

**25 YEARS RATEC**  
25 YEARS – MEET THE BETTER IDEAS



**PRODUCT NEWS AND SPECIAL SOLUTIONS 2019**

**RATEC**  
MEET THE BETTER IDEAS

# For 25 years, the better ideas have come from Hockenheim

*Innovation and tradition are at the core of what we do.  
We set standards – then and now.*

RATEC is one of the leading suppliers and service providers in the precast concrete industry. We set global standards in terms of developing and producing magnetic shuttering technology and complex shuttering solutions.

Originating from the rationalisation philosophy of Reymann Technik GmbH, RATEC has made a name for itself since its foundation in 1994 through innovation and quality. We were a pioneer in using shuttering magnets in precast concrete plants. We were also first to integrate switchable magnets directly into the shuttering - back in the days this was a small revolution in the precast concrete industry. Today, magnet-based shuttering solutions are standard worldwide in many precast concrete productions.

With our know-how of almost 25 years of intensive development work in close cooperation with our customers worldwide, RATEC has the right answer to every conceivable shuttering situation. Our solutions are not only technically well-engineered, but they also take into account economic feasibility, efficiency and process optimisation.

With more than 80 employees, two wholly-owned production sites in Germany and the USA, additional offices in Spain and Singapore and a worldwide distribution network, RATEC is present on all continents.

**Our motto «MEET THE BETTER IDEAS!» is part of our daily corporate culture and, in combination with innovation and extensive know-how, it yields innovative and economical solutions of the highest quality.**

In this leaflet you find some of our new developments and customized special solution as an addition to our complete product catalogue. We will be happy to develop a suitable solution for YOU. Benefit from our experience and flexibility!



**YOU DON'T HAVE OUR COMPLETE CATALOGUE 2018/2019 YET?**

Simply scan the QR code to read it online or request your free copy.





# Engineering and the highest level of vertical integration are the basis for innovative solutions

*Thanks to our focus on providing streamlined shuttering technology solutions for precast concrete plants, RATEC's components and shuttering systems are the world leaders in the industry.*

With our wealth of experience through the integration into the Reymann Group, new developments in the precast concrete industry can be incorporated into the further development of our shuttering components often even before they are implemented into production processes.

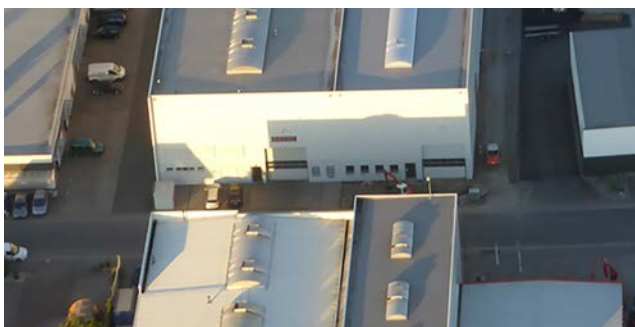
**Due to full in-house production, individual requirements can be accommodated any time.**



All shuttering formwork is developed and produced centrally in Hockenheim, from where it is shipped to customers in more than 70 countries worldwide.

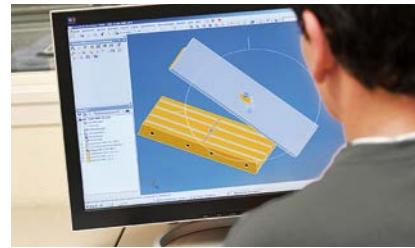
## Production area of approx. 4000 m<sup>2</sup> in Hockenheim

With the expansion of the production halls in Hockenheim, more than 4000 m<sup>2</sup> of production space is now available. This provides additional space, which is required particularly for the construction of components for upcrete® – such as battery moulds, room module moulds and pump stations. Another production site is located in the USA, where the products for the US market are manufactured. All other RATEC shuttering formwork and components are produced exclusively in Hockenheim, from where they are shipped worldwide.



Our capacity for innovation, reliability, swiftness of all employees and the short decision-making channels when working with our customer are the main building blocks for continuous further development.

Another important aspect of our productivity is our in-house magnet production, which supplies all the components required for RATEC shuttering solutions and thus combines absolute transparency with reliability and quality «Made in Germany».



In-house production ensures high quality and flexibility.



## New laser offers even more precision

Precision shuttering requires precision tools during production. In order to produce even faster and more efficiently, we have continually made ground-breaking investments in the machine park. For example, one of the first solid-state lasers with a laser output of 8 kW of the latest Trumpf generation has been in use since September 2015.

