CITY profile usue





Welcome to Munich.

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On tour with Schüco.

Munich has many aliases - the 'secret capital', the 'capital with a heart', 'Italy's northernmost city' - and regularly features at the top of the world rankings as one of the best cities to live in. In addition to the excellent universities, first-rate medical care and diverse cultural and leisure scene, people also praise Munich's commitment to sustainable urban development. The city is aiming to be climate neutral by 2035, with the city council achieving this target by 2030. In order to make this far-reaching change, the city's society will need to play just as much of a role as the companies, associations and local authorities. After all, making a city a sustainable, resilient and a worthwhile place to live is about much more than just the energy supply and environmentally friendly mobility. Focusing on energy-efficient and resourceconserving newbuilds and renovations will create a future-proof building stock of properties and districts where people want to live.

For Schüco, too, sustainability is not a trend but an attitude that has to be demanded and implemented every single day. As a company in the building industry, Schüco is taking responsibility for the long term and using our products and services to make an active contribution to a more sustainable world.

Munich is so much more than just a pretty city with beer gardens and the Oktoberfest – it is a city that is looking to the future. We have put together a small selection of great projects for you in this "Munich city profile". Get to know a different side of Munich and join us on this journey of discovery.

Introduction

Munich is growing.

After a long period of stagnation, Munich's population is increasing again. Almost 300,000 people have moved there since 2000.

> The need for a liveable urban environment that also combats climate change is therefore more important than ever before. The Bavarian capital is working towards this goal, for example through the city council resolution from three years ago to make the city climate neutral by 2035 with an action plan costing 500 million euros. Munich's architecture is also playing a key role, with buildings and accommodation becoming increasingly sustainable in a variety of ways.

> Munich has expertise in innovation and research. Many innovative architects work there, such as Florian Nagler, whose structures have received international acclaim. His two apartment buildings beside the Dantebad public swimming pool are amongst his best-known works. The buildings are exemplary not only due to their prefabricated units, but also because the project brought new life to what were large, disused car parks and is contributing towards positive redensification. Research projects at Munich's universities and various state funding programmes, for example for educational institutions, are also influencing Munich's architectural scene.

One of the current landmarks showcasing Munich's timber architecture is the timber model village built in 2021 on the site of the former Prince Eugene barracks. Designed by architectural practices including Kaden + Lager, Atelier 5 and Pakula & Fischer, the village consists of 570 apartments made of timber or timber hybrid constructions, and is the largest timber settlement in Germany. The buildings range in size from 4 to 7 storeys and are remarkably diverse. They contribute towards climate protection, saving a total of 13,000 tonnes of carbon. The funding programme for the project that was developed by the city also serves as a model.

The new Werksviertel-Mitte urban development project may still be in construction, but it is already

bursting with life and promise like no other area of development in Munich. Until 25 years ago, this was a manufacturing area full of factories for dumplings, clothes, motorbikes and lubricants. Now the area is thriving with a colourful, unpretentious mix of old, renovated and new buildings for (sub-)cultural uses, small businesses, offices, apartments and hotels. Architectural highlights include WERK12 by MVRDV in a playful reference to the Dutch Pavilion at EXPO 2000, a low budget hotel by Hild und K, and several buildings by Steidle Architekten, such as a 25-storey high-rise. A concert house for the Bavarian Radio Symphony Orchestra, planned by Cukrowicz Nachbaur Architekten, is still in the works. Unlike the striking Elbphilharmonie building in Hamburg, this concert house has been designed as a modest, refined cultural building with a saddle roof and world-class concert halls.

Cultural buildings are taking on an increasingly important role in Munich's architectural scene. Theatre and music halls have been of particular focus in the last few years, following in the footsteps of art museums such as the Lenbachhaus extension by Foster + Partners, the Pinakothek der Moderne by Stephan Braunfels, and the Brandhorst Museum by Sauerbruch Hutton. The Isarphilharmonie concert hall by gmp architects in particular has received a lot of attention. This is a temporary concert hall for the Munich Philharmonic, designed as a cubeshaped newbuild with an adjoining foyer housed in a former transformer warehouse. The project was needed due to comprehensive renovation works that were required at the Gasteig - where the Munich Philharmonic is based - 35 years after it was opened. The Isarphilharmonie is located near the Schlachthofviertel district, which has received recent attention due to the reopening of the Munich Volkstheater (People's Theatre), designed by LRO Lederer Ragnarsdóttir Oei. The district is also home to Bahnwärter Thiel, a lively hub for the alternative art and culture scene, and the Alte Utting, a 40 metre long excursion boat located on an old steel railway bridge with great food and nightlife.

The Schlachthofviertel, Isarphilharmonie and Werksviertel all share the principle of sustainability, whereby appreciation of what's available and the use of old and new materials is playing an increasingly important role. This the perfect way to ensure that Munich remains a liveable city 20 years from now.

Roland Pawlitschko architecture journalist, Munich

Introduction





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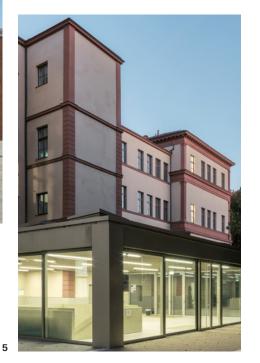




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The diversity of architectural styles demonstrates the successful balance between the preservation of history, urban flair and a creative subculture.

