

HEALTHCARE

Building construction solutions in aluminium



WICONA[®]

By  Hydro

**“The very first
requirement
in a hospital
is that it
should do
the sick no
harm.”**

Florence Nightingale

A passionate advocate of good hospital architecture and design, Florence Nightingale, the founder of modern nursing, spent her life's work championing the improvement of health standards. Whilst the complexity of hospital and healthcare buildings has advanced beyond recognition, this guiding principle stands strong.

One of the most challenging tasks in shaping our future is the creation of buildings that comply with building regulations and embrace ambitious architectural design and at the same time prioritise environmental responsibility. This requires concepts that protect natural resources, offer superior user comfort, and respect working health and safety requirements. On top of this they have to be economically attractive.

Identifying these needs many years ago, WICONA continually adjusts its product development and service offer accordingly.

Facts	Sustainability	References	Renovation	Partnership
P4	P20	P26	P68	P82





10.100.000.000

Data collected by the United Nations¹ demonstrated that the population as of 2020 stood at almost 7.8 billion people globally. With the current growth trends in which infant mortality rates continue to fall and life expectancy continues to rise, the population in 2050 will be 10.1 billion.

With the yearly increase in population standing currently at 1.05%, the number of people aged over 60 is estimated to be 2.1 billion². The strain that a growing and ageing population will have on healthcare services will be detrimental if buildings and facilities are not designed accordingly to deal with such an increase in demand. The architecture and design of healthcare buildings should be a paramount consideration, and the materials that are used within these designs will prove crucial to creating effective, healthy and sustainable facilities.

The significant increase in the need for professional services, social care and health care will be a priority issue, and as such, steps to address issues should be explored and implemented immediately.

¹ <https://www.worldometers.info/world-population/>

² <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/ageing/articles/livinglongerhowourpopulationischangingandwhyitmatters/2018-08-13#:~:text=Population%20ageing%20is%20a%20global,21.3%25%20of%20the%20global%20population.>

With a growing population, healthcare facilities must change in turn, not just for size and scale, but in the retention of experienced and skilled staff, along with ensuring that the healing process is as timely as possible to cope with increased demand and patient turnover.

The base goal of healthcare facilities is to improve the outcomes of the patients. One way is to focus on the design of the spaces with the patient in mind whilst creating a positive working environment for staff.

Progressive and contextually appropriate design goes a long way in curating healthy and welcoming spaces that not only improve the mood, efficiency and enthusiasm of staff but also benefit patients in their physical and mental health. Research¹ shows that good access to daylight directly correlates to accelerated healing and shorter hospital stays.

Architectural features like glass façades allow natural daylight to fill these healthcare spaces, and a keener focus on selecting products that benefit recovery will be a huge step in designing healthcare facilities for the future.

WICONA offers a wide range of products, services and solutions to the healthcare industry, helping to create healthy and healing environments while utilising products and materials that benefit the environment.

¹ https://www.designingbuildings.co.uk/wiki/Daylight_benefits_in_healthcare_buildings





Photos: © Spornalk



Healthcare buildings are looking to expand vertically to provide larger facilities without absorbing more fresh land, making an already complex structure even more so. Equally, with the arrival of smart hospitals, complexities are apparent when it comes to the design of HVAC systems, security, fire safety, acoustics and structural stability. We work closely with architects, engineers and specifiers to discover the best possible plan not just for the aesthetics of the buildings, but the performances too.

Healthcare facilities also have a notoriously high-energy usage rate due to the sheer size of the buildings and the amount of electrical equipment within them. Our high-performance system solutions assist in minimising energy consumption once the building is in use but ahead of that WICONA is committed to reducing upfront and embodied emissions through the use of sustainable, low carbon, circular aluminium and other recycled materials.

Our Research & Development, Sales & Marketing and Supply Chain teams are truly committed to delivering added value architectural aluminium solutions that are rooted in a future-thinking mindset.

