# Switching technology for extreme conditions

Categories: JOEST,Foundry & Steel Industry

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**Blumenbecker Automatisierungstechnik develops control system for a JOEST project in a metal foundry in Mexico.**

Vibrations like in a roller coaster at up to 50° C heat. These are not conditions under which switching technology feels at ease. But Uwe Podlich from Blumenbecker Automatisierungstechnik GmbH and his project team have achieved just that. On behalf of JÖST GmbH & Co. KG, they have developed and built heat-resistant and vibration-proof switching technology for two mobile furnace charging cars. Running on rails, the charging vehicles transport scrap material and alloying additives from the material boxes to the melting furnace in a Mexican metal foundry, where they then feed into the latter. Special feature: The control technology sits directly on the machines and is thus exposed to the extreme ambient temperatures as well as the strong vibration caused by the vibrating conveyor trough on the vehicle.

**First turnkey project for the customer JOEST**

It is the first total solution that BAT implements for the vibratory machinery specialist JOEST. The colleagues have been supplying JOEST with control cabinets since 2005. For the first time, engineering, electrical wiring, software development and commissioning were handled by BAT. All this with a very ambitious schedule of only twelve weeks. "In order to achieve this, work had to run in parallel from switch cabinet construction to electrical installation and software development. A close coordination of all participants was enormously important, "explains Project Manager Podlich.


**New control concept involved a change of mindset**

The time frame became even tighter when the end customer changed the entire concept of the offer phase at the start of the project. Instead of the planned central control station, the controls should now be a component of the vehicles. "That made it necessary to develop a fundamentally new technical concept," remembers René Findling, who has managed

the project as a key account manager. The phone lines where pretty busy between BAT and JOEST at the time. The two project managers Uwe Podlich (BAT) and Reinhard Pannenbäcker (JOEST) consulted each other on daily basis.

**Software programming and commissioning by KAT**

Solutions were found in close teamwork. This included installing only vibration-resistant and heat-resistant elements, strengthening the control cabinets against vibrations and installing extra air conditioning units. In addition, the cabinets were equipped with a rubber buffered suspension. Programming the Allen Bradley controller, which is not widely used in Europe, was a further challenge. "But even here Blumenbecker was able to deliver thanks to its international presence," says Pannenbäcker with appreciation. Blumenbecker KAT Automation Private Limited of India has programmed the control software and is also responsible for the commissioning of the vehicles in Germany and Mexico. "With Mhapne Prabhav, we have our own contact person for projects with the KAT", which, according to Podlich, makes the German-Indian cooperation fast and flexible.

All in all a successful project that makes JOEST as well as Blumenbecker wanting to do even more. Joint follow-up contracts for which BAT is turnkey supplier are already in the pipeline.

Tags: JOEST,JOEST Group,Blumenbecker,Furnace Charger,Control Concept