1: Werk 12, 2: Isarphilharmonie concert hall, 3: Munich Urban Colab, 4: Volkstheater, 5: Renovation of Wilhelmsgymnasium high school



3





Audi-Zentrum

The Audi-Zentrum in Munich is located on the corner of Albrechtstraße and Leonrodstraße in Neuhausen, one of the city's luxury residential districts. It is the first building project in Germany to be designed in line with Audi's Corporate Architecture guidelines, which centre around dynamism, asymmetry and transparency. The concept, which was developed by the Allmann Sattler Wappner architectural practice, is referred to as "terminal style" and focuses on exclusive, progressive and design-oriented buildings. It has now been implemented internationally too at Audi subsidiaries around the world. The main areas of the building are the spacious showrooms, which stretch across two storeys and are connected via a freestanding escalator. The dynamism of the cars is replicated in the building through asymmetric curved sections, which are intended to be reminiscent of a road. The curved profiles of the interior contrast with the rigid, angular building structure. Large display windows ensure a transparent view of the city space and potential customers. With its angled display windows and extensive cladding made from perforated, formed aluminium sheets, the façade gives the building a definite presence and expressivity, which ensure the Audi Zentrum has an unmistakable identity within the city despite its simple, basic shape.







Project data

Project:

Audi-Zentrum Munich Albrechtstraße 16, 80636 Munich **Client:** Mahag Unternehmensgruppe **Architect:** Allmann Sattler Wappner Architekten GmbH Nymphenburger Straße 125, 80636 Munich **Schüco systems:** FW 50⁺ in combination with FW 50⁺ AOS

Bavaria Towers, Sky Tower / Star Tower

In an area surrounded by residential blocks, family homes and office buildings from the 1960s and '70s, Bavaria Towers is a new, prestigious landmark in the east of Munich. Four high-rise buildings measuring between 46 and 83 metres in height are grouped around a landscaped open space. Developed out of variations on a pentagonal floor plan, the three office buildings and one hotel tower rotate towards one another at different angles, with different lines of symmetry and with different roof inclines. The flowing shapes and transparent façades provide both the perfect lighting conditions for the building sections and the desired impact of the project from a distance. In total, the Bavaria Towers offer 62,000 square metres of rental space, which can be used in a variety of ways by individual, combination or open-plan offices. The office spaces reflect the desire for luxury through the choice of modern materials, minimalist forms and state-of-the-art building technology. Windows with opening vents and external sun shading that can be individually controlled provide natural ventilation. For the users of the buildings, accessible roof terraces grant spectacular views as far as the Alps. All of the buildings take sustainability into account and feature an energy-efficient overall concept, which incorporates everything from the double-skin façade construction through to the use of district heating.



Project data

Project:

Bavaria Towers Riedenburger Straße / Truderinger Straße / Einsteinstraße Munich Client: Von der Heyden Group, Valletta; Zurich Insurance, Zurich Architect: Nieto Sobejano Arquitectos S.L.P. Talavera 4 L-5, 28016 Madrid (Spain) Schüco systems: AWS 90.SI+



MK 13 – Garden Office building

The MK 13 office building is located in Schwabing's Parkstadt district, which was newly developed in 1989. Nothing more than wasteland a few years before, this new urban quarter with a total area of approx. 405,000 square metres has since become a vibrant office and residential area. Artists and architects served as inspiration for the street names in this new district. The MK 13 building (also known as the Garden Office) is therefore situated on the corner of Georg-Muche-Straße and Marcel-Breuer-Straße. The Garden Office was planned to be the headquarters of international engineering practice CBP WSP, which previously had its five business divisions spread across four different locations within Munich. During the planning of the office complex consisting of one high-rise and one low-rise building, CBP's role was two-fold. As the planning and consulting company commissioned by the client, they also represented their own interests as the subsequent users of the building. The WEP Effinger Partner Architekten BDA architectural practice took great pains to design the MK 13 building to very high functional and technical standards. The office complex can be seen from miles around and stands out due to the high level of transparency of the clearly structured Schüco mullion/transom façade with its slimline profiles. The façade acquires its horizontal emphasis from a continuous C-profile. The building services are delivered by a highly efficient system, the main feature of which is the temperature control of the building components.



Project:

MK 13 – Garden Office building Georg-Muche-Straße 1, 80807 Munich **Client:** Münchner Beteiligungen Verwaltungs AG / Holler Grundstücksentwicklung KG **Architect:** WEP Effinger Partner Architekten BDA Denninger Straße 15, 81679 Munich **Schüco systems:** Unitised façade and mullion/transom façade



4

SKYGARDEN office building

The SKYGARDEN project is a sculptural office building which has an unmistakable presence along the skyline of the city, standing out with its multiple building structures of varying heights. The project is divided into three building sections: one 12-storey tower to the east, one 5-storey building section in the centre and three "battlement" style buildings to the west, each 7 storeys high. The inside and outside areas of the newbuild are connected via inner courtyards, atriums and covered galleries, which create exciting spatial scenarios through alternating closed and open architecture. The main features of the complex include the vast expanses of glass in the conservatories and the 18-metre high, glazed entrance hall, as well as the strong vertical emphasis of the façade created by large aluminium profiles. The Schüco special construction for the vertical façade units envelops the multiple storeys of the building. The resulting striped pattern connects the different buildings together stylistically and lends it its unmistakable character. The conservatories with their expansive glass façades can be seen from far away and form part of the energy concept. For the adjacent offices, 30 % less energy is required for heating. The SKYGARDEN also obtains a third of its required energy from regenerative sources - ground water is used to cool the building and the offices are heated and cooled via building core activation with a heat exchanger.



Project data

Project:

SKYGARDEN office building Arnulfpark, 80335 Munich Client: OFB Projektentwicklung and Vicico Real Estate, Munich Architect: Bothe Richter Teherani Architekten Schüco systems: Special construction

Theresie office complex

With its striking building form, the Theresie ensemble on Heimeranstraße marks the entrance to the new district on the grounds of the "Alte Messe München". The floor plan of the large, amorphous building resembles a heart and, through the lightness emanating from its slimline glass envelope, represents an exciting contrast to the often severe and stone-like surroundings. The building envelope incorporates open courtyards and the individual sections of the large, main building are connected together via glass bridges. The façade of the ensemble follows the curvature of Heimeranstraße. The high-quality architectural design of the Schüco unitised façade and the complex detailing immediately catch the eye – the individual, polygonal glass areas wrap around the building like scales, with opening units and metal louvre blades at the points where they overlap. Horizontal, silver steel bands run along the façade units between the storeys, bringing the individual units together to form a cohesive whole. The façade is part of an overarching building concept. Optimum energy values are achieved by linking the components of the façade and lighting technology, and incorporating the air conditioning systems.



