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PRESS RETROFIT

Modular retrofit concept for Goss Universal and Uniliner presses

Case study



ABB has proven modular retrofit solutions for Goss Universal and Goss Uniliner presses. These eliminate problems with obsolete control systems, non-availability of spare parts and loss of production due to system failures – and the press doesn't even have to be taken out of production.

To do this the press controls need to be replaced, but how should this be done without taking the press out of production? ABB's retrofit solutions made exactly this possible at the AIM Media Texas printing site in McAllen, TX.

Scope of supply

The scope of the press retrofit included the following:

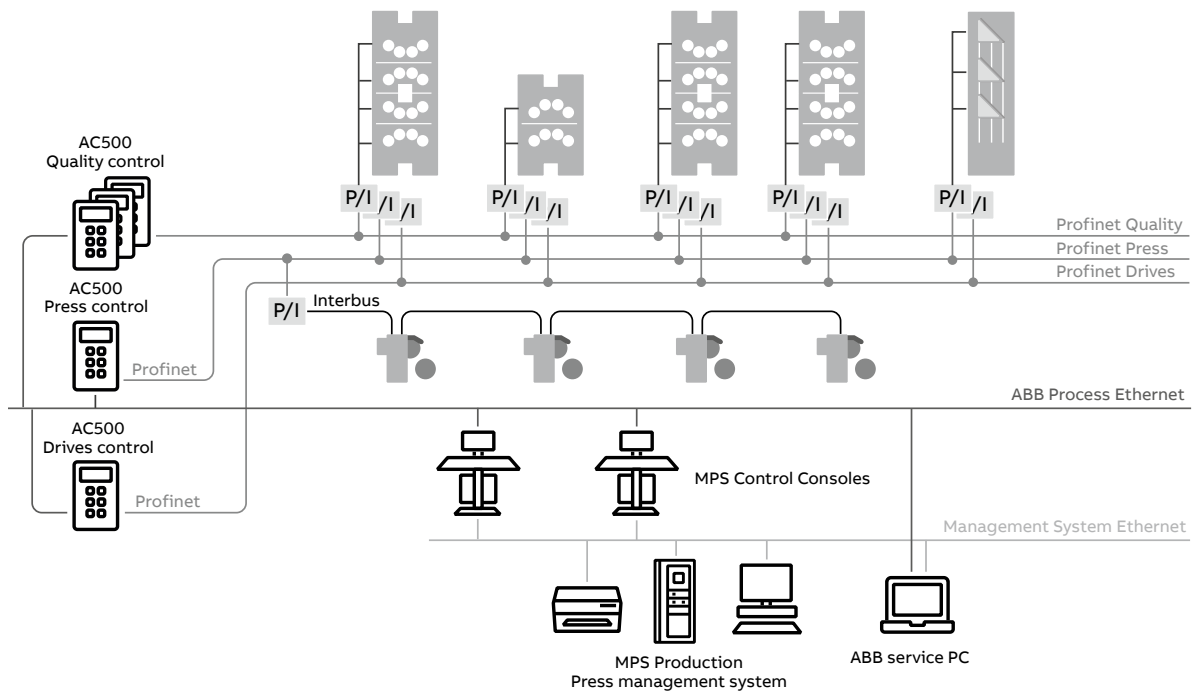
- New press controls, based on ABB's industry standard AC500 PLC system that is available worldwide.
- New drives control based on ABB's MPS Open Motion Control to replace the existing system, which has been declared obsolete by its manufacturer. The use of this ABB solution means that the same VPN connection and service PC can be used for trouble-shooting and maintenance as for the main control system, and also that the drives can be replaced step-by-step at a later date.
- A total of four ABB press control consoles, two per press, all configured for operation in both English and Spanish.
- ABB's press management system, MPS Production, in a twin configuration, for planning, optimizing and monitoring the productions on the presses.

Commissioning in parallel with production

The presses are in use for up to 18 hours per day. The commissioning of the new ABB systems therefore took place in the remaining 6 hours. The existing I/Os were retained and the new systems were installed in parallel with the old ones. For testing with the new systems, the I/O bus and also the SERCOS ring for the drives had to be switched to the ABB system – a process that took less than 30 minutes. On completion of the testing each day, the switch back to the old systems was made.

Once the ABB systems were fully tested, the switch could be made permanent and the old systems removed. At this stage the ABB engineers further improved both the availability of the presses and the troubleshooting possibilities by changing the bus topology. This meant that a single failure would no longer make multiple towers unavailable for production.

The retrofit means not only that there are brand new state-of-the-art control systems on the press, but with our spare parts policy and life cycle management, we can give a 15 year assurance against obsolescence for the ABB systems.



System structure after changing the bus topology

“We selected ABB for this critical task due to their reputation for quality work and performance, impeccable customer service and support, and the relationship we have developed over many years with their key personnel.”

Jeremy L Halbreich, Chairman and CEO of Aim Media Texas