

HÖRMANN SCHÖRGHUBER

# PORTAL 46

PRODUCTION

INFORMATION FOR ARCHITECTS FROM HÖRMANN AND SCHÖRGHUBER

ARCH.TV | TROJER VONMETZ ARCHITEKTEN, NEUGEBAUER + RÖSCH ARCHITEKTEN, SAUERBRUCH HUTTON, STAAB ARCHITEKTEN







**Schörghuber**  
Special doors

# DOUBLE PROTECTED

Up to  $R_{w,P} = 60$  dB

## High acoustic-rated double door systems

Whether for hotels, concert halls or recording studios: The Schörghuber double door system is an elegant design solution with a certified acoustic insulation value of up to  $R_{w,P} = 60$  dB and optimum safety thanks to its combinable fire and burglar protection function.

Discover a world of doors at  
[www.schoerghuber.de](http://www.schoerghuber.de)



### Dear Readers,

Industrial architecture shapes landscapes. In “Industry 1.0” it was the steaming steelworks and smoking coal mines on the Saar and Ruhr rivers. Today it’s the logistics shoe boxes on the motorways. It is considered a certainty that a new industrial architecture will establish itself with “Industry 4.0” – and this is the topic of the essay in this issue. We will illustrate how this might look by showing two German examples of new industrial architecture. On the outskirts of Dresden, the first construction phase of a new industrial campus has been created, which could become a prototype. With the production of dialysis filters, a medical technology world market leader is breaking new ground – without neglecting the interface between man and machine. And in Radevormwald, the architects at Sauerbruch Hutton, who are usually passionate about colour, prove that they can do something completely different. In both cases, the buildings are the result of digitised manufacturing processes – and therefore fully comply with the definition of “Industry 4.0”. However, because Germany (fortunately) is not a homogeneous business location with a monocultural industry, there will continue to be other forms of industrial architecture. The

Thünen Institute, built by Staab Architekten in Bremerhaven, is the first to create the scientific basis for industrial policy decisions of the Federal Government. And because the institute is involved in fisheries research and ecology, it makes sense that it’s located in close proximity to the fishing industry and inspired by said industry. An impressive example of how even the most traditional industries change is the Van Volxem vineyard in Wiltingen an der Saar. In the region once renowned for the highest quality white wines, strictly business-controlled production led to the slate slopes being abandoned. The result was a rationally produced wine, but also one that is comparatively simple. Now that manual work has recommenced on the steep slopes, it has led to top wines, which find corresponding fans, but only because the funding was provided for new production facilities with a new architecture. The architecture of “Industry 4.0” is as heterogeneous as the business challenges are diverse – consequently, the selection of the production sites shown in this PORTAL is also diverse.

We hope you enjoy this issue.

A handwritten signature in black ink, appearing to read 'Christoph Hörmann'.

Christoph Hörmann

A handwritten signature in black ink, appearing to read 'Thomas J. Hörmann'.

Thomas J. Hörmann

A handwritten signature in black ink, appearing to read 'Martin J. Hörmann'.

Martin J. Hörmann

Personally liable general partners

**ABOUT THE TOPIC: PRODUCTION**  
**"INDUSTRY 4.0"**



**PROTOTYPICAL:**  
**B. BRAUN INDUSTRIAL CAMPUS IN WILSDRUFF**



**EXEMPLARY:**  
**GIRA PRODUCTION IN RADEVORMWALD**



**FUNDAMENTAL:**  
**THÜNEN INSTITUTE IN BREMERHAVEN**



**PASSIONATE:**  
**VAN VOLXEM VINEYARD IN WILTINGEN**



**COMPANY**  
**HÖRMANN & SCHÖRGHUBER**





# CONTENTS

## TECHNOLOGY HÖRMANN & SCHÖRGHUBER



## ARCHITECTURE AND ART PEGGY BUTH



## RECENTLY IN ... BOCHUM HENNES BENDER



### 04 CONTENTS / IMPRINT

#### 06 ABOUT THE TOPIC: PRODUCTION

"Industry 4.0"

by Professor Jan Krause

#### 12 PROTOTYPICAL: B. BRAUN INDUSTRIAL CAMPUS IN WILSDRUFF

Neugebauer + Rösch Architekten

#### 20 EXEMPLARY: GIRA PRODUCTION IN RADEVORMWALD

Sauerbruch Hutton

#### 28 FUNDAMENTAL: THÜNIEN INSTITUTE IN BREMERHAVEN

Staab Architekten

#### 36 PASSIONATE: VAN VOLXEM VINEYARD IN WILTINGEN

arch.tv | Trojer Vonmetz Architekten

### 42 COMPANY

### 46 TECHNOLOGY

### 48 ARCHITECTURE AND ART

Peggy Buth

### 50 RECENTLY IN ... BOCHUM

Hennes Bender

### 51 PREVIEW

Worlds of work

### IMPRINT

#### Published by

Hörmann KG Verkaufsgesellschaft  
Upheider Weg 94-98  
DE-33803 Steinhagen, Germany  
Telephone: +49 5204 915-167  
Fax: +49 5204 915-341  
E-mail: [pr@hoermann.com](mailto:pr@hoermann.com)  
Internet: [www.hoermann.com](http://www.hoermann.com)

Schörghuber Spezialtüren KG  
Neuhaus 3  
DE-84539 Ampfing  
Telephone: +49 8636 503-0  
Fax: +49 8636 503-811  
E-mail: [pr@schoerghuber.de](mailto:pr@schoerghuber.de)  
Internet: [www.schoerghuber.de](http://www.schoerghuber.de)

#### Editors

Lisa Modest-Danke, Verena Lambers

Architect's Mind GmbH & Co. KG  
[www.architectsmind.de](http://www.architectsmind.de)  
Dr. Dietmar Danner, Daniel Najock  
Christina Dragoi

#### Printing

Hans Gieselmann Druck und  
Medienhaus GmbH & Co. KG  
Ackerstraße 54  
DE-33649 Bielefeld

This journal and all the articles and illustrations contained therein are protected by copyright. The publishing house and editors do not assume any responsibility for unsolicited photographs and manuscripts. Address data processing is handled by Heinze GmbH for Hörmann KG. Printed in Germany – Imprimé en Allemagne / HF-no. xxxxx

Cover photo: Stephan Falk







ABOUT THE TOPIC: PRODUCTION

# INDUSTRY 4.0

## ARCHITECTURE IN THE ERA OF DIGITAL TRANSFORMATION

by Professor Jan R. Krause

**Hardly any other construction task is so strongly affected by changes in times of digital transformation as industry, trade and logistics. Highly automated processes, artificial intelligence and the vision of autonomous driving are shaping manufacturing processes, storage and distribution. Professor Jan R. Krause from the University of Bochum deals with the question of which challenges and changes this will bring for architecture and cities.**

Germany is not only regarded as the export world champion, but also as a logistics world champion and is the central transshipment point for goods in Europe. The German warehouse and logistics market reached a new record in 2018 with a nationwide floor-space turnover of seven million square metres. The result is seven percent higher than in the same period last year and has doubled in ten years, according to an analysis by the global real estate service provider CBRE. Modern halls with a well-developed infrastructure are booming. Modern logistics go hand-in-hand with growing automation and digitalisation, which can already be experienced today in fully automated and digitised high-bay warehouses. The first driverless lorries are already underway on the A9 between Munich and Nuremberg.

### Digital twin

The future of autonomous driving and remote delivery of goods by drones opens up unimagined perspectives for increasing efficiency and optimisation. We are not quite that far yet. However, sophisticated production and logistics processes are already raising expectations of the functionality of architecture and the professionalisation of integral planning processes. In no other area of architectu-

ral planning is the demand for the “digital twin” as loud as in industrial construction. The idea of planning and house building according to methods of industrial production with a batch size of 1 seems to be within reach. Learning from “Industry 4.0” means applying “industrial processes” to architecture – but without falling into the monotony of formless system construction. “Industry 4.0” is not synonymous with regular industrial architecture. On the contrary; the growing complexity requires the expertise, know-how, experience and creativity of the architect. Complexity cannot be reduced – even and especially in times of digital transformation. It takes architects and interdisciplinary teams as pioneers to make the complexity manageable.

### More than two lives

Most buildings have more than two lives. To imagine this and to consider it functionally and in terms of design during planning is one of the most important future tasks of architects. The one-dimensional programming of a building purely to fulfil a function for a single purpose of use is no longer up-to-date and certainly not sustainable. The product life cycles of everyday objects are becoming shorter and shorter, and the need for flexibility and adaptability in production processes is becoming ever greater. Change management no longer applies only to modern company management, but especially to production and logistics. Some business models, for which modern commercial buildings are built today, will not exist in the next generation. But the buildings will still be standing and will need to be used again. In the history of industrial architecture, there are numerous fine examples of the successful reallocation of major industrial and infrastructural projects, such as turning power plants and substations into event venues, train station halls into museums, and warehouses into lofts. One of the most spectacular cultural buildings of recent times – the Elbphilharmonie in Hamburg by Herzog de Meuron – stands on a warehouse building, which has become a distinctive and indispensable urban element of the port city over the years. The basis for such a successful conversion



Photo: Stephan Falk

Conversion: Elbphilharmonie in Hamburg by Herzog de Meuron.

is always an efficient, identity-forming architecture that's worth preserving.

### **Five major trends can be identified in industrial and commercial architecture:**

#### **1. Sustainability**

Sustainability and energy efficiency are playing an increasingly important role in logistics and industrial construction. "Climate-neutral" logistics buildings and CO<sub>2</sub>-neutral logistics centres are emerging. The "Multicube" logistics centre in the Rhine-Main area was one of the first logistics buildings to receive certification from the German Sustainable Building Council (DGNB) in platinum. Built on a green belt and based on the somewhat uninspired German concept of "square, practical, good", the building is obviously exemplary in terms of construction technology and energy with a large photovoltaic system on the roof. Among all aspects of sustainability, however, the criterion of building cultural relevance is decisive. Technical, climatic measures geared towards ecology and energy efficiency can usually be adapted and retrofitted according to new insights, changed legislation and innovative technological possibilities. However, the substantial architectural questions regarding context, concept, typology, structure, statics, construction, materials, functional flexibility, building cultural and social relevance have to be clarified from the start and with great foresight. Despite the enthusiasm for artificial intelligence in the planning processes, only well-trained architects will be able to achieve this in the foreseeable future.

#### **2. Multi-storey industrial construction**

Given the scarcity of land in densely populated areas and taking into account the topography of some of the industrialised regions in Germany, compact multi-storey industrial construction is becoming an issue. What has become a challenge with regard to production processes, but is now an attractive option using process management and conveyor technology, has now also reached the logistics

sector. "Multi-level logistics buildings" are complementing the logistics landscape, which up to now has been largely organised on one floor, as a new typology. Remarkable examples of this can be found in countries where multi-storey buildings are more commonplace than in Germany, such as the building for ALP Logistic Republic in Taichung, Taiwan, by Che Fu Chang Architects. German offices are also successful in the logistics sector in Asia, such as the Frankfurt office of schneider+schumacher, which won the tender for the Logistic Center in Changchun, China, planned to become one of the leading freight terminals in Northeast Asia. The towering 25-storey logistics tower is to assume the role of a landmark for a district that will offer much more than just logistics with shops, office spaces, hotels and residential units on almost one million square metres.