Project data

Project:

Theresie office complex Theresienhöhe 12, 80339 Munich Client: RREEF Investment GmbH Architect: KSP JÜRGEN ENGEL ARCHITEKTEN GmbH Theresienhöhe 13, 80399 Munich Schüco systems: Special construction

Chamber of Commerce and Industry

The main office of the Chamber of Commerce and Industry for Munich and Upper Bavaria is an important urban reference point. It consists of two listed buildings surrounding a covered inner courtyard. Over the years, both buildings have been subject to multiple alterations and adapted to meet the requirements at the time. In addition to strengthening the fabric of the building, the aim of the renovation was to restore the prestigious look of the listed ensemble. The architects' design involved a reorganisation of the functional areas. As a result, two busy public areas were created that were intended to be as transparent as possible, as well as a compact core, which combines the main offices and vertical access through the building. The ground floor is where the public areas, such as the consultation zones and the Börsencafé, are located. The functions are separated via steel/glass partition walls with doors of the same material. The atrium on the ground floor and the exclusive rooms on the first and second floors serve as conference spaces. The rest of the space on the upper floors is used as office and meeting areas. The old façades were carefully restored. The existing window and door units that were retained were updated and supplemented in places; all the other opening units were constructed to replicate the original style.







Project:

Chamber of Commerce and Industry Max-Joseph-Straße 2, 80333 Munich Client: Chamber of Commerce and Industry for Munich and Upper Bavaria, Munich Architect: Anderhalten Architekten Friedrichstraße 127, 10117 Berlin Schüco systems: Janisol, Janisol 2, VISS, VISS Fire, Economy 60



Isarphilharmonie concert hall

Industrial, workshop and administration buildings dominate the former public utility site in Munich's Sendling district. Within this mature structure, the Isarphilharmonie concert hall has been constructed under the name "Gasteig HP8" while the original Gasteig cultural centre undergoes renovation work. The old transformer hall (Hall E) is the spatial and functional centre of the new cultural district. With a clearance height of 21 metres in the glazed interior courtyard, it forms the central foyer of the Isarphilharmonie. To retain the industrial character of the light and airy hall, the bright yellow crane was kept under the illuminated ceiling as well as the blue balustrades of the galleries and the floor markings. Iron doors, arched-head windows and many other features were restored rather than replaced. Even within the so-called 'link', which joins the old and new buildings together, it was possible to retain many of the original windows by reinforcing them with forwardmounted fire-resistant windows. The link is where the concert hall is accessed via two diverging staircases. The actual concert hall of the Isarphilharmonie was designed as a timber modular construction with a capacity of 1900. It was pre-fabricated and then assembled on site at the same time as the external steel load-bearing structure was constructed, then clad with an industrial system façade intended for temporary use.







Project data

Project:

Isarphilharmonie concert hall / Gasteig cultural centre and interim philharmonic concert hall Hans-Preißinger-Straße 8, 81379 Munich **Client:** Gasteig München GmbH **Architect:** gmp Elbchaussee 139, 22763 Hamburg CL MAP GmbH Ridlerstraße 55, 80339 Munich **Schüco systems:** Janisol doors, VISS, Janisol Arte 2.0, Janisol 2 El30, Economy 50 doors



kupa-Quartier Kuvertfabrik Pasing

Located on the site of a former envelope factory in Pasing, five new buildings with 175 residential units, as well as retail and office spaces were constructed as a response to demand for a future-proof district for living, working and shopping at the heart of the city. The core of the district is the listed factory building dating back to 1909, which has been refurbished and converted inside to offer a modern working environment. This has created a defining landmark where industrial era history exists alongside a residential development which has been developed based on the latest home and living trends. The homes are set apart from other, more conventional residences on the market thanks to their iconic architecture. The floor plans are the result of a specially organised trend analysis which confirmed the desire for maximum crossover of living, working and leisure within one's own four walls. The façade design concept differentiates between the façades of the district, which are oriented inwards, and the external city façades. Inside the district, the aim is to create a calm, serene impression, while the urban-oriented façades have a reliefstyle building envelope structured with oriels. The projecting building components extend the living space from inside to outside. In this way, old and new remain visible and spatially perceptible through their architectural references to the time when they were constructed, yet combined through the choice of materials and colours.







Project data

Project:

kupa-Quartier Kuvertfabrik Pasing Landsberger Straße 444, 81241 Munich **Client:** Bauwerk Pasing 444 GmbH & Co.KG **Architect:** Allmann Sattler Wappner Architekten GmbH Nymphenburger Straße 125, 80636 Munich **Schüco systems:**

KS LivIng

MAN "East Gate" development, academies

As part of the "East Gate" development on the MAN Nutzfahrzeuge AG business premises, two training buildings - the "Service Academy" and the "Academy" - were constructed on the west side of Dachauer Straße next to the administrative offices and multistorey car park. In the 2800 square metre workshop and lecture theatre space of the Service Academy, technical training for trucks and buses is delivered using real vehicles and vehicle components, while the Academy is reserved for internal professional development for senior management. The Service Academy is the more compact building of the ensemble, with a foyer that stretches over two floors and projects out multiple metres beyond the base storey, featuring an impressive, angled glass façade. In the entrance area, glass panes of up to 3.4 metres in height were installed at an angle in the Schüco mullion/transom construction. The façade of the Service Academy is dominated by the horizontal aluminium louvre blades, which get thicker towards the top and provide screening and sun shading on the first floor. They extend around the entire, elongated building structure, lending it an almost futuristic appearance. For the office and training rooms of the Service Academy, the architects designed a Schüco unitised façade with special profiles, with the closed areas of the façade being clad using a rearventilated metal façade made from smooth aluminium sheeting.



