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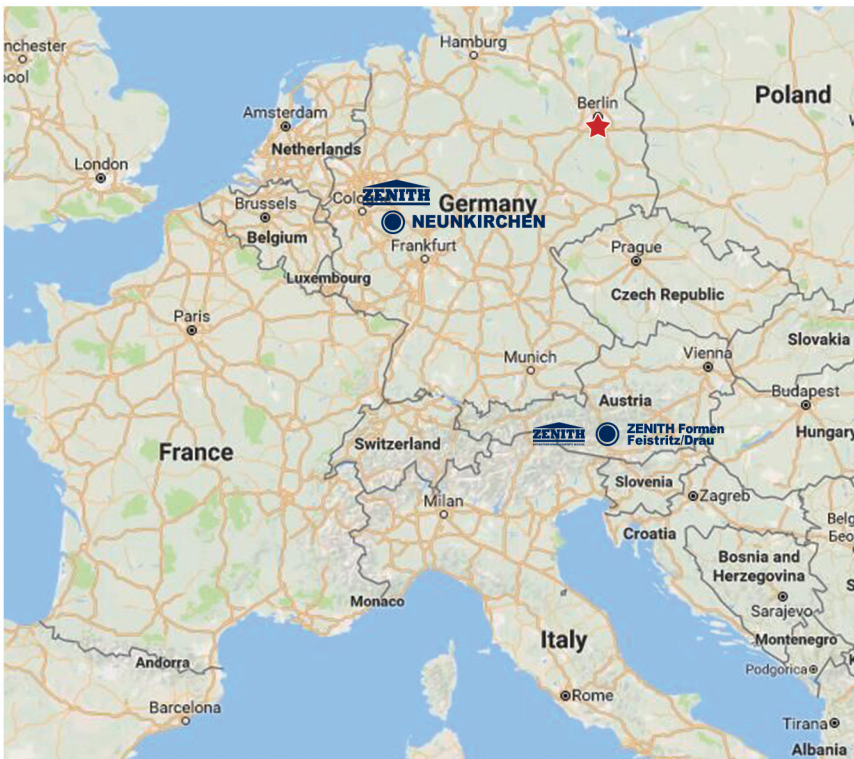
www.zenith-formen.at

www.zenith.de

www.qzmachine.com



ZENITH FORMEN FOR BETTER CONCRETE PRODUCTS



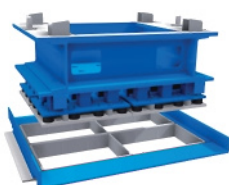
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PRODUKTE

PRODUCTS

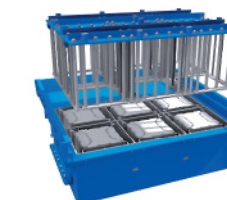
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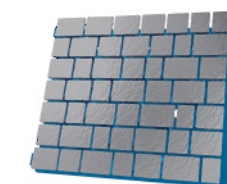
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WHO WE ARE

ZENITH FORMEN stands for a well-educated team of highly motivated specialists in the field of mould engineering for concrete products and with more than 45 years of worldwide experience. Zenith is proud to be able to provide optimal solutions for satisfied clients.

Our headquarter, situated in the heart of Europe, in Carinthia, the sunny south of Austria, not only has an excellent connection to the European highway and railway net, but also offers a breathtakingly beautiful green landscape, full of mountains, rivers and lakes, including Austria's most famous lake, the Wörthersee.

In this green paradise, near the famous city of Villach, the company of ZENITH FORMEN was founded.

"ZENITH FORMEN, for better concrete products"

We consider it our primary aim to find the most useful and economical solutions for our customers, always closely cooperating with them, in order to ensure the competitive advantage they need.

Decades of experience in concrete mould development has led us to the conclusion that it is the combination of high skilled handcraft and modern CNC machine technology which guarantees high quality, combined with great flexibility and high durability.

It is this specific know-how which secures the best solution for the customer's requirements, whether those come in welded or screwed implementations, with or without changeable modular systems.

It clearly goes without saying that our systems are being steadily adapted to the growing strength and capacity of modern concrete production facilities, which place increasingly higher demands on the moulds being designed and installed in them. In this context it becomes clear that it is not the cheapest mould which guarantees the advantage needed by our customers, but the one with the highest liability, paired with top quality at a sharply calculated price.

Our production line covers a broad range of concrete mould applications, e.g. Moulds for floor-layer, multi-layer and stationary machines. We have also acquired know-how and experience over decades in very specific fields, such as palisade stone, split block and casting mould production technologies and are therefore clearly in a position to be able to convince you with top-quality and top-solutions.

In the segment of wood concrete production our customers not only benefit from our expert knowledge, but also have a competitive advantage in the market by profiting from our already approved solutions.

Special moulds for small production series, even in the field of sight concrete are part of our production range as well and are manufactured by us in the usual ZENITH top quality.