#### **3. Urban logistics centres and industrial architecture**

What was banished from the city limits for a long time is now finding its way back into the cities. Digitisation is by no means only changing the manufacturing processes. "Just-in-time" deliveries as part of the logistics and goods flows as well as sales channels are also positively influenced. Huge reserves still lie fallow for future architectural concepts for city-friendly factories and manufacturing systems, flexible capacity management and decentralized production networks as well as urban-compatible logistics as the basis for sustainable products and manufacturing. In its current position paper "Urban Production and Logistics", the Association of German Engineers VDI is committed to supporting the development of a vibrant industry in an urban environment: "Due to the increasingly strong interdependence of production, logistics, knowledge, research, development, culture and services, urban production and logistics are indispensable elements of an innovative urban economy now and in the future in which the mutual networking of different sectors is becoming increasingly important." Inner-city industrial, commercial and logistics buildings need public acceptance, which is why sophisticated architecture as a contribution to

Photo: Johannes Marburg





Datacube data centre Tesla in Münchenstein by ffbk Architekten.



Photo: Steve Hall © Hall + Merrick Photographers, Chicago

Trumpf Smart Factory in Chicago by Barkow Leibinger.



Multi-storey: Logistic Republic in Taichung by Che Fu Chang Architects.



Logistic Center in Changchun, China, by schneider+schumacher.

urban life will be an essential key to success. Even windowless buildings do not have to be anti-urban shells, as the Datacube data centre Tesla in Münchenstein by ffbk Architekten AG together with JAUSLIN STEBLER AG shows. With a shiny, reflective stainless steel facade, it absorbs the ambient colours and surprises with optical phenomena. The flat roof of large industrial and commercial complexes, which has often been neglected in terms of design, is also becoming a creative focus: Architects and investors are discovering the roof as a fifth facade and a “business card from above” in times of Google Earth.

#### 4. New unit as a result of digital transformation

The digitisation of the industry does not necessarily mean that developers work thousands of kilometres away from the production site. The opposite seems to be the case. The growing digital networking of those involved also triggers the need for personal networking and face-to-face meetings. Many companies are seeking to overcome the separation of functionality and distribution across different locations, and also to bring together what belongs together: Logistics, production and development all form part of a new entity that promises even greater efficiency, productivity and inspiration than if they were isolated and only networked digitally. Connectivity 4.0 reintroduces human encounters. The Trumpf Smart Factory in Chicago by Barkow Leibinger is a prime example of how the streamlined world of digital manufacturing can be combined with the prestigious world of brand positioning. Prominently located off Interstate 90, near Chicago O'Hare International Airport, an Industry 4.0 demonstration factory with digitally networked machinery has been created, in which the entire production chain of sheet metal components, from commissioning, design and manufacturing to delivery, can be experienced as an intelligently connected, holistic process.

Photo: Studio Millspace

Photo: schneider + schumacher



#### **Professor Jan R. Krause**

born in 1969 in Hamburg, Germany, looks back on 22 years of experience as an editor, marketing director and university professor. After studying architecture at the TU Braunschweig, the ETH Zurich and the Vienna University of Technology, he completed an internship at the architectural journals AIT / XIA in Stuttgart. He worked as an editor for three and a half years before switching to industry. As marketing director of Eternit AG, he spent 15 years designing and implementing the modernisation of the brand and focusing sales on architects. During his postgraduate studies at the Vlerick Business School in Leuven / Ghent, he specialised in corporate governance, strategy and international relations. He then headed international strategic marketing at Sto SE & Co KGaA in Stühlingen, developing the company's digital strategy and international harmonisation of its brand identity. Since 2003 he has been Professor of Architecture Media Management at the University of Bochum.

[www.ofat.berlin](http://www.ofat.berlin)



Photo: ofat.berlin

### **5. New significance of building culture in industry, trade and logistics**

There seems to be a growing sensitivity for architectural quality among builders, users and neighbours. Architecture for industry and trade continues to be the focus of the debate on good building culture. Gradually, the lessons of decades of faceless logistic centres, industrial and commercial sites are being taken inside the city walls. In times of increasing densification and growing demands on the quality of work and life, the call for a building culture is growing louder. "First and foremost, industrial buildings are functional buildings whose clever construction serves their function. In truth, the quality of the design as a third factor plays an equally important role. As a flagship for the company, as an identifying feature for the employees or as a community-shaping contribution to the city and townscape," says Reiner Nagel, Chairman of the German Federal Building Culture Foundation. He claims: "First and foremost, the driving force behind well-designed industrial architecture are the companies, i.e. private building owners. For them, building culture must become a concern, ideally a matter of utmost importance." There are already good examples of this, as some architectural prizes show. With the MIPIM Award, the Engineering Award and the newly established Industrial Construction Prize, industrial, commercial and logistics buildings are regularly awarded with prizes and special architectural quality promoted in the industry. The architects Jaspers-Eyers, the planning and consulting firm Arcadis and the planning office Pauwels have received the MIPIM Award for the "Best Construction Project in Commerce and Logistics" for their work on the NIKE sporting goods and clothing distribution centre in the Belgian city of Ham for exceptional architectural quality in connection with supplying renewable energy and creating an environment in which health and biodiversity are key. Its special feature: The facade of the distribution centre is covered with vegetation over a total length of 1.3 kilometres. This protects the building against sunlight, accommodates rescue routes and connects it with the landscape.

### **Industrial architecture as a supreme discipline**

Industrial architecture used to be a symbol of innovation and future orientation, and therefore also a pioneer in architectural styles. Industrial architecture could now once again become the supreme discipline – as it did over a hundred years ago at the beginning of the modern age. The result was a number of seminal icons of building culture. Contemporary industrial and logistics architectures also offer responsible entrepreneurs the potential to proudly position themselves at the forefront of the movement with appropriate architectural quality in the era of digital transformation. In the future, it will not be enough for industrial construction to only supply a functional shell. In "Industry 4.0", digitisation and robotics in production make it possible to achieve new independence from process flows and spatial constraints. Nevertheless, spatial flexibility is an equally important design criterion for future sustainability of commercial buildings as is the demand for environmentally conscious building and, above all, building culture sustainability. Ideally, industrial architecture 4.0 will also create a new planning culture.

# PROTOTYPICAL

B. BRAUN INDUSTRIAL CAMPUS IN WILSDRUFF BY  
NEUGEBAUER + RÖSCH ARCHITEKTEN









Planted courtyards increase the employees' well-being.

**“Industry 4.0” requires an industrial architecture 4.0. On the outskirts of Dresden, the architecture firm Neugebauer + Rösch has realised the first part of a prototypical industrial campus for a medical technology world market leader with unique architectural standards, whose extreme efficiency is not at the expense of the employees.**

The 19th century was characterised by smoking heavy industry and crude and large-sized goods. The industrial production of the new millennium has shrunk down to micrometre size – nowadays, production can be carried out exclusively by machines under artificially created clean room conditions. The Stuttgart architects Neugebauer + Rösch designed a prototypical “Industry 4.0” factory for a world market leader in medical technology products. In the Saxon town of Wilsdruff, just outside Dresden and right next to the motorway, the flagship production facility for dialysis filters is located. “B. Braun Melsungen” has always been known amongst architects for their ambitious corporate architecture that is not determined by controllers, but by entrepreneurs. As early as the 1990s, Sir James Stirling was hired to design the company headquarters in Melsungen, Hesse. The latest factory also is the result of a tender. The triumphant Stuttgart architects did not interpret the task of industrial construction 4.0 as a predominantly production-oriented topic. Instead, they created a new industrial building culture.

#### **A duty to society**

Yes, the degree of automation of this factory is enormous. And yes, the vast building services dominate the construction volume, because creating a clean room atmosphere that incorporates an entire hall is the task at hand. The main focus is on the smooth manufacturing process and the consumption-driven supply chain. The fact that the usual architectural rudeness that lines the motorways has been

avoided deserves high praise from both the building owners and the architects. The construction work is proof that the family-owned company feels committed to society and not just the quarterly reports. The factory is to become a campus one day – expanded by additional production facilities and a development department for new products. The construction plan for the grounds gives an idea of what will eventually be built here. Most of the factory employees look as if they have to protect themselves from infection with their elaborate safety clothing. In truth, the protective clothing is used to manufacture and deliver dialysis filters without any contamination. The rather inconspicuous plastic tubes with the white filling made of locally spun polymer hollow-core fibres help to prolong life all over the world. And because the number of diabetics is steadily increasing, the factory has a great future.

#### **Detailed perfection**

The driveway and lobby exude elegance, and the structural surfaces made of unplastered concrete, glass and metal are not pretentious, but have class. Above all, however, their detailed perfection highlights the quality standards during production. The clean room atmosphere in this factory is not just a claim – it can be experienced through architecture. A reinforced concrete bridge supporting the roof spans the entire production area, accommodates the offices and infrastructure, and ensures constant visual contact between production and administration thanks to glass panels. The hierarchies are flat, the break areas and cafeteria are accessible to all employees, and the desk workers occupy a “nomadic office”. Which is why they never know where their supervisor is working at the moment. If need be, the employees can even work at the visitor seating area at reception. In industrial construction 4.0, courtyards with natural light, accessible roof gardens and a staff-oriented design ensure that people’s work routine is not defined by machines – as was the case in “Industry 1.0”.





Simple and restrained, but perfectly designed down to the last detail: The architecture reflects the value of B. Braun Melsungen products.



Large lobby with sculptural spiral staircase.



Fully glazed courtyards with natural light provide daylight inside.



The small cafeteria can be extended into the lobby.



Transparency is a distinguishing design element.



Sufficient space for building services: The suspended ceiling above the clean rooms is a separate floor.



The production halls can also be viewed by visitors.





The building is characterised by material and dimensional coherence.



Generous window surfaces establish a connection between the interior and exterior area.

# Hörmann expertise: Industrial doors and loading technology

The manufacturer of dialysis filters “B. Braun Melsungen” places the highest demands not only on production, but its logistics must also meet the toughest requirements. To ensure this, Hörmann supplied industrial sectional doors as well as telescopic lip dock levellers and inflatable dock seals for the loading points. For loading and unloading, the lorry can dock at the loading bay with closed lorry doors. The dock seal inflates and seals the vehicle on three sides. Only then do the industrial doors open. This optimally protects the products to be loaded against adverse effects of weather, also saving energy costs and

preventing draughts. The telescopic lip dock levellers can be extended to the last centimetre, ensuring a safe loading process. Inside, Hörmann high-speed doors and rolling shutters optimise the logistics process and workflows. The high-speed door with flexible door leaf has a transparent curtain, which not only makes it translucent, but also shows whether colleagues are approaching from the other side of the door. In addition, Hörmann supplied sliding doors and flush-closing steel doors for fire protection.



