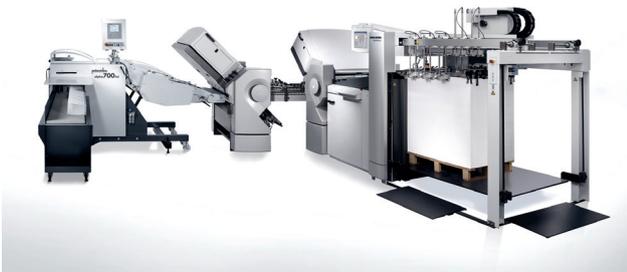


# THE PRESS OF A FINGER ACTIVATES COMPLEX FOLDING PROCESSES

HEIDELBERG POSTPRESS RELIES ON EMBEDDED TECHNOLOGIES  
FROM KONTRON

PRINTING PRESSES AND MACHINES FOR FURTHER PAPER PROCESSING ARE KNOWN TO BE PARTICULARLY COMPLEX AND ARE OFTEN CALLED HIGH-END PRODUCTS IN MECHANICAL ENGINEERING. WORKING WITH KONTRON, HEIDELBERG POSTPRESS DEVELOPED A HIGH-QUALITY CONTROL IPC TO HANDLE AND COORDINATE ITS PAPER FOLDING MACHINES. THE UNIT IS EASY TO OPERATE WITH A TOUCHSCREEN, WHICH OPTIMIZES DAY-TO-DAY OPERATIONS AND CREATES GREATER TRANSPARENCY.



// GRAPHIC: PEAK-PERFORMANCE FOLDING MACHINE  
STAHLFOLDER TX 96

Heidelberger Druckmaschinen AG has maintained a leading position in the global mechanical engineering market for the printing industry for decades. With an extensive portfolio that explicitly focuses on the needs of customers from the printing industry, the company facilitates reliable and efficient production processes. The product offering ranges from modern digital technologies to pre-configured standard offset machines to special individually configured machines for the greatest productivity and every conceivable printing application.

The printing press company provides its customers all over the world with products, services and consumables through its own sales offices or through partners. The company employs a total of 12,000 people around the world, with roughly a third of these working in the global sales and service network. In Germany, Heidelberg manufactures highly automated and very diverse high-tech machines in all format classes according to customer requirements.

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## PRINTING IS JUST THE FIRST STEP

Heidelberg Postpress Deutschland GmbH in Ludwigsburg is a wholly-owned subsidiary of Heidelberger Druckmaschinen AG and specializes in the development and production of folding machines and mailing systems. Around 160 employees work in the ISO-certified company. The further treatment of printed matter requires closely interlinked work steps. Heidelberg Postpress offers comprehensive solutions that feature a modular structure and diverse add-on units in order to cover a broad range of applications.

## A NEW GENERATION OF CONTROL UNITS

Around ten years ago, when the company's agenda included a new control and visualization IPC for the paper-folding machines, the firm's specialists visited the relevant trade fairs to determine the solutions and prices available on the market. This market survey led them to Kontron. „In addition to the product range, we liked the developers' dedication, and the price concept was also right," Karl-Heinz Wilhelm, developer at Heidelberg Postpress, recalls. „We felt that we were getting good advice even during the preliminary talks, and we saw that the Kontron specialists were willing and able to implement our ideas and give us a control unit with just the functions that we needed." Also a plus for the supplier was that fact that the parent company, Heidelberger Druckmaschinen AG, had already maintained a close working relationship with Kontron for years.

## TEAMWORK FOR A NEW SOLUTION

Together with Kontron, in 2006, Heidelberg Postpress designed and developed a new customer-specific IPC to control the folding machines. This new unit was based on a Kontron COM Express module and a customer-specific carrier board. This computer platform was designed to optimize operation of the new series of folding machines and to offer numerous functions from a central source. The individual control element is explicitly based on the folding machine manufacturer's requirements. Together with a touchscreen, it was integrated directly on the machine in order to make it easier for users to operate the system while ensuring the greatest possible transparency in all workflows.

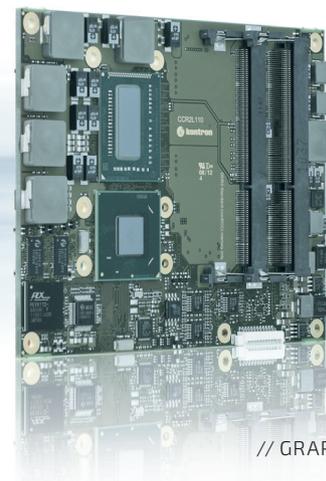
## DURABLE PRODUCTS WITH A HIGH STANDARD

The folding machines from Heidelberg Postpress are durable products that have been designed to remain in use for ten years or more. „We furthermore guarantee our customers that subsequent delivery of spare parts and support will be readily available for a further 15 years, which adds up to a productive lifetime of 25 years and more per machine," explains Pasquale Aloe, purchaser responsible for hardware components. „Naturally

electronic components have a life cycle that cannot match this figure due to the faster development cycles in the high-tech area, which meant that at some point it was time for a re-design of the control elements that we use." Although the goal is always to ensure a sufficient supply of spare parts and electronic components, it is also always necessary to keep in mind that eventually a re-design of the solutions in use will be needed in order to keep up with the electronic industry's technological progress, while simultaneously being able to ensure the customer a high level of continuity for existing machines.