» WICONA systems fulfil the requirements for an optimum healthcare environment





SAFETY AND SECURITY

Hospital and healthcare facilities must be designed to keep patients, staff and visitors safe, all day, every day. To support a building's fire and smoke control strategy, WICONA curtain walls, windows and door systems are designed to strengthen heat resistance, mitigate the spread of flames, smoke and fumes, meeting the required flame retardancy and fire protection classes for hospitals and healthcare amenities. For design continuity, all WICONA fire resistant products are visually compatible with standard systems. And project-specific requirements can be tailored with emergency exit adaptations, finger protection options, self-locking and door closers, panic bars and door operators. All integrated into the building's access control and security systems.

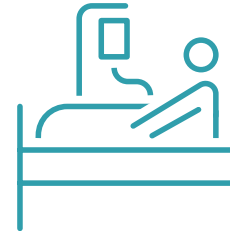
HYGIENE

Constant contact with doors and handles throughout hospital and medical settings causes transmission of bacteria and, as a result, infection. Designing in hygiene control to remove or minimise access touch points is an effective way to prevent bacterial spread. WICONA offers a range of automatically opening doors, eliminating the need to touch, as well as antibacterial and antiviral coatings for both the systems and handles to help avoid infection. Bacteria are also absorbed into the air. Because of this, optimising Indoor Air Quality (IAQ) through frequent ventilation is imperative, reducing the risk of infection and improving building immunity, be that through mechanical and natural techniques. WICONA offers a range of windows to support complex ventilation requirements with options to include ventilation flaps that can also be motorised.



COMFORT

Bright, open rooms have a positive effect on both patients and staff, creating a greater sense of well-being all round. For patients, waiting and clinical areas that provide expansive views and daylight can relax, reduce anxiety and create a healing environment - even improving recovery rates and shortening hospital stays. Whilst for healthcare staff, daylight spaces are proven to reduce stress and enhance performance.^{1 2} Whether it's floor-to-floor glazing or ribbon window configurations, WICONA façade systems accommodate large dimensions to maximise glazed areas and ensure natural light that can be engineered into a building's design at every opportunity. Likewise, patient and staff comfort also extends into temperature control. And when it comes to façade specification, a careful balance between thermal performance and solar gain is required to maintain recommended room temperature levels. WICONA has developed glazing solutions that offer outstanding thermal efficiency, with U_w -values of less than $1 \text{ W}/(\text{m}^2\text{K})$, that can be tailored to meet requirements using WICONA temperature control and ventilation capabilities.



ACCESSIBILITY

Movement throughout the hospital or medical setting must be guaranteed for everyone, especially for patients with disabilities or those who may be sick or experience limited mobility during their hospital stay. Easy access to a building's entrance, waiting areas, treatment rooms, bathroom and toilet facilities is crucial. Socially inclusive design can be achieved using a range of WICONA systems to meet project-specific applications exactly – even down to handle height. From heavy traffic doors and terrace doors with invisible thresholds for easy outside access, to automatic doors that can be integrated with access control and safety systems in case of emergency, accessibility is always considered carefully at WICONA.



¹ Even improving recovery rates/ shortening hospital stays
https://www.designingbuildings.co.uk/wiki/Daylight_benefits_in_healthcare_buildings

² 11 Verderber S. Dimensions of person-window transactions in the hospital environment.
Environ Behav 1986;18:450-66.

ACOUSTIC



Hospitals are noisy. Sirens wailing, babies crying, patient alarms beeping with endless foot traffic and medical equipment being moved around. The dynamic nature of a hospital environment easily saturates what should be a healing and calm space, affecting both the well-being and safety of patients and staff as well as the ability to communicate effectively. WICONA systems offer acoustic insulation > 40 dB, meeting the most stringent European standards. Collaboration at the specification stage guarantees acoustic comfort that satisfies survey requirements and delivers an improved experience for both patients and staff.

