Press Release

Conductix-Wampfler finalizes order for SMS Group

Special energy and data transmission for Russian steel

Weil am Rhein, March 2017. Conductix-Wampfler, one of the world's leading manufacturers of systems for the transmission of energy and data to mobile consumers, has developed and delivered several large motor driven cable reels for the steel pan, scrap, and slag transport cars of the Tulachermet Steel Company in Tula, Russia, 200 kilometers south of Moscow. The client is the internationally active SMS group, which specializes in systems and machines for the processing of steel and nonferrous metals. The challenges of the project: six double-spiral motor driven cable reels for cables totaling over 1,000 meters in length, as well as a hose reel for carrying argon for use in a plant with a particularly harsh atmosphere. The specific electrical requirements demanded close cooperation with a leading cable manufacturer.

The special reeling cable developed in collaboration with the cable manufacturer is unique on the market. With six shielded energy strands for frequency-controlled drives, 20 control strands, two shielded twisted-pair control lines, and six Type 50/125 optical fibers, this special cable is very specifically adapted to the application and local regulations. The reels, with their unusually long winding lengths, were installed in protected areas above the working environment. The cables and hoses are suspended and guided by roller bearings every three meters. The reels are driven by AC motors – in combination with the MAG-Drive magnetic clutch developed by Conductix-Wampfler, "the harmonious balance of the motorized reels with the special cable, all driven through the very robust magnetic clutch, guarantee long-term reliable use in these hot, aggressive environments," says Jürgen Schmidt, Sales and Application Engineer at Conductix-Wampfler.

Rotary fiber optic transmitters for large data volumes

The steel plant solution developed by Conductix-Wampfler makes use of rotary fiber optic transmitters (TFO), which are ideal for the transmission of

large volumes of data over larger distances. They can be equipped with single mode (9/12) or multi-mode (50/125 and 62.5/125) fiber optic cables, a single mode (< 1.5 dB) or multi-mode (< 1.0 dB) damping, and in variants for 40, 80, or 120 turns and 6, 12, 18, or 24 fibers. The standard connector is a Type ST, but FC, SC, and other types are also available upon request.

The solution package worked out – with standardized cable reel components for simple spare parts stockpiling – ensures the smooth, consistent operation of transport cars. "For the Tulachermet Steel Company, reliability is top priority, since every unplanned stoppage leads to costly losses in productivity," concludes Schmidt.

Photo:

Caption: Motorized cable reels and special cables with a total length of over 1,000 meters for the supply of push carts for liquid iron and metal scrap.

Caption: TFO rotary fiber optic transmitters – interference-proof data transmission in the minimum space

Caption: Hose reel with rotary transmitter and a 2 x 1" connector for the supply of argon gas with two hoses

Press Release

Caption: Rotary transmitter with a 2 x 1" connector for the supply of argon gas with two hoses

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