

■ **Kobra Formen GmbH, 08485 Lengenfeld/Sachsen, Germany**

New possibilities for precision and hardness – Techniques of modern mould construction

Kobra Formen GmbH orients itself directly towards its customers needs for the development and production of precise moulds, in order to supply concrete block manufacturers worldwide with optimised tooling. Optimised products require optimised processes. The defined requirements of

the customer, challenge the mould constructor to come up with an accurate, reliable and above all economical solution. Deciding factors of particular importance for Kobra are, customer demands and production design of the final product.

When the customer orders products from Kobra, they usually choose between alternative technology and different equipment, after receiving competent advice. The customer has no influence on the choice of production process; these depend on the product and are an important part of the core competencies of the company.

The "Elements [form]" brand primarily unifies the three main processes flame cutting, milling and hardening, for the production of cavities and tamper shoes as well as the processing of individual parts and modules (fig. 1). This process can be used for individual or combined applications. This is why for example certain mould inserts are completely made using CNC milling and others are still burned and

milled in two steps, and then sent for treatment to the company's own hardening plant, for mould applications. Kobra basically uses quality German steel for all its products.

Being international has its price. The Kobragroup established all its product descriptions exclusively in English, due to fact that they carry out business worldwide. Simple names are made from sophisticated processes, which almost provide the customers with a view behind the scenes.

»Optimill«, which is a name that has been known on the market for the last three years, is for the realisation of challenging contours and surfaces of stone cavities and simply means "optimally milled". Two possible additives determine the nature of

the product and the related hardening process. Kobra either case or nitride hardens its products depending on the distortion sensitivity; »Optimill carbo« and »Optimill nitro« (fig. 2).

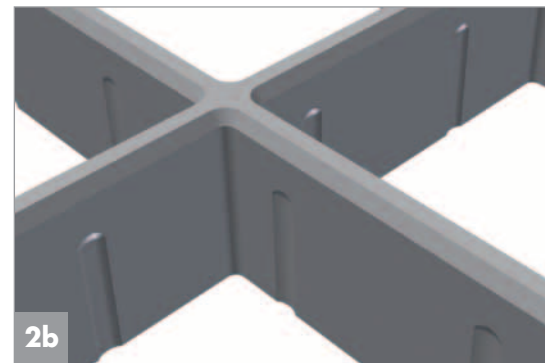


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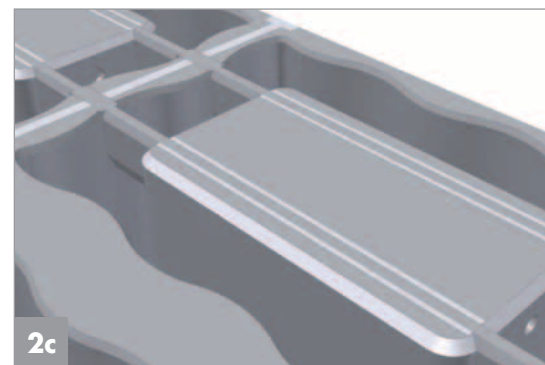
Accurate surfaces made using three different main processes.



New label for a reliable product.



»Optimill carbo« design example.



»Optimill nitro« design example.



KOBRA

SYSTEMATIC QUALITY.



FORM 
Optimill *carbo*™



VISION TO REALITY

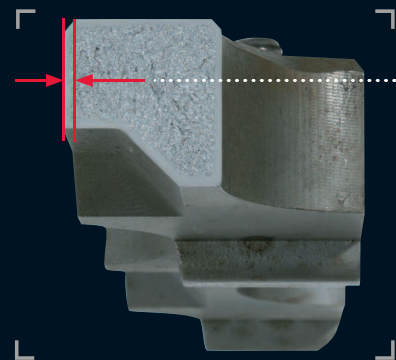
»Optimill *carbo*™« enables us to provide your molds with high-precision geometries and wear-resistant surfaces. We create precision at even the lowest tolerances. Design your production processes even more economical – with products in *carbo*™-hardness.

YOUR ADVANTAGES:

- Smooth and easy demolding cavity.
- Suitable for all shapes.
- 90° angularity of vertical mold walls.
- Longer service life due to precision milling and homogenous hardness depth all around.