CERTIFIED AND TESTED

Certified to meet the very highest technical and sustainable standards, WICONA façade, window, door and sliding systems provide tried and tested quality that conforms to specified CE marking criteria in accordance with EN 14351-1 (1st February 2010). What's more, complex customised solutions are also tested at our Test Centre in Bellenberg - one of Europe's most modern test centres. With a strong commitment to sustainability too, WICONA demonstrates complete transparency. All circular materials and products of WICONA come with EPDs, meeting international norms and regulations. These are especially helpful when it comes to documenting a building's sustainability for green building rating schemes like BREEAM, LEED, DNGB and WELL. The sustainability factor of a building today is an assessment criterion for purchasers, lessees and investors that bear both significant environmental and financial impact for the building owner.



» WICONA system solutions



Façades WICTEC

Unique solutions with our stick system & unitised curtain walls



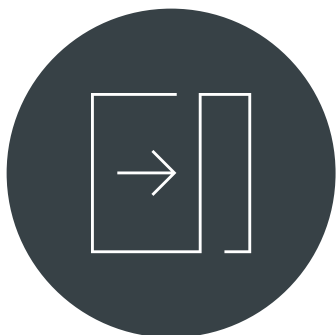
Windows WICLINE

Great variety of window systems, numerous shapes & types of opening



Doors WICSTYLE

Large range of door systems for every configuration



Sliders WICSLIDE

Closer to nature with Folding-, Lifting- and Offset sliding systems



Solar shading WICSOLAIRE

Sunshading systems to increase the daylight in your building



Fall prevention WICLIFE

Unique solutions with our stick system & unitised curtain walls



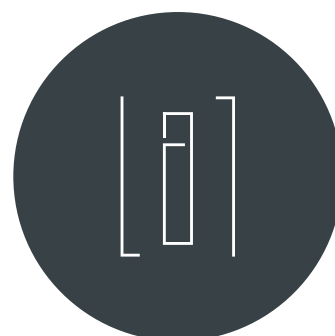
Security applications

Safety and security functions of our systems



Fire protection

Flame and fire-resistant solutions for façades, windows and doors



Accessories

Accessories to enhance the user comfort

Why WICONA?

As a successful aluminium systems company based in Germany, WICONA uses more than 70 years of experience to benefit you on a daily basis. Every detail counts at WICONA, from detailed planning to the perfect processing material and rapid supply right through to active sales support.



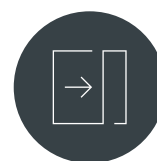
WICTEC



WICLINE



WICSTYLE



WICSLIDE



WICSOLAIRE

	WICTEC	WICLINE	WICSTYLE	WICSLIDE	WICSOLAIRE
Burglar resistance	■	■	■	■	
Bullet resistance	■	■	■		
SHEV		■			
Smoke control			■		
Escape door			■		
Fire protection	■	■	■		
Ventilation flap		■			
Sound Isolation	■	■		■	
Thermal Isolation	■	■	■	■	
Barrier Free			■	■	
Sunshading	■	■			■

Personal security and building protection, for example, with health-care buildings, need a solution approach that can be accomplished with aluminium systems in a holistic and compatible way. This is achieved by the WICONA series for windows, curtain walls and doors. Each can provide bullet resistance, in combination with other additional functions. The requirements for bullet resistance are achieved with various WICONA profile combinations, simply by addition of the standard construction with a special aluminium planking.

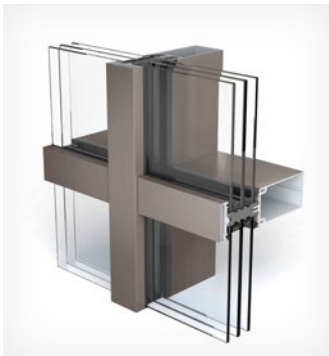
Fire protection safety is another of the most critical technical characteristics in modern architecture. Top functionality is mandatory, of course, yet individual design that matches the overall design concept also is desirable. To achieve this, WICONA offers a comprehensive product range including single and double fire protection doors, WICLINE fire protection windows and WICTEC fire protection curtain walls. These components are fully compatible with the WICONA standard profile systems.

