

nates the need for bucket elevators. Return sand is stored in five return sand silos. These are loaded in alteration but emptied simultaneously to ensure that even in advance of the actual mixing operation the return sand is already "blended" or its consistency improved.

Maschinenfabrik Gustav Eirich was commissioned to provide the basic and detail engineering and also deliver the complete mixing and weighing systems along with the complete process control system. The conveying equipment and structural steel engineering are to be provided by the customer. The process control system covers everything from the conveyor

belts below the moulding systems to the moulding machine silos above the moulding systems. Eirich is to deliver the hardware, software and the process visualisation system.

The Sandexpert software package used, in combination with the Qualimaster AT1 online testing device, enables preventive control of the moulding sand formula in accordance with mould-specific parameters. Deviations from preset desired values result in automatic moisture correction or correction of the additive batching. The graphical and statistic evaluation of all measured values (e.g. moisture, temperature, compactability, shear

strength, compressive strength) is also carried out with complete online documentation.

Eirich will also be responsible for the supervision of assembly and of the customer's assembly personnel, along with commissioning and the training of the operators who will subsequently operate the plant.

Commissioning of the foundry is scheduled for spring 2010. When this new production plant goes into operation, Atik Metal will have one of the most advanced plants for the preparation of foundry moulding sand and only the second plant based on the Evactherm process in Turkey.



ROTOMAX® load turning devices for fast and safe handling of moulding boxes

## Turning of bulky moulds in foundries

Advertisement

The turning of moulding boxes is a difficult and risky task associated with a number of problems. The risk of accidents is high and the moulds get easily damaged, as the moulding boxes turn over in an uncontrolled manner if not handled properly. Such accidents are costly and dangerous. They often result in bodily injury to the foundrymen.

A well-known manufacturer of load turning devices, marketed under the brand ROTOMAX®, has tackled these problems by designing and supplying various solutions for safely turning both filled and empty moulding boxes. The ROTOMAX® load turning device shown in the picture is designed for a payload of 12 t. The motorized equipment is adjusted along the cross beam to the specific width of the box. The distance of the driving wheels is being displayed in digital form, enabling the operator to instantly set the right distance to the casting box. Moreover the devices can be fitted with a system that automatically balances the center of gravity. Thus the unknown center of gravity

of the filled moulding box is determined automatically and the device set accordingly. This ensures that the box is at all times suspended in a horizontal position and the box halves can be easily placed on one another. As the device is operated by remote radio control, the foundrymen can observe and control all movements from a safe distance.

ROTOMAX® load turning devices are designed for a very wide range of applications, e.g. for turning heavy machinery, Diesel engines, welded structures, etc. and for payloads from 1 to 100 t. The devices can be supplied in standard and special designs.

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