



SAFE SPEED PROVIDES CONTROL IN SAFE PROCESSES

Safety is the number one priority for ABB – and the productivity of their clients is the reason for their existence. This is perhaps not so strange, as the company – with its 135,000 employees – supplies products and systems for power transmission as well as process and industrial automation worldwide.

Process Industries, located in Västerås, is a unit within ABB Process Automation, which customises complete solutions for heavy process industries in the Nordic countries.

The unit supplies solutions for operation and automation, in the form of properly dimensioned systems, that provide safety, control, and a good overview, in the various stages of the production processes. Their solutions are based on the needs of the production plant, which also include ensuring compliance with all the requirements of the Machinery Directive on functional safety in

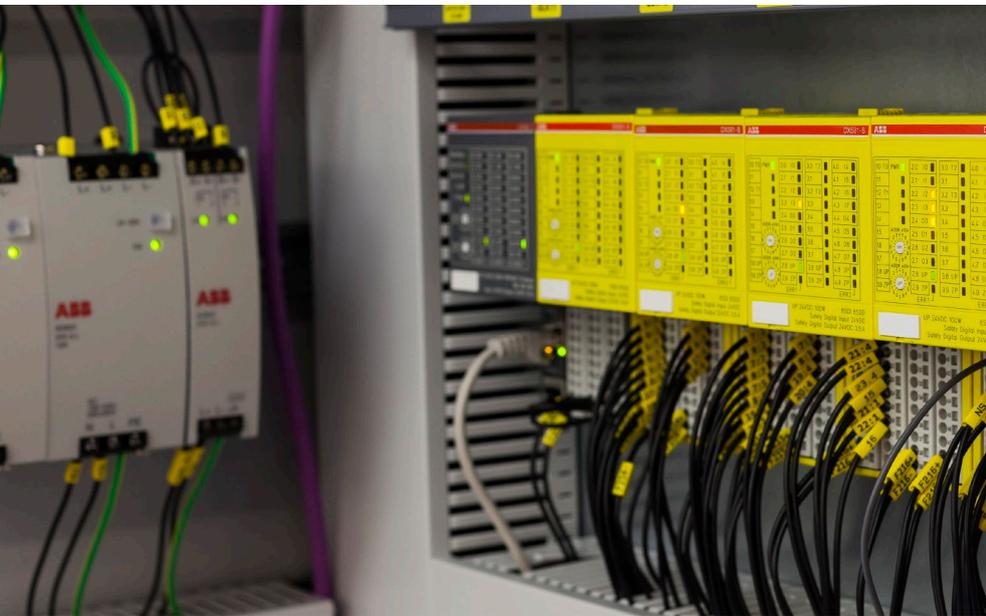
safety-critical applications. It is about making sure that each workplace is safe. However, functional safety is also a great foundation for operational reliability, and operational reliability means everything to an efficient plant.

Certified and reliable input with the FSI 800 series

“Safe speed is a requirement for most industries today”, Project Manager Finn Agensjö from ABB Process Automation stresses. “This makes the functionally safe encoder a vital component in measuring rotary speed.” He is working on a number of parallel expansions and new

“Correctly defined machine safety increases productivity.”

Eric Carlsten, ABB



ABB's certified safety modules receive safe speed feedback from Leine & Linde's FSI 800 series, providing a good foundation for flexible safety solutions.

investments in the steel and paper industry, and these often include control systems and operating systems as well as safety systems. In a current example from a modern kraft paper industrial application, ABB was able to start on the basis of the customer's existing motors and need for a safety solution. Using new transformers, frequency converters, safety systems and control systems, it was possible to meet the customer's requirements for both production capacity and increased staff safety.

Leine & Linde's FSI 862 encoder is part of the drive system in that it provides reliable feedback on speed to ABB's ACS 880 frequency converter. This is possible as the encoders are certified to safety level SIL2/PLd and communicate well with ABB's built-in safety functionality. The encoders also have a safe and non-slip mechanical installation, with a guide pin or a key and keyway. "It is an advantage to have products that work well together. It means the customer knows that there is a proven safety concept for motors and drive systems that can be installed directly", says Finn Agensjö.

Implementation is a vital part

Every second of downtime in a production plant costs money. Production stoppages are naturally kept down to a minimum. When expanding a plant, which may involve hundreds of technicians and fitters, there may only be one week's planned time for carrying out the work in the year. Implementation therefore needs to be carefully planned and everything needs to be ready.

Functional Safety and the future

"Each assignment begins with an analysis, which often forms the starting point for the process of improving efficiency", explains Eric Carlsten, drive systems manager at Process Industries. "Correctly defined machine safety increases productivity. Therefore, this is the right way to go." Functional safety ensures the availability of the processes. ABB meets the customer's skills requirements and thus not only complies with the current Machinery Directive but adapts, integrates, and secures effective production processes. As a supplier of reliable and safe speed feedback, Leine & Linde is proud of its involvement in this work.

Some crucial factors for the FSI 800 series

- Certified incremental encoder for safety level SIL2/PLd category 3.
- Safe installation that meets mechanical requirements for built-in redundancy.
- Sturdy ball bearings and electronics that have the ability to handle extremely long periods of operation, despite knocks, vibration, and temperature fluctuations.
- Proven product series, together with a solid track-record of quality and service from the supplier.