



Retrofit solutions  
for newspaper printing presses  
Breathe new life into your existing  
presses

Buying new presses is a major investment that can't always be justified, but sooner or later the systems on old presses become unreliable, maybe spare parts are no longer available, and in the modern era of intense competition with other media, the additional efficiency provided by modern systems can make the difference between success and failure.

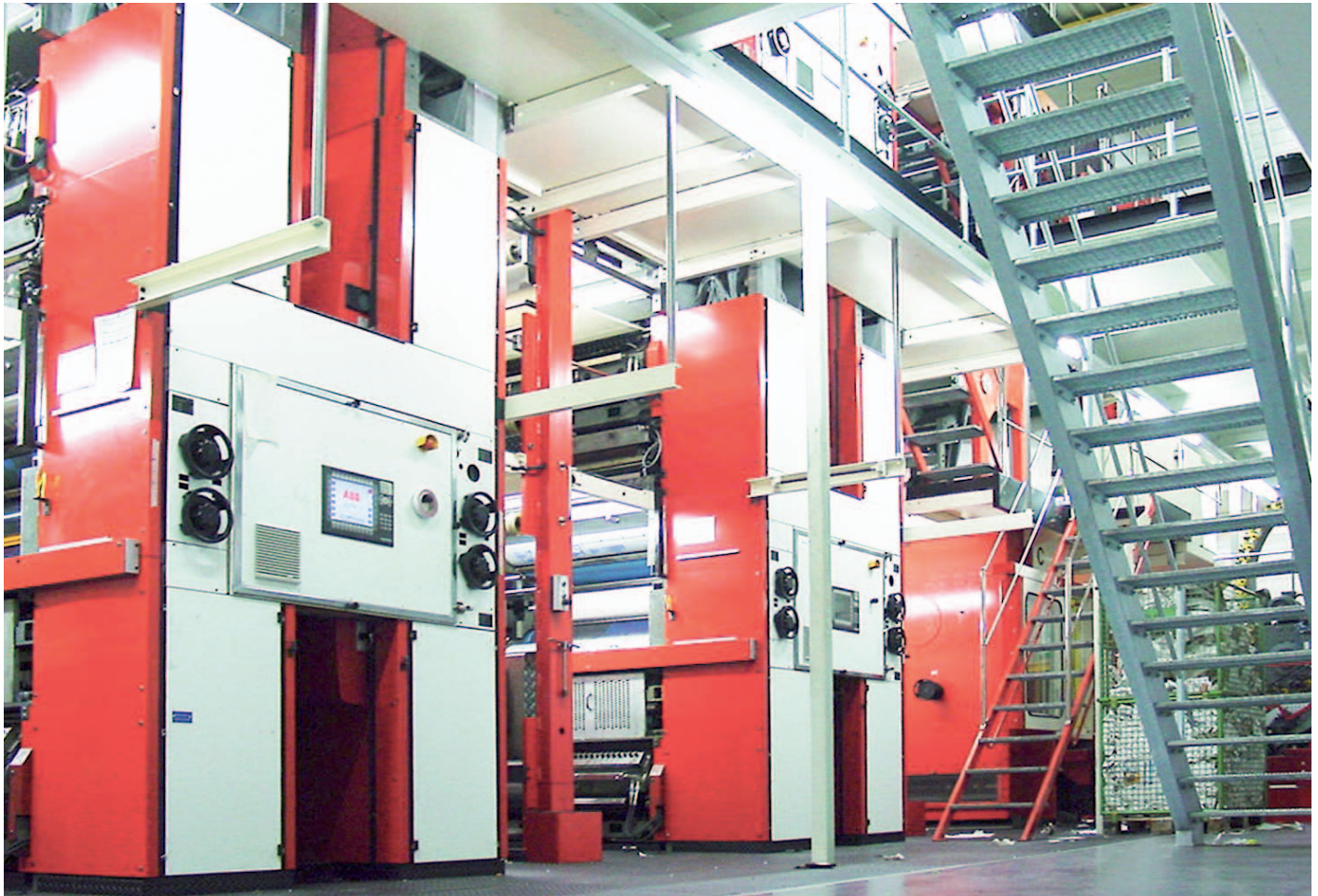
ABB's pioneering contributions to the newspaper industry are not confined to integrated workflow and automation of new presses; ABB also provides a complete spectrum of retrofit solutions for existing presses. Solutions that can boost the reliability of your presses and the efficiency of your organization at a tiny fraction of the cost of a press replacement.