If the building height is sufficient, doors can be guided vertically. This fitting variant protects the door.



Loading bay with inflatable dock seals.



Fire-rated sliding door in combination with a transparent high-speed door.



**Location:** Dresdner Tor 5, 01723 Wilsdruff, Germany

**Building owner:** B. Braun Melsungen AG, Wilsdruff, Germany

**Architect:** Neugebauer + Rösch Architekten, Stuttgart, Germany

**Support structure planning:** Reitz und Pristl, Kassel, Germany

**HVSE planning:** Schnepf Planungsgruppe, Nagold, Germany

**Gross floor area:** 19000 m<sup>2</sup>

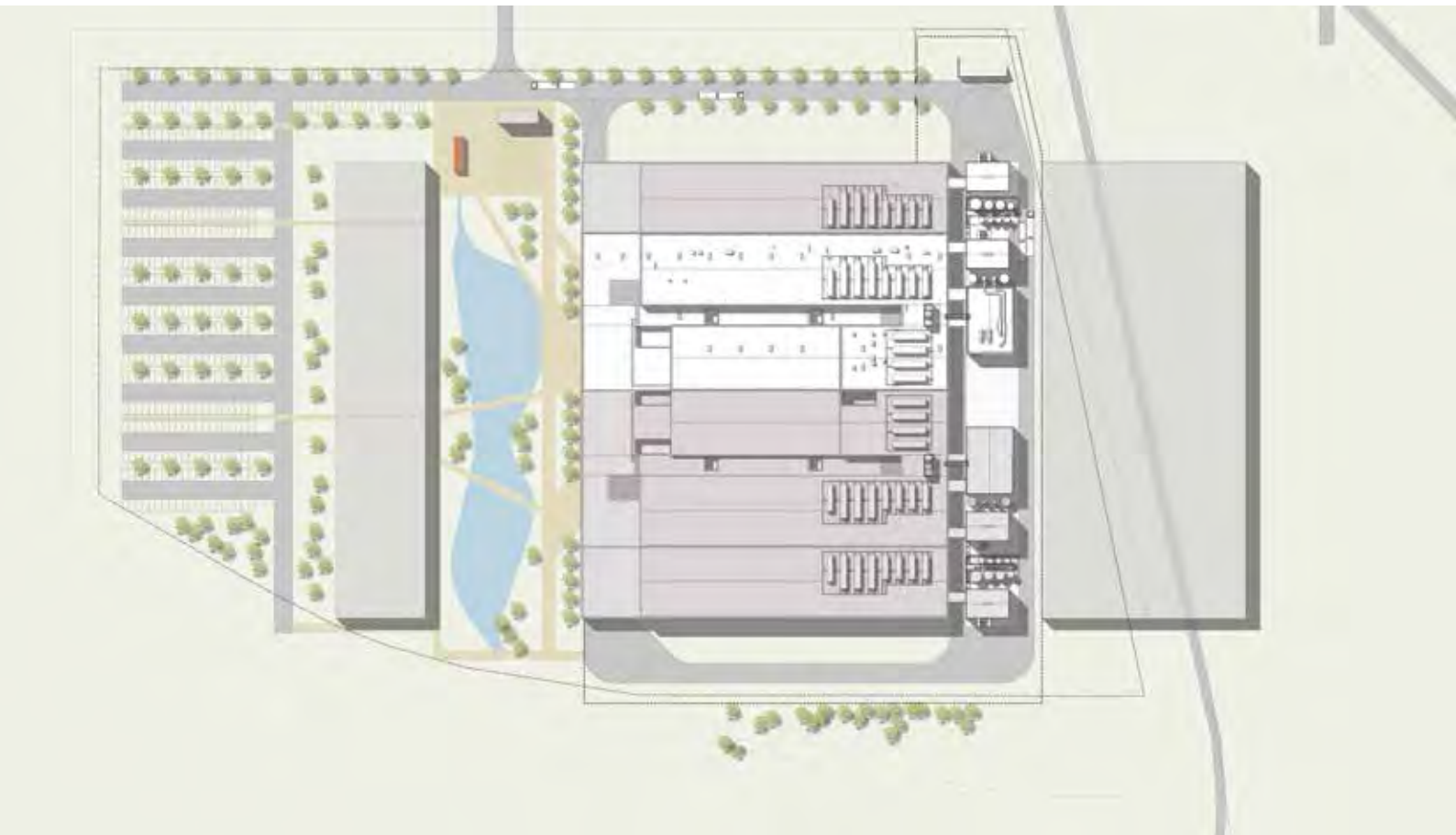
**Clean room area:** 4700 m<sup>2</sup>

**Completion:** 2018

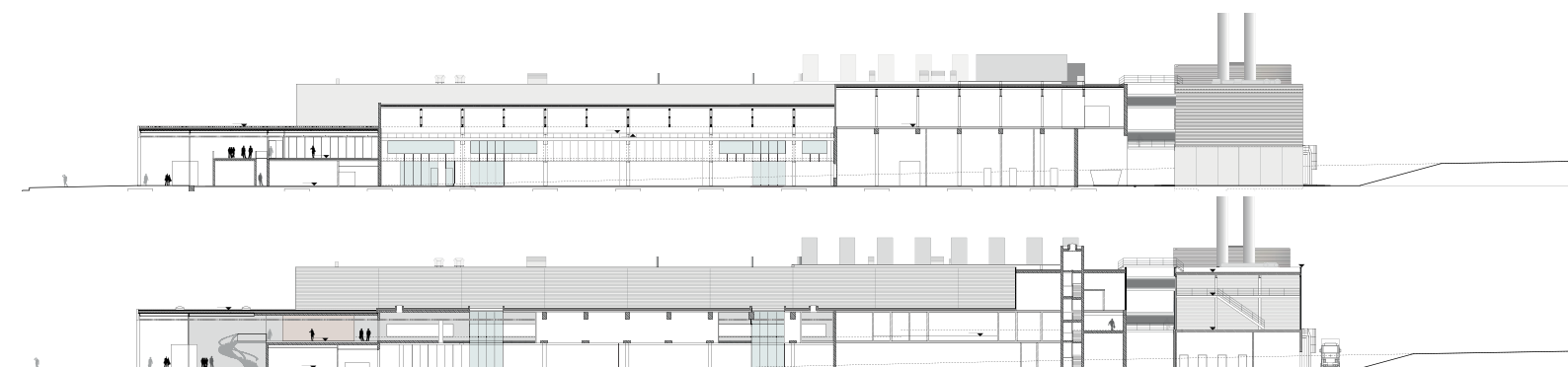
**Photos:** Till Schuster, Dresden, Germany/Stephan Falk, Berlin, Germany

**Hörmann products:** Industrial sectional doors (ALR F42, SPU F42); high-speed door V 6020 TRL; rolling shutter Decotherm SB; T90 fire-rated sliding

door; steel doors STS (T30, T90); dock levellers HTL 2; inflatable dock seals DAS-3 DOBO



Master plan



Longitudinal sections

# EXEMPLARY

GIRA PRODUCTION IN RADEVORMWALD BY SAUERBRUCH HUTTON









View of the entrance area and the mezzanine as an intermediate floor.

**What an accomplishment! Sauerbruch Hutton realised an industrial complex for Gira by keeping it simple, with only sixteen shades of grey and without falling back on their usual colour palette: The design is completely oriented towards the production processes and in line with the building owner's black-and-white corporate design, with all the necessary elements to become the exemplary industrial architectural landmark of the 21st century.**

No, Louisa Hutton has by no means entered a new "grey phase" of her work. The sophisticated colours of the Berlin office's projects will not change in the future either. The building for Gira in Radevormwald will probably remain an exception and is solely due to the client's requirements. During the very first meeting in the architects' office, the client was very blunt: "Do you do black and white?" The limited colour palette had to be in line with the corporate design of the manufacturer of light switches, sockets and building system technology. Sauerbruch Hutton complied with the specifications. After all, there are countless shades of grey between black and white. 16 were finally selected for the building. All the surfaces and building elements were designed according to this colour palette. Only a few apparently irrefutable regulations regarding the colour of supply lines interfered with this design approach.

#### **Expandable solitary building**

Renowned architecture has always been part of the Gira corporate culture. An agglomeration of the most diverse architectural designs from different eras has emerged around the company location. For the largest single investment to date, however, a completely new location was chosen. It is located a few hundred metres from company headquarters, in line of sight to the "old buildings", and marks a

new building phase. Sauerbruch Hutton erected an extendable but uniquely isolated building next to the main road. The additional volume of the metal facade now typical of logistics buildings dominates the hillside and also stands for a new type of industrial architecture. The Gira products go through manufacturing in a completely linear process, before they are loaded onto lorries at the other end of the building in the loading area. In between, nothing interferes with the production flow, and the rigidity is almost reminiscent of clean room technology. On the longitudinal side, the bright white main entrance opens up promisingly to the employees, and at the centre of the facility there are the high-bay warehouses, from which the highly complex packaging of the individual deliveries takes place. In this "Industry 4.0" landmark, packers sit before their opened cardboard boxes and receive the required individual parts for the respective orders from above.

#### **Kasbah in the Bergisches Land**

Only this logistics section protrudes beyond the otherwise broadly stocked building and at the same time forms its waist. And as in real life, this lean part of the building structure can be supplemented with additional logistics volume if required (and assuming good economic development). In terms of figures, the gross floor area could be expanded from currently 30,000 to up to 50,000 square metres. A so-called mezzanine floor is suspended from the production hall ceiling. It creates an additional traffic route that does not affect the actual production and at the same time leads to the various zones of the innovative office spaces. These development offices are located on the roof of the production area. They stand next to each other as boxes, forming sheltered courtyards and becoming a Kasbah in the Bergisches Land. Again, the basic modular concept offers the possibility for expansion. In several areas, Sauerbruch Hutton were able to add some colour to the overall design, after all. The edges around the transom lights, for example, are anything but grey.





The design possibilities for industrial buildings focus on varying dimensions and the interplay of colours, which in the case of Sauerbruch Hutton is surprisingly subtle.



Part of logistics: Incoming goods area and shipping area.



The work stations are located in small boxes and are thus shielded from production noise.

## Schörghuber expertise: Special doors

Not only was the facade designed in different shades of grey, Sauerbruch Hutton also used this colour concept for the interiors – with some exceptions. For this reason, most of the composite timber doors supplied by Schörghuber in the administration area are also painted in light or dark grey NCS shades. This high-quality premium paint displays high opacity and light fastness and provides a pleasant feel. In order to increase resistance of the doors, Schörghuber uses particularly abra-

on- and impact-resistant HPL laminate, which is particularly robust and durable. In areas where the mechanical loads are even higher, the doors are equipped with a cast PU edge in a matching colour and a stainless steel bottom sheet as impact protection. PU buffers are also fitted on wet room doors. They prevent moisture, such as mop water, from penetrating the underside of the door leaf.