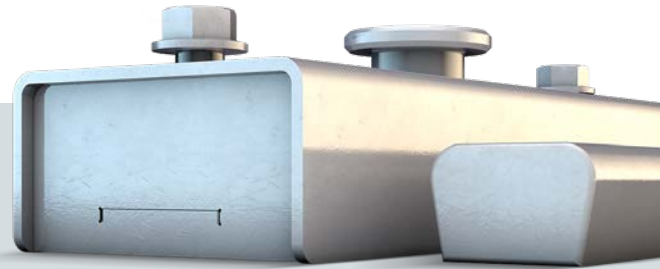
This allows the sheets to be processed even faster and offers highly precise cutting.



All RATEC shuttering systems  
can be customised!

## SHUTTERING MAGNETS

The RATEC magnet product range offers the perfect detailed solution for every conceivable shuttering task. With MTK Magnet-Fabrik Solingen GmbH as a partner company in the RATEC Group, we have our very own in-house developer, manufacturer and supplier of high-quality construction magnet systems and special solutions.



## 3D MOULDS

We have significantly expanded our formwork program for the production of volumetric elements, such as room modules, substations, lift shafts etc. According to your requirements and specifications we design and produce the suitable mould solution.



## UPCRETE® TECHNOLOGY

The intelligent production technology to fill closed moulds by pumping concrete from the bottom. All upcrete® components (pump station, filling connector and moulds) can be installed individually or as complete system.



# NEW DEVELOPMENTS AND SPECIAL SOLUTIONS

Benefit from experience and flexibility

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We invest a great amount of energy and time into the further development of our product program and new solutions for the challenging tasks in precast production. Some of our new developments solve widely adaptable problems and become a standard solution, other developments are highly individual and tailored to a specific customer and thus, not generally adaptable to other situations. We display those solutions to show you the possibilities we can offer our clients thanks to a great and experienced design department.



## SYSTEM SUITABILITY AND FEATURES:

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Integrated  
switchable magnets



For solid and  
sandwich elements



For girder slabs and  
double walls



Suitable for beam  
parts, columns, binders



Wooden  
shuttering skin



Suitable for protruding  
reinforcement



Manual handling

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### EASY FORM

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# Easy Form

## ➤ Diagonal support for Easy Form



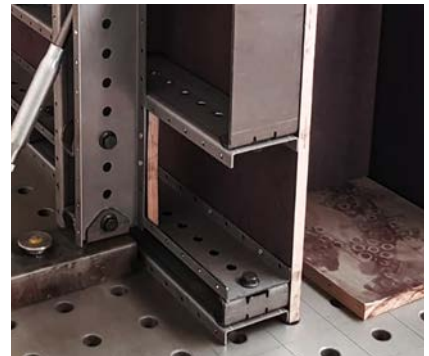
Always the right answer for any formwork assignment: you can now use Easy Form to produce beam and column elements in variable dimensions. For this purpose, we have added a diagonal support to be attached on the SPB Standard Pro Box, which is used to fix an Easy Form base frame vertically. Other possible applications, for example in the production of elevator shafts, are currently in the testing phase.



Article no.