These solutions range from the replacement of drives or the adding of washing units up to the complete replacement of the control system and the addition of production management systems. In some cases it is even possible to replace the control system without replacing the cabling on the press.

**If you are looking for one or more of the following, ABB has a solution for you:**

- ..... Drive replacement
- ..... Addition of washing, inking and register control devices
- ..... Replacement of control desks with modern consoles
- ..... Conversion to shaftless
- ..... Press reconfiguration
- ..... Press extension
- ..... Complete press control replacement
- ..... Addition of production management systems and integration in the plant-wide workflow

Restacked Wifag OF7 at Südostschweiz Medien, Haag, Switzerland, with ABB touch screens for local operation



### Drive replacement

Old drives can be replaced with modern units, thereby improving reliability and eliminating problems with the unavailability of spare parts. In addition, older DC drives can be replaced with modern AC technology resulting in a reduction of maintenance costs.

References include GOSS and TKS presses at all 18 Dow Jones Print sites in the USA.

ABB's revolutionary drive controller, MPS Open Motion Control, means that conventional AC motors can now be used for shaftless presses instead of servo motors. This not only reduces the cost of the motors but also makes a much wider range of motor ratings available (from 3 kW to 3 MW!).

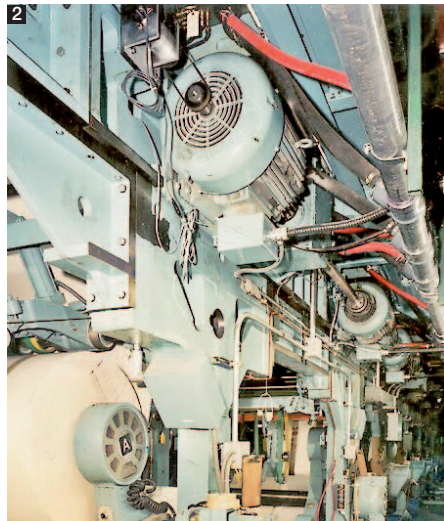
### Addition of washing, inking and register control devices

New washing, inking and register control devices, whether from the original press manufacturers or third-party suppliers, can be integrated into ABB control systems giving increased ease of operation.

### Replacement of control desks with modern consoles

Control desks on existing presses can be replaced with ergonomic, easy to use ABB consoles with modern product-oriented operation concepts. This can be done regardless of the existing control system. As well as eliminating problems concerning the potential non-availability of spare parts for the original desks, the product-oriented operation reduces errors and improves efficiency. In addition, the replacement of old control desks with ABB consoles opens the possibility of adding modern production management systems and integrated workflow solutions (see page 7).

1-2 ABB drive cabinets at the San Diego Union-Tribune and retrofitted AC motors at one of the 18 Dow Jones print sites in USA 3 AC drive room at The Orange County Register, USA 4 MPS Open Motion Control 5 ABB's MPS Control Console 6 Control room at Le Nouvelliste Sion



Conversions to shaftless and press reconfigurations can be handled independently of the press manufacturers. In such cases ABB works together with experienced mechanical contractors.

#### Conversion to shaftless

Either bridges or satellite units (depending on the press configuration) can be fitted with position sensors and individual drives, thereby converting the press to shaftless operation. This gives you the advantages of shaftless presses like more flexible operation, improved print quality, better web tension control etc.

