO THE WORLD ON KOMORI SHEET FED PRESSES AT DRUPA

Komori KHS-AI was launched on Komori web presses at drupa 2004. Now it has been introduced on Komori sheet fed presses as an extension of Komori's existing KHS fast print start system. KHS-AI includes self learning, which further reduces waste sheets prior to printing and ensures earlier precision of ink, water and register settings. KHS was initially developed through joint research and development between Komori's electronics division and Japan Printing Academy, and KHS-AI has been designed and is manufactured by Komori Electronics Ltd.

- *It now incorporates automatic intelligent software which progressively updates press settings to help attain almost immediate production quality level conditions on all jobs even on initial test sheets, and even when changing between jobs which have vastly different formats, ink coverage and paper characteristics.*
- *To help achieve this KHS-AI equipped presses as the Lithrone, now reach 12,000 sph speed on new jobs in as little as 5 seconds, not only saving time but also production waste sheets.*
- *Its self-learning function enables KHS-AI to progressively update the press settings for each job, taking them progressively closer to immediate pass position levels. It achieves this by plotting an ongoing graph of the revised settings and continuously recalculating the median point.*

- *The automatic intelligence system updates not only ink levels but over 30 air pre-sets throughout the press, and has individual programmes for literally hundreds of different paper types and sizes – within the powerful KHS-AI menu.*
- *In operation, if even the slightest change to the received CIP4/JDF data is needed to take account of any variations, say for example, in paper stock from a different supplier, paper grain direction, different inks, press and press room condition, the change is then stored, updating the press setting command data and used for subsequent jobs.*
- *Register pre-set is included as a function of KHS-AI because, although plates are loaded on Komori plate cylinders with absolute precision, there are occasions when variables such as printing on unusual materials like lenticular plastic or thin metallic paper, might require register compensation. KHS-AI memorises the necessary movements made to the plate cylinder and on subsequent use of the same material will automatically move the cylinder to the required position even before printing commences.*
- *As an additional feature of KHS-AI, Smart Sequence enables the printer to select job-by-job the most appropriate, pre-programmed automatic operations for complete press set up. These include de-inking, wash ups, pre-inking, plate changing and full automatic make-ready so that, for example, the operator can select the pattern for ‘start of the day’, job change, or the ‘end of the day’ programme – which includes full de-inking and all wash-up operations.*

KHS-AI also has a Smart Feedback feature which allows the operator to make temporary single touch alterations to the ink profile indicated through the CIP4 file data. Such adjustments are sometimes required because of designer/customer preferences, changes in press and pressroom operating conditions such as temperature, humidity, ink types, stock types, or, with the advent of on-screen proofing, desired changes in colour requested on sight of the first printed sheets. In practice, such adjustments have, until the development of KHS-AI, been considered time-consuming, disruptive and would typically require 200 sheets before new settings became effective. But with KHS-AI because the new ink profile reaches the rollers before printing commences the new result is attained in just 20 sheets.

LITHRONE SX629 – WITH IN-LINE COLD FOILING, COATING AND EMBOSSING – LAUNCHED AT DRUPA

- *In addition to the obvious benefits of adding extra value in one pass, the Lithrone SX629 at drupa has many technical and software innovations to maximise the benefits of KHS-AI.*

- *The in-line cold foiling facility is a vastly higher speed alternative to expensive and slow off-line hot foiling. It widens the design options for metallic foiling, which include the capability to print foil images containing screens.*
- *It adds a new dimension to production flexibility, as the foil area is imaged on a standard offset plate through any normal CTP system, and so enables on-demand single pass foiling even on short run lengths.*
- *Combined with UV drying and in-line UV varnishing, it facilitates the extra added value of high gloss finishes, which maximise the use of cold foil applications.*
- *The in-line embossing unit replaces the need for slow, off-line processes and the double handling of already printed sheets. As it is in-line, it is high speed and can be used on short run lengths and on repeat runs (the die can be re-used). Make ready is quick and easy and registration is close-to-perfect, as the embossing is completed as a continuation of the printing pass. Die mounting and removal is very fast, through a patented Komori magnetic system.*
- *For very short run length embossing it is also possible to use photopolymer plates.*
- *The provision of UV drying provides the added value of gloss finish, and also enables a wide variety of plastic and metallic materials to be varnished and embossed in-line.*
- *For even greater extra value and quicker job throughput, the Lithrone LSX629 can also be specified with the inclusion of a unit for inline die-cutting, developed through input from Komori's specialist packaging print company, Komori Chambon.*

LITHRONE S440SP DEDICATED DOUBLE DECK PERFECTOR WITH NEW KOMORI PQA-S QUALITY ASSESSMENT

The Lithrone S440SP being demonstrated at drupa features the launch of the new Komori PQA-S Print Quality Assessment System, available on all Komori Lithrone S40 presses.

