## Kobra Formen GmbH, 08485 Lengenfeld, Germany

## New bolted hollow block moulds from Kobra for the Middle East

Kobra has been selling a new generation of bolted hollow block moulds worldwide for over one year. The Middle East remains an important market for hollow block products. Following the crisis-related decrease in demand in 2009, the market situation has constantly improved. The building material industry is demanding innovative German-made products more than ever before, including concrete block moulds from Kobra.

With the introduction of mould technology without welding seams, Kobra has succeeded in significantly improving the stability of the hollow block moulds. According to customer records the service life extension lies between 20 and 50%. The structure of the mould bottom has been thoroughly revised and fulfils the structural conditions required for the use of the »Optimill carbo« case hardening process, known from the paving sector, for moulds with a product height of more than 150 mm also. The company's objective is to gradually extend the service life of hollow block moulds up to the level of paving stone moulds of its own manufacture through innovative technology and precise machining quality. The latest development makes it possible to machine the cavity walls of the block moulds to the finished dimensions, to individually harden them and then to assemble them like a bolted kerbstone mould by means of an innovative interlocking system. For this new interlocking system, the product developers at Kobra Formen GmbH have oriented themselves to natural structures for the optimum introduction of the compaction forces into the concrete product by a stable concrete block mould. Kobra Formen GmbH has been supplying the Foresight Group in the United Arab Emirates (UAE) with paver and hollow block moulds since 2009. The successful cooperation began with the delivery of the initial mould equipment for the Foresight Cement Industries L.L.C. plant in Abu Dhabi, which was adopted into the group of companies in 2008.

FS Cement Industries produces a multitude of different industrial concrete products from paving stones and cable duct covers to kerbstones for underground construction and solid, hollow and insulating blocks for building construction. The plant is equipped with state-of-the-art production equipment. It has a total manufacturing capacity of about 100,000 hollow blocks per day. FS Cement Industries places the highest quality demands on its products and delivers to adjacent regions in addition to the local UAE market. FS Cement Industries has a well-trained and experienced maintenance team at the site. Together with this customer as the user, the concept of the mould without welding seams was developed and implemented for the specific customer. The installation of bolted spare and wearing parts is carried out entirely autonomously by the customer.

In the standard hollow block moulds from Kobra, the core assemblies are manufactured accurately to drawing with bolted single cores. The cores are case-hardened and bolted to the core bars with a precise fit. Detachable bolt connections with fitting parts between the mould frame and the core bar assembly enable not only the simple exchange of single cores, but also of the entire core bar assembly if need be.

At Kobra, all parts for mould construction are entirely reproducible and convince as spare parts with the quality of an original part. If small quantities of these critical parts are kept in stock in the concrete works, production losses with long downtimes, for example after an accident in the block manufacturing, can be avoided. The ease of repair of the moulds has been adapted to the conditions in the concrete works and significantly increased. The damaged mould is rapidly restored to full functionality



Foresight Cement Industries L.L.C. produces the 8" hollow block on a Masa XL 9.2



Bolted, case-hardened single cores have proven themselves in practice.



Foresight Group Business Development Manager Khalil Abdul-Baki (left) and factory manager Whassim Shamous are convinced of the quality of the Kobra moulds.



The total capacity of Foresight Cement Industries L.L.C in Abu Dhabi is 100,000 hollow blocks per day.

without welding work and elaborate alignment of the replaced components. The manufactured block formats remain dimensionally accurate and meet the quality demands of the international concrete industry. Versions of special block types, e.g. even flanks of cornerstones or special mortar pockets, are supported by Kobra with bolted facing parts, which can also be replaced as wearing parts.

The principle of exchangeability is completed by single bolted tampers and bolted tamper shoes in the mould top. Apart from a few technically related exceptions, the tamper shoes can be loosened and readjusted via bolted connections in hollow block moulds from Kobra. Due to the dimensional accuracy of the spare cores, it is not necessary to fit new tamper shoes after working on the core bar assembly.

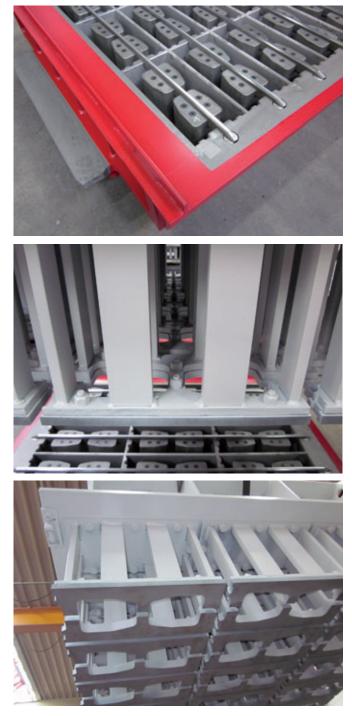
The feedback of the customers is consistently positive. Zaheer Ahmed, manager of Block Tech L.L.C., gives the new bolted single cores top marks for service life and exchangeability. "It is a great advantage to be able to exchange only one core instead of the entire core bar assembly. The time saving is enormous. Repairs no longer cause us any headaches. The spare parts are available at short notice and we never have to wait for the welder again."

"The service life of the case-hardened hollow block moulds from Kobra is considerably higher than that of conventionally welded moulds", says V. Sasidharan, production manager at National Tiles



& Block Co. Ltd. "The new core bar assemblies are stable and easy to repair, without welding and the problem of unangular cores. We don't even have to take the mould out of the machine in order to perform maintenance work on the mould. The new mould generation is valuable for our company. It saves time and money owing to a long service life and less maintenance related downtime in production."

With the implementation of bolted mould technologies, Kobra is pursuing a practice-orientated product philosophy and economic goals in the optimisation of the material and process efficiency. They are suitable in particular for export markets, which are difficulty to access due to the geographical distance. The transport of steel moulds weighing several tonnes is associated with an accordingly high expenditure of time and cost. Kobra considers the economic alternative to be the supply of exactly fitting spare parts, which are quickly available on the one hand and can be installed by the customer on site on the other. The product conception specifies the clear installation position of the spare parts. Installation takes place using simple tools without the aid of welding technology. The manufacturer documents the mould technology on the basis of technical data sheets. In order to get the block production up and running again after accidents, it is recommended to keep small stocks of particularly endangered mould components, such as core bar assemblies. For a smooth ordering, Kobra offers simplified order forms online and on request and is experiencing great interest in this on the part of its customers.



Precisely fitting bolted connections on the main components for optimum reparability of the mould.

5 + 2 PARTS REQUIREMENT FORM 3 FOR BOLTED CORE BAR ASSEMBLIES 4 KOBRA Mould # 5 6 587 TOP COVER PLATES se t CORF BOX TS NUT ORE BAR ST PCB PCS CORE BELL ST PCS SET ORE BAR HALF BLOC PCS 9 CORE BELL HALF BLOCK PCS Please, return this form to the KOBRA sales team +49 37606 302 44 | @ parts@kobragroup.com

Spare parts are ordered using a simplified order form.



Each new hollow block mould from Kobra is delivered with a spare part set.

FURTHER INFORMATION



KOBRA Formen GmbH Plohnbachstraße 1 · 08485 Lengenfeld, Germany T +49 37606 3020 · F +49 37606 30222 info@kobragroup.com · www.kobragroup.com