PAVER STONE MOULDS

Generally we offer paver moulds for all types of machines and tool fittings in the following designs:

MOULD DESIGN MILLED

- Applicable to all contours and geometries
- Tolerances in the mould box below +/- 0,3 mm
- Machine dependent stamp shoe clearance of 0,2 - 0,5 mm
- Precise vertical, angled and smooth side walls
- Therefore easy unmoulding
- High accuracy of fit
- Space holders in all possible designs feasible
- Optionally with draw sheet design
- By digitalization free surface design realizable
- Heatable stamp shoe design viable

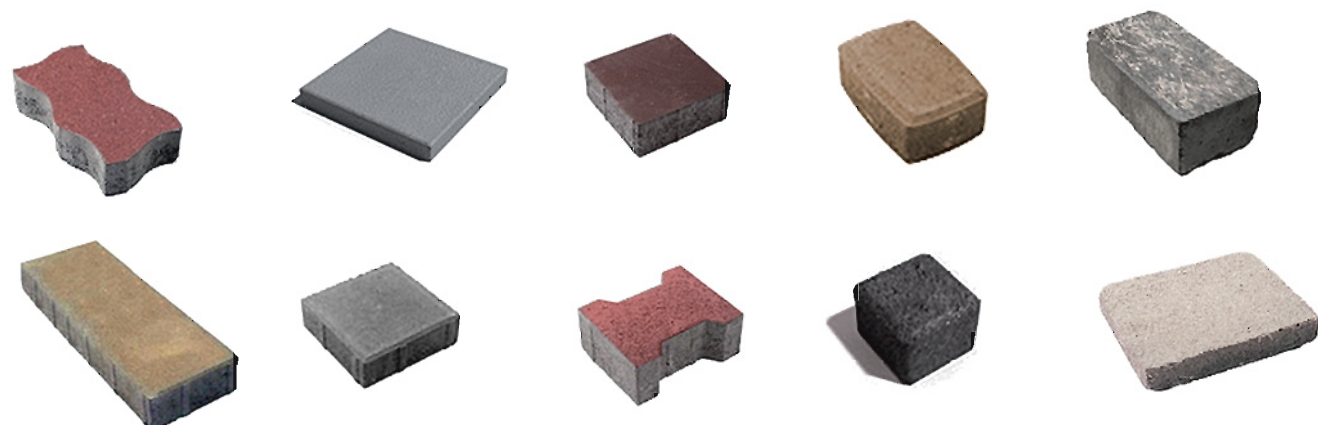
Wear protection for all pavement moulds as follows:

CASE HARDENED (62-68 HRC)

- Mould box and stamp shoes hardened (62-68 HRC)
- Hardness penetration depth ca. 1,5 mm

NITRATED (62-68 HRC)

- Mould box and stamp shoes nitrated (62-68 HRC)
- Hardness penetration depth min. 0,4 mm
- Hardly internal stress compared to moulds with case hardening
- Recommended for small web thicknesses
- Higher contour accuracy over moulds with case hardening



In consultation with our customers our moulds are manufactured in welded or modular screw type designs.

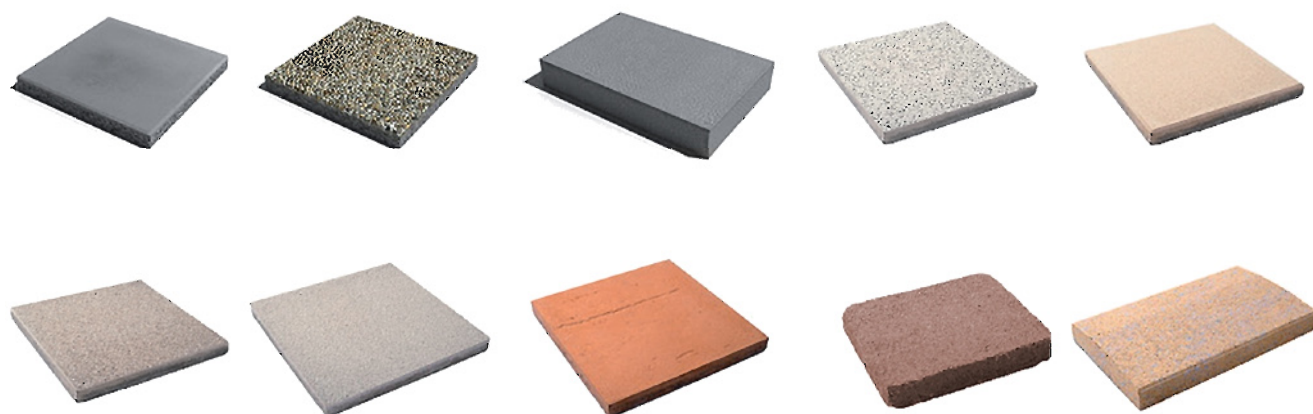


CONCRETE TILE MOULDS

The production of a high quality concrete plate not only requires experience in mould manufacturing with all its aspects but also implies know-how in the management and operation of modern machining centres. It is an issue that should not be underestimated under any circumstances. ZENITH is setting here the standard in the manufacturing of concrete stone moulds.

MOULD DESIGN:

- Combination of welded and milled design
- High quality wear resistant steel
- Shoe clearance
- Shoes easily changeable
- Exchange moulds feasible
- Easy replacement of wearing parts
- Interior parts feasible in nitrated (62-68 HRC) version



We always determine the exact mould design in close cooperation with the customer. When it comes to low stone heights, we might recommend the consultation of the machine manufacturer.



