

Press Information

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drupa 2020: Heidelberg sets off fireworks of innovation in sheetfed offset

- **New Press Center generation delivers Push to Stop and Prinect Cloud interface to all Speedmaster models**
- **Hycolor Pro – the new remote-adjustable dampening unit**
- **Washup time reduction through LotoTec inking rollers, extended washup systems, and intelligent washup programs**
- **New scalable solutions in the area of printing plate logistics**
- **Zero defect production with intelligent waste paper management**
- **Positive feedback from field test customers**

Heidelberger Druckmaschinen AG (Heidelberg) will be presenting the most intelligent and automated Speedmaster yet at the drupa 2020. The completely redesigned Prinect Press Center generation with the new Speedmaster Operating System delivers Push to Stop functionality and an interface to the Prinect Cloud to every Speedmaster, from SX 52 to large format. Many new assistance systems, such as the Wash Assistant or Intellirun on the Wallscreen XL, turn the Prinect Press Center into a modern, attractive workstation, and allow the operator to continuously call on the machine's performance potential. However, the hardware has evolved as well. In addition to the new and significantly larger 24-inch multi-touchscreen, the standard illuminant lighting to ISO 3664:2009 was converted to LED. Instead of time-consuming tube changes, as before, switching between standard illuminant D50 and D65 with and without UV is now done simply by pressing a button.

“Following the overwhelming success of Push to Stop at the drupa 2016, we have invested a great deal in advancing the idea of the Smart Print Shop and in taking Push to Stop to a new level for the drupa 2020,” explains Rainer Wolf, Head of Sheetfed Product Management. Software development, of course, plays an important role in this. Heidelberg has also heavily invested in

Press Information

press technology, closing automation gaps, further optimizing subprocesses, and developing new applications. “The result speaks for itself, and we are proud of the innovation fireworks we shall be setting off at drupa 2020 to make sheetfed offset printing even more attractive and cost-effective,” enthuses Rainer Wolf, and adds “with our flagship, the Speedmaster XL 106, we have defined the term Peak Performance Class in the industry. Up to 90 million printed sheets a year are already reality today. Now, that’s what we call peak performance in practice. And with our Speedmaster drupa 2020 generation customers will be able to boost their productivity even further.”

Hycolor Pro – the new remote-adjustable dampening unit

Heidelberg automates the dampening unit of the Speedmaster XL 106 with the new Hycolor Pro. The quantity of dampening solution is decided and metered between pan roller and metering roller. The pressing/squeezing required for this purpose can now be carried out by motor directly from the Prinect Press Center. This saves time and effort, and enables finest corrections from the control panel even during production. The basic settings of the dampening unit are recorded digitally, and from the Prinect Press Center XL 3 it is now possible to also adjust the dampening solution metering on only one side. “80 percent of our inking-related service calls are due to the inaccurate setting of the dampening unit,” explains Rainer Wolf. “With Hycolor Pro, we now have defined and measurable settings we can also use for Remote Service. From the control panel, the printer can now meter more or less dampening for one side, thus react faster and more sensitively, and approach the scumming point much more precisely. This creates stable production run conditions with less waste paper and faster reaching of the good sheet.”

Washup time reduction through LotoTec inking rollers, extended washup systems, and intelligent washup programs

Washup times are still a major makeready time factor, especially in packaging printing. Further improvements in the area of rollers and washup systems have now been implemented to significantly reduce these washup times. Apart from the new Wash Assistant software for intelligent determination of the degree of soiling and preselection of the optimum washup program, further innovations relate to the area of washing fluid supply. Besides water, up to three more media, such as washing fluid for conventional and UV inks, roller protection fluid or deep cleaners, can now be metered in the inking unit. The modules of the blanket washup device in the Speedmaster XL 106 were made 20 percent lighter, and a fully automated impression cylinder washup device is now available for the coating unit. In particular with perfecting presses with

Press Information

coating unit, approximately 50 hours of manual cleaning time per year can thus be saved in three-shift operation.

Especially when ink changes are frequent, considerable advantages can be achieved with LotoTec inking rollers. After having passed the long-term test, these inking rollers with special surface coating are now released for series production. Since rewashing the rollers is not necessary and, due to their excellent printing properties, they are becoming increasingly popular, particularly in packaging printing.

