

August-Kühne-Haus

Bremen



August-Kühne-Haus
© August-Kühne-Haus

The new August-Kühne-Haus is currently under construction at the historic headquarters of the logistics company Kühne + Nagel in Bremen. MAX FRANK supplied thermally insulating Egcobox® cantilever connectors for the precast sections of the load-bearing exposed concrete façade.

Kühne + Nagel was founded almost 130 years ago in Bremen by August Kühne and Friedrich Nagel. Today the company has more than 1,300 branches and around 82,000 employees worldwide and is one of the world's leading logistics service providers.

The new August-Kühne-Haus in Bremen

The previous administration building in Bremen from the 1960s, the August-Kühne-Haus, had become too small for the growing company. Kühne + Nagel decided to demolish the old building and build a new head office at the current site on the corner of Wilhelm-Kaisen-Brücke/Martinistrasse in Bremen. With an investment sum of 26 million EUR, the new building is intended to offer sufficient room for the employees with 13,500 sq. metres of floor space. The building is currently under construction and is expected to be finished in mid-2019.

The façade of the office building on the River Weser reflects the colour of the Weser sandstone, which has a grey-beige hue. The dynamic appearance of the building creates a visual illusion in relation to the height - "it steps down to the river", says the architect Jan-Oliver Meding from MPP MEDING PLAN + PROJEKT Hamburg.

Load-bearing exposed precast concrete façade

The special feature of the administration building is its load-bearing façade. Precast concrete sections, measuring 2.7 metres in width by 7.0 metres in height, were used for this application - each being connected over two storey levels. The construction of the façade elements was manufactured in one piece. The floor span, from the

Type of building:

Clients and Developers:

Kühne + Nagel (AG & Co.) KG

Architect:

MPP MEDING PLAN + PROJEKT GmbH,
Hamburg, www.mpp.de

Engineers/ Specialist Planners:

Planungsbüro Bade (Architekten und Ingenieure), Isernhagen
pb+ Ingenieurgruppe AG (planen, beraten, optimieren), Bremen

Building contractor:

BWE-Bau Fertigteilwerk GmbH,
Wiefelstede, www.bwe-bau.de

Completion:

2019

Project link:

https://de.kuehne-nagel.com/de_de/

building core to the load-bearing façade, is almost seven metres. This produces column-free room space with a visually appealing spacious look.

High requirements placed on horizontal and vertical shear force capacity

For the new August-Kühne-Haus, Egccobox® was used for the thermal separation of the cold façade from the warm floor. A reduction in thermal bridging was successfully achieved through the use of high-quality materials in the Egccobox®. The A1-classified mineral wool insulating material thus provides for maximum safety in case of fire as well as a low thermal conductivity.

High requirements were placed on the horizontal and vertical shear force capacity, especially in the area of the "connecting bridge" between the higher and lower parts of the building. The transmission of these forces to the storey floor was secured with the help of a highly reinforced edge beam. In the case of this project, shear forces of up to 500 kN over the half-metre can be transmitted with the Egccobox®. Wind loads, acting in parallel and perpendicular directions against the façade, are also absorbed via the Egccobox® units and dissipated to the building core. In addition, the Stremaform® storage element facilitates the production of the necessary construction joints in this area on the one hand and optimally fulfils the required toothing effect on the other.

Product combination for low transport volume and individuality

In order to reduce the transport volume of the façade elements from the precast plant to the building site in Bremen, the shear force bars of the Egccobox® were manufactured at shorter lengths with the aid of Coupler screw connections. The corresponding counterpart of the Coupler screw connection was mounted on site. The product combination of the Egccobox® thermal isolating elements and the Coupler screw connection from MAX FRANK impresses by its low transport volume and individuality.

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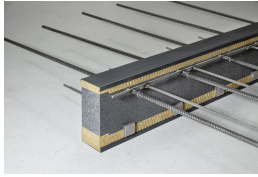
Bremen



Products used:



Stay-in-place formwork for working joints Stremaform®



Thermal break balcony connector Egccobox®



August-Kühne office
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August-Kühne office
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August-Kühne-Haus administration building
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Design of the precast façade sections
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Design of the precast façade sections with insitu Egccobox® units
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Shear force transmission on the façade section using Egccobox® thermally insulating connectors
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Shear force transmission on the façade section using Egccobox® thermally insulating connectors
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Shear force transmission on the façade element through
Egobox® thermal isolating element
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Column-free rooms thanks to load-bearing façade elements
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