SUPERSTRUCTURE MOULDS

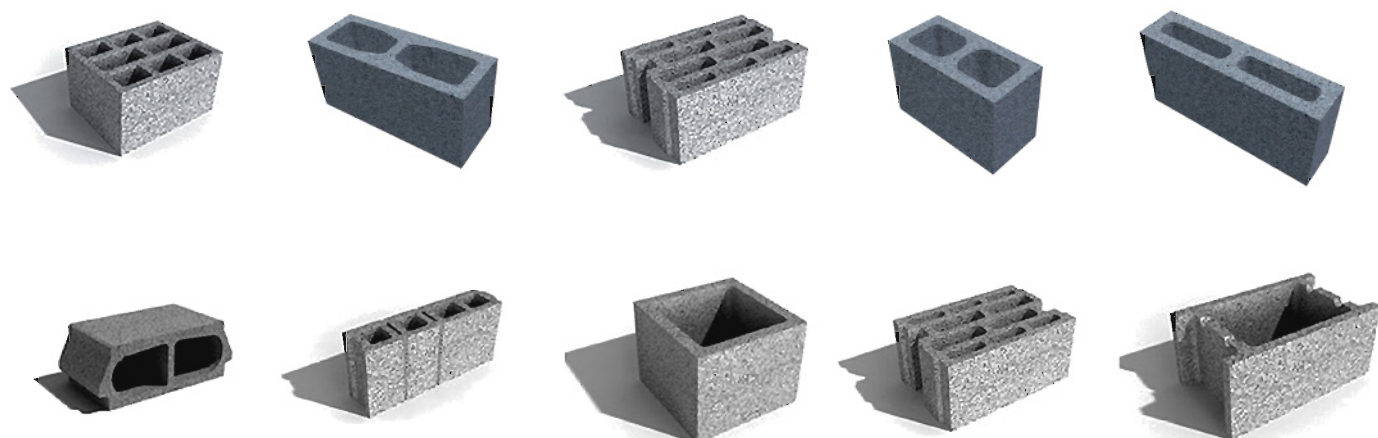
For superstructure moulds in various designs, Zenith is the benchmark in terms of reliability and product diversity. It is here where our strengths and skills in both craftsmanship and modern CNC-technology have the maximum positive impact on the value of our moulds.

A) MOULD DESIGN WELDED

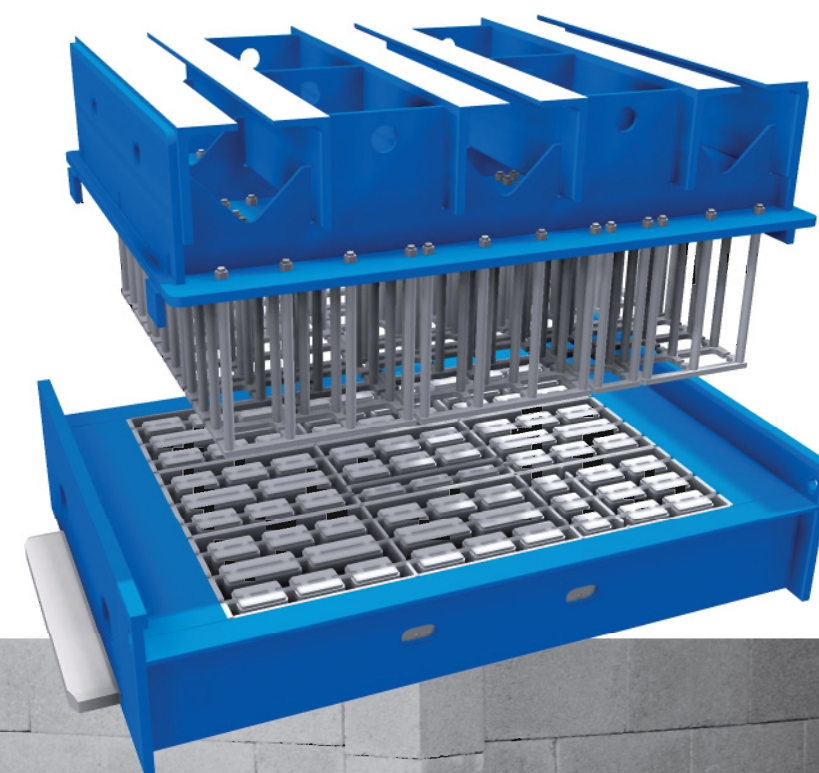
- High quality wear resistant steel
- Shoe clearance 0,5-0,8 mm
- Holding web thicknesses screwed and therefore changeable
- Changeable shoes with cores on the tamper head
- Robust and proven design
- Optimal exploitation of the production area
- Optionally with draw sheet design
- Cost-effective production
- Traditional and proven design

B) SCREWED MOULD DESIGN

- Flexible design of mould
- Shoe clearance 0,5-0,8 mm
- Holding web thicknesses and insets screwed
- Changeable shoes with cores on the tamper head
- Stress-free construction
- Optionally with draw sheet design
- Interior parts feasible in nitrated (62-68 HRC) version



On request we of course offer and manufacture combinations of welded and modular screw designed versions as well.