» The most commonly used WICONA systems for hospital and healthcare facilities



WICTEC 50 FAÇADE **...to meet well-proven performance requirements**

- Established and well-proven façade system for over 30 years
- Modular system offers a wide range of solutions that can be easily upgraded (e.g. fire protection)
- High thermal and sound insulation



WICTEC 60 NG FAÇADE **...to meet comfort requirements**

- High-performance façade system engineered for bigger and heavier glass panels
- Large dimensions due to floor-to-floor glazing offer maximum transparency and daylight
- Outstanding thermal performance (0,67 W/m²K) and sound insulation



WICTEC MODUL AIR CLOSED CAVITY FAÇADE **...to meet hygiene & comfort requirements**

- The cavity is constantly flushed with dry air, creating an almost clean-room environment in the cavity
- The motorised solar shading device is protected in the cavity and can be operated at any time, and thus provides total light and room temperature control
- 10-year guarantee on profile, dry air and solar shading systems



Photos: © Conne van d Grachten



WICLINE 115 AFS COMPOSITE WINDOW **...to meet acoustic & hygiene requirements**

- Engineered for particularly high demands on acoustic insulation, sun protection and thermal performance
- The integrated, motorised solar shading system is protected against weather conditions and dirt, thus enormously reduces the cleaning effort, and provides total light and room temperature control
- The concealed stainless steel filter offers protection against dirt from outside, thus enhance the air quality
- Flat surfaces for better hygiene, which can be enhanced by antiviral / antibacterial coatings



WICLINE 75 MAX WINDOW **...to meet comfort requirements**

- Slim sightlines and a higher glass proportion of up to 56% ensure maximum of daylight and transparency
- Concealed sashes, hinges and fittings help to reduce the cleaning effort



WICSTYLE 65 N NG DOOR
...to meet safety & security requirements

- The new generation of non-thermally broken door is ideal for high-traffic internal applications
- Safety applications such as fire protection, smoke control, emergency exits and burglar resistance can be easily adapted to the base system
- The modular system provides several solutions to meet all requirements, e.g. automatic doors, reinforced doors, etc.



WICSTYLE 75 EVO DOOR
...to meet safety & accessibility requirements

- The versatile door system offers a wide range of applications and various advantages for high-traffic buildings
- Highest safety standards with emergency exits, finger protection, bullet resistant and burglar resistant solutions
- Low-profile threshold to meet the requirements for accessible buildings

Building systems today for better healthcare tomorrow

A global partner with over 70 years' technical experience, WICONA offers a range of proven aluminium system solutions to meet the demanding needs of hospital and healthcare buildings.

Whether used in a façade for a landmark hospital development, a functional emergency entrance door system or windows that create architectural structure, WICONA systems combine the functional features required with the aesthetic capability to realise the design dreams of architects all over the world and most importantly, their clients.

It's not just about form and function. For building investors, profitability is also at the forefront of WICONA solutions.

The long-lasting nature of aluminium, high quality and proven performance of the WICONA systems all contribute to the longevity and efficiency of a building envelope, reducing operational costs and enhancing profitability.

Likewise, when it comes to 'carbon accounting', WICONA considers the whole lifecycle of a building. Product development focuses on using recycled content and making systems recyclable at end of life. Right now, WICONA uses low carbon, circular aluminium Hydro CIRCAL – produced with a minimum of 75% of recycled post-consumer scrap – with its systems also containing 95% recyclable content. By 2030, the aim is to achieve 80% recycled and 100% recyclable content.

Since 2017, WICONA systems have been Cradle to Cradle Certified®, the global standard for products that are safe, circular and responsibly made.



Photos: © HerveFABRE-Photographies

» Sustainability 2025: BUILD BEYOND TOMORROW



From 2018 to 2021, the Hydro aluminium building system brands have reduced their carbon emissions by 25% and are working towards an overall target of 50% by 2025.



