

GIFA visitors fascinated by innovation

The most visited GIFA ever was a great success for the Michenfelder Elektrotechnik GmbH & Co. KG from Mainz, Germany, as well. But more important than continuously huge numbers of visitors at the booth, was the shown interest for the modular concept of the Moulding Sand Management System FoMaSys. Michenfelder was mainly focused to inform old and prospective customers about the advantages and special qualities of the FoMaSys concept - and to fill them with enthusiasm for it. The most discussed questions were as follows:

- Why do you have to integrate moisture measuring and control systems into sand coolers and green sand mixers and how to assess the forty years lead of knowledge and development against "newcomers"?
- Why is it not sufficient to measure the sand moisture onto conveyor belts only?
- Why must a sand cooler not only cool but also reliably pre-moisturise the sand to at least 2%?
- Why does Michenfelder place the sand testing system VEDIMAT consciously not at the mixer but directly in front of the moulding machine and how can, because of this, the interconnected FoMaSys modules keep the compactability fully automatically constant directly at the moulding machine?

Of course there were also innovations and further developments presented. The highlight was the Moulding Sand Matrix (FIG. 1). This is an optional tool of the existing central process control system MiPro. It needs profound knowledge about what happens with the sand during the process of preparation and it needs experience and time to draw the right conclusions from the flood of sand production data to start the right countermeasures. Unfortunately this is exactly what is

missing or not available in an appropriate extent in foundries' sand preparation plants today. At exactly this point the Moulding Sand Matrix comes in. It works like a navigation system that leads the user through the sand plant production processes in real time. Moving quality indication points within a quality window - whose frames symbolize the set upper

more efficient and therefore resources-saving. In the end it results in a better casting quality and reduced rate of bad castings as well. The Moulding Sand Matrix is currently tested in practice for the first time.

Michenfelder makes the MICOMP moisture control series fit for future. At GIFA the prototype of the

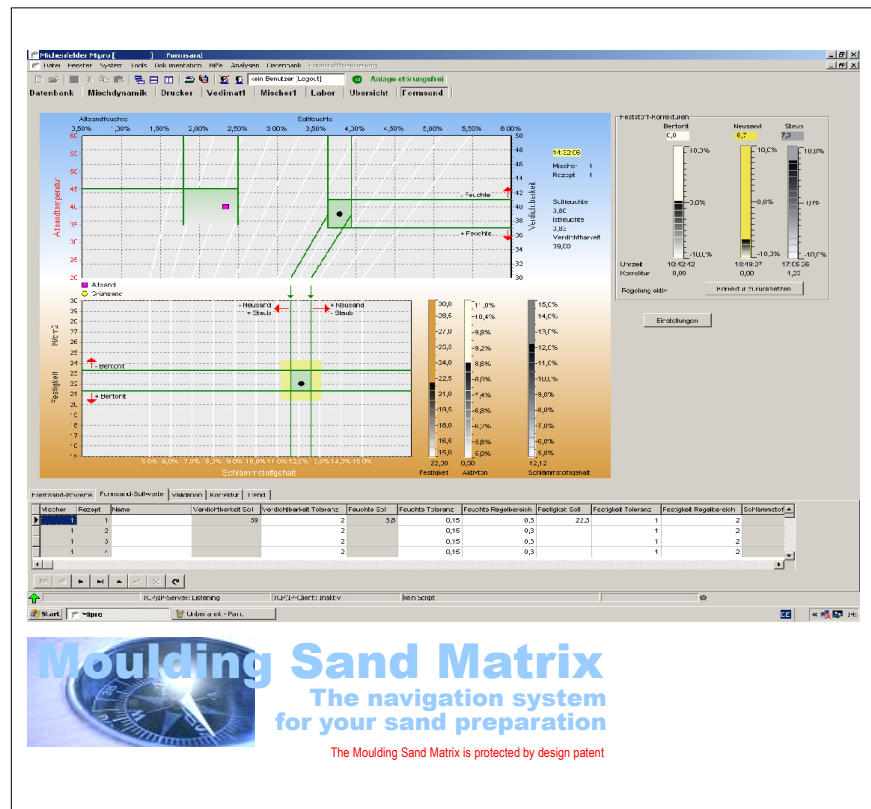


FIG 1: The Moulding Sand Matrix – The navigation system for sand preparation Photo: Michenfelder

and lower quality ranges of different sand parameters - show the current position of the moulding sand quality always in real time. If an indication point is exceeding a quality window border, the system offers target-oriented countermeasures in plaintext. The clear benefit is, that the user knows at a glance where and how he has to act to bring the sand quality back into desired and pre-set quality ranges again - without costly and difficult analyses of series of measurements. The user gains time because he knows faster what to do. Moulding material can be used more and

MICOMP 5 was introduced. Precision and reliability should remain the outstanding performance characteristics. The measurement circuit component will in future be moved to the mixer/cooler and connected to the process computer through field bus technology. The malfunction frequency and the amount of cabling used will be reduced and the connectivity will become much more diverse.