Examples: The premium coating on the composite timber doors ensures an elegant and high-quality design.



Puristic: A single sliding door separates the hall sections from each other.



**Location:** Gewerbestraße 3, Radevormwald, Germany

**Building owner:** Gira, Radevormwald, Germany

**Architect:** Sauerbruch Hutton, Berlin, Germany

**Building engineer:** Werner Sobek, Stuttgart, Germany

**Technical building equipment:** TEN Ingenieure, Aachen, Germany

**Gross floor area:** Around 30000 m<sup>2</sup>, possible to extend to around 50000 m<sup>2</sup>

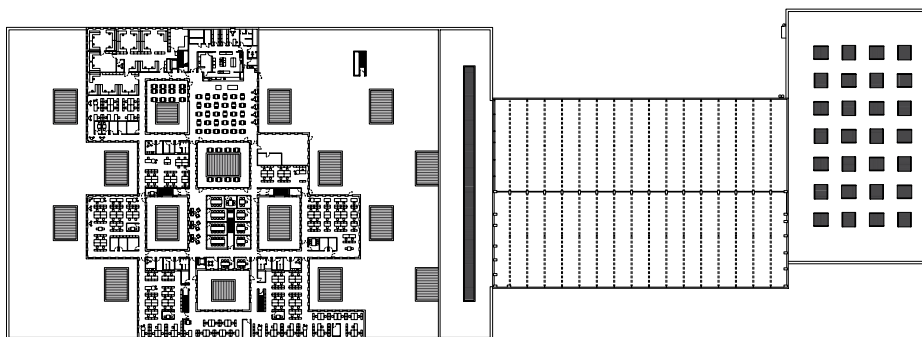
**Completion:** 2019

**Photos:** Stephan Falk, Berlin, Germany

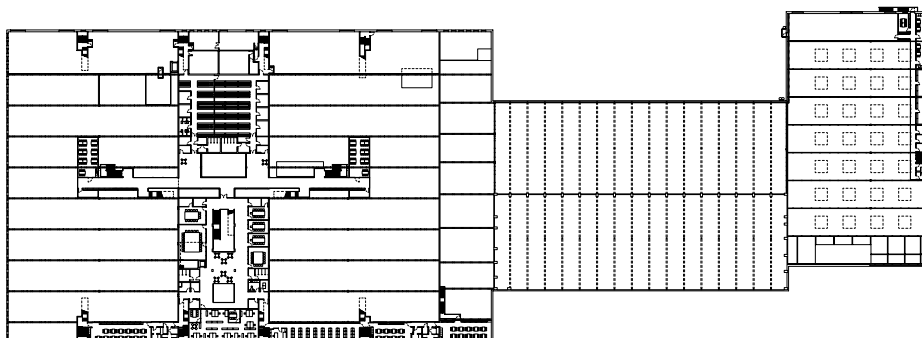
**Hörmann products:** T90 fire-rated sliding doors, high-speed doors V 4015 SEL-R, spiral doors HS 7030 PU 42, industrial sectional doors SPU F 42, telescopic lip dock levellers HTL2, inflatable dock seals DAS-3, dock shelter DFH, T30

and T90 aluminium tubular frame parts, T30 steel doors STS, multi-function doors H3, H16, D65, steel corner frames, 2-part sliding door steel frame for retrofitting, 2-part steel profile frame for retrofitting

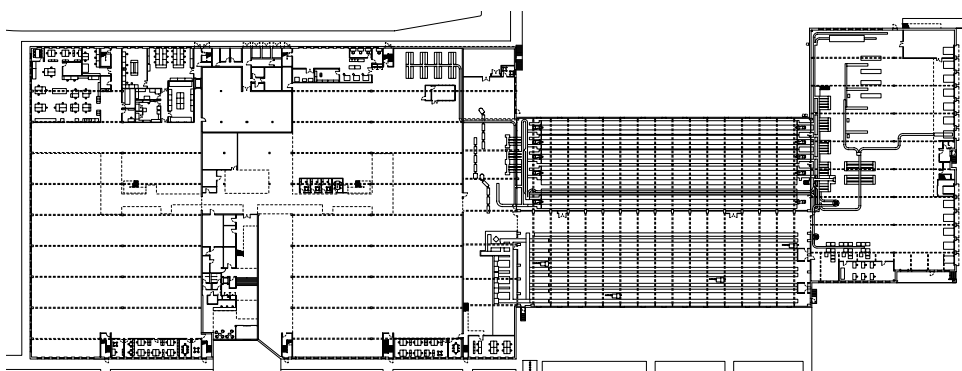
**Schörghuber products:** Composite timber doors, composite timber sliding doors, damp room doors, acoustic-rated doors  $R_{w,P} = 42$  dB, T30 fire-rated doors, double-leaf damp room doors, wet room doors with aluminium frame, surface with premium coating in various NCS colours, some with HPL laminate with cast PU edge, stainless steel bottom sheets



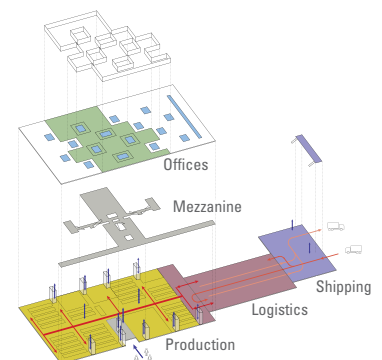
Floor plan for the second floor



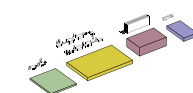
Floor plan for the first floor



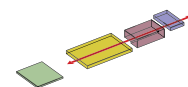
Floor plan of the ground floor



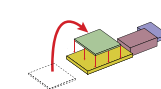
Access point and logistics



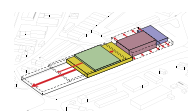
Four main areas: Innovation, production, logistics, shipping.



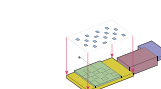
The central access point connects the main areas



Optimised use of space, at the same time advantageous spatial proximity of innovation and production.



Additional expansion possible for the individual main areas.



Uniform grid: Transom lights and potential courtyards, optimised use of natural light and a connection to outdoors.



Preparation of the office floor (first expansion phase) with advance planning of future extensions.

Development concept

# HÖRMANN EXPERTISE: EVERYTHING FROM A SINGLE SOURCE

## Mark Klein from Inovator about logistics and industry projects

**Inovator supplied loading ramps with sectional doors located behind them, as well as various high-speed and fire-rated doors from Hörmann for the new GIRA production facility. Mark Klein, Managing Director of the Hörmann sales partner gives insights into this special project.**

### **What does industrial architecture design mean to you?**

In my opinion, a well-designed industrial building today should be designed to be as flexible and efficient as possible. This includes the ability to respond to changing market conditions, so that appropriate possibilities for extensions/ conversions are available. It should be able to be operated both during the construction phase and during use in a way that saves as many resources as possible.

### **And what makes this project by Sauerbruch Hutton so special from an architectural point of view?**

With large-scale projects like this there is always the danger

that the building will end up looking outlandish in the end. With this building, Sauerbruch Hutton has succeeded in making sure that the building blends harmoniously into the environment.

### **What design requirements do architects like Sauerbruch Hutton place on Hörmann products?**

Unfortunately, door assemblies are reduced exclusively to their function by many architects. This project is different: Sauerbruch Hutton has recognised the door systems as a design element. With their large surfaces and the different shades of grey on the outer facade, they contribute significantly to the harmonious overall appearance of the new building.

### **How is employee safety ensured with automatically closing door systems?**

Various safety systems ensure the safe operation of automatic door systems today. Optosensors integrated in the bottom



Several industrial sectional doors with glazing cut-out and loading ramps support logistics and ensure a smooth process.





Mark Klein

profile stop the door even when it is lightly touched. Photocells and light grilles work contact-free and stop many door systems before contact.

**Inovator can supply a wide range of Hörmann products from a single source for major projects such as GIRA. What advantage does this have for architects and end customers?**

Many years of experience help to ensure that the right doors and door assemblies are used at key points in the building. Our expertise certainly contributes to professional and proper fitting. The large pool of employees ensures that illness-related absences can be quickly compensated. It has many advantages that all services come from a single source and can be centrally coordinated. This is a big plus during the construction phase, but especially during the later period of use, when only one company has to be contacted for maintenance and testing, also in case of problems.

**What particular challenges did you face during this project?**

We were involved at an early stage in the planning of the project and were able to provide the architects with competent advice on every type of product. The fact that almost the entire Hörmann industrial door range is fitted in a single construction project is not that common, but our experience was very helpful indeed. Of course, the key to success lay in the subsequent coordination with our client as to which products had to be installed at which point in the project. Providing this flexibility was certainly the biggest challenge for us. However, the cooperation with Hörmann as a supplier and the Sauerbruch Hutton project managers went very well and resulted in a project that was a lot of fun.

You can read the full interview on [www.hoermann.de/portal](http://www.hoermann.de/portal)



Air locks keep the heat inside the building, ensuring energy efficiency.



In case of a fire, the sliding door closes automatically.

Photos: Hörmann

# FUNDAMENTAL

THÜNEN INSTITUTE IN BREMERHAVEN BY STAAB ARCHITEKTEN









The quay wall is still not large enough for all research vessels of the institute.

**A successful industry requires a future-oriented industrial policy. The Federal Government obtains this foresight when it comes to fishing with the help of the Thünen Institute. Staab Architekten designed an inspiring new building for the institute in Bremerhaven in the immediate vicinity of the fish-processing industry.**

The Federal Government also makes its political decisions on a scientific basis. And when the Ministry of Food and Agriculture needs such sound advice, it turns to the Thünen Institute. From Bremerhaven, the two federal institutes for sea fishing and fisheries ecology perform their research, looking at issues such as how silicones from shampoo enter the rivers and seas via sewage systems, landing in the cod and then in the fish fingers on our plates. The fact that the new institute building was built by Staab-Architekten in direct proximity to the large fish processing companies “Frosta” and “Deutsche See” is therefore only logical.

**Intentionally fixed**

The fishing port of the Hanseatic city is undisputedly the home of the German herring preserve. The fact that this served as an inspiration for the facade of the Thünen Institute would at best be speculation. In any case, the building is completely enclosed by a metal facade, folded as lightly as it is folded regularly. Although the building is used for research purposes, it also echoes contemporary industrial buildings, whose logistics centres are shooting out of the ground along the major transport routes. The exterior of the Thünen Institute is as sophisticated as their facades are usually unimaginative. Depending on the needs and weather conditions, its openings for windows and doors can close, making it appear as if it were a sealed metal object directly near the water. However, this is only theoretical – because on closer inspection, many doors and gates

turn out to be rigid. Although provided with hinges as decoration, the storey-high folding shutters are not intended to move. The doors located behind them in the second facade level therefore remain completely exposed to the weather. What is used as decoration for the doors works perfectly for the windows. Marine biologists are now following with interest how the fine mechanics of the facade elements react to the harsh coastal salt climate in the long term. If the sun or the wind are too strong, the researchers look down through the expanded aluminium panels onto their research ships Solea, Clupea and Walther Herwig III, which have to be moored on the opposite side of the harbour basin. The old quay wall of the institute is still too short. At present, the scientific samples collected all over the world have to pass around the harbour basin before they can be stored in the cold store rooms and water basins on the ground floor of the new building and examined in the laboratories above.