POSITIVE PROGRESS

As an industry leader and part of the Hydro group, WICONA's sustainability strategy, BUILD BEYOND TOMORROW, focuses on **cutting carbon emissions by half by 2025**, striving towards **100% circularity** and **empowering 10,000 people with education and**

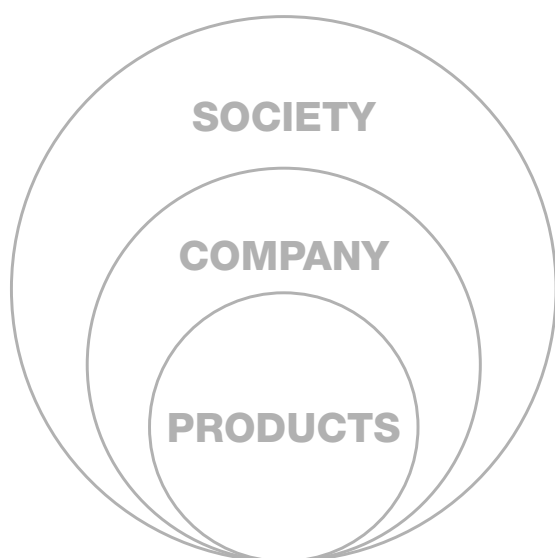
skills in the same year, in line with the UN Sustainability Goals. We go beyond world-class low-carbon aluminium and recycled materials, to run every part of our business as sustainably as possible.

Our holistic strategy is based on three pillars:

Products: We go beyond materials to reduce the carbon emission in the use phase.

Company: We go beyond products to reduce the upfront and embodied emissions.

Society: We go beyond our company to see the bigger picture.



PRODUCTS

- Responsible and recycled material
- Circular and high performance products
- Transport and packaging
- Transparency and traceability

COMPANY

- Production and site emissions
- Water and waste reduction
- Responsible workplaces
- Employee engagement, inclusion and diversity

SOCIETY

- Market
- Value chain
- Human rights
- Local communities

BEYOND MATERIALS

The most efficient way to reduce the operational emissions of buildings is to offer high performance products to optimize energy consumption once the building enters the use-phase. Produced using at least 75% recycled and 95% recyclable content, our high-performance products are easily reusable, dismantlable and recyclable.

By using responsibly sourced and recycled material, such as our low-carbon aluminium Hydro CIRCAL and our recycled polyamide, we aim to reduce the carbon footprint of our aluminium by 50% and that of our accessories by 35% by 2025. Fulfilling the idea of sustainability, we go beyond materials. By optimising transport and packaging of our circular products, we aim to halve the carbon footprint of transport and packaging by 2025. To ensure maximum transparency, we provide EPDs for all our products and projects.



About 75% of all aluminium ever produced is still in use today.

The Process

The production process is fully traceable, and the product is certified by an independent third party (DNV-GL). The certified production is nothing short of a revolution in the building industry.

Hydro CIRCAL

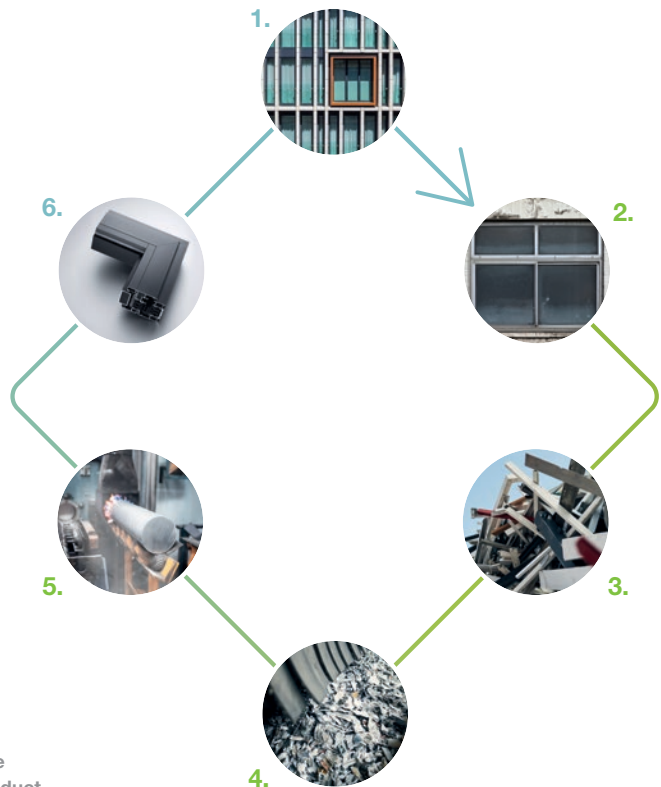
Hydro CIRCAL 75R contains a minimum of 75% post-consumer scrap. When guaranteeing more than 75% recycled content, Hydro exclusively refers to aluminium that has reached its end-of-life as a product in use and is brought back into the loop.