Project data

Project:

MAN "East Gate" development, academies Dachauer Straße 667, 80995 Munich Client: MAN Nutzfahrzeuge AG Architect: pmp Architekten GmbH Nederlinger Straße 68, 80638 Munich Schüco systems: FW 50⁺.HI with AWS 75 BS.SI insert units, Jansen VISS

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MAN "East Gate" development, forums

As part of a wider urban development master plan, the "East Gate" development of MAN Nutzfahrzeuge AG stretches to the west and east of Dachauer Straße. While the administrative and training buildings are situated on the west side of the street and the actual plant premises are in the north-easterly section, the two exhibition buildings - the forums - were planned for the other side of the street to the east. The exhibits of the MAN Forum and the Neoplan Forum are aimed at a specialist technical audience, with the buildings having been designed to create a brand experience for customers and visitors. The buildings serve as a platform for communication and interaction and are intended to be a place to meet people and an expression of transparency and openness. The glass fronts of the buildings support this approach - together they are more than 300 metres long and are similar to a display window. The architects also planned a series of restaurants, shops and event spaces on the ample exhibition site. The forums can be readily identified by their extensive glass façade and striking roof shape, which projects out by 10 metres in some places. Where the roof changes, the façade switches from vertical to angled units. This shift in the façade also impacts the adjacent underside of the roof, where the sharp-edged, anodised aluminium sheeting of the cladding differs greatly in size due to the three-dimensional, concertina-like geometry.







Project data

Project:

MAN "East Gate" development, forums Dachauer Straße 667, 80995 Munich Client: MAN Nutzfahrzeuge AG Architect: pmp Architekten GmbH Nederlinger Straße 68, 80638 Munich Schüco systems: FW 50⁺.HI with AWS 75 BS.SI insert units, Jansen VISS

Munich Urban Colab

The Munich Urban Colab is a place where start-ups work with the state capital of Munich, established companies and scientists on the urban challenges of the future. Their common goal is to develop smart, entrepreneurial innovations for the city of the future. Across a useable area of 11,000 square metres in the creative district near the main train station, around 300 people have been able to work together on their ideas and the implementation of those ideas since its opening in June 2021. As a standalone structure within the creative quarter development, the newbuild has been constructed as a multistorey hall that is on the same scale as the surrounding buildings and that is based on the neighbouring Tonnenhalle and Jutierhalle structures which have listed building status. In line with the desire for communication, visibility and movement, the Munich Urban Colab has an open structure both between the storeys and towards the outside world. The ground floor, with its café and Maker Space, and the first floor, are freely accessible. Openness is also a basic principle of the co-working spaces. Depending on the requirements, the central, two-storey foyer can become a multifunctional event space when used together with the stepped arena, the first floor and the free space in front of the café. The meandering shape of the building in the upper storeys creates interesting recesses in the volume. What is really ingenious, however, is that the two courtyards to the west are covered by unheated conservatories that support the climate control concept of the newbuild.



Project data

Project:

Munich Urban Colab Freddie-Mercury-Straße 5, 80797 Munich Client: UnternehmerTUM / state capital of Munich Architect: steidle architekten Genter Straße 13, 80805 Munich Schüco systems: FWS 50.SI, AWS 75 BS.HI, AWS 75.SI, ADS 75 HD. HI RC2, S 70.HI RC 2

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FC Bayern München Academy youth performance centre

The FC Bayern Campus is well-known far beyond the borders of Bavaria for its development of young talent in football and other ball sport disciplines such as basketball, handball and table tennis. The newly constructed FC Bayern Campus integrates all of the functions and services of a modern sports academy. A new sports centre for FC Bayern München has been built on a 30 hectare site in northern Munich, a stone's throw away from the Allianz Arena. The project is divided into five individual facilities: the Academy, a football stadium, a clubhouse, a sports hall and a groundskeeper building. In addition to changing rooms and indoor training areas, the central three-storey Academy building also houses the offices of the young talent department and campus management department, and an apartment section with bedrooms, a canteen, common rooms and classrooms. The Academy is connected via a glazed bridge to the north stand of the football stadium, which offers completely covered seating for 2500 spectators. The clubhouse and bistro, office spaces and rooms for the club doctor can be found in the entrance area of the grounds, while the space for the groundskeeper personnel and equipment is located in an on-site storage building. A three-court sports hall, complete with changing rooms and indoor training areas, was also constructed on the Campus and is used for the other ball sports played by FC Bayern eV. The numerous design options within the Schüco system range were ideal for creating a uniform appearance for all system units across all functions.





Project:

FC Bayern youth performance centre Ingolstädter Straße 272, 80939 Munich Client: FC Bayern München, Munich Architect: Joachim Bauer Architekten Klugstraße 158, 80637 Munich Schüco systems: FWS 50.HI, AWS 75.SI⁺, ADS 80 FR 30, ALB, hollow louvre blade, active, linear, ADS 65.NI SP, Firestop T90/F90, VentoFrame



Neue Messe München exhibition centre

The Neue Messe München is situated in eastern Munich on the site of a former airport. The 16 exhibition halls are located along the central axis running from west to east. This strict, symmetrical arrangement of the halls along axes makes it easy for exhibitors and visitors to find their way around. The visitor entrances at either end of the building complex are each served by an underground station. Although the Neue Messe has a great many demands placed on it in terms of logistics, visitor orientation and public access, the buildings themselves have a light and warm architectural language thanks to their elegant designs and the materials used - steel, glass and wood. With the expansive glazing of the Schüco mullion/transom façade, the architects were able to achieve impressively spacious exhibition halls that receive some natural light. A number of quiet, relaxation zones ensure that the complex is user-friendly. The exhibition halls are surrounded by 280,000 square metres of free space, which never fails to draw visitors outside even during large events, and brings a bit of light, air and greenery into the halls via the large, glazed façade areas of the connecting walkways.