New scalable solutions in the area of printing plate management

“The requirement to be able to exploit the cost-effectiveness, reproducibility and quality of offset printing also for very small runs is becoming increasingly important. In extreme cases, customers wish to produce runs as short as 100 sheets. The manual loading and unloading of the plate changing systems will thus, in the long run, no longer be sustainable – the physical stress for the operator is simply too great,” describes Rainer Wolf, and adds “the fully automated infeed and disposal of the printing plates is only the logical consequence – we call the system “Plate to Unit”. The pure mechanics, however, make up for only half the story. Workflow integration is at least as important.” This includes defining a suitable sequence of print jobs in job planning, optimizing the sequence, the correct output sequence in the CtP system including assignment of a plate ID, but also delivery to a digitally identifiable plate transport system. The extensive range of tools of the Prinect Production Manager is used for this. From the digital planning board, the jobs are placed directly in the job queue, including all job parameters. The plate trolley appropriate for this job is automatically requested, and “Plate to Unit” ensures that the correct plate is delivered to the correct printing unit. “Plate to Unit” reduces the 23 manual steps previously required to just three.

Customers with fewer plate changes, however, can also achieve relief for the operator. Workflow integration is similar, with the exception that the plate trolley is verified using a mobile scanner and lifted to the gallery level with a lift – the so-called “Plate to Gallery” procedure. A wider gallery offers the operator very good ergonomic conditions during job preparation, while the current job is in production. “Plate to Gallery” is also interesting for folding carton printers, since the machines are usually raised and the operator can now use the lift to conveniently take printing plates, coating plates, ink and other aids to gallery level.

The time required for changing plates has also been improved. The changing time for the fully automated, simultaneous AutoPlate XL 3 plate changer has been, once again, drastically reduced

Press Information

by more than 30 percent, and now requires exactly the same amount of time as the blanket washup that takes place simultaneously, so that no additional time is required for plate changing.

Zero defect production with intelligent waste paper management

The demands especially on packaging printers are constantly increasing. Smaller quantities on demand, just-in-time delivery, narrow tolerance windows and increasingly far-reaching audits combined with simultaneous price pressure, are the challenges the printing companies are facing. In this context, the topic of waste paper management is gaining in importance. Heidelberg has an entire solution package to offer here for the realization of individual customer requirements. It starts with the CodeStar, a presettable inkjet system at the feeder table that applies a unique sheet ID, and thus makes each sheet traceable. By implementing presetting data in Intellistart 3, Prinect Inspection Control 3 not only helps eliminate the previously time-consuming manual setup procedures for sheet inspection, but it can also identify the sheet ID so that defects can be clearly assigned to the individual printed sheet. The new “Device Assistant” function can be used to determine the reaction for each defect type. It can thus be determined, for example, whether sheets should be disposed of via the inline waste paper ejection, whether a strip should be inserted, or whether the automatic non-stop device should be engaged to separate waste paper from good sheets.

New applications and features

Heidelberg provides its customers with new applications that enable them to expand their portfolio, and address new customer segments. With FoilStar Cure, the adhesion of cold foil on in-mold label foils can be increased to a level that permits stable production runs. Further modifications to the FoilStar offer the possibility of embossing hologram effects into the coating layer using the “cast & cure” method, and of curing the layer with LED.

In the area of rotary die-cutting, the successful Speedmaster XL 106-DD will be complemented by the Speedmaster XL 106-D with just one die-cutting unit. This provides a less costly alternative sufficient for many applications.

The fully automated non-stop system of the Speedmaster XL 106 has also been redesigned, and, in addition to increased robustness for folding carton printing, now offers the option of rack operation for thin materials, for example in label printing.

Press Information

A number of technical features for security printing, such as ink fountain for rainbow printing, or devices for waterless offset and letterset, were transferred from the Speedmaster XL 75 to the XL 106.

A new coating supply allows minimal circulation quantities, which saves costs, especially with special applications involving expensive coatings.

The Speedmaster XL 106 is now available with special equipment for substrate thicknesses of up to 1.6 mm.

In the area of applying dispersion coating on both sides in a single pass, the speed of previously 15,000 sheets/hour can now be increased to 18,000 sheets/hour with the Speedmaster XL 106 and optimized drying with just two dryer units before perfecting.

Maximum speeds in the very large format can also be increased. The maximum speed for all straight models, including double-coating presses, in format 7 is 18,000 sheets/hour. The maximum speed for the long perfecting presses in format 7 has been increased by 20 percent to 13,500 sheets/hour. In combination with the CutStar roll sheeter, this thus forms an interesting alternative to web offset. The new innovative Inline Slitter technology ensures wear-free and precise sheet separation in the delivery, enabling the use of the peak-performance Stahlfolder without an additional step.