100 % Opportunities. 5 % Energy.

Aluminium is infinitely recyclable. Its quality and material properties are never lost. Furthermore, melting down end-of-life aluminium uses just 5 % of the energy required for primary aluminium production. So the higher recycled content of post-consumer scrap, the better it is for our cities and the environment.

Minimum CO2 footprint

Hydro CIRCAL has a carbon footprint among the lowest in the world: 2.3 kg CO2 per kilo of aluminium, 73% less than the European average).



1. Product in use
2. End of life product
3. Scrap sorting and pre-processing
4. Scrap processing and recycling
5. HYDRO CIRCAL 75R billets
6. Product Manufacture

All of our key products contain at least 75% recycled and 95% recyclable content – reducing the impact of materials on a building’s lifecycle.



100% RECYCLED POLYAMIDE

Sustainability doesn’t stop at the kind of aluminium we use, WICONA is one of the first system supplier to use thermal insulation strips made from recycled polyamide for the thermal insulation of its systems. Available as standard right away, no extra cost, with outstanding mechanical and physical properties and an excellent environmental performance.



CRADLE TO CRADLE CERTIFIED®

Cradle to Cradle Certified® is the global standard for products that are safe, circular and responsibly made. In 2017, WICONA systems were Cradle to Cradle Certified® at the Bronze level. Since then 14 system solutions have achieved C2C Certified Silver and 5 other systems, C2C Certified Bronze. WICONA is working continually to improve production standards to the next level.



ALUMINIUM STEWARD INITIATIVE (ASI)

ASI is the most internationally recognised standard to address environmental, social and governance (ESG) across the entire aluminium value chain. From bauxite mining to the production of semi-fabricated products, including the recycling of pre- and post-consumer scrap, the ASI assessment is based around sustainable aluminium production. Hydro was one of the first companies to achieve ASI certification and also the entire WICONA aluminium value chain is ASI certified.



EPD

Environmental Product Declaration (EPD) certificates are available for a WICONA system or design using our WICTOP software. Useful for many different applications, including public procurement and green building rating schemes, like BREEAM, LEED and DGNB, EPDs allow architects and other stakeholders to compare life-cycle environmental impacts of products (windows), materials (an aluminium billet), assembly parts and even services (like maintenance).

CERTIFICATIONS FOR SUSTAINABLE BUILDINGS

WICONA offers certifications of materials, products and manufacturing processes, which are helpful to certify the sustainability of buildings, with seals such as **LEED, BREEAM, DGNB, WELL.**





Pictures: © MEDIASHOTS

BEYOND PRODUCTS

By approaching sustainability holistically, we go beyond products to reduce the upfront and embodied emissions of the building's carbon footprint. By improving our operations, we aim to reduce our footprint by cutting CO2 emissions of our sites by 15% while reducing water consumption and waste.

We cannot improve our impact as a company if we do not create safe and responsible workplaces. By rethinking our commuting and business trips and by improving every detail in our workplace, from artificial light usage, to printing, recycling bins, or single-use plastics, we aim to reduce the carbon footprint of our activities and how we run our business by 50%.

We also take responsibility within our company by creating an engaging, inclusive and diverse working environment for our employees, who also pursue a responsible mindset in their activities.