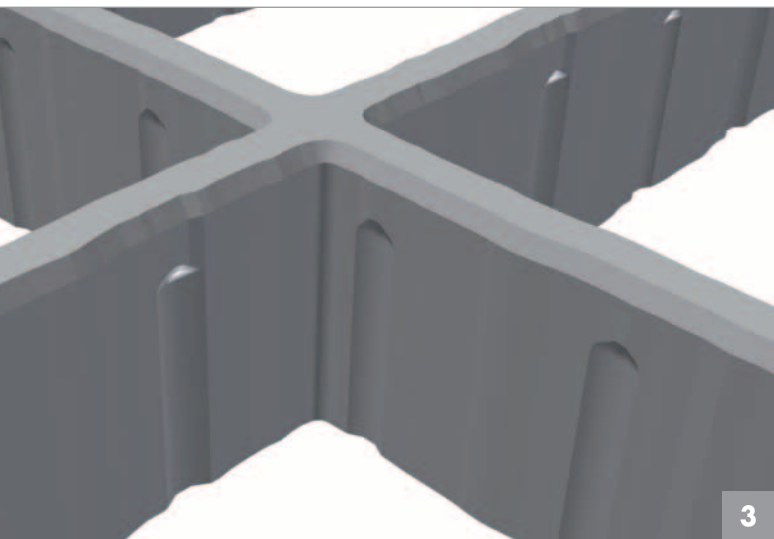
Detailed information can be obtained from our sales team.

www.kobragroup.com | info@kobragroup.com

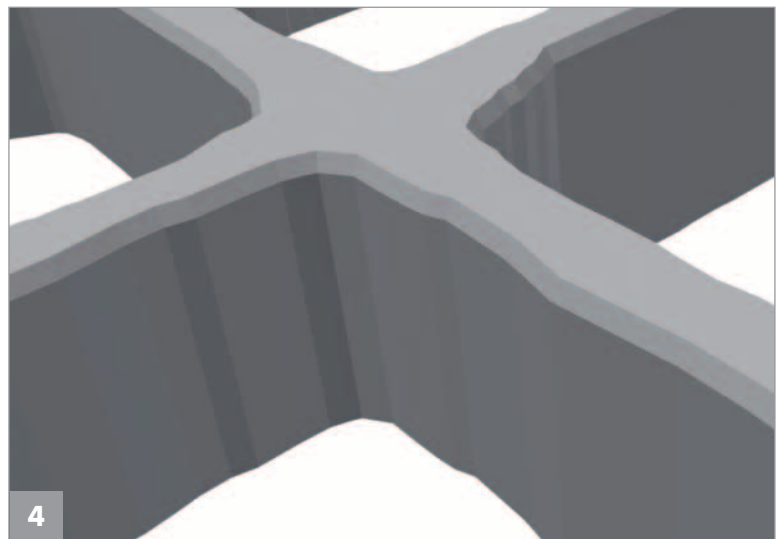


KOBRA FORMEN GMBH
Plohnbachstraße 1
08485 Lengenfeld/Germany
Fon +49 [3 76 06] 3 02-0
Fax +49 [3 76 06] 3 02-22

KOBRA  ELEMENTS



»Optiflame carbo« design example.



»Flamecut carbo« design example.

Both techniques use different processes, but provide the customer with a similar and exact replicable result in accuracy and hardness. The overall surface of the material is made hard and wear resistant, while at the same time the inner material is toughened. The customer orders these processes particularly in connection with all paving geometries which need to be milled or for all hollow block and garden product moulds.

The mixed application from the burned stone cavity, optimally milled base and carbide hardened surface is called »Optiflame carbo« by the company. The burned stone cavity contours are milled, base or spacer geometry arranged and used for making of a grid dimension. This process is basically used for all paving moulds with embossed contours (fig. 3).

»Flamecut carbo« from Kobra creates burned stone cavities with an all around carbide hardened surface. Before they are hardened the stone cavities are polished by hand, so that the burned cut outs on the finished product are not perceptible (fig. 4). Kobra sells this process to the steel industry for example in the form of briquette stone moulds where wear resistance is a more important priority than dimensional precision, for the customer.

As an option, Kobra can also deliver conventional, burned products according to the »Flamecut« process. The stone cavities of this product are also hand polished. They achieve a comparable hardening

depth as carbide hardened surfaces, whereby a hardening in the vertical direction only, and not over the whole surface, is carried out by the burning process. »Flamecut« can be solely used in the area of paving products.

Every customer gets an optimum product from Kobra Formen GmbH depending on what their objectives are. The process combinations described are an important part of the key to precision, quality and successful stone production in the concrete works.

»Optimill« milled products open up new possibilities for the customer. The customer enjoys the advantage of accurate production methods and can have their own product ideas realised professionally using the most complicated contours and surfaces.

The central point of all activities at Kobra is the customer product, the concrete block. The company builds faultless chain of accurate reference coordinates around this, which encompasses the complete production from design of the individual stones up to impact testing and dimensional checking of the final product. This reference point system creates the pre-requisites for maintaining and achieving the tightest of tolerances.

Concrete products enjoy an excellent reputation and are currently taking over more and more, in garden and landscape architecture. The advantages of milling

technology and the customer possibilities are endless, especially when it comes to reproducing or creating natural surfaces based on models.



Further information:



KOBRA Formen GmbH
 Plöhnbachstraße 1
 08485 Lengsfeld/Sachsen, GERMANY
 T +49 37606 3020
 F +49 37606 30222
 info@kobragroup.com
 www.kobragroup.com