- *PQA-S is suitable for both single sided and perfected printing, as it can operate on both sides of the sheet. PQA-S inspects the running sheet in-line through an RGB CCD camera with low distortion lens.*
- *When the pass position has been input by the operator, PQA-S creates a digital memory of the sheet, and then every subsequent sheet is automatically compared with the memorised data. The image of any defective sheet is captured and instantly identified on the PQA monitor incorporated into the press operation console. The sheets themselves can be marked by a tab.*

- *The location and nature of defects and colour variations outside the pre-defined tolerances are also indicated on screen – the defects detected including excess paper waste, ink splashes, water drops, oil and ink spots and continuous hickeys.*
- *No special application software is required, because historical data is logged in XML format, referenced through a standard browser such as Internet Explorer. PQA-S is exceptionally accurate, being capable of capturing up to 1 million lines per minute laterally and detecting any defects over 1 pixel. The stability of the camera scanning image is stabilised through an illumination system which maintains constant light levels of the video-captured zone.*

LITHRONE S840 PERFECTOR WITH NEW KOMORI VIDEOSCOPE

Komori is featuring the new Komori Videoscope monitoring system on the Lithrone S840P at drupa. Videoscope enables real-time monitoring of the four most critical air zones through which the sheet passes. It provides on-the-run touch screen adjustment and also incorporates variable slow speed replay and recording functions for detailed analysis.

The Videoscope monitor is located at the delivery end of the press adjacent to the new PQC-S console. It considerably reduces unnecessary and tiresome operator movement, and allows the operator to foresee and adjust for any changes in sheet passage which may lead to press stoppages.

The air zones covered and shown on the split screen monitor are: feeder, infeed, perfecting mechanism and delivery.

Both the Lithrone S440SP and S840P at drupa feature Komori's new air pre-set system, the operation of which is integrated into the new PQC-S touch screen monitor. Pre-setting can be made from the console for all feeder and delivery air systems, the printing unit transfer cylinder air guides, and – on S40 long perfectors – all the air controls throughout the three cylinder perfecting system.

SYSTEM 38S 16-PAGE WEB

ON DEMAND CHANGEOVER PRESSES: LITHRONE S540 AND S529 WITH KHS-AI ADVANCED INTELLIGENCE

On the Lithrone S540 and the Lithrone S529 in the On Demand Changeover theatre, Komori has introduced several new features to utilize the benefits of the new higher speed KHS-AI print start system.

On the Lithrone S540 the upgraded feeder has:

- *Wider leading edge guides to improve the efficiency of the air cushion between the sheets.*
- *New serrated drive rollers for the suction feed tape to assist with faster acceleration rate at start up.*
- *Increased sheet overlap distance on the feeder table, enabling more precise control of the sheet from the feeder pile to the front-lays.*
- *Three independently adjustable vacuum zones to assist in the high speed handling of the lightest weight materials.*

- *In the ink duct, to maintain the high speed performance of KHS-AI, the side cheeks are now made of solid brass. This ensures the ducts always return to a true zero set regardless of temperature related changes in the inking unit.*
- *On the fully automatic plate change system, a new style plate clamp has been adopted - which is the same design as on the Lithrone S29 series. This has a plasma coated inner surface which grips the plate firmly, thereby reducing the possibility of plate deformation, and therefore lessening the possibility of register deviation.*
- *The Lithrone LS40 also has a new blanket washing system, developed by Komori and based on the Prepac System. This contributes to quicker job changeover speeds by reducing roller cleaning time from 150 seconds to 90 seconds. It also reduces cloth usage by 50%, requiring only 60mm per wash, compared with 120mm on the previous system.*
- *In the delivery, the vacuum wheel power has been increased and the diameter has been reduced to ensure smoother sheet stacking in the delivery.*

The Lithrone S40 also has a new type air preset system which is controlled from the console touch screen. The Lithrone S29 has also been similarly upgraded to ensure compatibility with the KHS-AI functions making the press even faster than previous on job-to-job changeover. Pre-setting of these air control systems on the Lithrones S40 and S29 are now conducted through the KHS-AI self-learning programme, as is pre-setting of the register systems.

ENDS