The new Speedmaster XL 75 has been fully redesigned and updated to the latest ergonomic standards. The maximum speed of the straight printing version was raised to 16,500 sheets/hour, with an optional increase to 18,000 sheets/hour. In combination with the new Prinect Press Center XL 3 and the range of new assistance systems, the Speedmaster XL 75 sets the standards in the 50 x 70 cm format.

Positive feedback from the field test

A Speedmaster XL 106-8 P+L of the new drupa 2020 generation has been undergoing field testing at Aumüller Druck since last fall. “The innovations of the Speedmaster XL 106 greatly support our daily quest for improvements. We were able to significantly reduce makeready times by up to 40 percent, for example. This was made possible by the faster printing plate change with AutoPlate XL 3 and the new preset functionality of the machine, which has also led to an increase in average production speed by up to eight percent,” summarizes Volker Dollinger, Head of

Press Information

Production. The average run length at Aumüller last year was 2,600 sheets. Each operator thus changed 240 plates per shift, and had about 1,000 steps to climb. With the new “Plate to Gallery” printing plate logistics, the printers are physically relieved and the elimination of long ways saves additional time. “With the new Speedmaster generation, Heidelberg has also taken a critical step towards “autonomous printing”. Our team is relieved of routine tasks and supported in its decisions. This increases the willingness of the operators to actually put the enormous productivity of the press into practice. A further increase of our OEE is ample proof of this. Our focus, however, is on the entire value chain. Push to Stop lets us benefit from further improvements to this end as well,” confirms Volker Dollinger.

<https://www.aumueller-druck.de/>

Only recently, a Speedmaster XL 106-6+L of the latest drupa 2020 generation for packaging printing went into operation at Mediahaus in Ahaus. “This new investment provides many interesting application options for our creative team,” confirms Managing Director Jan Hendrik Walfort. “Many technical innovations, such as the Hycolor Pro dampening unit and the Speedmaster Operating System, simplify operation and significantly increase productivity.”

<https://www.mediahaus.de/>

Quality, service, speed – these are the pillars of Offset Friedrich print shop, on which the family business has built its success and continues to grow, despite strong competition. “We strive to work profitably and need a high level of automation, which is something the Speedmaster XL 75 can deliver on a permanent basis,” confirms Managing Director Marcus Friedrich. He has been producing on a Speedmaster XL 75 five-color press with the new Prinect Press Center and the Heidelberg Operating System in a field test since mid-2019. The Push to Stop concept and the Prinect Production Manager provide optimal support for the printer. “What impressed us most about the Speedmaster XL 75, in addition to the new control system, is the increased printing speed of 16,500 sheets per hour, which we consistently and stably use for most substrates. We were also able to reduce waste paper to about a third, meaning to a maximum of three to six percent,” summarizes Marcus Friedrich his positive experience.

<http://www.druckerei-friedrich.de/>

“Heidelberg’s innovativeness is still going strong, and this will become evident at the drupa in Düsseldorf and Wiesloch. The unique competencies in the field of mechanical engineering, control technology, software, application and process engineering, simulation and analytics are

Press Information

now bundled in the new Innovation Center right at the heart of the Wiesloch site, providing ideal conditions for the continued success of the Speedmaster. There is still a lot of potential in offset printing", confirms Rainer Wolf.

[You can read all about Heidelberg at drupa 2020 here](#)

Image 1: Heidelberg will be presenting the most intelligent and automated Speedmaster yet at drupa 2020. The completely redesigned Prinect Press Center generation with the new Speedmaster Operating System delivers Push to Stop functionality and an interface to the Prinect Cloud to every Speedmaster.

Image 2: With the new Hycolor Pro the dampening unit can now be carried out by motor directly from the Prinect Press Center. This saves time and effort, and enables finest corrections from the control panel even during production.

Image 3: With the new "Plate to Gallery" printing plate logistics, the printers at Aumüller Druck are physically relieved and the elimination of long ways saves additional time.

Image 4: Only recently, a Speedmaster XL 106-6+L of the latest drupa 2020 generation for packaging printing went into operation at Mediahaus in Ahaus. Managing Director Jan Hendrik Walfort (right) and his Operation Manager Marco Segeler expect a significant increase in productivity.

Image 5: Offset Friedrich print shop has been producing on a Speedmaster XL 75 five-color press with the new Prinect Press Center and the Heidelberg Operating System. Experience shows that the increased printing speed of 16,500 sheets per hour can be used consistently and stably with most substrates.

Image material as well as further information about the company can be found in the Heidelberger Druckmaschinen AG press portal at www.heidelberg.com or in the [Media Library](#).

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