**Magnificent view**

Visitors, on the other hand, can easily enter the building by land through a double storey entrance hall. It serves as a stunning celebration of the high standards of science, while distributing the employees and visitors of the institutes via stairs and elevator to the low-key office floors and laboratories. Connectable conference rooms are used for scientific exchange. Courtyards and meeting boxes provide a suitable working atmosphere. Additionally, a particularly spacious room originally planned as a library is now used for occasional receptions. That’s probably for the better; it would have been a shame to block the magnificent view with shelves. From here the view reaches over the fishing port and the Weser almost to the North Sea and thus to the research areas of the institutes.





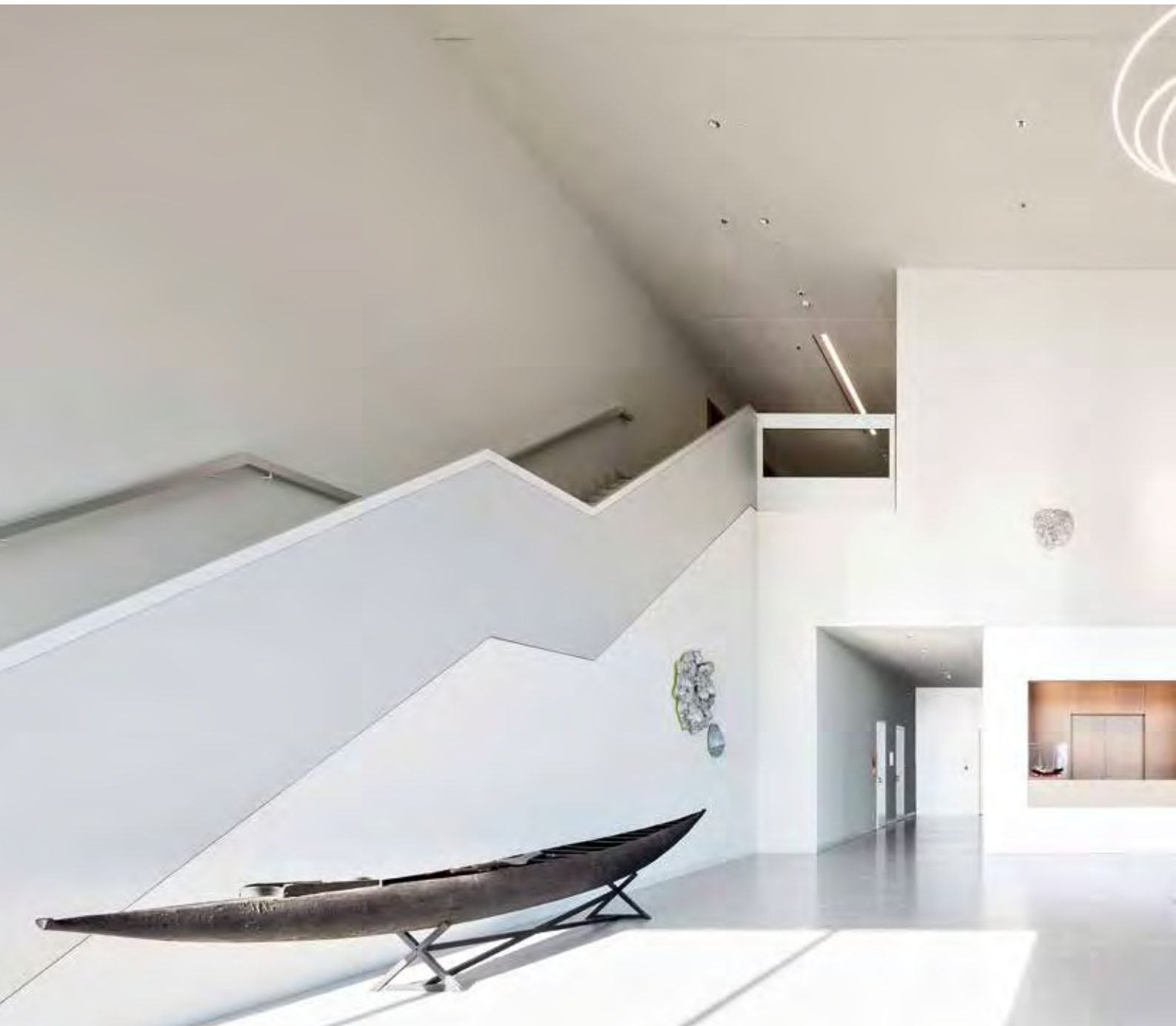
At dusk, interesting light effects can be seen on the folded facade.



Here the windows are open. But when closed, the shutters make the building appear like a monolithic metal structure.



Spacious areas permeate the building.



Maritime exhibits create a unique atmosphere in the lobby.





Originally intended as a library, this room is now used for receptions and meetings.



A splash of colour: The purple-coloured armchairs stand out clearly from the white walls.

## Schörghuber expertise: Special doors in special dimensions

As a manufacturer of special doors, Schörghuber is responsible for the construction of the doors for the Thünen Institute. In the conference room double-leaf fire-rated / smoke-tight and acoustic-rated doors are fitted, which have been provided on-site with an oak surface finish and thereby optimally match the oak wall. Three hinges hold these doors due to their significantly higher weight. A door that is only 520 mm wide but 3190 mm high is also inconspicuously integrated into the wall. It extends to the ceiling and does not

feature a frame element so that the flexible partition walls can be concealed behind it. Another special format was chosen for two additional fire-rated and smoke-tight doors, with a door leaf of 1420 x 2610 mm and 1735 x 3000 mm, respectively. Due to their size and the resulting weight, these doors must even be held by four hinges. Some doors are provided with a glazing cut-out. Flush-fitting glazing beads provide a streamlined, simple design. Three sliding doors complete Schörghuber's contribution to this project.



Homogeneous appearance: Due to the on-site cladding with oak timber, the doors are inconspicuously integrated into the wall.



Some doors are designed as ceiling-high T30 recess doors.



Flush-fitting glazing beads provide a sophisticated appearance.



**Location:** Herwigstraße 31, Bremerhaven, Germany

**Building owner:** Federal Ministry for the Environment, Nature Conservation, Construction and Reactor Safety, Berlin, Germany, represented by Bundesbau bei Immobilien Bremen AöR, Bremen, Germany

**User:** Thünen Institute of Sea Fisheries / Fishery Ecology, Bremerhaven, Germany

**Architect:** Staab Architekten, Berlin, Germany

**General planning:** SOW planning group, consisting of Staab Architekten, Berlin, Germany, and Winkels Behrens Pospich Ingenieure für Haustechnik, Münster, Germany

**Gross floor area:** 14,300 m<sup>2</sup>

**Construction costs:** €41.8 million

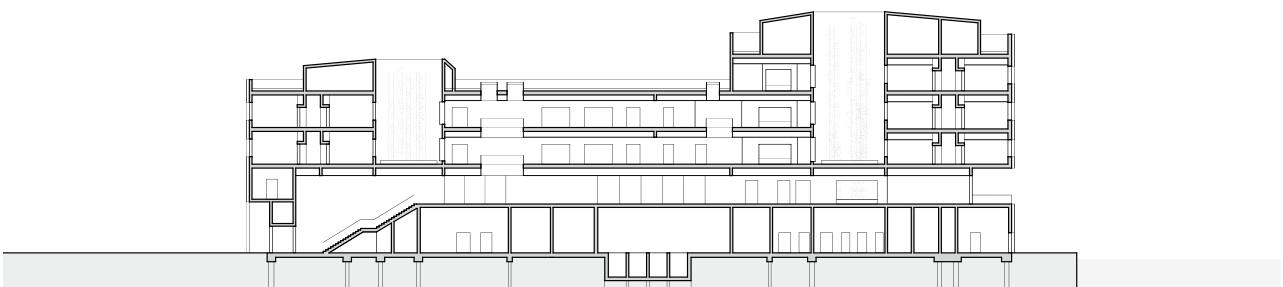
**Completion:** 2018

**Photos:** Andreas Muhs, Berlin, Germany

**Schörghuber products:** Acoustic-rated doors  $R_{w,P} = 32$  dB, smoke-tight doors, single-leaf T30 fire-rated / smoke-tight doors, T30 fire-rated recess doors, double-leaf T30 fire-rated / smoke-tight doors with glazing cut-out, single-leaf and double-leaf composite timber sliding doors, composite timber doors, single-leaf and double-leaf acoustic-rated doors  $R_{w,P} = 42$  dB, T90 fire-rated / smoke-tight door with glazing cut-out, door thickness primarily 70 mm, some doors with concealed hinges, glazing cut-outs, large dimensions up to a height of 3000 mm, opposite hinge side with on-site double wall, rebate frames, solid timber frames



Floor plan for the first floor



Longitudinal section

# PASSIONATE

VAN VOLXEM VINEYARD IN WILTINGEN BY ARCH.TV |  
TROJER VONMETZ ARCHITEKTEN









The two-storey tower welcomes visitors with its distinctive look.

**Anyone who makes wine, lives out a passion. The production of this cultural asset is a balancing act between high-risk top vines and industrial mass-produced goods. The Van Volxem vineyard tackles this challenge – and translates the oenological claim into architecture.**

With his Van Volxem vineyard in Wiltingen on the Saar, Roman Niewodniczanski took a chance on a new beginning in 2000, followed by the architectural highlight almost two decades later. The South Tyrolean office arch.tv | Trojer Vonmetz Architekten designed the new estate amidst the vineyards and high above the Saar. The still young winemaker comes from a family that has been richly blessed for generations with successful entrepreneurs and renowned scientists. For this reason, his aspirations for his own vineyard were extremely high. When he acquired the traditional Van Volxem estate as a bankruptcy estate, he deliberately chose the legendary winegrowing region where the best wines still thrive today on steep slopes. In 1900 they sold for more than the most expensive Bordeaux wines. Then the decline came along and, in the end, cheap bulk wine from the automated flat locations.

**Award-winning top wines**

In 2015, a bottle of 2003 Scharzhofberger Riesling Trockenbeerenauslese by Egon Müller from Wiltingen on the Saar changed hands. And the new owner certainly did not want to drink it, but add it to his exclusive collection. This can be seen as the expression of the highest esteem. As this example shows, it is possible and, most of all, economically feasible to abandon industrial mass production. The small wine-growing area on the Saar offers the ideal geographical and climatic conditions for all those who are prepared to cultivate the steep slopes with their ancient vines by hand. However, the further processing of the grapes is done in a highly specialised, technical manner. The listed old vineyard offered neither the possibilities nor the space

for this. Therefore, the construction of the new estate began in 2016. Its service building reflects the production process completely unpretentiously and has nothing to do with romanticising idyllic wine-making. At one end of the building the grapes are delivered and pressed, at the other end the wine bottles, packed in boxes, are stored next to the administrative office. The area in between is used to create award-winning wines, which have just earned the owner the “Winemaker of the Year 2019” award. The barrels are made by the best manufacturers, and the wood comes from 120-year-old oaks, which were planted by the winemaker’s ancestors.