Project: Neue Messe München, 81823 Munich Client: State capital of Munich Architect: Kaupp Jesse Hofmayr Werner Architekten Nymphenburger Straße 86, 80636 Munich with OBERMEYER Planen + Beraten GmbH Hansastraße 40, 80686 Munich Schüco systems: Special construction, Royal S 65



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A. Würth, Freiham subsidiary

The architects deliberately integrated the premises of Adolf Würth GmbH & Co. KG into its industrial surroundings. The striking simplicity of the building's projecting canopy nevertheless sets the impressive, compact structure apart from its neighbours. In addition to the transparent-looking pick-up depot, the 2400 square metre building also houses offices and seminar rooms on the ground floor. The spaces on the upper floor are lit by a vast inner courtyard at the centre of the building structure. The zones open out onto the stylish courtyard via the generous glazing of the Schüco mullion/transom aluminium façade which surrounds it. The popularity of the adjacent areas as break-time and relaxation spaces demonstrates just how pleasant they are to spend time in. The steel construction of the building is predominantly clad with opaque polycarbonate panels, while the main entrance side is designed as a large glass front sheltered by the canopy. In the direction of the road, the large glass units act like a "display window", providing views into the vast sales areas for fixing materials. On the western side, a large-scale window highlights the dog-legged stairway up to the top floor, while the Schüco mullion/transom construction made from aluminium allows onlookers to see right inside the building through to the inner courtyard.



Project data

Project:

Würth subsidiary Dietmar-Keese-Bogen 2, 81249 Munich **Client:** Adolf Würth GmbH & Co. KG **Architect:** Allmann Sattler Wappner Architekten GmbH Nymphenburger Straße 125, 80636 Munich **Schüco systems:** FW 50⁺ with projected top-hung window

Surgical centre on Großhadern Campus

The new Großhadern surgical centre, a long, rectangular building, is connected to the existing building by means of four glazed connecting bars. Arranged around three internal courtyards and covering 14,500 square metres, it provides 32 operating theatres, 70 intensive care beds, an outpatient surgery and a central accident and emergency department. The viridescent, shimmering textile membrane which envelops the top three floors of the complex is striking, while the base level is highlighted by asphalt grey fibre cement panels. With its double-skin façade construction, the building radiates lightness; the high-tech needs of the modern surgical centre were addressed by the architects when they designed the façade. The FACID 65 textile façade system was used to cover the outer membrane, for which the specifiers engineered a load-bearing substructure made from hollow steel profiles. They varied the look of the homogeneous façade areas by implementing slightly different angles of inclination for the individual clamping modules. Depending on the amount of natural light, a changing interplay of colours is created which gives the impression that the surface is malleable. Made from coated polyester, the fabric has semi-transparent properties - from the outside it appears closed. It protects the operating theatres from prying eyes and acts as sun shading and screening. At the same time, it allows sufficient daylight in, while enabling you to see through it to the outside.







Project data

Project:

Surgical centre on Großhadern Campus Marchioninistraße 15, 81377 Munich Client: Staatliches Bauamt München 2 Architect: LUDES Architekten – Ingenieure GmbH Beethovenplatz 4, 80336 Munich Schüco systems: FACID 65

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Renovation of Luisenstraße Vocational School

The complete renovation of the Städtische Berufsschulzentrum für das Bau- und Kunsthandwerk (State Vocational School for Construction and Trades) as well as the Fachschule für Bautechnik / Meisterschule für das Bauhandwerk (Technical College for Civil Engineering / School for Master Craftspeople) has been ongoing since 2019. Due to construction and organisational defects, parts of the listed building complex erected between 1956 and 1958 need to be fully refurbished and rebuilt. In order to meet contemporary demands for a modern educational building with sections dedicated to theoretical and practical education, a structural reorganisation of the building is required. By relocating occupational groups, it will be possible to rearrange the space to meet the current needs. The workshops and laboratories are being rebuilt in line with modern educational requirements. The listed hangar from the 1950s is being refurbished to create classrooms and a workshop for construction professions such as tilers. drywall builders, bricklayers and plasterers. A special feature is the use of carbon concrete, which allows a slimmer and more diverse construction with higher load-bearing capacity at this point, as well as prestressed concrete for the flying roof on the 5th floor. The latest safety requirements for practical teaching and barrier-free access are taken into account. All exterior building components will be thermally insulated. With its transparent design, the conversion and renovation of the building also aims to draw the attention of the public to the exhibition spaces and the architectural reorganisation of the entrance area.

Project data

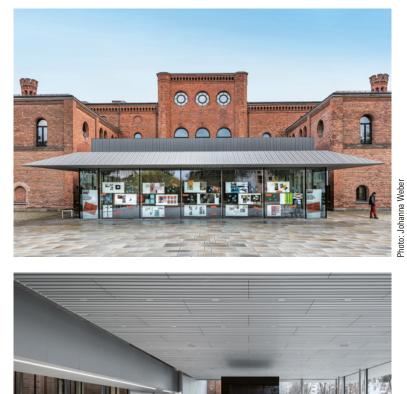
Project:

Renovation of Luisenstraße Vocational School Luisenstraße 9–11, 80333 Munich Client: Munich City Planning Office Architect: v-architekten GmbH in Zusammenarbeit with m3 Bauprojektmanagement GmbH Merowingerstraße 5–7, 50677 Cologne Schüco systems: Viss 50, Janisol, Janisol Arte



Munich University of Applied Sciences

Over the years, the former arsenal of the Bavarian army has undergone many conversions and changes in use. Its external appearance has largely survived unchanged. The room structure, which had been heavily modified over the years, was to be largely restored to its original layout, updated to the latest technical standards and made fit for the complex usage requirements of contemporary design education. The building is accessed through the main entrance (and former coach entrance), which has been given a modern interpretation in keeping with its original structure, including restored arches, white walls and ceilings, grey screed and untreated aluminium panels in the stairwells. A corridor along the central axis leads into the glazed pavilion, which was created as a link to the side wings in the former courtyard. The extension is used as an exhibition space and stands out from the existing building due to its steel/glass construction and the cantilevered, angular roof, with a wide gap highlighting the point where old meets new. A steel bridge into the extension joins the building sections and leads through to the barrier-free stairwells and study rooms, workshops and studios behind. The result is an inspiring place that offers space to allow creativity to unfold and that is tailored to design as the central discipline for overcoming the challenges of our time.