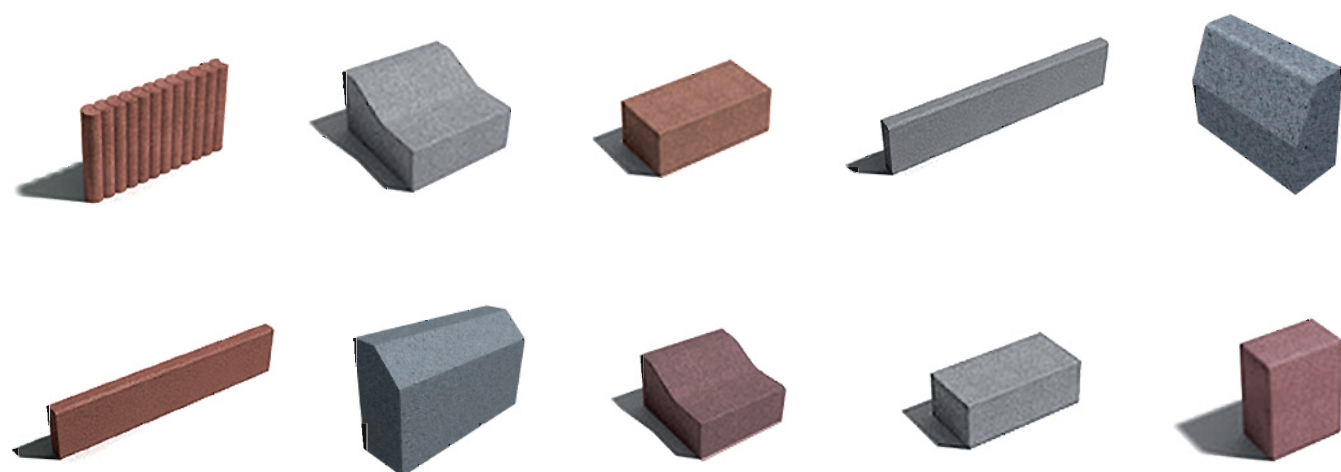


CURBSTONE MOULDS

For the benefit of our customers we have acquired an extensive know-how in the field of curbstone moulds, in various designs, with or without face layer, always adapted to the corresponding facilities of our customers:

MOULD DESIGN WELDED / SCREWED

- Combination of welded and milled design
- High quality wear resistant steel
- Shoe clearance 0,5 mm
- Swords changeable
- Robust and proven design
- Optimal exploitation of the production area
- Counter-conical side walls feasible
- Optionally with draw sheet design
- Hydraulic folding wall elements feasible
- Flexible design of mould
- Replacement of wearing parts possible



Again and as always in close cooperation with our customer, we finalize the optimal combination of welded and modular screwed designs.



FENCE STONE MOULDS

The area of fence stone moulds often involves very complex tasks, often with draw sheet design or other downstream production steps as e.g. gap or aging systems. Those challenges require an experienced partner in planning and execution, such as the professionals of ZENITH in the planning departments and on the work floor.

MOULD DESIGN:

- Combination of welded and milled design
- High quality wear resistant steel
- Shoe clearance 0,5-0,8 mm
- Shoes easily changeable
- Robust and proven design
- Exchange moulds feasible
- Easy replacement of wearing parts
- Hydraulic folding wall elements feasible
- Interior parts feasible in nitrated (62-68 HRC) version



We always determine the exact mould design in close cooperation with the customer. When it comes to low stone, we might recommend the consultation of the machine manufacturer.

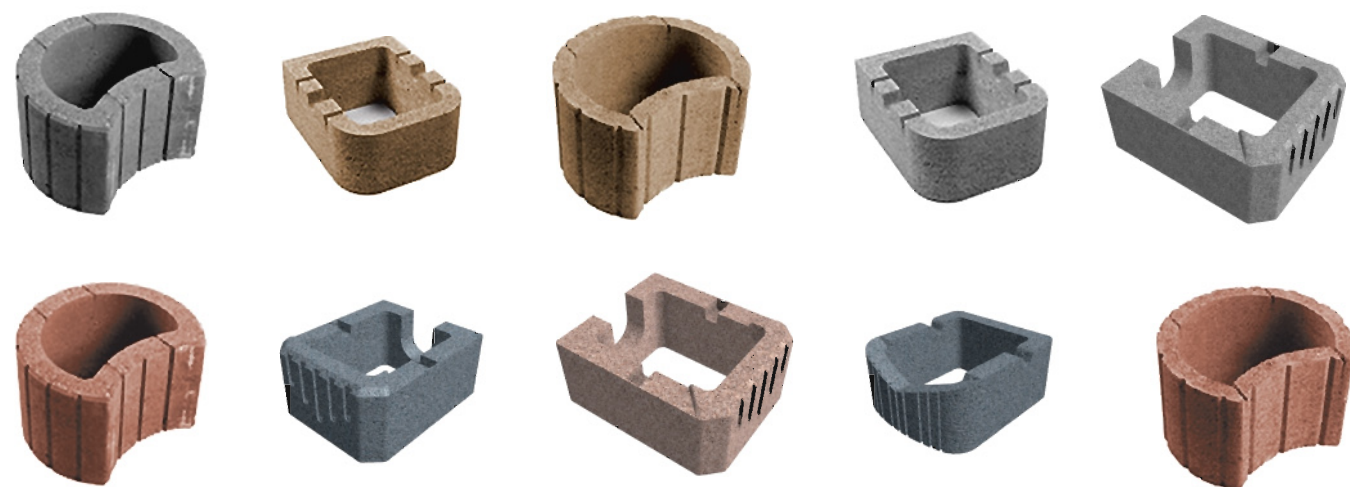


HEDGE STONE MOULDS

Whether it is the anchorage of slopes which serve to prevent the slipping of the soil, or the design and beautification of public areas in cities and towns or even only the herb spiral in your own garden - the applications are multifaceted, better and very simple to handle. Especially at the beginning of the planning phase, our project team will assist our customers in giving the right look to a functioning system. ZENITH has both the necessary experience and the know-how:

MOULD DESIGN:

- Combination of welded and milled design
- High quality wear resistant steel
- Shoe clearance 0,5-0,8 mm
- Shoes easily changeable
- Robust and proven design
- Exchange moulds feasible
- Easy replacement of wearing parts
- Hydraulic folding wall elements feasible
- Interior parts feasible in nitrated (62-68 HRC) version



We strongly recommend to involved landscape architects and structural engineers even before the start of the mould design phase, in order to ensure optimal results.

