



STEEL MEETS CONCRETE

Crane technology from STAHL CraneSystems enables quick and safe stacking and loading of heavy steel plates at one of the world's leading developers of industrial production plants for concrete elements.

Features and Benefits

- Precision, semi-automated lifting
- High-performance
- Intelligent control technology
- Continuous hoist synchronization
- Improved workflow, production, and safety

Industry Group: HMI & MMA

"Thanks to the professional and close collaboration, the project was realized in a very short time, and the new pallet crane facilitates and accelerates the workflows of our customer immensely."



The SHF 60 wire rope hoists are operated in tandem and are equipped with special articulated trolleys in a particularly low build.

The company EBAWE in Eilenburg near Leipzig, Germany, develops, manufactures and installs production plants for the industrial manufacture of a wide variety of concrete elements. Steel pallets of all types and sizes are moved using a semi-automatic pallet crane which stacks and loads the manufactured pallets for the concrete industry – the crane technology for this comes from STAHL CraneSystems, a brand of Columbus McKinnon.

Due to an expansion in production at the premises of EBAWE Eilenburg and the resultant higher handling requirement, stacking and loading of the pallets must now proceed faster than before. EBAWE therefore contracted Gokran GmbH Eilenburg to deliver a high-performance, semi-automatic pallet crane.

Intelligent crane technology from STAHL CraneSystems ensures the double-girder overhead traveling crane picks up the pallets from the production area in the longitudinal direction to the hall, turns them by 90° with the help of an automatic positioning feature, and then

stacks them one on top of the other in the storage areas. The pallet is picked up with a target-controlled gripper, which adjusts its gripper arms semi-automatically in such a way that the steel pallet is gripped securely and thus hangs positively from the load attachment device.

All functions of the crane and the load attachment device are controlled by frequency inverters. Data is exchanged via Profinet and organized by a Siemens S7-1200 PLC installed on the crane bridge. The complete crane, including load attachment device, is controlled by a radio remote control, including visualization of the individual loads, error indication as well as operating information on the display. The double-girder overhead travelling crane is equipped with two trolleys and STAHL CraneSystems brand SH 50 frequency-controlled wire rope hoists with a total S.W.L. of 16,000 kg and a track gauge of almost 30 meters. In addition to hoists, SR wheel blocks with radio-controlled travel drives, LT coupled end carriages and driving gear for the crane bridge, the complete control technology (including commissioning) also came from STAHL CraneSystems. The hoists' frequency inverters are synchronized continuously via integrated synchro cards so that the load hook position of the four wire rope hoists does not change when tandem operation is selected.

When the crane is started and the lifting beam is attached, the load hooks are aligned semi-automatically according to the criterion of even loading, and all drives of the pallet lifting beam are referenced. This ensures that, with uniform load distribution to the hoists, the lifting beam is in balance and the functions of the lifting beam, with their target control of the slewing gear, the grippers and longitudinal adjustment, are ready for use.

STAHL CraneSystems has worked closely with Gokran GmbH since its foundation in 2011. Crane kits, wire rope hoists and crane components for various projects are supplied regularly to the crane manufacturer. EBAWE Eilenburg is a long-standing customer of Gokran Eilenburg. Ronald Gollasch, managing director of Gokran GmbH, emphasises: "Thanks to the professional and close collaboration, the project was realized in a very short time, and

the new pallet crane facilitates and accelerates the workflows of our customer immensely.”



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