Project data

Project:

Department of Design at the Munich University of Applied Sciences Lothstraße 17, 80335 Munich **Client:** Staatliches Hochbauamt München 2 **Architect:** Staab Architekten Schlesische Straße 27, 10997 Berlin **Schüco systems:** ADS 65 / ADS 80 FR 30, AWS 90, FW 60⁺ Soreg Glide System 150, SOREG AG

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High-rise renovation on Richard-Strauss-Straße

The Forum Bogenhausen on Richard-Strauss-Straße was designed in 1970 by architects Claus Winkler and Edwin Effinger, who later formed the WEP Effinger Partner Architekten architectural practice. A 12-storey high-rise building, a 2-storey car park and a long, 7storey building added in 1980 are grouped around an inner courtyard, known as the Forum. A change of tenant brought the opportunity to renovate the complex for mixed use. Retail chain stores, service providers and a childcare facility have now moved into the ground floor zones. Passageways were created to connect the surrounding streets to the central courtyard, so that customers can access the shops from the 500 parking spaces. Office-type areas are located in the upper storeys, with half of the high-rise space being rented by an international patent law firm. The long building was renovated in line with the requirements of the main tenant, a bank, and the Bogenhausen doctor's surgery. The fabric of the Forum Bogenhausen buildings was also updated. The high-rise was fitted with a double-skin Schüco special construction with integrated sun shading, which gives the complex a modern, contemporary look. The building management system was also modernised, with cooling ceilings being installed and, at the request of the tenant, air conditioning technology that can be regulated individually for each storey.



Project:

Forum Bogenhausen Richard-Strauss-Straße 80–82, Denninger Straße 116, 81925 Munich **Client:** München Inter GmbH, Munich **Architect:** WEP Effinger Partner Architekten BDA Denninger Straße 15, 81679 Munich **Schüco systems:** Special window construction

Renovation of Wilhelmsgymnasium high school

Before embarking on the three year-long core renovation and extension of the 1877 listed school building, the architects investigated and evaluated many different design ideas. The only way to achieve the desired extension of the space on the plot was to move some of the facilities underground. The cellar was therefore excavated to create the ceiling height needed to make it a high-quality space to use. The decision was also made to dig down eleven metres below the playground area to house a sports hall. This replaces one of two sports halls in the old building, which was used for classrooms instead. The dilapidated section of the building along Maximilianstraße was dismantled, with the listed façade being retained and a new, additional upper storey being constructed. As the roof was a monopitch roof, which maintained the original eaves height along the listed Maximilianstraße and was elevated on the side facing the playground, the additional storey was not noticeable from the street. Entry to the underground sports hall is via a three-sided, glazed recreation hall on the ground floor. Lift-and-slide doors from the Janisol steel profile system ensure maximum transparency and accessibility here. When the weather is nice, the large lift-and-slide doors can simply be pushed open to the side. The indoor and outdoor spaces then become one, offering much more than just a spatial expansion of the interior.





Project data

Project:

Wilhelmsgymnasium high school Thierschstraße 46, 80538 Munich Client: State capital of Munich; represented by Planning Office H4 Architect: BPA Braun Architekten Friedrich-Herschel-Straße 1, 81679 Munich Schüco systems: Janisol, Janisol lift-and-slide doors



19

Knorr-Bremse AG Technology Center

The new Knorr-Bremse AG Technology Center was integrated in amongst the existing buildings on the company premises on Moosacher Straße in northern Munich. The newbuild, which consists of three cubes connected via glass bridges, has a clean and unique volume and form, setting it clearly apart from the existing buildings without competing with them. The cubes are slightly offset from one another, creating a generous forecourt in front of the ensemble's main entrance and the middle cube. Each cube has a central atrium with an all-glass façade, which provides exciting lines of sight and the perfect amount of natural light for the work spaces and break rooms. In the middle cube, the atrium serves as a prestigious entrance hall for the conference and meeting rooms, which are located next to the office and research areas. The attractive Schüco all-glass façade is an important part of the energy concept and means that over 90% of the building volume does not need additional air conditioning. The highly sophisticated interplay between the building envelope, the building management system and the building technology enabled a sustainable and resource-saving energy concept to be developed and implemented for the new Technology Center.





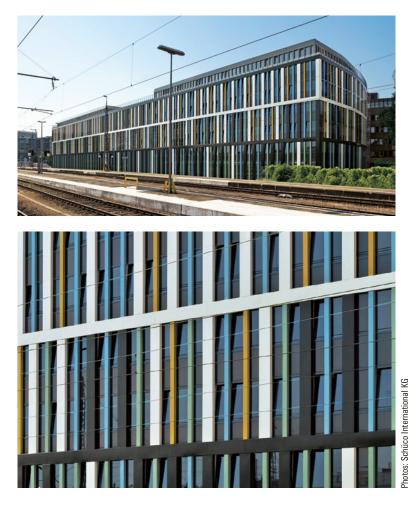
Project data

Project: Knorr-Br

Knorr-Bremse AG Technology Center Moosacher Straße 80, 80809 Munich **Client:** Morcar Grundstücks GmbH & Co. oHG, Munich **Architect:** ABH-Architekturbüro Heese GmbH Normannenstraße 40, 81925 Munich **Schüco systems:** FW 50⁺, special Royal S BS.HI mullion, special construction with sun shading in the space between the panes and triple glazing

Educational authority office building

The educational authority of the state capital of Munich had their offices built on a plot south of the railway tracks of the nearby main station in 2010. The building structure, which is over 200 metres long, houses individual offices on all of its seven storeys. As the client did not want this single usage of the building to be discernable from the outside, the architects designed the façade with vertical, coloured aluminium panels. With each one stretching across two storeys, these façade panels are divided up by colour. The rich, dark shades of anthracite and green are used more in the lower area, while the light white and yellow tones dominate the top. To the outside, this grid pattern is not visible - the slimline and wide powder-coated façade panels alternate independently of the supporting grid, lending the façade a playful, less structured appearance. The window units - a Schüco special construction - are located here underneath the coloured panels and are a discreet dark grey. In order to make the building seem less tall and dense, the architects from the Kupferschmidt practice joined two storeys together at a time in their design and divided the expansive façade of the building visually into three main storeys. These main storeys are separated from one another by horizontal anthracite and white bands which run along the entire length of the building. The attic storey contains two building structures that are clearly set back and connected to one another via a large terrace.