BEYOND OUR COMPANY

We go beyond our company by contributing to create a fair society and a circular market together with our customers, suppliers and non-governmental organisations.

We take responsibility to have a positive influence on the market. By collecting post- and pre-consumer scrap from our customers, we are able to deliver recycled low-carbon aluminium with one of the lowest carbon footprints worldwide. Furthermore, in our value chain, we work together with suppliers, who share the same values, such as high standards for working conditions and the use of materials without hazardous components.

Focusing on society, WICONA is committed to empower 10,000 people with education and skills by 2025, as a positive impact on our community is crucial when it comes to being truly sustainable. To support the development of local communities we're sponsoring programs, leading presentations and courses at schools and supporting the construction of educational buildings. That's why WICONA has decided to cooperate with the Non-Governmental Organisations like UNICEF and WEbuilding. Our joint project with WEbuilding, an international group of



Pictures: © WEbuilding

architects, in Haiti is the construction of a school for the children in the Grand'Anse region, which is prone to natural disasters. WICONA's contribution will help to build an entire classroom for 30 children.

Together with the building system brands of Hydro we aim to cut by 50% our carbon emissions by 2025





Pictures: © Yakobchuk Olena - stock.adobe.com

GOING FORWARD

Recyclability and dismantlability are key when it comes to further reducing product-related carbon emissions. We will continue to:

- Develop circular products by using recycled and recyclable materials
- Develop products that can be easily disassembled and sorted
- Embrace the challenges of the circular economy by reusing materials for the same purpose as in their first lifecycle
- Ensure our systems are produced within a responsible supply chain and certified by external organisations for maximum transparency

All of our key products will contain at least 80% recycled and 100% recyclable content by 2030.

**One of the most challenging
shaping our future is the
that embrace ambitious and
prioritise environmental
respect all requirements.**



ing tasks in creation of buildings architectural design, responsibility and



» BARNE- OG UNGDOMS- SJUKEHUSET (BUSP)

Bergen, Norway

CONSTRUCTION BOARD

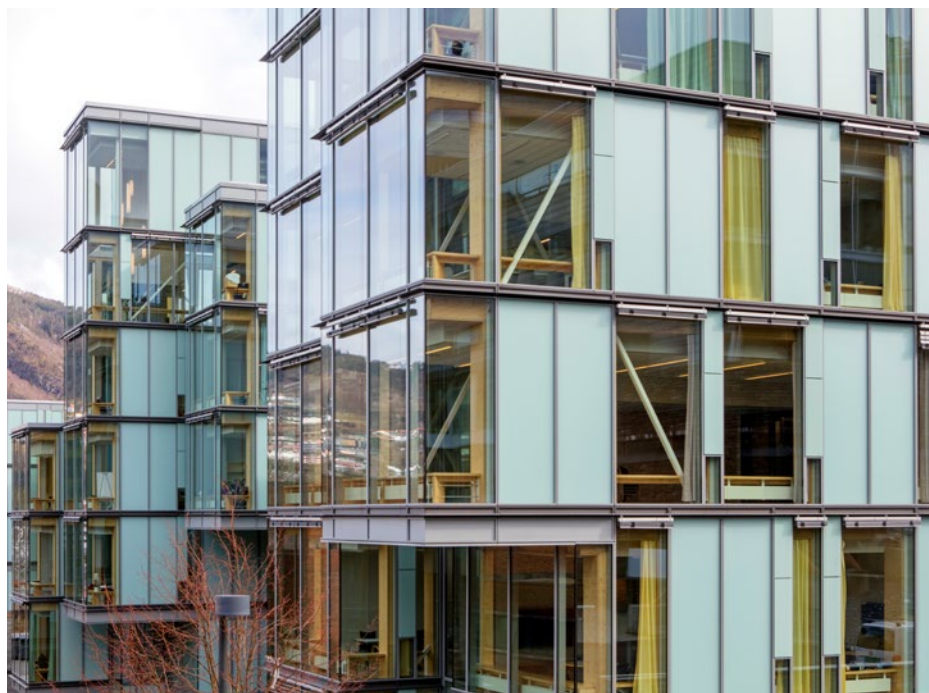
- Completion: 2016
- Architect: KHR Arkitekter AS, Rambøll Arkitekter AS and pka ARKITEKTER AS
- Fabricator: John Holvik AS, Hole Glass AS, Bolseth Glass AS