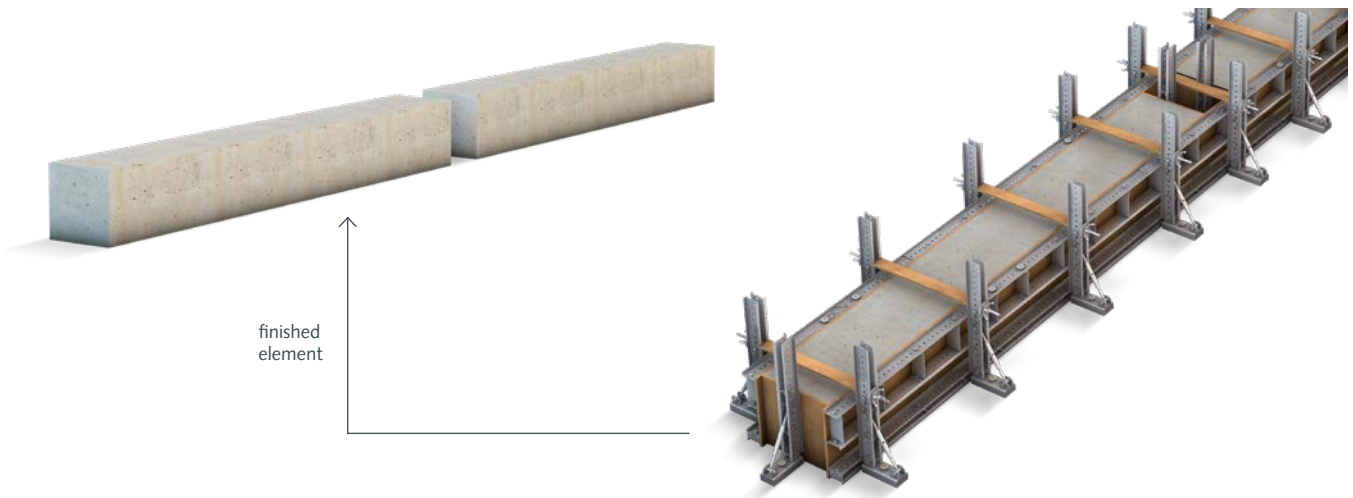
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All components of the Easy Form shuttering kit can be found in our complete catalogue from **page 34**.