**Best vineyard**

When approaching from the south, you follow an idyllic country road past the mighty medieval Saarburg and the bunkers of the Siegfried Line and then reach the Van Volxem vineyard, which towers high above the river and is surrounded by vineyard slopes. At this point it becomes clear that the oenological claim was intended to be represented in an architectural way as well. Directly on the edge of the slope, in front of the service building and connected to it underground, there is a cube that serves as the visitor centre. Through carefully placed openings, the cube gains in plasticity, and the view of the guests is directed from there to the best vineyards available for white wines. Although the region is home to the famous dark slates, important for the grapes, both building parts were clad with a light shell limestone. This type of stone gives the otherwise obtuse construction a friendly appearance and takes away some of the cube’s fortified authority. From an architectural perspective, the vineyard successfully translates the winegrower’s claim of being a successful manufacturer of top-quality products in controlled production processes, and also functions as a globally renowned brand of Saar wines.





Modern architecture for modern wines: The demands placed on the design of the estate are as high as those placed on the wine itself.



The showroom is located in the basement of the distinctive tower, which is used to host events.



Special wine: The barrel flavour is achieved by the wood of the barrels.



The wine matures in huge steel tanks.



## Hörmann expertise: Stainless steel doors and gates

Wherever food is processed, special hygiene regulations apply. This also applies to wine – which is why the architects chose Hörmann stainless steel products for several doors and gates. They are neutral in contact with food and particularly robust. In addition, they can be equipped with fire-retarding or fire-proof functions and the safety classes RC 2 and RC 3, as well as with a polyurethane infill for protection against moisture. For example, T30 fire sliding doors are fitted in the Van Volxem vineyard between the area where the wine

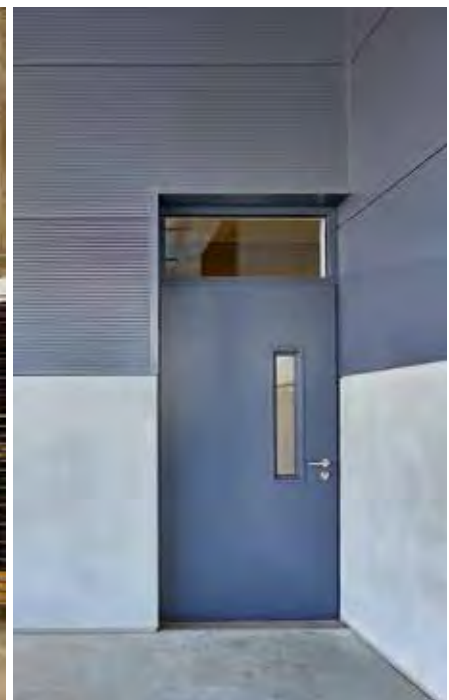
is stored for several months in wooden, steel or plastic containers for maturing, and the warehouse. In the event of fire, they close automatically and, when closed, allow pedestrians to pass through the integrated wicket door. Where no direct processing takes place, multi-function doors or multi-function steel sliding doors have been used. They are consistently designed in anthracite and form a contrast to the facade made of shell limestone slabs, especially in the transition from the inside to the outside.



In the showroom, the wine is stored in oak barrels and taken directly for tasting. Here, the architects have used anthracite doors.



Wherever hygiene is important, products such as the stainless steel fire sliding doors are used.



Steel doors are used outside.



**Location:** Dehenstraße 2, Wiltigen, Germany

**Building owner:** Roman Niewodniczanski, Wiltigen, Germany

**Architect:** arch.tv | Trojer Vonmetz Architekten, Terlan, Italy

**Building engineer:** Schwarzbart + Partner, Frankfurt, Germany

**Interior designer:** KnallGrau, Bad Soden, Germany

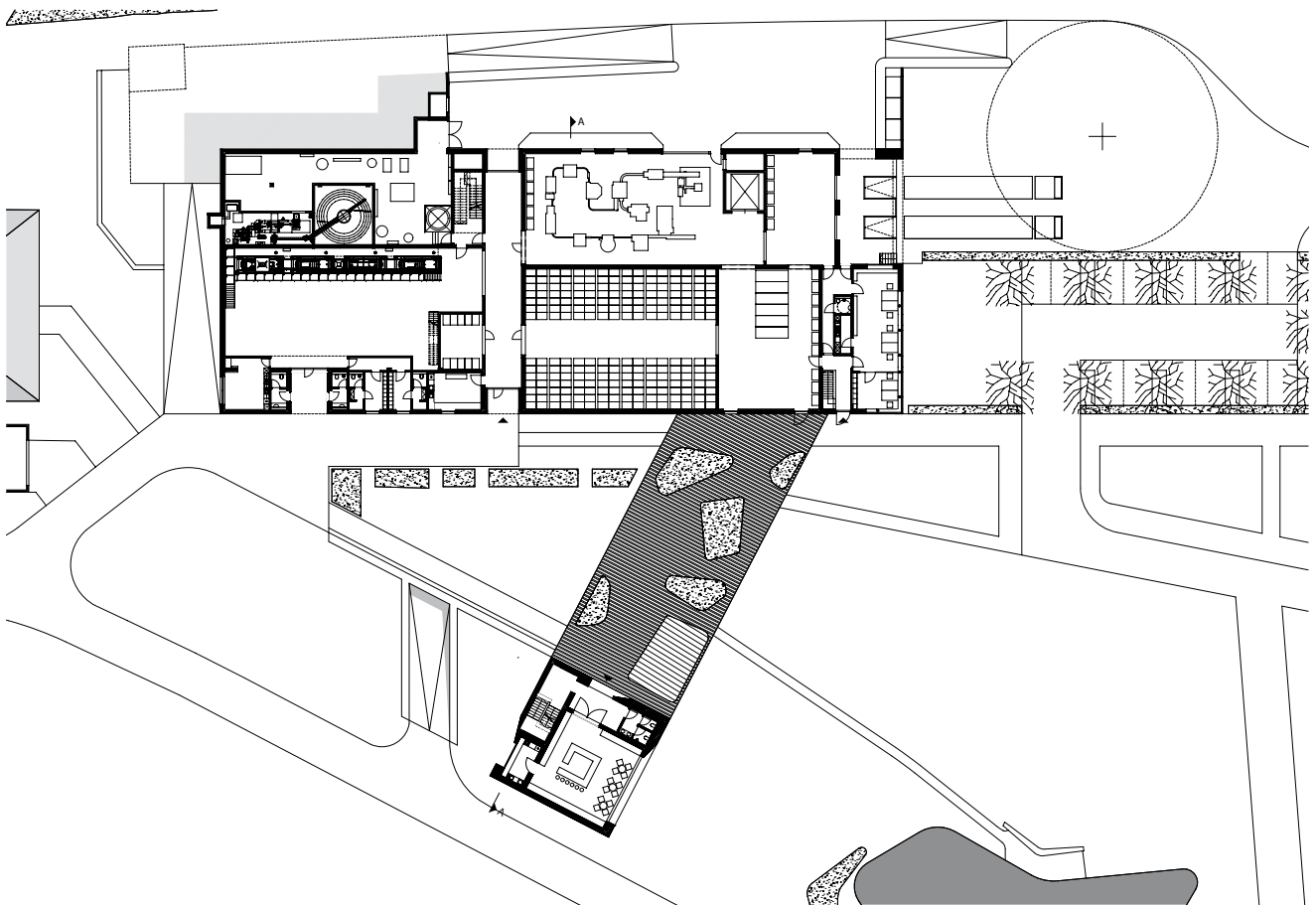
**Landscape architect:** Ernst + Partner, Trier, Germany

**Gross floor area:** 6879.39 m<sup>2</sup>

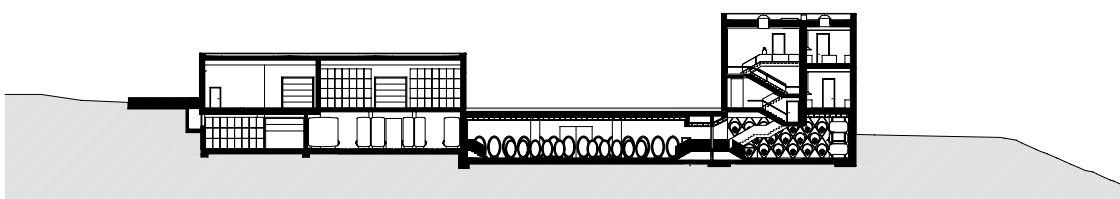
**Completion:** 2019

**Photos:** Stephan Falk, Berlin, Germany

**Hörmann products:** Stainless steel doors STU (T30, MZ); multi-function doors H3 OD, D65; fire-rated sliding doors T30; multi-function sliding door MZ; telescopic lip dock leveller HTL2



Floor plan of the ground floor



Cross-section



For Metro, Hörmann supplied 407 industrial sectional doors, dock levellers and loading houses as well as high-speed doors, fire sliding doors and fire-rated doors.

## HÖRMANN SUPPLIES THE METRO LOGISTICS CENTRE

The Hörmann Group equipped the largest logistics site in Germany operated by Metro Logistics with doors, gates and loading technology. In the period between April 2017 and February 2018, the manufacturer supplied 407 industrial sectional doors in combination with dock levellers and loading houses, 58 fire sliding doors, 13 high-speed doors, 42 additional industrial sectional doors and around 250 doors for Metro's largest logistics site in Marl. It is the largest single order so far in Hörmann's

history. The high delivery quality of the manufacturer contributed to the fact that Goldbeck GmbH, who was commissioned with the construction, was able to hand over the last stage of construction on time on 28 February 2018 to the building owner Goodman. For the real estate group Goodman, the investment is the largest logistics centre to date developed for the European market. At Metro's largest logistics site in the northern Ruhr area, approx. 1000 jobs have been created. The property consists of two buildings with an area of 83,000 and 152,000 square metres including a cold store area with approx.

28,000 square metres. This corresponds to a total area of about 33 football fields. "To implement a contract of this size on schedule requires a reliable partner with a lot of experience. That's one of the reasons why we decided in favour of Hörmann," explains Timo Rogg, site manager at Goldbeck. For the industrial sectional doors, Goldbeck opted for manually operated, double-skinned steel sectional doors SPU F42. Double-skinned steel sectional doors with thermal break SPU 67 Thermo were used as external doors for the cold store area. Some of these doors have been supplemented with hydraulic





The new location will expand the production of sheet steel doors for the South Asian market.