Project data

Project:

Educational authority office building Bayerstraße 26–32, 80335 Munich **Client:** GVG Grundstücks-, Verwaltungs- und Verwertungsgesellschaft mbH, Munich **Architekt:** Kupferschmidt Architekten (with Zeune Architekten) Widenmayerstraße 18, 80538 Munich **Schüco systems:** AWS 75 BS.HI, with special constructions in some areas

22

Volkstheater

The new Volkstheater in Munich is an urban focal point on the site of Munich's former slaughterhouse and stockyard, which is currently being developed to create a new district. As well as integrating an existing building, a prestigious newbuild was planned to continue the history of the site. As bricks dominated the appearance of the existing buildings, these were also the obvious choice of material for the newbuild. A courtyard with a large arch opening out towards the street is positioned between the old building, a narrow block on the northern side of the plot and the new foyer. The archway joins together the old and new buildings, providing clear access to the inner courtyard. The flowing building structure is a result of the functional requirements and, in addition to audience areas and three stages, it also houses rooms for modern stage technology, workshops and accommodation for the artists, as well as restaurants and offices. Throughout the thermal envelope, the building services are surrounded by a concertina-like grille construction made from thin metal bars, while the 29-metre tall stage tower has a semi-transparent membrane façade. Inside, a colourful foyer welcomes the visitors, who will proceed through to either the large auditorium for 600 people or the second stage for 200 people. The furnishings and fixtures made from in-situ concrete play on the space and, together with the coloured surfaces and the building geometry, form a sculptural whole.





Project data

Project:

Volkstheater Tumblingerstraße 29, 80337 Munich Client: State capital of Munich, municipal department represented by the planning office Architect: LRO Lederer Ragnarsdóttir Oei Kornbergstraße 36, 70176 Stuttgart Schüco systems: AWS 75.SI, ADS 75.SI, FWS 50, FWS 60, ADS 65.NI, ASS 70, ADS 80 FR 30, Firestop T90, Jansen Economy 50, Janisol C4 F90



Werk 12

Since the mid-1990s, a lively club scene has established itself on this former industrial area behind Munich's Ostbahnhof, bringing together art, culture and pubs. Opened at the end of 2019, Werk 12 is visible for miles around like a beacon of change in amongst the old warehouses and individual newbuilds, such as the Medienturm office high rise. Around 20 years ago, MVRDV made waves with their Netherlands Pavilion at EXPO 2000 in Hanover, where they presented radical reproductions of different Dutch landscapes stacked in surprising ways over six floors in their open house. Werk 12 builds on this basic idea and transforms it for the future with a smart building design. What makes this building spectacular is its unusual entrance via an outdoor elevator as well as external cascading stairways which lead onto continuous terraces on each storey that project out by 3.25 metres. Behind the complex mullion/transom steel and glass façade is a very flexible, surprisingly airy interior landscape with a clear ceiling height of 5.50 metres and intermediate levels with a variety of different uses. The 25 x 8 metre sports swimming pool on the third floor posed specific structural challenges. The onomatopoeic letters in front of the façade measure 5.50 metres tall and highlight the "wow" factor of the building in a unique way.





Project data

Project: Werk 12 Speicherstraße 20, 81671 Munich Client: OTEC GmbH, Munich Architect: MVRDV Achterklooster 7, 3011 RA Rotterdam NL N-V-O Nuyken von Oefele Architekten BDA Winzererstraße 44, 80797 Munich Schüco systems: VISS, Janisol, Janisol 2, Economy 60, extra-high Janisol lift-and-slide doors and Janisol folding sliding doors



24

Friends residential high-rise buildings

The two Friends residential high-rise buildings at the Hirschgarten in Munich are the perfect example of how urban living is changing, not only in the clear identity of the façade style, but also through the architectural implementation of a sharing concept as a future-proof living model. Originally, "residential use" was not in the planning criteria for this plot that was specified as a mixed and core zone. It was only in 2012, when the huge shortfalls in residential construction in Munich became increasingly apparent, that people began to look into the possibility of a partial residential construction on this site. When implementing this model as a suitable architectural concept, the architects perfected the cores of the development including the required technical elements, in order to create a more flexible, spatial range of living units with the best possible lighting. All residential units are organised efficiently around the central service core, the "cube", which provides the kitchen, bathroom and other uses. There are also common rooms in both towers. This efficient overlap of private and communal space is based on the urban fundamental ideal of future-oriented city living typologies. Each living space is visually maximised into the surrounding city by means of floor-to-ceiling façade units and folded oriels, enabling far-reaching panoramic views of the city and surrounding landscape.