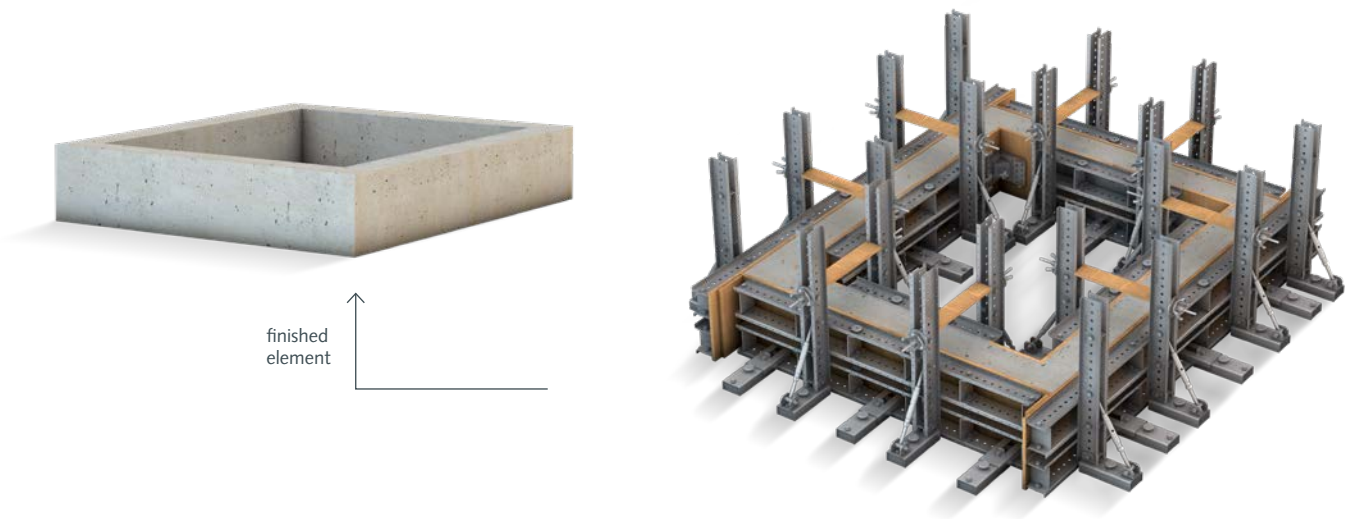




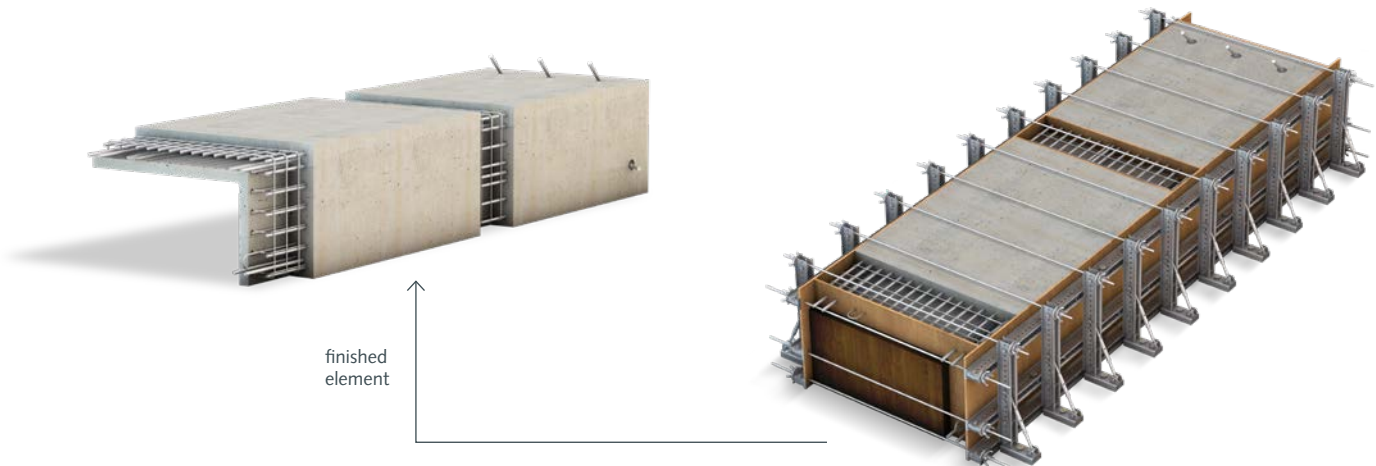
### Application example: Columns and beam elements



### Application example: elevator shafts



### Application example: special element shapes, e.g. u-shaped elements

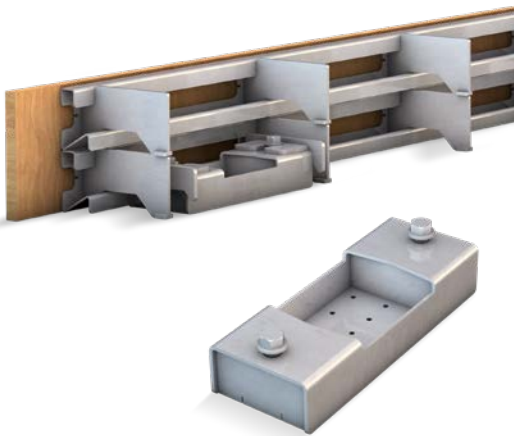


# MST Universal Plywood Beam

## ➤ MST Universal Plywood Beam for wooden tables



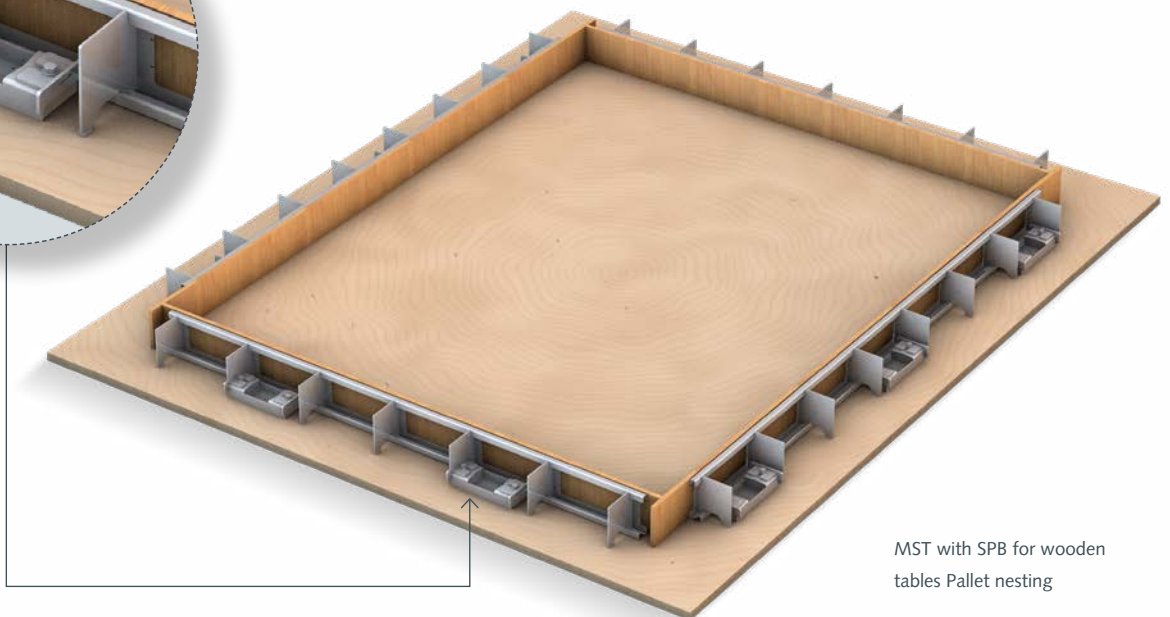
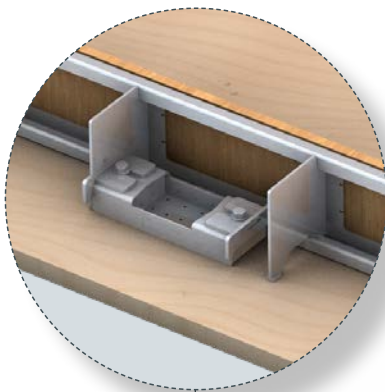
We have adapted our popular solution for simple shuttering of solid elements, the MST, for the use on wooden tables. At the core of this application is a special SPB Standard Pro Magnetic Box, which is designed with screw holes in the middle instead of the usual integrated magnet. The MST base frame is attached to the SPB with the clamps as usual. When setting the mould, the assembled MST is placed and bolted on the pallet. For demoulding, only the clamps are released and the base frame can be removed without removing the SPB. A re-measurement can be eliminated when producing same-size elements.