## TWO NEW LOCATIONS IN CHINA AND THE USA

In January 2018, the ground breaking ceremony for a new production site in China took place in Changshu. Over an area of 16,700 m<sup>2</sup>, new production and storage capacities as well as office buildings will be built. 120 employees will be producing sheet steel doors for the South Asian region from spring 2019 onwards. In addition to sheet steel doors, the two existing factories in the metropolitan areas of Beijing and Tianjin will also produce industrial doors and loading technology for the Asian market. New production capacities are also to be created in the USA in order to serve the American market more flexibly and

faster. Since August 2018, Hörmann has been building a new production site in Sparta, Tennessee, adding to the two factories in the states of Pennsylvania and Illinois. As of spring 2020, garage and industrial sectional doors for the American market are to be manufactured in a 29,500 square metre production hall. In addition to the aforementioned production area, office space will be created, which will additionally provide premises for training purposes. The new location will also offer sufficient space for future extensions.

telescopic lip dock levellers HRT, which allow continuous extending of the dock leveller telescopic lip to the last centimetre. For the loading houses, the LHP model with double-skinned sandwich panels was selected. High-speed doors were fitted indoors and in the cold store area. In and between the individual halls, single-leaf fire sliding doors and fire-rated doors ensure safety in the event of a fire. The building combines the new national central warehouses of Real and Metro Cash & Carry in one location. Responsible for logistics is the group's own service company Metro Logistics. It handles the efficient distribution of more than 26,000 different food products and several thousand non-food items. Through centralisation, Metro will achieve greater consolidation of logistics and also benefit from greater efficiency in warehousing and transport as well as shorter transport routes. Metro is a leading international specialist in the wholesale and retail trade. The company operates in 35 countries and employs more than 150,000 people worldwide. In the 2016/17 financial year, Metro generated sales of approx. 37 billion euros.



Photo: Goodman

The logistics park consists of two buildings with an area of 83,000 and 152,000 square metres.



The four standardised design lines Contour, Signum, Accura and Alesa are available in different versions for varying requirements.

## SCHÖRGHUBER SUPPLEMENTS INDIVIDUAL DOOR DESIGNS WITH FOUR DESIGN LINES

Schörghuber develops and manufactures door solutions from a quantity of 1. Whilst the manufacturer is mainly known for its individual door designs that offer a great deal of creative freedom, but are not required in all areas of a construction project, such as in residential construction, Schörghuber now also offers four standardised design lines. Architects, dealers and fabricators can therefore continue to design door sets individually or, if there

is not enough time, choose a matching door design from the four lines Contour, Signum, Accura and Alesa. All Schörghuber design lines are available with various functions such as fire or smoke protection, acoustic insulation or burglar protection, making them suitable for use in residential construction in addition to construction projects.

### The Kontur design line – a true classic

The Kontur line stands for classic designs with a premium finish in RAL 9010 or 9016 and different milling of the profiles. Overall, Kontur is available as a single-leaf version in 17 different

variants and in other colours on request.

### The Signum design line – a streamlined door

Signum is a design line with milled V-joints in the longitudinal or transverse direction. It is available in single-leaf and double-leaf versions and in eight styles. Three of them are part of the Schörghuber fast-track programme and thus already available for delivery in a maximum of 15 working days.

### The Accura design line – a flush-fitting variant

The Accura design line is available in





Schörghuber provides the first BIM data for doors.

## SCHÖRGHUBER PROVIDES THE FIRST BIM DATA

When planning with BIM, construction projects are illustrated in a digital model that includes all relevant information for planning, implementation and management. This promises efficient planning, constant access to up-to-date information, direct exchange with all persons involved in the construction as well as early recognition of planning errors. The information and data provided by industry manufacturers is crucial for the use of this planning method. Schörghuber now also provides the first BIM data in order to push planning with BIM forward and support architects. The manufacturer started things off with single-leaf door sets with a 50 mm door leaf thickness. These can be individually configured

according to requirements, so that architects and planners can choose between different door leaf versions, frame variants, functions such as fire and smoke protection and acoustic insulation as well as optional extras. Schörghuber partners receive a three-dimensional image of the doors, which includes all important product information such as equipment and dimensions. In the future, BIM data will be made available for other Schörghuber door and frame solutions. The manufacturer's BIM data can be accessed via the architect's portal on the Schörghuber website and can initially be used with Archicad.

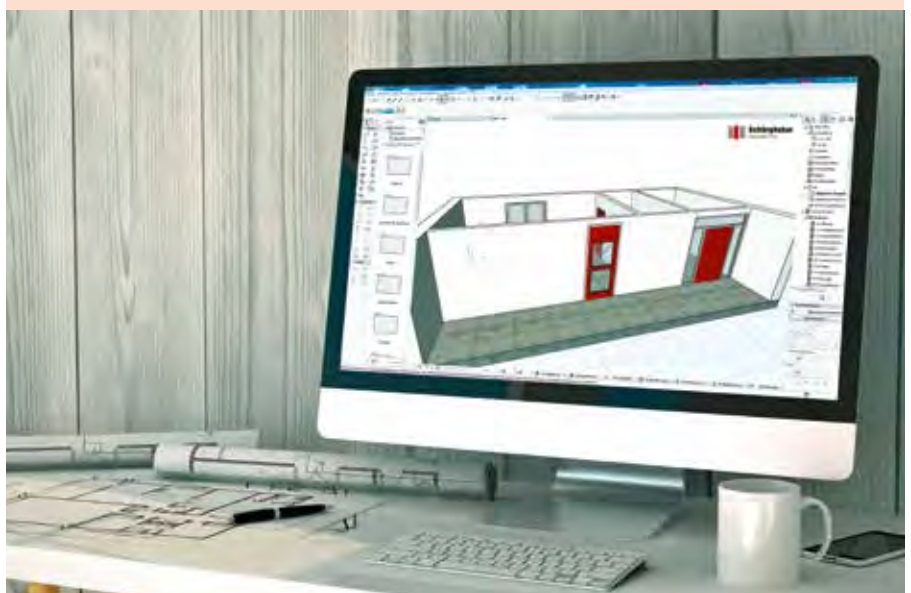


Kontur design line – as individual as its users.

four versions. The strips in a stainless steel look embedded in the door leaf surface or different HPL decors are all the same for this design line. These so-called pilaster strips are inserted flush-fitting in the surface with a 7 mm width.

### The Alesa design line – with a textured surface finish

The Alesa series is distinguished by pilaster strips embedded in the door leaf. However, these are aluminium pilaster strips in a stainless steel look that protrude about 0.5 mm from the surface, giving the door leaf a more textured appearance.



The BIM data can be accessed via the architect's portal on the Schörghuber website.

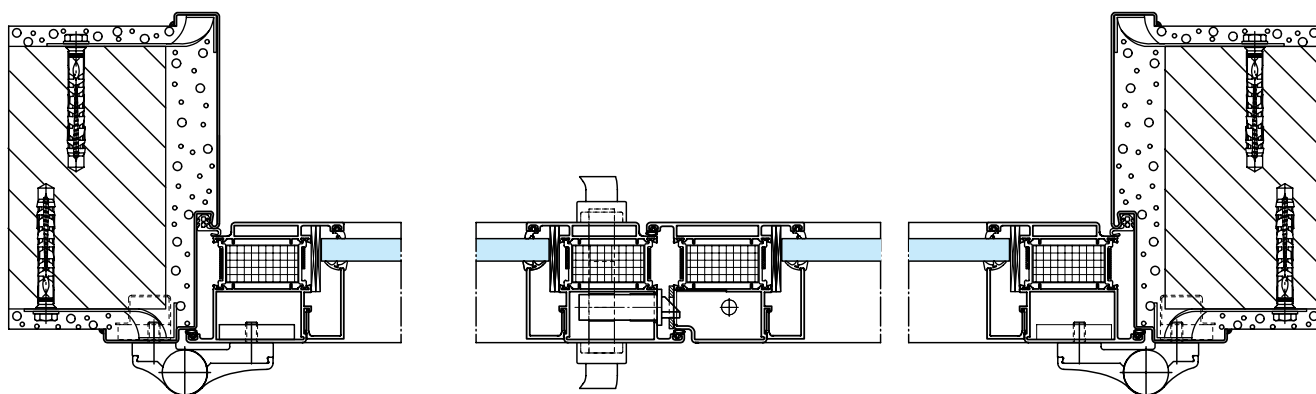
Photos: Schörghuber

# TECHNOLOGY: HÖRMANN

## T30 ALUMINIUM TUBULAR FRAME PARTS WITH STEEL FRAME

**Application areas:** Aluminium tubular frame parts are used particularly frequently in properties such as hospitals, administrative and office buildings, where the compatibility of function and design is important. Fully glazed T30 aluminium tubular frame parts provide, among other things, fire, acoustic and smoke protection with maximum transparency. In public and commercial buildings, the requirements for escape routes in passages and corridors must also be observed. Particularly in existing buildings, solutions are required that can subsequently extend the passage width. For this purpose, Hörmann offers aluminium tubular frame parts with a steel frame. This combination, available only from Hörmann, allows for a passage width of up to 70 mm more than with conventional block frames. The steel frame, which is available as a corner and profile variant, is also characterised by its high robustness, which can reduce damage.

**Product:** T30 aluminium tubular frame parts with steel corner or steel profile frame **Versions:** Single-leaf and double-leaf opening inwards, optionally with transom light **Main functions:** Fire protection T30, smoke protection RS **Extra functions:** Acoustic insulation, break-in resistance **Profile system:** Door leaves made of aluminium profiles with thermal break, steel frame in a three-part or double-shell version **Frame face:** 50 mm **Wall width:** 80–250 mm for partition wall, 100–430 mm for brickwork **Max. size:** Single-leaf 1430 x 2965 mm, double-leaf 2930 x 2965 mm, with transom light possible up to 3500 mm height **Fitting in:** Brickwork, concrete, gas concrete, partition wall **Fitting:** Anchor fitting, plug-and-screw fitting, screw fitting (partition wall) **Leaf surfaces:** RAL 9016 as standard, optionally in RAL to choose (special colours on request) **Frame surfaces:** RAL 7035 priming as standard, optionally in RAL to choose (special colours on request)



Horizontal view



Photos: Hörmann

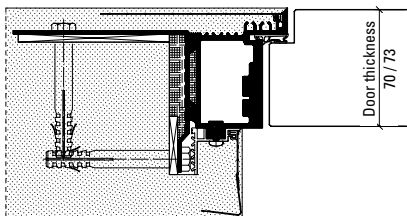
T30 aluminium tubular frame parts with steel frames when closed and open. They allow for a passage width of up to 70 mm.



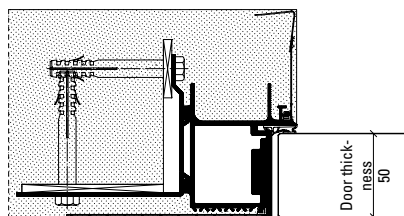
# TECHNOLOGY: SCHÖRGHUBER'S INVISIBLE ZERO LINE ALUMINIUM FRAMES

**Application areas:** Modern and minimalistic interior design is currently trending. Demand is growing for flush-fitting, reduced looks in commercial and residential construction. With the invisible aluminium Zeroline frames by Schörghuber, architects and planners can meet this trend – from construction projects with fire protection requirements to private living spaces. The Zeroline function is suitable for virtually all areas of a construction project; it is the first concealed aluminium frame available on the market featuring tested T30 fire protection as well as many additional functions. In the Zeroline living version, the concealed aluminium frame is combined with a composite timber door leaf and does not meet any other functional requirements. This and an attractive price-performance ratio make Zeroline living particularly ideal for private residential construction. Because on average each residential unit has at least one door designed as a glass door, Zeroline glazing is available in combination with an all-glass door, not only resulting in a modern design, but also allowing for transparency and natural light in the living space.

