

Kobra Formen GmbH, 08485 Lengenfeld, Germany

## Bosun Brick uses state-of-the-art technology for manufacturing high-quality underground engineering products

The South African concrete products manufacturer Bosun Brick uses moulds from Kobra Formen GmbH for the production of pavers, curbs and transition curb stones. Bosun is profiting from the modular construction, which allows the easy exchange of wear parts. Also the hydraulic mould technology of Kobra is of great value to Bosun. The mould manufacturer provides innovative solutions when there is a demand for high quality concrete products.

■ Holger Stichel, Stefanie Schaarschmidt,  
Kobra Formen GmbH, Germany ■

### Bosun Brick and Kobra Formen GmbH

With its diversified portfolio of high-quality and certified products Bosun Brick is one of the leading producers in the South African concrete industry. The company has multiple production facilities spread over South Africa. Since 1994 this area has developed as economic heartland of South Africa and the southern African region. Bosun has sufficient capacities for the production of its various goods for the building construction and civil engineering in private and public sectors.

From primarily two products in the first years after foundation of the company in 1993 a continuous enlargement to the today's wide product range of different concrete stones and stone systems followed. This includes decorative and permeable paving, large formats, hollow and foundation blocks, but also wall and retaining blocks as well as curb stones.

Therefore, Bosun applies the highest manufacturing standards – each factory operates according the South African National Standards (SANS) and guarantees the individual certification of every product category in each of its plants. For the manufacturing process state-of-the-art German technology is used. This implies block-making

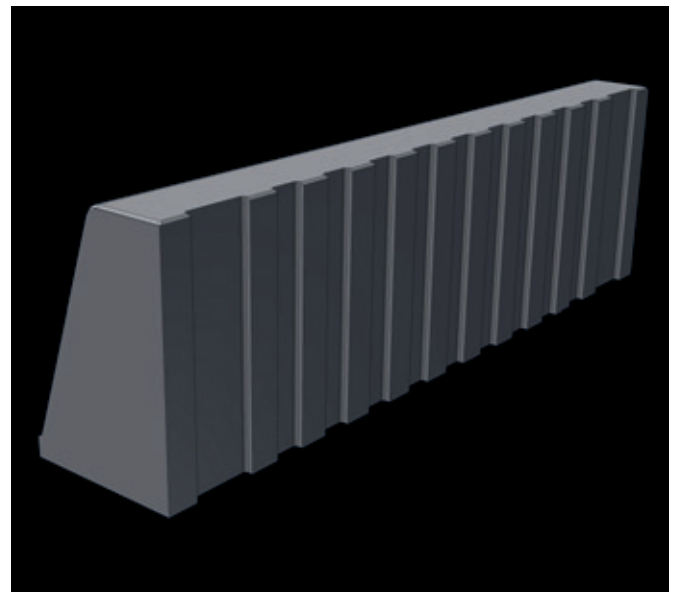
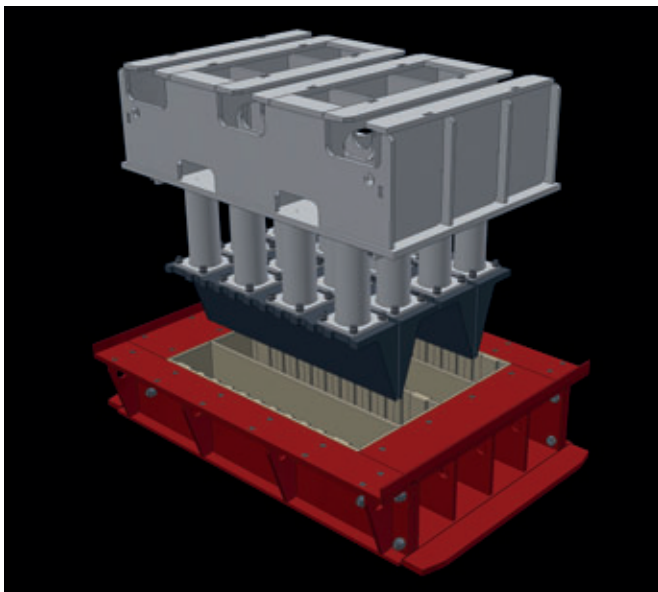
machines from Hess Group GmbH, as well as moulds from Kobra Formen GmbH.

Since 2010 a partnership exists between Kobra and Bosun, during which concrete block moulds for nearly every product category have been delivered from Germany to South Africa.