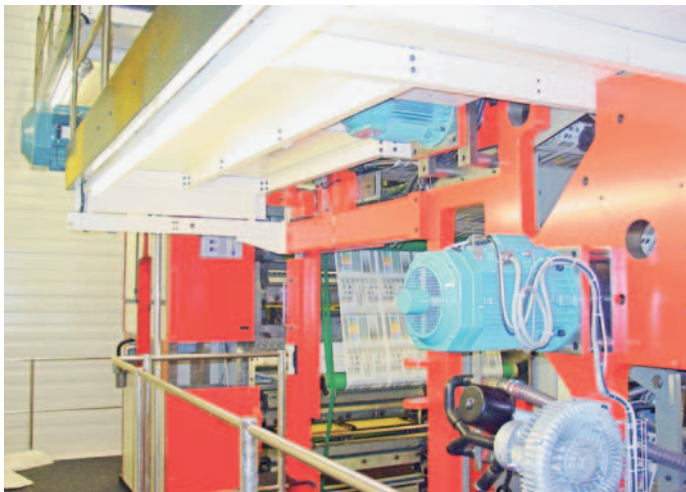
The conversion of a press to shaftless also opens the possibility of press reconfiguration.

#### Press reconfiguration

This is an attractive solution for shaftless presses, or conventional presses that are converted to shaftless (see above).

Press units (either bridges or satellites, depending on the press configuration) can be restacked freely on a building-block principle to modify the press configuration according to customer needs. This concept can be used, for example, to move units from one press to others at the same site, therefore giving increased color capacity to a reduced number of presses, and allowing owners to better meet the requirements of their advertisers.

Wifag OF7 press converted to shaftless and restacked at Südostschweiz Medien in Haag, Switzerland



Examples of restacked presses include Südostschweiz Medien in Haag, Switzerland, and Joong Ang Ilbo, Korea, where the restacked Wifag OF7 units extended with Hamada towers.

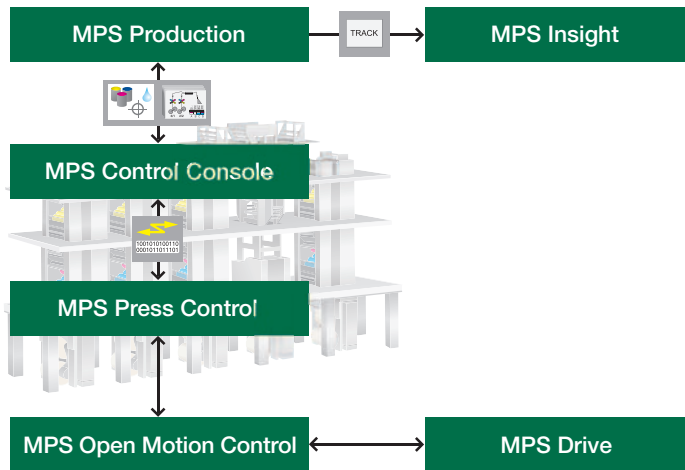
#### Press extension

Existing presses can be extended with, for example, additional towers from other press manufacturers. In such cases ABB works together with the end-customers and the manufacturers of the press extension to provide controls for the new units and integration with the existing press. Depending on the customer wishes, this could include the integration of the operation of the existing press in the new ABB control consoles or, indeed, the complete replacement of the controls of the old press.

The large number of references include La Vanguardia in Spain, L'Alsace in France and Norrköpings Tidningar in Sweden, where indeed three different press manufacturers come together in one press line.

Restacked Wifag OF7 extended with Hamada towers at Joong Ang Ilbo, Korea





ABB's press-related systems

### Complete press control replacement

ABB has supplied dozens of retrofitted control systems on presses from several different press manufacturers worldwide. The systems are based on standard ABB components such as controllers, touch screens etc. that are in use in countless demanding industrial applications worldwide. This means that spare parts are also available everywhere.

The new press control system also means that the modern presetting functionality becomes available (as far as the press allows this) thereby reducing startup waste and improving quality.

