

# Operational savings are offered to new concrete

By installing servo drives with integrated functional safety, HMIs and controllers from KEB Automation on its new production line, Concrete Canvas has reduced wiring installation costs and has greater flexibility in terms of future expansion plans for machines and additional lines.

Due to increased demand for its specialised products, the company purchased a new facility in Pontyclun, about six miles from its original factory in Pontypridd. As there was no off-the-shelf machinery available for producing its new product, all the design and build work was performed in-house.

The continuous production line for the new prototype rolled product comprises a variety of machines, equipment and automated systems, including general dry cement powder handling systems, a main process section that forms the cement filled web, coating machines, web handling machines and rewinders.

“The prototype production line is quite complex and there are many different machines with parts that need to be moved at different speeds,” explains Graham Rose, engineering manager at Concrete Canvas. “We therefore started to search for a suitable supplier of drives that could handle this type of application.



KEB Automation has supplied its products and services to Concrete Canvas

“We needed the drives to be flexible and easily expandable to allow easy, rapid future expansion of the line and individual machines,

with as little panel wiring as possible,” he continues. “Another key requirement for us was safety, so we wanted drives with in-built functional safety.”

After a thorough supplier evaluation process, which included on-site demonstrations, KEB Automation was chosen for its servo drives with FSoE (FailSafe-

over-EtherCAT), as well as HMIs, a smart controller and the COMBIVIS 6 software that provides a common development platform.

“At present, we have about ten COMBIVERT S6-A servo drives and some F6 drives from KEB operating on the production line,” says Rose. The lower powered drives tend to perform lighter duties

such as transporting the web material, whereas the larger drives control the conveyors and mixers for the cement, the main web forming process section and the centre winding machine, as well as performing general positional and control tasks.

“Some of the drives are linked so that they operate synchronously, which is critical when controlling line speed set points and the intricate, varying tensions of the web material,” he adds.

## ELECTRIC MOTORS USED

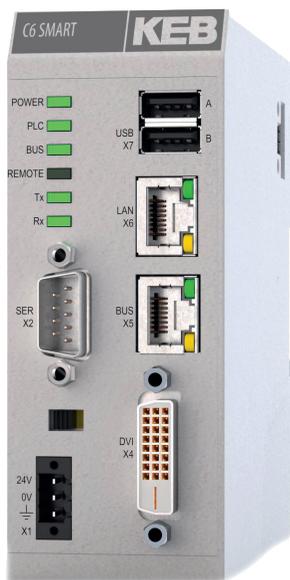
“We use a variety of electric motors on the line including synchronous and asynchronous induction motors, permanent magnet motors and servo motors,” says Rose. “The S6 drives are so flexible that they can drive any type of motor, with or without encoders, so this was never an issue for us.”

Concrete Canvas also installed a C6 smart controller from KEB to control and manage all the automation and safety programs.

“We’ve been very impressed with KEB in terms of their technical capabilities and support over the last 12 months,” says Rose.

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