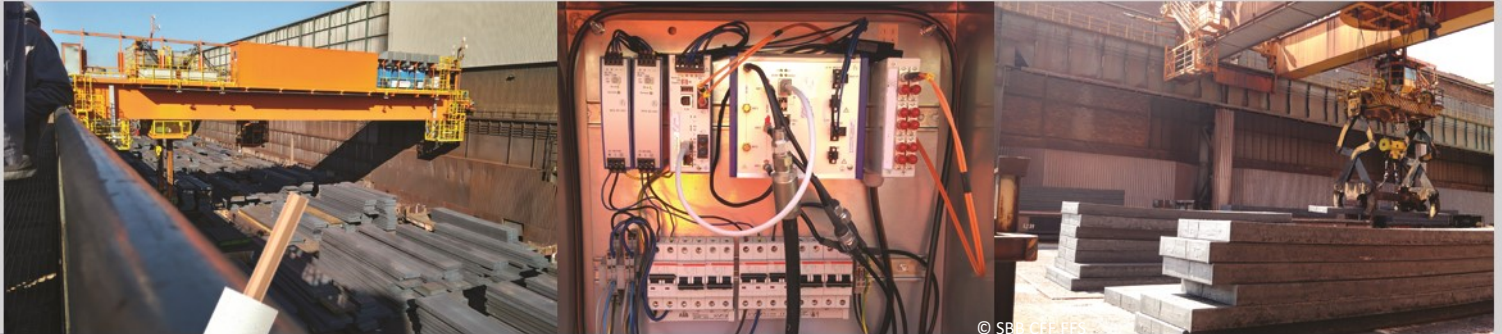




Kabelwerk **EUPEN** AG
cable



Wireless control in steelworks

Eupen EUCARAY® Radiating Cables enable stable communication
monitoring and control of crane systems

Customer **SALZGITTER FLACHSTAHL**

Situation

Salzgitter Flachstahl GmbH (SZFG) operates one of the most modern and efficient integrated steel mills in the world. The plant produces just under 5 million tonnes of crude steel and around 3.5 million tonnes of rolled steel per year. Much of SZFG's sales go to the automotive sector, vehicle manufacturers, their suppliers, cold rolling mills and steel service centres. Further shares are purchased by industry (e. g. manufacturers of household appliances, mechanical engineering). Deliveries to the pipe sector - from large-diameter pipes to pipes for fuel injection systems - are also of great importance.

The steel produced at the plant leaves the continuous casting plant in the form of slabs, which can be up to 35 cm thick and weigh up to 35 tonnes. These are temporarily stored in the slab warehouse before they are processed further. In order to move the slabs, large bridge cranes are used, which are moved on rail systems of several hundred meters. Wireless communication based on WLAN is used to transfer control and operating data from the control centre to the mobile crane.



Requirement Uninterrupted wireless communication via WLAN is essential for the smooth operation of the crane system. Conventional antenna systems have not achieved the required communication stability, because there has always been at least one communication interruption when switching from one transmitter antenna to the next. In addition, the signal strength fluctuated sharply, resulting in unreliable data rates.

The aim of improving the system was to reduce communication interruptions and stabilize the signal strength to make communication more reliable.

Solution TELCAT KOMMUNIKATIONSTECHNIK GmbH is responsible for the network infrastructure and has decided to use EUCARAY® Radiating Cables from Eupen.



The Radiating Cables distribute the incoming WLAN signal homogeneously along the entire length of the cable. The receiving antenna has a direct line of sight to the transmitting cable at all times. Switching between two transmitters now takes place in a precisely defined way. This ensures stable and homogeneous wireless communication.

TELCAT uses the EUCARAY® RMC12-CL Radiating Cable, which is optimized for WLAN communication at 2.4GHz.



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