The benefits of complete press control replacements are clear. The owner gets a modern, reliable control system which optimizes the quality and maximizes the productivity of the press without the enormous cost of replacing the steel. Owners will also find the long-term availability of ABB spare parts (see 'Obsolescence assurance' on page 6) reassuring and a protection for their investment.

References include a total of 20 Goss and TKS presses at 18 Dow Jones sites in USA, 9 Goss Newsliners at The Daily News, New York, 3 Mitsubishi presses at Richmond Times Dispatch, VA, USA, and 7 Miller Nohab presses at Ouest France.



Advant Controller AC500

### ABB's Advant Controller AC500

The cornerstone of ABB's control system for both new presses and retrofit projects is the Advant Controller AC500 PLC. This was designed by ABB for use in demanding applications and is running in countless industries worldwide.

The pluggable CPUs and I/O modules mean that maintenance, in the unlikely event of a failure, is much simplified and very much faster. The wide range of CPUs available means that the performance can be tailored to meet the needs. Various field bus protocols are supported and the AC500 systems are connected by Ethernet, which means that software maintenance and troubleshooting can be carried out from anywhere on the network.

The AC500, being a PLC-based system, has numerous advantages compared to PC-based control systems. Firstly there are no concerns about viruses, and secondly, and much more importantly, the production cycle times are much longer. ABB also follows a very rigorous spare parts policy, which means that spare parts are available for at least 10 years after the last delivery of the system.

As the AC500 is a standard ABB system it connects seamlessly with other ABB solutions for the newspaper industry like the MPS Control Console and the MPS Production press management system.

### **Addition of production management systems and integration in the plant-wide workflow**

Adding ABB's MPS Production gives the users a state-of-the-art production planning and management system. Its Product Structure Librarian ensures that only producible newspapers can be planned and problematic impositions can be avoided, which saves both time and money. The extensive range of presetting and ink & water management functions reduce make-ready time, reduce start-up waste and improve print quality. Personnel requirements are also lowered. Depending on the press configuration and the previous working practices, the pay-back period can be less than a year.

MPS Production also opens the way to plant-wide integration. MPS Production acts as the press-related data warehouse, making the integration of the press in an integrated workflow possible. The full range of functionality of ABB's workflow systems covering the entire newspaper production process from editorial to distribution then become available, allowing a further step-by-step extension of the functionality of the systems and the efficiency of the organization.

### **Obsolescence assurance**

ABB provides a continuous upgrade path with the retention or conversion of customer data for all its software solutions. As an example, ABB's production management system MPS Production has had a continuous upgrade path stretching over a period in excess of 25 years.

The hardware components manufactured by ABB have been designed and produced to ensure the longest possible lifetime of the component and the systems based on them. ABB parts remain in production for typically 5 to 7 years and are used for all new installations during this period. Parts which are no longer in production and no longer used in new installations are transferred to service status for 10 years. This means that the original parts are still available for this time. After the service stage, ABB's Business Unit Printing takes over management and support of those parts used in its installations for as long as the installed base requires.

# ABB's integrated workflow solutions

## MPS Cockpit

Revolutionary planning, tracking and controlling system for all products of a newspaper publisher. Takes all involved processes into account, from platemaking to delivery at the ramp.

## MPS Insight

Tracking of the work in progress with a preview of the production end in all departments. Usable anywhere thanks to browser technology.

## MPS PageManager

System for the planning of the structure of the newspaper, advertisements, classified ads and editorial content for all editions. Continuous synchronization between the advertisement and editorial systems and the press capabilities.

## MPS PlateWorkflow

System for the creation of the formes, the generation of the RIP-data for the digital (sub-)pages, and the control of the platesetters fully integrated with the page planning and the press production management system.

## MPS Production

Production management system for newspaper presses with comprehensive functions for presetting the press and the quality control.