Description Article no.	SPB Wood 40531
L (mm)	320
W (mm)	120
H case (mm)	60

By the way: with the SPB for wooden tables, all adapter solutions for the standard SPB and our flexible shuttering systems Easy Form and PSV can also be used easily for wooden tables.

More components for MST and the accessory range can be found in our complete catalogue from **page 42**.



MST with SPB for wooden tables Pallet nesting

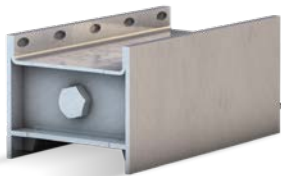
# SAS Standard Automatic Shuttering

## ➤ Front face extension for SAS

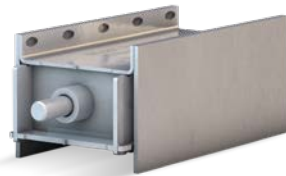
SAS shuttering system with front face attachment for extensions of different lengths for more flexibility. The SAS base profile is designed with a welding nut on the front face, on which extensions in various lengths can be screwed. As a result, the shuttering length can be varied by using different extensions.



Article no.	on request
L (mm) from - to	Depending on the length of the SAS base profile and adhesive power of its integrated magnets. Please contact us for details!



Front



Backside

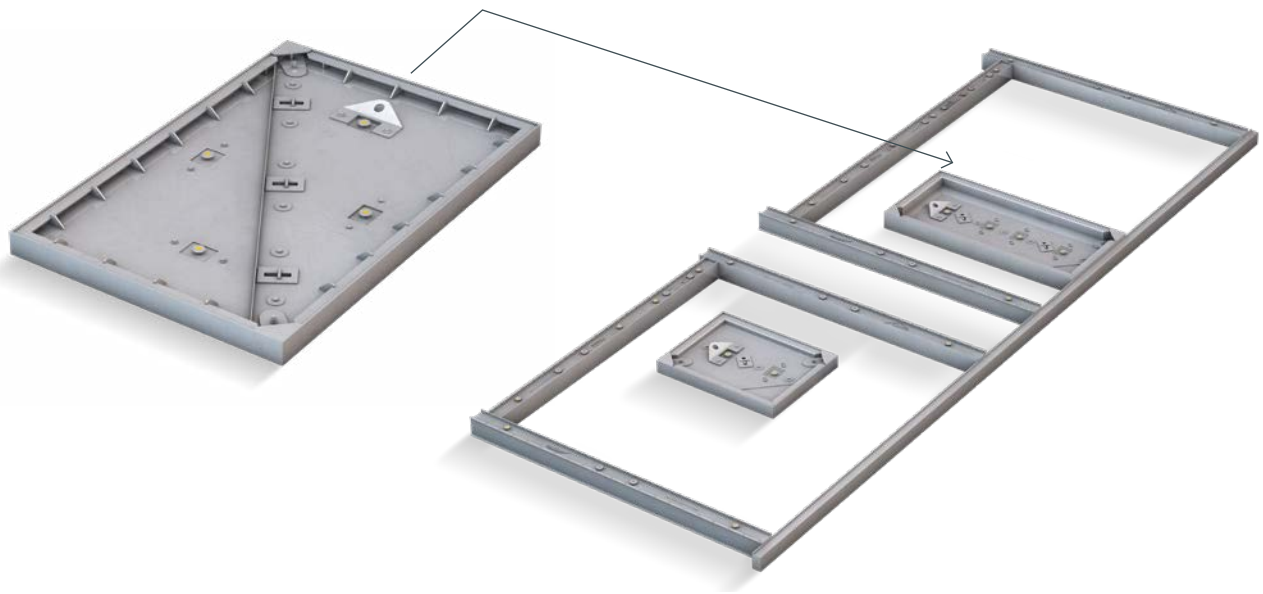
More SAS variations in our cataloge from **page 62**.