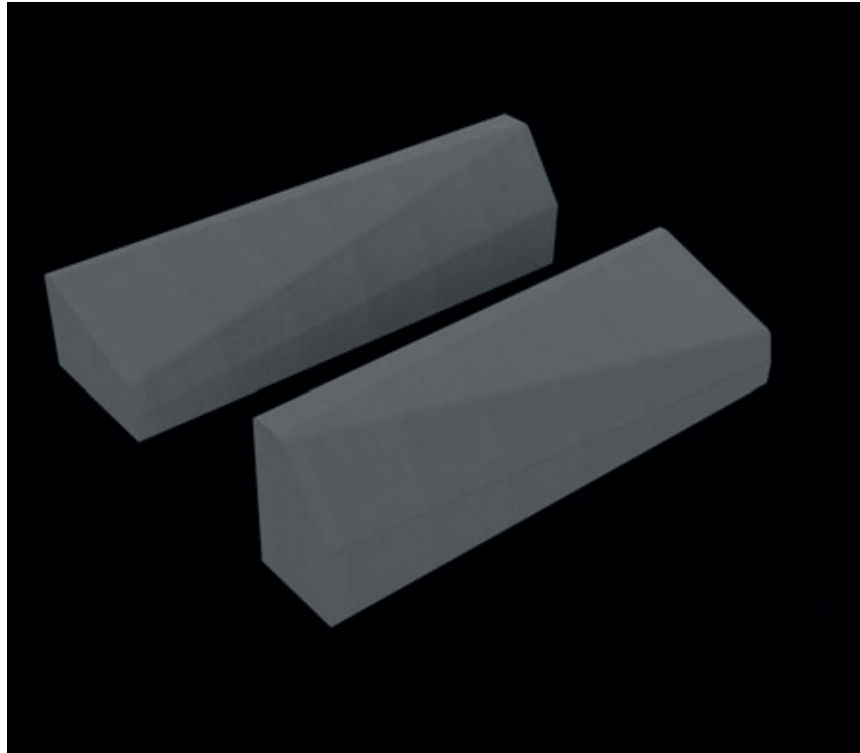
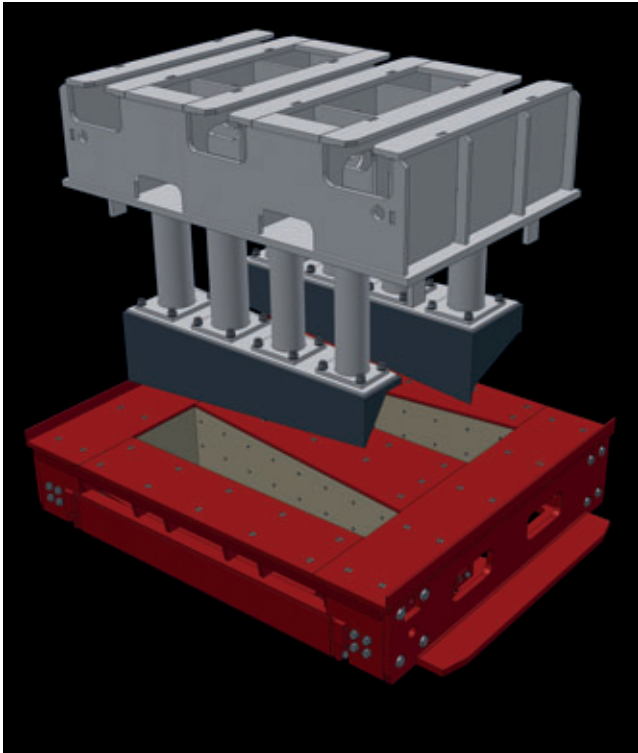
Kobra Moulds B.V., the Dutch subsidiary of Kobra Formen GmbH, serves the company.

### The patented Castle Bottom Curb from Bosun Brick

Bosun is also active in product developments, which are based on specific customer needs of the South African market. The Castle Bottom Curb is a South Africa



*The Castle Bottom Curb is a South Africa patented curbstone, which is characterized by a special notch on the backside or the bottom side of the curb.*



For a machine and tool protecting production of transition curbs, Kobra has developed special moulds with hydraulic functions.



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patented curbstone, which is characterized by a special notch on the backside or the bottom side of the curb. This enables an easier installation on unlevelled screed surfaces, because a material displacement is possible. This requires furthermore a better adhesion with the underground and the stone is less vulnerable to movement.

For the production of the Castle Bottom Curb, Bosun decided for moulds made by Kobra. This mould is made with the proven »Boltline 1™« technology. This technology consists of separate wear parts, which are fitted, in a bolted frame. This facilitates an easy replacement of the wear parts and optimum hardening possibilities.

The separate wear parts, which are not welded insures an even compaction. For reducing wear effects Kobra uses the »Optimill Carbo™«-hardening treatment. All cavity walls of the mould insert are milled to the highest precision. Smooth surfaces and exact mould walls enable an easy demoulding. The protection of the cavities is generated with a hardness depth of 1,2mm.

**Manufacturing of transition stones with hydraulic moulds with moveable side walls**

In road building, boundaries are realized with curbstones. On crossing points, for example pedestrian crossings or accesses to private properties, curbstones have to be

constructed traversable. The transition is designed by a curb of different heights, width and volumes - this provides a particular challenge for the concrete block industry. For a machine and tool protecting production of transition curbs, Kobra has developed special moulds with hydraulic functions. Bosun is one of the first concrete block manufacturers of South Africa, who uses this production process for transition curbs. But first, an expert advice in the main plant in Lengenfeld and the visit of a reference customer, who already successful uses a comparable mould, took place.

As result, Bosun decided, after intensive comparison with the competition, for a concrete block mould with hydraulically moving sidewalls made by Kobra. The overall functioning of these moulds provides moving parts, which allow the production of stones with pre-profiling. By means of systematically displacing the concrete caused by hydraulically moving parts, the filling of the mould in certain areas is influenced and the stone volume can be regulated. The hydraulic system retracts after the filling of the mould. This causes the concrete in the retracted position to "fall" down. This leads to an even compaction throughout the entire product, even in the lower parts of this transition curb. Using this manufacturing process, the products made by Bosun achieve a new level of quality in the South African Market.

Bosun is aware of its pioneering role in the South African concrete block industry. The cooperation with global partners like Kobra, the use of modern technologies, sustainable investments in the expansion of production capacities and the proximity to its customers are the foundation of the company's success. In locally interbranch organizations like the Concrete Manufacturer Association (CMA) and the Gauteng Master Builders Association (GMBA) Bosun stands for innovative solutions in the building construction and civil engineering and even received the CMA Award of Excellence for a patented concrete block paving system for traffic control.

The collaboration between Kobra and Bosun is described from the South African concrete block manufacturer as follows: "To supply the best, we need to work with the best in the business. Kobra is one of the best mould manufacturers in the world and they help us to manufacture the best." ■

**FURTHER INFORMATION**



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