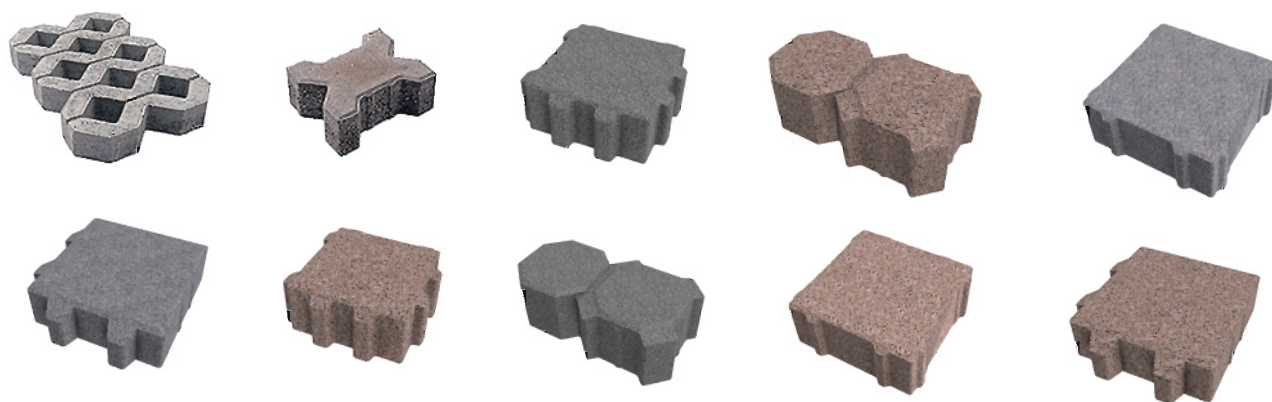


ECO-STONE MOULDS

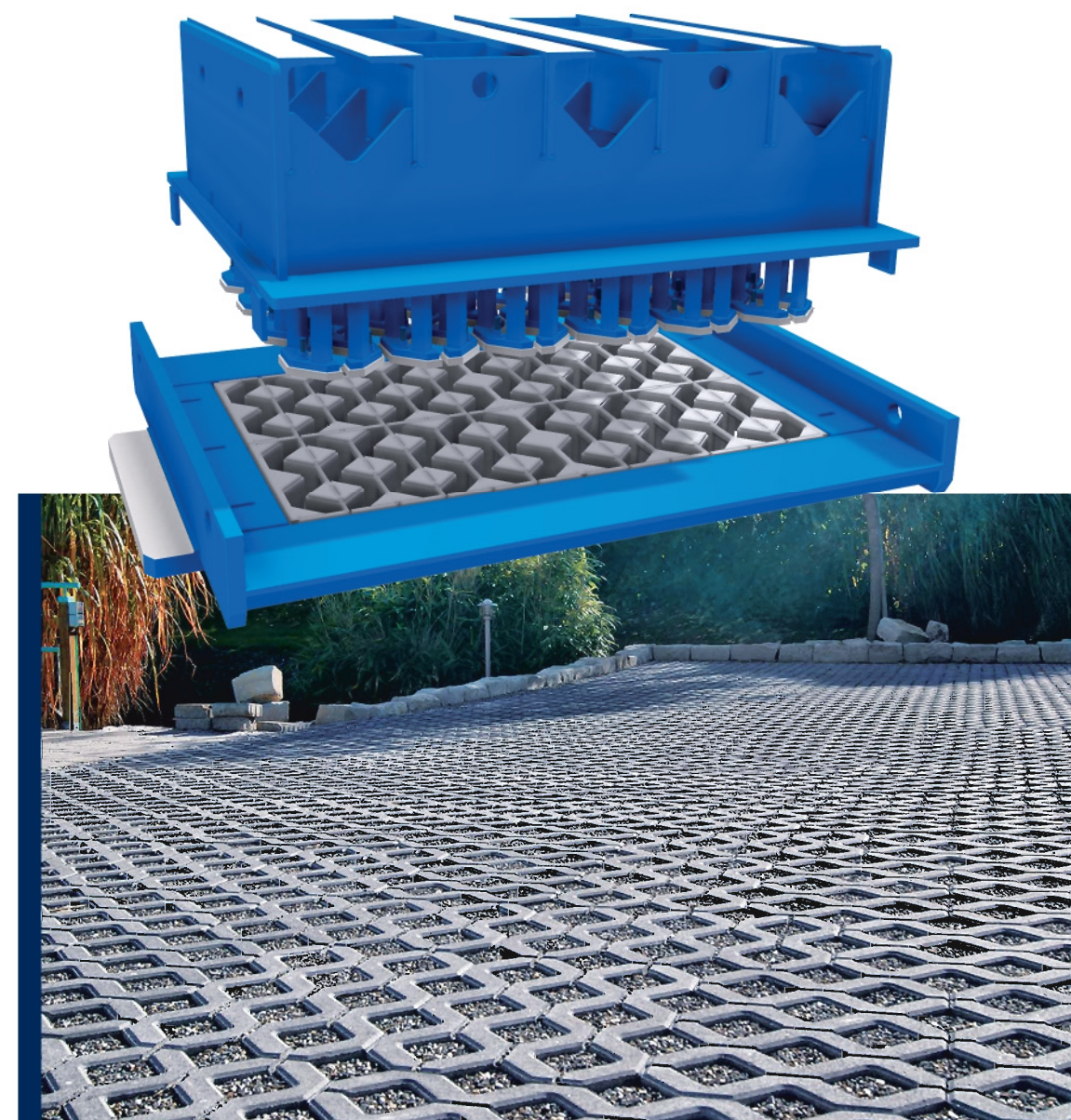
The rapid draining of rainwater via sewers has led to massive groundwater problems in many regions. Eco-stone systems have achieved great success in this regard. Together with you, we at ZENITH bring these often complicated systems in top-mould-shape.