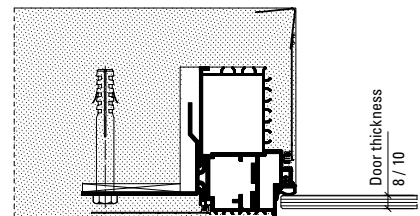
**Product:** Invisible aluminium frame Zeroline function, Zeroline living, Zeroline glazing **Version:** Single-leaf and double-leaf 50, 70 and 73 mm door leaf thickness (Zeroline function), single-leaf with 50 mm door leaf thickness (Zeroline living), single-leaf with 8 and 10 mm glass thickness (Zeroline glazing)  
**Fitting in:** Brickwork, concrete, gas concrete, partition wall **Functions:** T30 fire protection, smoke protection RS, acoustic insulation  $R_{w,P} = 32$  dB, 37 dB and 42 dB, break-in resistance RC 2, damp room, composite timber **Optional extras:** Magnet and latch contact, alarm contact element, electric strike, escape door opener, multiple-point locking, bottom seal.



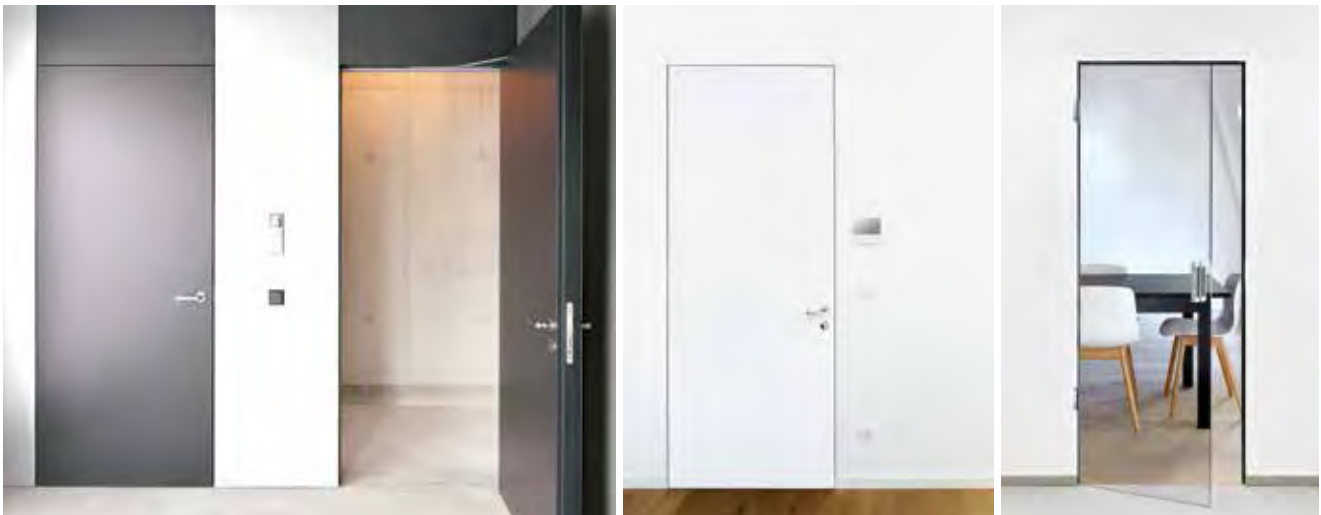
Zeroline function type BGS (opposite hinge side)



Zeroline living type BS (hinge side)



Zeroline glazing



Minimalistic with fire protection requirement from left to right: Zeroline function, Zeroline living and Zeroline glazing.

Photos: Schörghuber

## ARCHITECTURE AND ART PEGGY BUTH



MLK BLVD (Martin Luther King Boulevard), 2015, an excerpt from a series of 81 pictures, 24 x 30 cm, inkjet print, glass, writing board.

**The discussion of whether art should be purposeless in the spirit of the Enlightenment or, on the contrary, be politically relevant, seems to be a matter of opinion. Peggy Buth delivers arguments showing that the truth lies in the middle, as it so often is.**

Reducing art purely to aesthetics is not her concern. Her work is based on detailed and intensive research. Buth deals with social issues; she is concerned with processes that inevitably have a political or sociological background. She is not pursuing a rating or a moral goal with her work – but raises questions and encourages the observer to seek answers. The focus of her work lies on dealing with empty spaces, their indeterminacy and potential – usually in the

form of social disruptions such as the structural change in the Ruhr area. The work group “The Politics of Selection – The Benefit of Fear” is dedicated to this topic. As part of the Ruhrtriennale 2018 Buth showed the changes in the region since the 1970s and their consequences in a number of exhibitions. She uses all forms of media: Historical documents, their interpretations, photographs, audio and video collages, graphics and sculptures are all on display. Her means of expression are complex. And never completely finished. She loves to revise and add to concepts. The basis for the work group mentioned above is a previous exhibition at the Folkwang Museum in Essen, in which the focus was not on the Ruhr, but problem districts in Paris and the US state of Missouri.



**Artist: Peggy Buth**

Born in 1971 in Berlin

Studied Fine Arts at the Academy of Visual Arts in Leipzig and the Central Saint Martins College of Art and Design in London. Her works attract attention both nationally and internationally and have earned her numerous scholarships, including in the US, France, Belgium and the Netherlands. Since 2016 she is a professor of media art at the Academy of Visual Arts in Leipzig. Peggy Buth lives and works in Berlin and Leipzig.

Klemm's

Prinzessinnenstraße 29

10969 Berlin

[www.klemms-berlin.com](http://www.klemms-berlin.com)



People Like Us, 2017, 3-channel video installation, colour, black and white, 2-channel stereo sound; part of the exhibition ...



... "The Politics of Selection - The Benefit of Fear", Ruhrtriennale, 2018, St. Barbara, Duisburg-Rheinhausen.

Photos: Klemm's Galerie (left), Henning Rogge (right)

## RECENTLY IN ... BOCHUM



Photo: Menazoo

**Hennes Bender is the Ruhr region through and through. He was not only born in Bochum – he also remained true to the city during his studies and his professional life. What fascinates him so much about the region?**

**Tell us what the beauty of the Ruhr area is!**

The Ruhr area is waiting to be discovered. Superficially, it is not really pretty at first glance, like many metropolitan areas. But if you move away from the city centres with their pedestrian zones, for example towards the Ruhr or Rhein-Herne-Canal, it is sometimes really picturesque in a slightly morbid, post-industrial, nature-overgrowing way.

**Are there places where this is especially true?**

If you only see the railway station, the adjacent “Forum” shopping centre and the pedestrian zone in Mülheim an der Ruhr, you’ll be terrified. But when you discover the old town – Saarn, Castle Broich – or ride down the Ruhr, it gets really nice. Such

a phenomenon naturally applies to many cities. But the contrast is biggest in Mülheim.

**Which conversion of old industrial buildings fascinates you the most and why?**

The first thing that comes to mind is the colliery in Bochum, which has been one of the top addresses in Germany for rock music since the 1980s. But also the former socio-cultural centres such as the Carl colliery in Essen and the Kaue in Gelsenkirchen are excellent examples of the fact that culture does not have to take place in faceless multipurpose halls.

**What do you have to see when visiting the Ruhr area?**

The Zeche Zollverein is popular, but the Landschaftspark Nord in Duisburg is much more interesting, spectacular and beautiful. Especially when dusk falls and the old steel works are lit up. It has something post-apocalyptic about it. And when autumn is coming, you’re at the top and enjoying photosynthesis, there’s no better place in the whole area.



Photo: saiko3p / iStock

For Hennes Bender this is one of the most fascinating places in the Ruhr Valley: the Landschaftspark Nord in Duisburg.



## Hennes Bender

Born in 1968 in Bochum, Germany

Studied theatre, film and television science from 1989 to 1996 in his hometown. During his studies he made his stage debut at the Bochum Playhouse and works with Heinz-Peter Lengkeit on their own programmes. Together they won the "New Talent Award" from the Quatsch Comedy Club. This was followed by some directorial work and a split from Lengkeit in 1997. Then came his first appearances with a solo repertoire. In the coming years Hennes Bender established himself with his shows on television and on stage. He also works as a presenter and author and provides voice overs. Most recently, he translated the Asterix comic book "Die Trabantentstadt" into the Ruhr dialect. The volume is available in book shops under the title "Dingenskirchen". His tour "I only have two hands!" starts in October.

[www.hennesbender.de](http://www.hennesbender.de)

### **Taking Dortmund as an example: The luxury apartments at the Phoenix-See, the problem district of Nordstadt – what does the increasing social disparity mean for the city and region?**

The Phoenix-See started out as a good idea, but the execution was bad. And problem districts such as Nordstadt or Altenessen have always been there. You have to deal with them. Of course, new flats and houses are important, but we need fewer satellite towns and must learn to live "together" and get along, otherwise ghettos are created. This includes luxury ghettos.

### **Are there any modern buildings in the Ruhr region that impress you personally?**

I actually wonder when we stopped building beautiful houses. Even if architects see it differently, I do not like the Justice Centre in Bochum at all. What drives these people to make the inner cities even uglier than they already are? Those are the questions I ask myself.

**You can read the full interview on [www.hoermann.de/portal](http://www.hoermann.de/portal)**



Photo: HASCHER JEHL Architektur

Justice Centre Bochum: Even high-quality architecture is a matter of taste.

## Topic of the next issue of PORTAL: Worlds of work

In times of economic prosperity, good employees are often hard to find. This makes it all the more important to act as an attractive employer in order to retain your core workforce and recruit the most talented people. The strongest argument for employees when choosing a job is of course their salary – but other "softer" factors also play an increasingly important role for many employees. The design of the working environment is one of them. Companies other than the hip pop offices like Google have long realised how big the influence of good architecture is on their employees' well-being at work and – as studies show – even on their productivity. In the next issue of the PORTAL we will show selected examples of how excellent working environments can be created through a good architectural design.



Photo: Hörmann

A sense of well-being in the Philips headquarters in Hamburg.



## Fire protection for large room concepts: **NEW textile fire protection curtain FlexFire**

- for separating large fire sections in public buildings, hotels or shopping centres as E30, E60, E90 and E120 doors
- Inconspicuous side guide of the textile curtain and almost invisible integration in suspended ceilings
- Clear opening of max. 5000 × 5000 mm

**E30**

**E60**

**E90**

**E120**

**HÖRMANN**  
Doors for Home and Industry