# Recess solutions

## ➤ Shrinkable door and window block-out

Innovative solution for the efficient production of recesses in large numbers, especially suitable for standard window / door sizes.

The block-out is made as a steel frame in the desired dimensions and which consists of two halves. For demoulding first the corners are removed. Then the two halves can be slid into each other and removed easily for a fracture-free demoulding. Setting and demoulding processes are significantly accelerated. The block-out solution is suitable for both vertical (battery mould, room module mould) and horizontal production.



Our complete program for block-outs can be found in our catalogue from **page 92**.



Example: door block-out



Example: window block-out



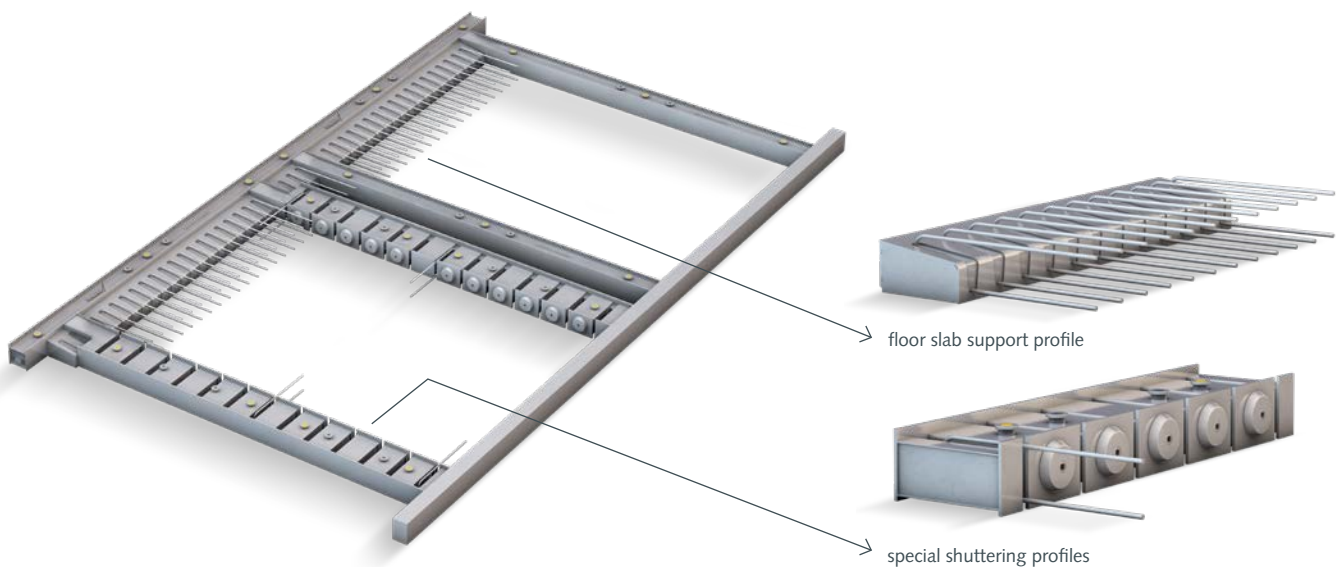
# Special solutions

## ➤ Individual solution for elements with protruding reinforcement



A robot-compatible solution was developed for a customer in Austria for the production of elements with connecting reinforcements and floor slab supports. The goal here was to reduce manual work and the consumption of plywood in future. A solution was realised in the form of standardised magnetic shuttering profiles and a special floor slab support crate with slots for the connecting reinforcement.