MOULD DESIGN :

- Combination of welded and milled design
- High quality wear resistant steel
- Shoe clearance 0,5 mm
- Shoes easily changeable
- Robust and proven design
- Exchange moulds feasible
- Easy replacement of wearing parts
- Hydraulic folding wall elements feasible
- Interior parts feasible in nitrated (62-68 HRC) version



Apart from the traditional technical parameters, also other important natural drivers such as average amounts of precipitation or underground consistencies have to be taken into consideration in the planning and design phase.

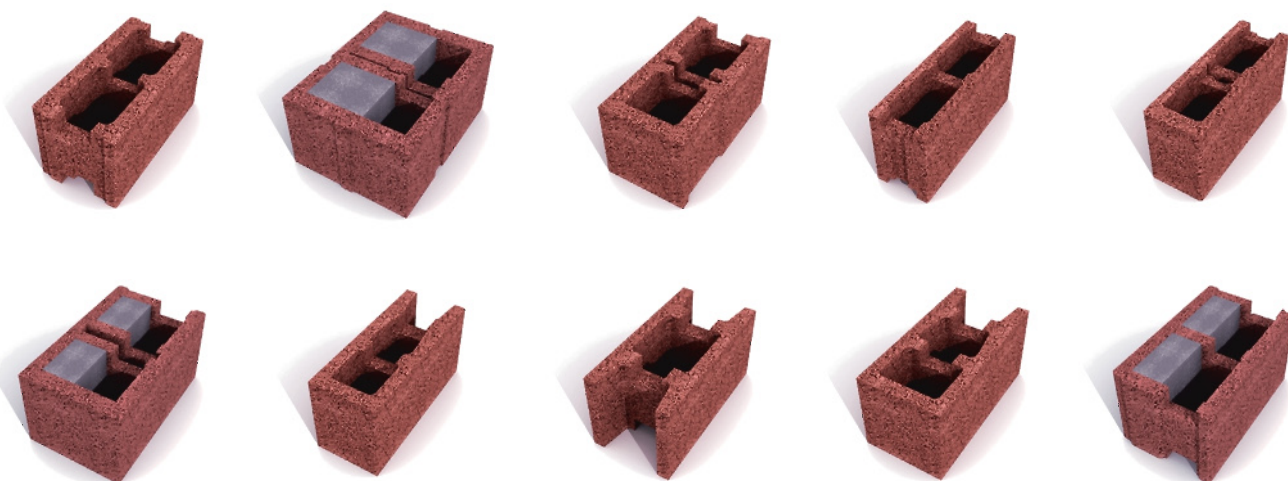


SUPERSTRUCTURAL WOOD CONCRETE STONE MOULDS

Concerning natural building materials, wood concrete certainly is the best solution in this context. Wood concrete is the “seller” today when it comes to ecology and sustainability in the building material manufacturing segment. Both are keywords that may bring a high commercial success to producers. Small weights, high fire protection classes, breathability with extremely weathering and frost resistance characterize these materials. ZENITH has gained experience in this segment for many years; we know the production processes and are the top supplier for the corresponding moulds:

MOULD DESIGN :

- Combination of welded and milled design
- High quality wear resistant steel
- Shoe clearance according customer's specification
- Shoes easily changeable
- Robust and proven design
- Exchange moulds feasible
- Easy replacement of wearing parts
- Interior parts feasible in nitrated (62-68 HRC) version



Particularly in areas, where extensive earthquake safety precautions are required, wood concrete systems can be the optimal solution.



WOOD CONCRETE NOISE BARRIER MOULDS

For many years now wood concrete is number one in choice in terms of noise barrier for streets, highways and railroads. High absorbencies combined with extremely high frost and de-icing salt resistance are the benefits of this natural product. It is especially in this area where not only technical functionality but also an aesthetical appealing solution is required. Together with our customers we at ZENITH form the corresponding mould systems:

MOULD DESIGN :

- Combination of welded and milled design
- High quality wear resistant steel
- Shoe clearance according customer's specification
- Shoes easily changeable
- Robust and proven design
- Exchange moulds feasible
- Easy replacement of wearing parts
- Interior parts feasible in nitrated (62-68 HRC) version



If required we would be pleased to bring you together with competent partners in the building material industries.



FIREPLACE STONE MOULDS

The most beneficial and healthiest warmth during the cold season is provided by the traditional fireplace. Powerful fireplaces and stoves require high-quality concrete blocks (Mantelsteine). Again ZENITH turns your vision into top mould shape because also in this context we have years of experience in the design and production of such systems.

MOULD DESIGN :

- Combination of welded and milled design
- High quality wear resistant steel
- Shoe clearance according customer's specification
- Shoes easily changeable
- Robust and proven design
- Exchange moulds feasible
- Easy replacement of wearing parts
- Interior parts feasible in nitrated (62-68 HRC) version



Please note that electric heating systems too require an "emergency chimney" which is designed for solid fuels but can optionally be used for room ventilation.