Project data

Project:

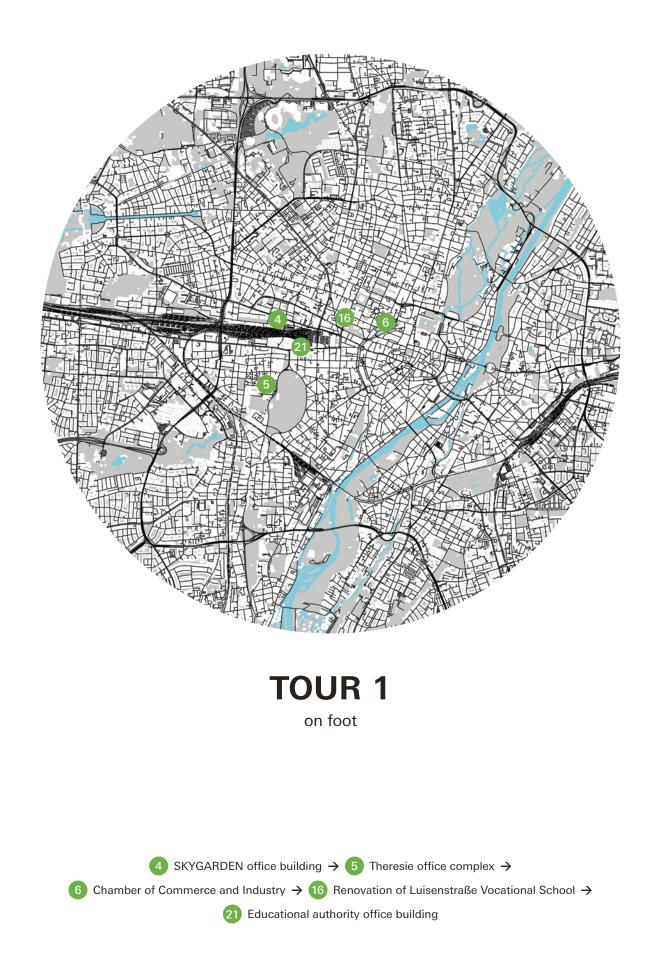
Friends residential high-rise buildings Birketweg, 80639 Munich Client / project development: LBBW Immobilien Capital GmbH, Stuttgart Architect: Allmann Sattler Wappner Architekten GmbH Nymphenburger Straße 125, 80636 Munich Implementation planning / façade planning: a+p Architekten Kapellenweg 6, 81371 Munich Schüco systems: AWS 75 BS.HI⁺, ADS 75 HD.HI, AWS 75.SI⁺





All 24 Schüco projects at a glance:

1	Audi-Zentrum
2	Bavaria Towers – Sky Tower / Star Tower
3	MK 13 – Garden Office building
4	SKYGARDEN office building
5	Theresie office complex
6	Chamber of Commerce and Industry
7	Isarphilharmonie concert hall
8	kupa-Quartier Kuvertfabrik Pasing
9	MAN "East Gate" development, academies
10	MAN "East Gate" development, forums
11	Munich Urban Colab
12	FC Bayern München Academy youth performance centre
13	Neue Messe München exhibition centre
14	A. Würth, Freiham subsidiary
15	Surgical centre on Großhadern Campus
16	Renovation of Luisenstraße Vocational School
17	Munich University of Applied Sciences
18	High-rise renovation on Richard-Strauss-Straße
19	Renovation of Wilhelms- gymnasium high school
20	Knorr-Bremse AG Technology Center
21	Educational authority office building
22	Volkstheater
23	Werk 12
24	Friends residential high-rise buildings

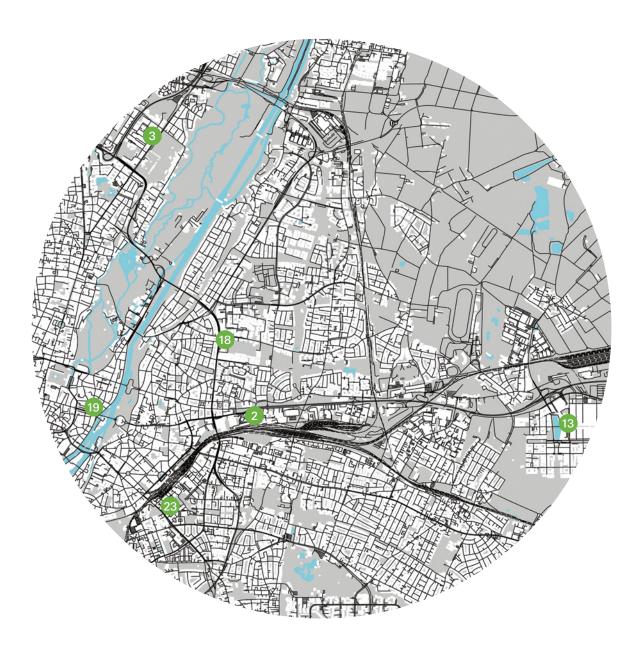




TOUR 2

by tram, underground, suburban train

Audi-Zentrum (T12 / B 53 Albrechtstraße) → 7 Isarphilharmonie concert hall
(U3 Brudermühlstraße / B 54/97/153 Schäftlarnstraße / Gasteig HP8) → 1 Munich Urban Colab
(T12 / T20/21 / B 53 Leonrodplatz) → 1 Munich University of Applied Sciences (T20/21/22 / B 153 Lothstraße) → 2 Volkstheater (U3/6 Poccistraße / B 62 Tumblingerstraße) →
24 Friends residential high-rise buildings (S1/2/3/4/6/8 Hirschgarten)



TOUR 3 from the exhibition to the airport



Welcome to the Wertingen Showroom.



The newly renovated and refurbished showroom is located just outside Munich. Across an area of around 400 square metres you can find a wide range of large-scale exhibits with a focus on smart residential construction. If you're interested in smart building and barrier-free construction, then this is the place for you! But it's not just for end customers to come and obtain expert advice on site – architects and metal fabricators can also come alone or with their customers to find out information and exchange ideas for planning.

Please agree a suitable time to visit in advance with the showroom team.

Wertingen Showroom

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Our other showrooms in the overview:

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Berlin Showroom

Schlüterstraße 40 10707 Berlin / Germany

Düsseldorf Showroom

FLOAT Gebäude Franziusstraße 6 40219 Düsseldorf / Germany

Frankfurt Showroom Thurn-und-Taxis-Platz 6

60313 Frankfurt am Main / Germany

Hamburg Showroom

Watermark Tower | HafenCity Überseeallee 10 20457 Hamburg / Germany

Weißenfels Showroom

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