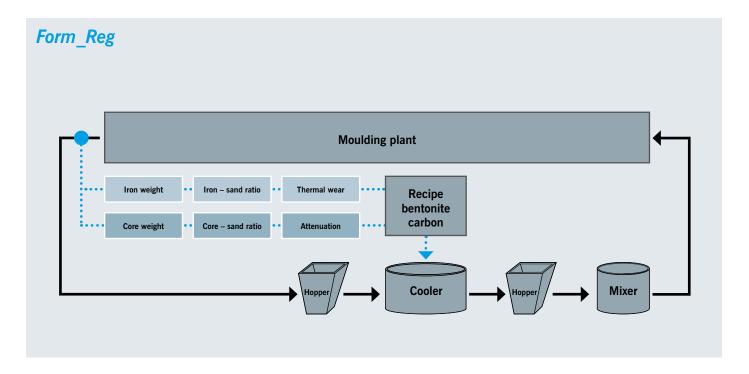
MOULDINGSANDMANAGEMENT 2020



Casting-oriented menu-driven control



The task

A premixing unit was to be used immediately after the shake-out station, to adjust the dosing values for auxiliary materials, such as bentonite and lustrous carbon brighteners, for direct loss compensation.

Approach:

In connection with the box tracking program of the moulding plant, the recipe value is ascertained by the mould material balancing method.

Solution:

A separate computer manages the model file with all the relevant data. The implemented mould material balancing over thirty working days ascertains the condition in the used sand and determines the crucial wear values for bentonite and lustrous carbon brighteners. The model data provided by the box tracking program are forwarded to a shift register. The current condition values of the latest castings are processed for every batch prepared in the premixing unit. The proposed recipes, which are automatically transferred to weighing control, result from mould material balancing. Sand is thus brought to a standard level for the specific boxes. The used sand can be left mature in the used sand bunker following freshening and can be reprocessed hours later.

Advantages:

- **1.** Reliable adjustment of the recipe to local conditions
- **2.** Homogeneous composition of the sand balance
- 3. Homogeneous sand at the moulding plant that is overloaded by the preventive control system
- **4.** Completely unmanned operation with automatic adaptation to the casting program

