

RETROFITTING A MAJOR PROCESS PLANT FOR ALUMINIUM PRODUCTION

MARKET: MACHINE AND PLANT ENGINEERING

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THE TASK

Achieving a more environmentally friendly aluminum production with increased production capacity. All mechanical switches are to be monitored for lead breakage and several hundred valves in the exhaust gas purification system are to be automated. Although there is a great number of widely distributed inductive and optical sensors, cable trees and junction boxes are to be avoided. The system is to be realized in several steps and will contain an integrated safety concept.



Fig. 1: Hall for aluminum production

THE IMPLEMENTATION

During the 3-year project phase of this major plant, the automation technology was adapted to AS-Interface in 3 steps. The exhaust gas systems and the transport systems for the electrodes as well as the safety systems (including crane systems) are controlled via AS-Interface. The overall length of the cable network with several masters and repeaters amounts to approximately 3 kilometers.

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Fig. 2: Crane system for electrodes

CUSTOMERS' BENEFIT

Gradual changeover to new automation technology. Low capital expenditure and simple integration of the safety systems. Hardly any production interruption during the simple and quick changeover to AS-Interface.

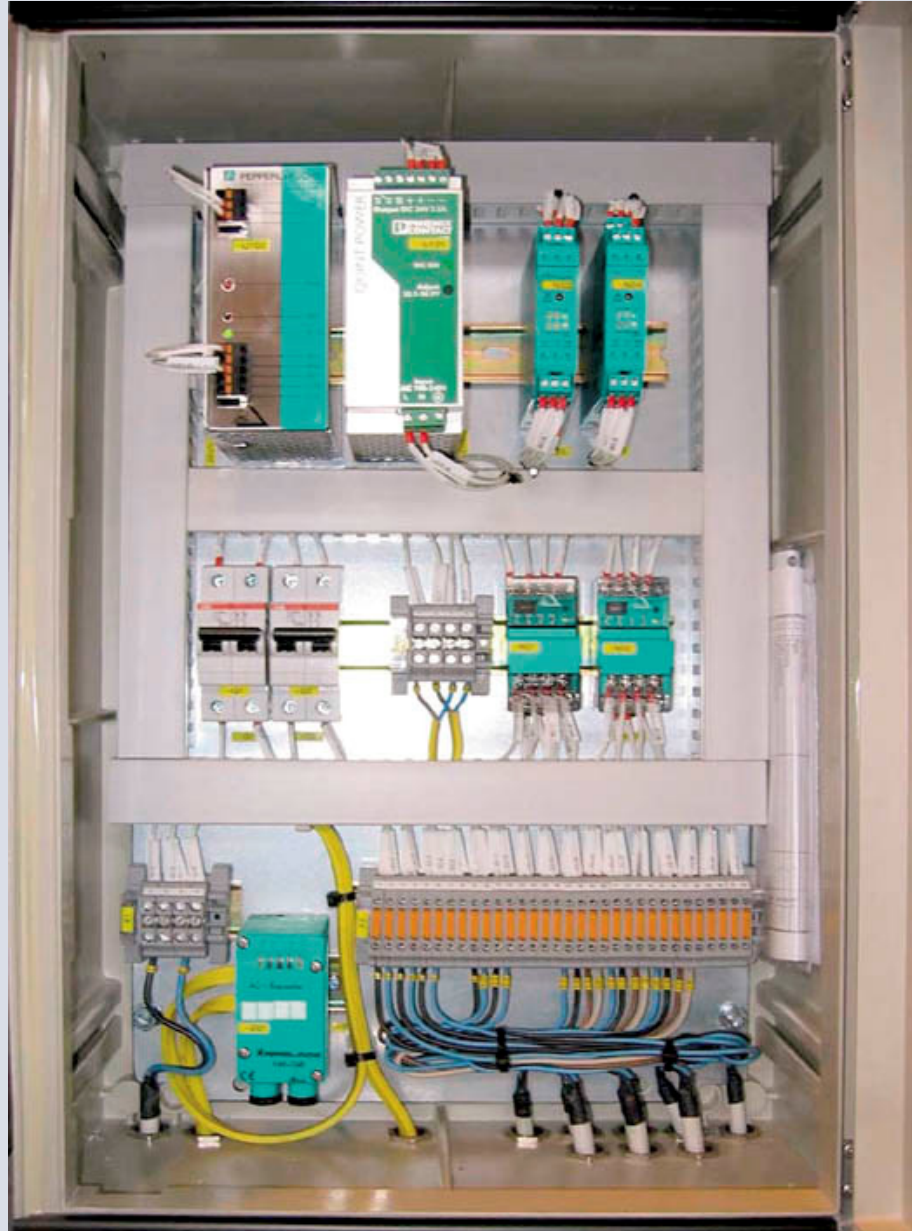


Fig. 3: Switch cabinet with AS-Interface