The shuttering is profiled with a round shear key, which additionally reduces the shuttering costs. The magnetic shuttering profiles are equipped with gripping knobs for easy handling by traverse or shuttering robot; the floor slab support crates are manipulated with an electromagnet. Rubber profiles in the shuttering take care of sealing. It was important here for the special shuttering profiles to be able to use the same interface for shuttering transport and shuttering cleaning as all other automated shuttering components. A suitable stripping aid for the magnetic stop ends was also developed.



Finished element



Shuttering with shear key and reinforcement penetration and finished element



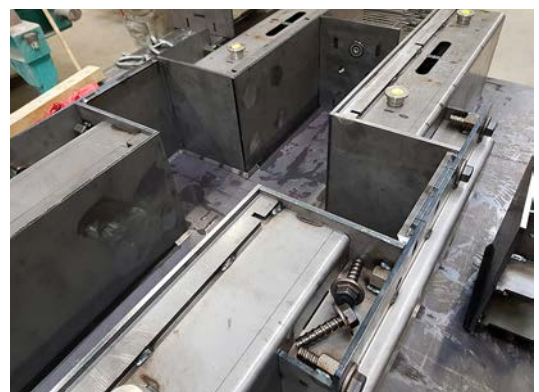
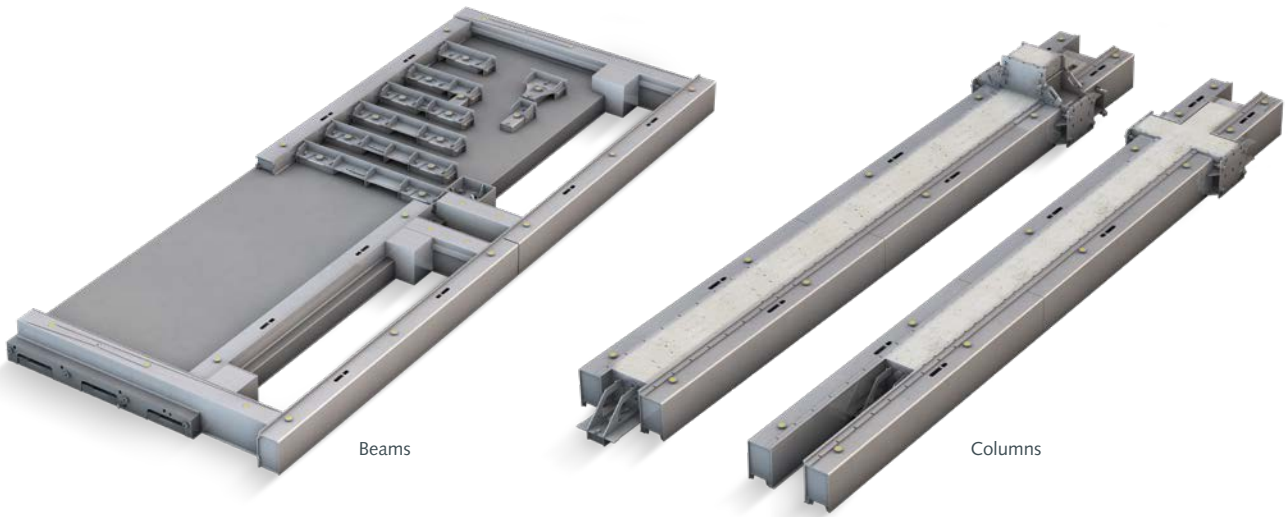
Shuttering with floor slab support profile

# Special solutions

## ➤ Individual solution for beams and columns



Upon customer request we developed a special solution for the production of columns and beams based on our SAS Standard Automatic Shuttering. The aim was to achieve an optimized pallet occupancy with fast shuttering times and a dimensional accuracy of  $\pm 1\text{mm}$ .



# Our references **worldwide**

*We deliver our products in more than 70 countries worldwide*

At RATEC we combine and execute the outstanding ideas generated by the Reymann Group. In our inter-knitted environment we develop and optimise a wide range of customer related projects. We provide special attention to perfectionise the relationship between production processes and the corresponding precast concrete plants to guarantee a production set up that will generate a smooth workflow for each individual client. By combining our skills, expertise and experience we are proud to offer successful solutions to

very specific challenges that have proven their place in the world marked with a variety of our system components. This specific approach to custom adaptations combined with our variety of high quality standard products are tailored to satisfy the individual needs of our customers in an extremely economical and reliable manner.

Benefit from our extensive experience and comprehensive advice.

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MEET THE BETTER IDEAS

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