## JOINT PLANNING TO REACH THE GOAL

When Kontron announced the replacement of the computer platform that had been in use, the specialists from Heidelberg Postpress again met with the embedded specialists in 2014 in order to discuss the strategy for the future and prepare for the transition to the new generation of components. „Such a case involves much more than just a simple exchange of electronic hardware. During the re-design, we also decided to migrate the control computer's operating system from Windows XP to Windows 7," reports Karl-Heinz Wilhelm. „This also necessitated the development of new drivers and changes to the BIOS." Accordingly, it was necessary to develop additional new software and conduct sufficient tests until the new technology could withstand its baptism of fire and be put to real use. „It was also important to us for the new machines to work perfectly with the updated components, but even more important to guarantee that the old machines would also continue to function flawlessly after an exchange, thus performing in the manner the customer had come to expect." The teams of specialists from the two partners developed a future-oriented control unit for the folding machines that was based on the Kontron COMe-BiP2 modules and the customer-specific B610 carrier board. A broad range of interfaces guarantees that the solution can be seamlessly integrated into the most diverse infrastructures. This ensures that the control unit operates universally.



// GRAPHIC: COMe-BiP2

## FASTER PROVISION AND GREATER FUNCTIONALITY

The specialists have only praise for the new IPC control unit version: „The system is now faster, which is particularly noticeable when the folding machine starts up. Today it is ready for operation in a much shorter time,“ says Karl-Heinz Wilhelm. „Due to the expanded memory, the new industrial PC furthermore allows us to add new performance characteristics, which means that we can make it easier for our customers to work with our machines.“

The outward appearance of the system however has scarcely changed, which has the advantage of allowing trouble-free integration of the new unit into existing machines when an exchange is necessary, without Heidelberg Postpress having to modify or replace equipment. „Consequently everything stays the same for our customers. Although they do not have to adjust to new operational elements, they still profit from significantly improved performance,“ reports Pasquale Aloe.

## GOOD PROJECT WORK IS HALF THE BATTLE

The excellent cooperation that already bound the team from Heidelberg Postpress to Kontron during the earlier project also continued during the re-design phase. „Kontron implemented our ideas and requests without a mountain of paperwork and always promptly answered our questions,“ says Dominik Bicheler, Sales Director, in praise of the cooperation. „Throughout the entire phase, the tests ran smoothly, produced the required results, and allowed us to start serial operation immediately.“ Thanks to the high quality that characterizes the Kontron products, the specialists from Heidelberg Postpress are convinced that even after the re-design, the solution will continue to prove itself in day-to-day operation in the coming years and win over the company's customers thanks to the multitude of new features.

„Ultimately the control element is a convenient tool for our customers, and one that simplifies their work with our machines,“ explains Karl-Heinz Wilhelm. „The touchscreen can be used to display the operating sequences, execute programs, and adjust values and performance data for convenient operation. This ultimately leads to greater transparency, which optimizes day-to-day operation.“

## ABOUT HEIDELBERGER DRUCKMASCHINEN AG

Heidelberger Druckmaschinen Aktiengesellschaft (Heidelberg) has been an important supplier and partner for the global printing industry for many years. We offer our customers all the necessary components for their successful business operations in printing for advertising and packaging.

We develop and produce core technologies ourselves and we provide additional components and technologies to our customers through strategic partnerships. Our products, services, and consumables, as well as our partnerships, are attuned to specific, future-oriented customer requirements, and all activities have our customers' economic success as their goal.

We provide our customers all over the world with products, services and consumables through our own sales offices and through partners. The group generated sales of around 2.3 billion euros in 2014/2015. New machine sales accounted for around 60 percent of the total; in addition to printing presses for sheet-fed offset, digital and flexographic printing, this figure also includes machines for pre-press and further processing stages, as well as our software for integration of all processes in a printing company. We generated roughly 40 percent of our revenue with services, consumables and spare parts.

Altogether around 12,000 people work for Heidelberg around the world. In Germany we manufacture highly automated and very diverse high-tech machines in all our format classes according to customer requirements. In Qingpu near Shanghai in China we produce high-quality, preconfigured edition models.

[www.heidelberg.com](http://www.heidelberg.com)

## About Kontron

Kontron, a global leader in embedded computing technology and trusted advisor in IoT, works closely with its customers, allowing them to focus on their core competencies by offering a complete and integrated portfolio of hardware, software and services designed to help them make the most of their applications.

With a significant percentage of employees in research and development, Kontron creates many of the standards that drive the world's embedded computing platforms; bringing to life numerous technologies and applications that touch millions of lives. The result is an accelerated time-to-market, reduced total-cost-of-ownership, product longevity and the best possible overall application with leading-edge, highest reliability embedded technology.

Kontron is a listed company. Its shares are traded in the Prime Standard segment of the Frankfurt Stock Exchange and on other exchanges under the symbol "KBC". For more information, please visit: [www.kontron.com](http://www.kontron.com)



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