



# Retrofit solutions for newspaper presses

Extend the life of your presses



- Solutions for all press types
- Modular retrofits without disturbing production
- Long-term availability of spare parts

## Press retrofit

A good newspaper printing press has a far longer lifetime than the electrical systems on that press. Sooner or later – typically after 10 or 12 years – it is advisable to replace the electrical components to ensure the press can continue to run reliably. ABB has a wide range of retrofit solutions ranging from the complete replacement of the controls and drives to modular solutions for single components. This means that you never have to replace more than is really necessary and costs are kept to a minimum.



**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
- Press control replacement
- Replacement of individual control system components
- Addition of production management systems and integration in the plant-wide workflow

**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 multiple Dow Jones print sites in the USA.

**Addition of washing, inking, ink density and register control devices**

New washing and inking devices as well as register and ink density control systems, 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.



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01 Goss Universal in  
McAllen, Texas, during  
a controls retrofit

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02 Control room at  
Le Nouvelliste Sion

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03 Wifag OF370 in  
Halifax, Canada, where  
the controls and drives  
were replaced

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04 manroland Geoman  
in Rochester, NY, after  
a step-by-step replace-  
ment of the PECOM  
controls

### 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.

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

### Press reconfiguration

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

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. Examples of restacked presses include Südostschweiz Medien in Haag, Switzerland.

### 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 and L'Alsace in France.

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





### Complete press control replacement

ABB has supplied dozens of retrofitted control systems on presses from several different press manufacturers worldwide. Typically, the control systems can be replaced without disturbing the night production.

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 'Assurance against obsolescence' on page 7) reassuring and a protection for their investment.

References include 4 Goss Colorliners at Singapore Press Holdings, 6 TKS presses at the Dallas Morning News, a Wifag OF370 press at the Halifax Herald in Canada, 3 Mitsubishi presses at Richmond Times Dispatch, USA, and 7 Miller Nohab presses at Ouest France.

### 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.

Spare parts are available from local ABB organizations and third-party suppliers all over the world.



Advant Controller AC500

## Press-specific modular retrofit solutions

ABB has extensive experience worldwide on presses from all major manufacturers including manroland, KBA, Goss, TKS, Mitsubishi and Wifag. In addition to the solutions mentioned above, we also offer modular retrofit solutions that are specific to certain presses or manufacturers. Some examples are listed below.

### **ABB APOS replacement for Wifag WPOS positioning systems**

The APOS system provides a 100% replacement of all WPOS functions. It gives owners of Wifag OF370 and OF470 presses the security of having a system built with standard components with a long-term availability of spare parts.

The APOS system can be installed very quickly – less than 24 hours is required to convert one printing tower. The system is compatible with both the original and the latest ABB control systems and can therefore be retained in the event of a subsequent press controls retrofit.

This solution is already in use at over 10 different print sites.

### **Modular PECOM press control replacements**

ABB offers a very modular press control replacement concept for selected generations of the manroland proprietary press control system PECOM. A gateway, based on a standard Windows PC and developed jointly by ABB and manroland, allows ABB control consoles and the press management system, MPS Production, to replace the existing manroland solutions without requiring any change to the rest of the control systems.

The PECOM printing unit, folder and section controls can also be replaced on a per unit basis with modern ABB controls solutions. The compatibility goes so far that mixed operation with both ABB and PECOM units on the same press is possible. The compatibility also means that it is very easy to switch between old and new systems and therefore that a press can be retrofitted step-by-step during the day but always be available for the night production.

This solution is already in use at a number of sites including Gannett's print center in Rochester, NY, in USA and the print center of Sud-Ouest, Bordeaux, France.

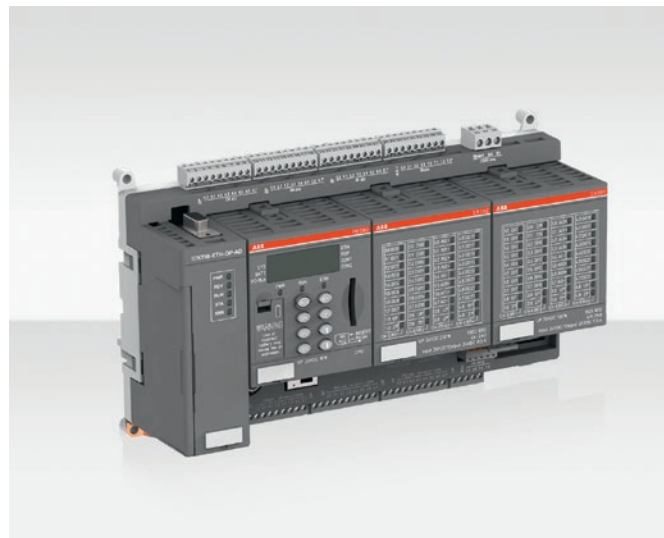
### **Adapter solution for KT94 & KT98 systems**

ABB has a footprint-compatible solution for replacing obsolete control systems based on the KT94 and KT98 families, which have been used on a large number of printing presses.

The adapter solution has exactly the same connection layout as the KT94 and KT98 original devices, but carries modern modules from the AC500 family. This means that no changes to the mounting and wiring are required. All existing interfaces are supported including Ethernet, Arcnet, dualport RAM, CS31 bus etc.

Complete compatibility with fieldbuses and the CS31 I/O bus mean that single modules can be replaced without disturbing the rest of the system. Systems can therefore be replaced in a step-by-step process.

Adapter for the 07KT9x CPU



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## 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. The full range of functionality of

ABB's workflow systems covering the entire newspaper production process from product planning to distribution then become available, allowing a further step-by-step extension of the functionality of the systems and the efficiency of the organization.

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### Assurance against obsolescence

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 30 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 at least this time.



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