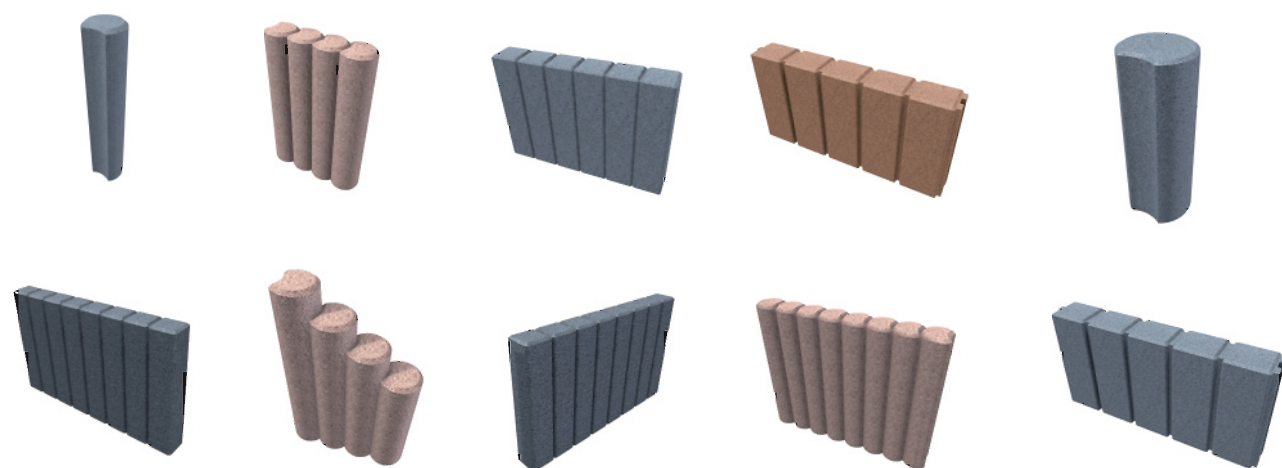


PALISADE STONE MOULDS

For many years now ZENITH Formen has been manufacturing palisade stone moulds. These systems are offered in various dimensions and are being implemented in many areas. In numerous applications, such as the slipping prevention of terrain, raised herbal beds, playground and sandbox containments or just for the beautification and safety in city areas, the palisade is a simple and aesthetical excellent solution.

MOULD DESIGN :

- Combination of welded and milled design
- High quality wear resistant steel
- Robust and proven design
- Exchange moulds feasible
- Hydraulic special design feasible
- Easy replacement of wearing parts
- Optionally equipped with pneumatic unmoulding support systems
- On demand with plastic components feasible



Please note that already with the selection of the correct manufacturing system, you create the correct conditions for an optimal and smooth production.

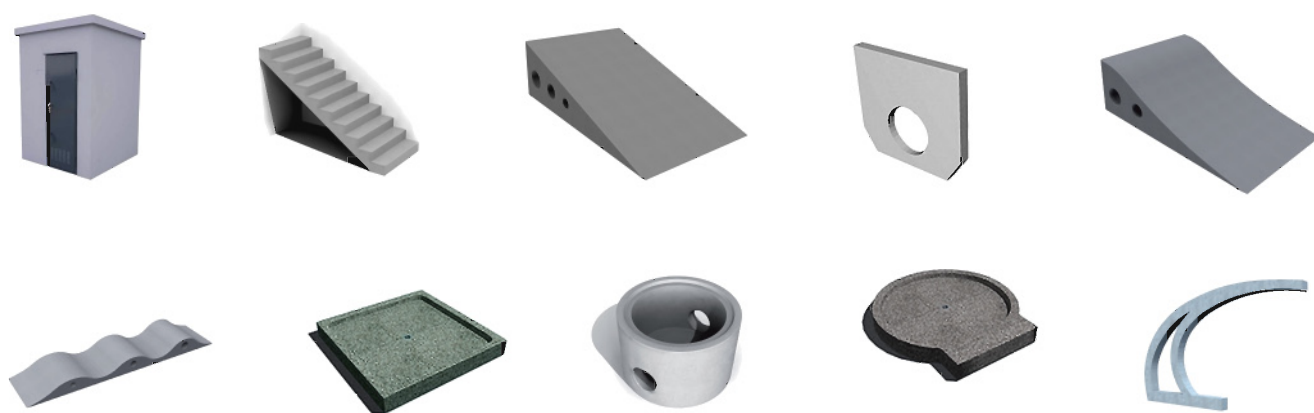


CASTING MOULDS

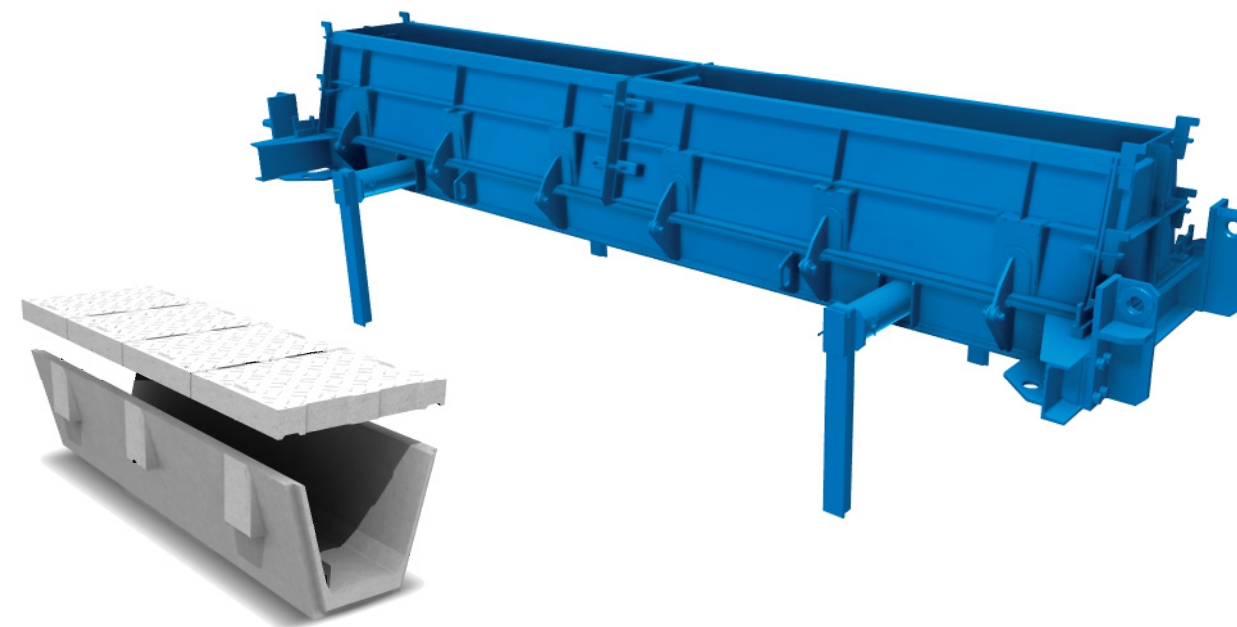
When it comes to dimensional accuracy as well as reinforced concrete or precast elements with mostly small quantities, we recommend casting mould systems as the best solution to our customers. Size and design are virtually without any limits and the customer has the possibility to choose out of a high number of vendors. Through our long-term cooperation with building materials producers we at ZENITH again set the benchmark and are able to offer our customers economic solutions which combine optimum functionality with long endurances.

