



Tata Steel: Ready-to-connect hydraulics containers with the entire drive and control technology

Compact Power Packages for Steel Manufacturing

An innovative solution for the Indian steel giant Tata Steel: Specifically for the coke transfer machines of a new steel plant, Bosch Rexroth conceived and realized four containers with the entire hydraulic system for the drives and controls. Technically optimized and ready to connect, the plug & play solution is designed for quick commissioning. It can be easily integrated into existing systems and does not require any additional building investments.

Tata Steel is the biggest steel manufacturer in India and currently expanding its capacities massively: At a property measuring about 14 square kilometers within the Kalinganagar industrial complex (Odisha District), the company is erecting a giant steel mill, which will produce 6 million tons of steel annually after its completion. With a coking plant, sinter plant, blast furnaces, and steel and hot rolling mills, the plant covers all major manufacturing steps in steel production. Bosch Rexroth planned and delivered four containers with the complete hydraulics used to drive and control the coke transfer machines. While the hot coke cakes are being transferred from the furnace to the quenching car, the Rexroth solution carries out additional tasks such as opening the furnace door, cleaning the gaskets at the furnace doors, and controlling the movement of the cake. Smoke and dust emissions are being trapped by an extraction hood system and filtered afterwards.

Developed and manufactured in India

The four walk-in containers were manufactured at Rexroth's Indian site in Sanand and are optimally suited to the harsh operating conditions on site in Kalinganagar. The systems are almost exclusively based on Rexroth components: from the hydraulic power unit with the motor and pump groups, accumulator stands, valve manifolds, through to the electrical junction boxes – all piped, wired and tested in advance. Double partitions with a special insulation protect the equipment inside against water, dust, and heat. Integrated fire protection and fire alarm systems ensure maximum fire safety. Two of the containers have been successfully in operation since 2014. Two further units have been put into operation at the end of 2015.

Tough application

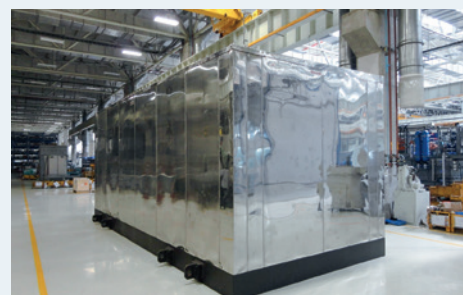
Optimal protection against water, dust, and heat for the drive and control technology in the hydraulics container.

Ingenious solution

Ready-to-connect plug & play solution for quick commissioning without any additional building investments.

Exactly

"The high quality of Bosch Rexroth's container solution has convinced our engineers, not least because of the comfortable remote maintenance system."
Sheshadri Kumar, Tata Steel



Solved with

- ▶ Container with insulated double partitions
- ▶ Hydraulic power unit with motor and pump groups
- ▶ Integrated fire protection systems