## MPS Roll Handling

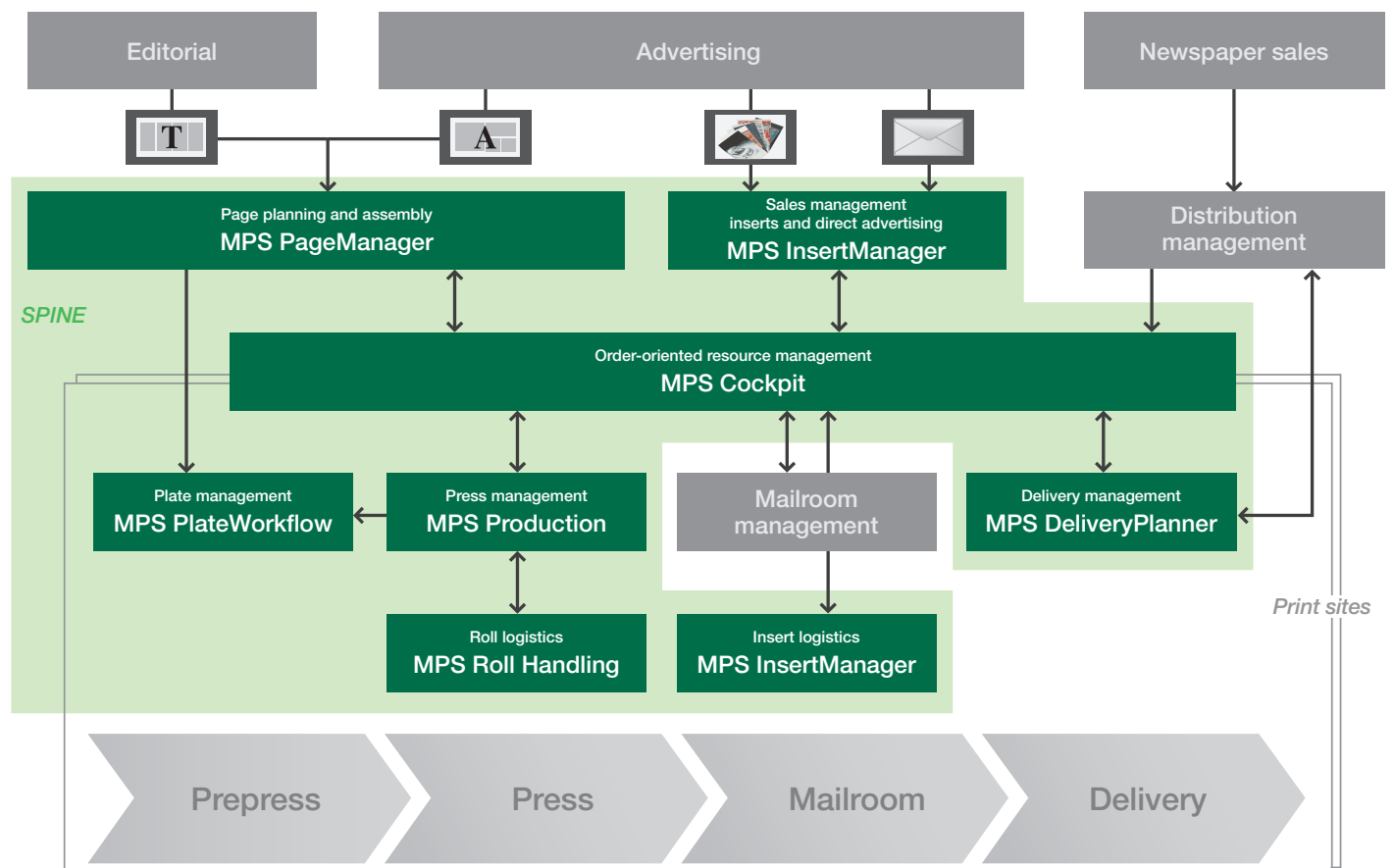
Logistic and control system for the supply of paper rolls and the coordination with the roll loading systems.

## MPS InsertManager

MPS InsertManager supports the sales, planning, production, storage, and the regionalized fine distribution of newspaper inserts.

## MPS DeliveryPlanner

Order-related distribution planning and vehicle management.



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