MOULD DESIGN :

- Combination of welded and milled design
- Robust and proven design
- Exchange moulds feasible
- Easy replacement of wearing parts
- Hydraulic folding wall elements feasible
- Optionally equipped with pneumatic unmoulding support systems
- On request with plastic components



Casting moulds offer the possibility of a meaningful recovery of otherwise in the production cycle accumulated residual concrete.



SURFACE DESIGN

Free surface and system based design is currently state of the art in the concrete industry. The task here is usually to achieve the look of a natural stone surface as much as possible. Our specialty in this context remains the forged stamping shoe. This system allows very smooth transitions and provides an economical solution at highest quality especially for constantly recurring surfaces. For unique applications we recommend moulds with milled shoes as a reasonable and economical alternative.

A) STAMPING SHOE DESIGN FORGED

- Free surface design
- One-time tool costs
- Optimal natural stone optics by smooth transitions
- Heatable surface design feasible

B) STAMPING SHOE DESIGN MILLED

- Free surface design
- Cost-effective for one-time produced moulds
- Short production time
- Heatable surface design feasible

WEAR PROTECTION FOR ALL STAMPING SHOES AS FOLLOWS:

CASE HARDENED (62-68 HRC)

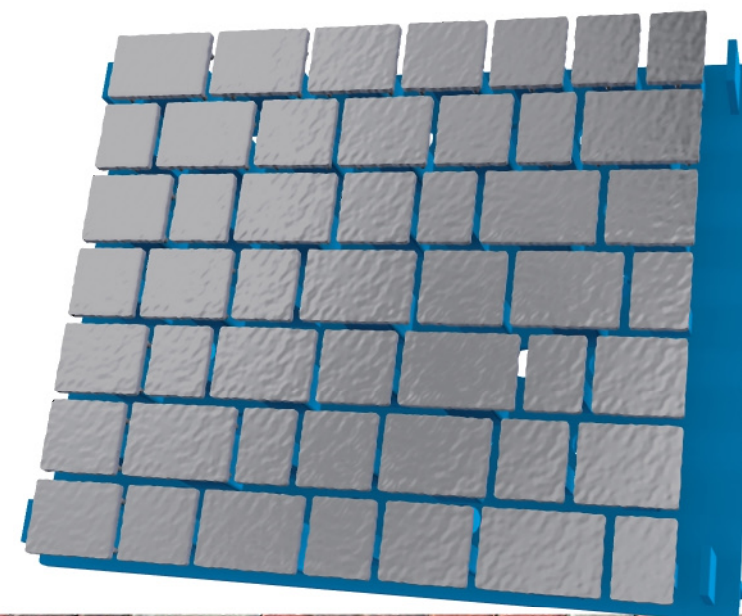
- Stamp shoes hardened (62-68 HRC)
- Hardness penetration depth min. 1,2 mm

NITRATED (62-68 HRC)

- Stamp shoes nitrated(62-68 HRC)
- Hardness penetration depth min. 0,4 mm
- Hardly internal stress compared to case hardening



To imitate nature as much as possible, we typically use natural stones as templates, the contours of which we gauge with modern measuring systems.



LOGOS AND LETTERING ON PRODUCTS

When it comes to advertising or instructions that should be communicated via a product, we at ZENITH are able to offer such “extras” individually and economically due to our considerable experience in this special field. Radii and layouts in mould box and tamper head are of special significance whether realized in forged or milled design. Moreover often the necessity of brush systems has to be considered in order to prevent possible adhesions in the usual methods of production of concrete stones, such as floor-layer, multi-layer or stationary systems. Casting requires experience and know-how in order to ensure a clean unmoulding as well as the subsequent removal of concrete residue. The specialists at ZENITH have both, the know-how as well as over a decade of experience.

STAMPING SHOE DESIGN FORGED AND MILLED

- Free surface design
- One-time tool costs (as with forged processing)
- Optimal natural stone optics by smooth transitions
- Heatable surface design feasible

WEAR PROTECTION FOR ALL STAMPING SHOES AS FOLLOWS:

CASE HARDENED (62-68 HRC)

- Stamp shoes hardened (62-68 HRC)
- Hardness penetration depth min. 1,2 mm

NITRATED (62-68 HRC)

- Stamp shoes nitrated(62-68 HRC)
- Hardness penetration depth min. 0,4 mm
- Hardly internal stress compared to case hardening



Based on your logo we would be pleased to develop a corresponding proposal for you





OUR EXPERIENCED TEAM