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New generation of hollow block moulds presented

At the Bauma 2007, the Lengenfeld-based Kobra company presented a new generation of hollow block moulds, which have cores and lamellae made from wear-resistant polyurethane (PU).

The mould insert itself is integrated in the mould bottom in a circumferential special elastomer frame and promises outstanding properties in compacting and handling.

The hollow block mould 'Project "ITG™"' at the Bauma 2007

In close cooperation with one of the market and technology-leading companies for polyurethane special elastomers, Kobra have developed the first integral PU mould for the manufacture of precise hollow blocks. The innovative mould constructors have been operating a new production line for the manufacture and machining of PU products at their main site in Lengenfeld since April 2007.

The study 'Project "ITG™"' is still in the test phase, but it could soon become a permanent part of Kobra's range of moulds. The company is preparing itself in this way for series production.

The integral PU mould was also the highlight of Kobra's trade fair booth at the Bauma 2007 in Munich.

Besides the core brands, 'Optimill carbo™' and 'Optimill nitro™', all manufacturing methods, technologies and equipment variations used in the construction of moulds were illustrated using parts of complete mould bottoms and product presentations. Currently, 98.9 % of all moulds at Kobra are completely milled and hardened. In keeping with the slogan 'vision to reality', the company provided information at the Bauma on the high standards with which concrete block moulds are currently created at Kobra, and the practically-oriented visions which are pursued. The design area was also the subject of great interest, where the mould constructors presented endless possibilities for the design of stones. Kobra's archive currently encompasses more than 11,000 different stone types.

Energy-efficient and machine-sparing frame construction

The most conspicuous detail of 'Project "ITG™"' is a new-type frame, which completely encloses the mould insert on the outside with polyurethane. Thus the insert is anchored in the frame and completely decoupled. Frame breakages and premature material fatigue are thus theoretically things of the past. The low weight of the mould facilitates an energy-efficient and machine-sparing work method.

Variability and flexibility in mould handling

The core bar assemblies are anchored stably in the lightweight frame. The new-type cores and core bars as well as all of the core bar assemblies are individually replaceable. The PU cores are available as closed components in two construction variants. Special PU lamellae protect the mould cavity, in particular in the inlet area.

Reproducibility and speed of reaction

Kobra's mould constructors are following their principle of reproducibility for repeat orders with this project too. With the new

The multi-component PU-processing machine has been in operation at Kobra since April 2007.

7-component PU-processing machine, Kobra are able to systematically approach the ideal material formula for each customer and application. If this ideal recipe has been found, the formula can be 100 % reproduced or improved in detail.
If one considers the extensive production and machining times, Kobra has created a genuine alternative to completely milled steel moulds with the new production line. Special elastomers enable shorter production times for complete moulds as well as wearing and spare parts.

In times of continually rising prices and limited availability of high quality steel, Kobra is relying, as the first company in the world to do so, on the introduction of PU technology in the construction of moulds and is thus reacting to growing demand in the hollow block markets. Using new technologies, Kobra is taking a big step towards faster availability of hollow block moulds.

Mature state of the art steel technologies stand for reliable, quality, German-made products. However, greater proportions of PU in the mould offer the customer numerous possibilities to adapt different mould parameters and thus the tool to their own production conditions. Block-making plants and mould constructors can together gain a little more independence and profitability with the new generation of hollow block moulds.

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