PROJECT SOLUTION

- WICTEC EL 60 façades
- WICTEC 50 HI curtain walls
- WICLINE 75 evo windows
- WICSTYLE 77 FP fire protection doors
- WICSLIDE 75 FD folding-sliding systems



Photos: © Hanne Cathrin Olsen



Photos: © Hanne Cathrin Olsen

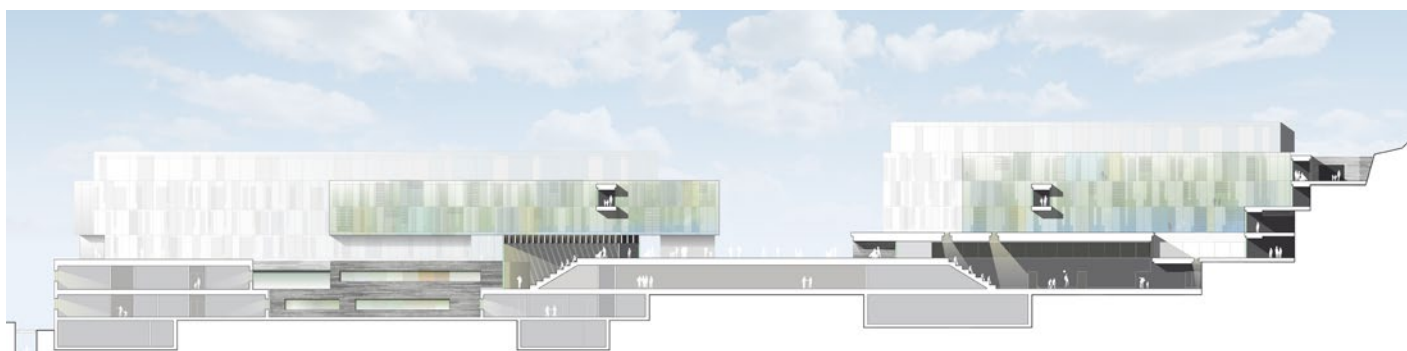
Barne- og ungdomssjukehuset (BUSP) is a university hospital for children and young people in Bergen, where the limit between interior and exterior has been eliminated. The purpose for this hospital was to gather all people under the age of 18, under the vision that “the experts should come to the children” and not vice versa. This means that medical treatment, school facilities and leisure activities should be located close to each other.

From the architects’ point of view, the building should communicate trust, quality and openness – and it should be inspiring for all people operating within the building. The building must also function effectively whilst creating an open and welcoming atmosphere. A central focus for the architects was to maximise the daylight and the view from the inside.

The solution for the façade was a special adapted WICTEC EL 60 unitised façade solution with maximum transparency and high thermal performance. Glazed surfaces from floor to roof and stepped glass corners create spectacular views over the surroundings and provide daylight, which reduces the need for artificial light in the building. The elements were prefabricated in the workshop, leading to a shorter mounting process at the building site - not dependent on weather conditions.

In the façade elements the WICLINE 75 evo window system was integrated, as outward opening ventilation flaps. Thus, they enhance the interior comfort and gives the façade an additional dimension. Additionally, the sliding system WICSLIDE 65 FS was integrated in the façade to enable access to outdoor areas in most of the rooms, which also was an important aspect when creating the feeling of openness. The interior climate was further enhanced by a mechanical solar shading system, naturally integrated in the elements.

For the ground floor and internal walls, the stick system curtain wall WICTEC 50 HI with a high thermal insulation was used. To protect the assets and people inside the building, the WICSTYLE 77 FP fire protection door system was installed.





Photos: © Conne van d Grachten



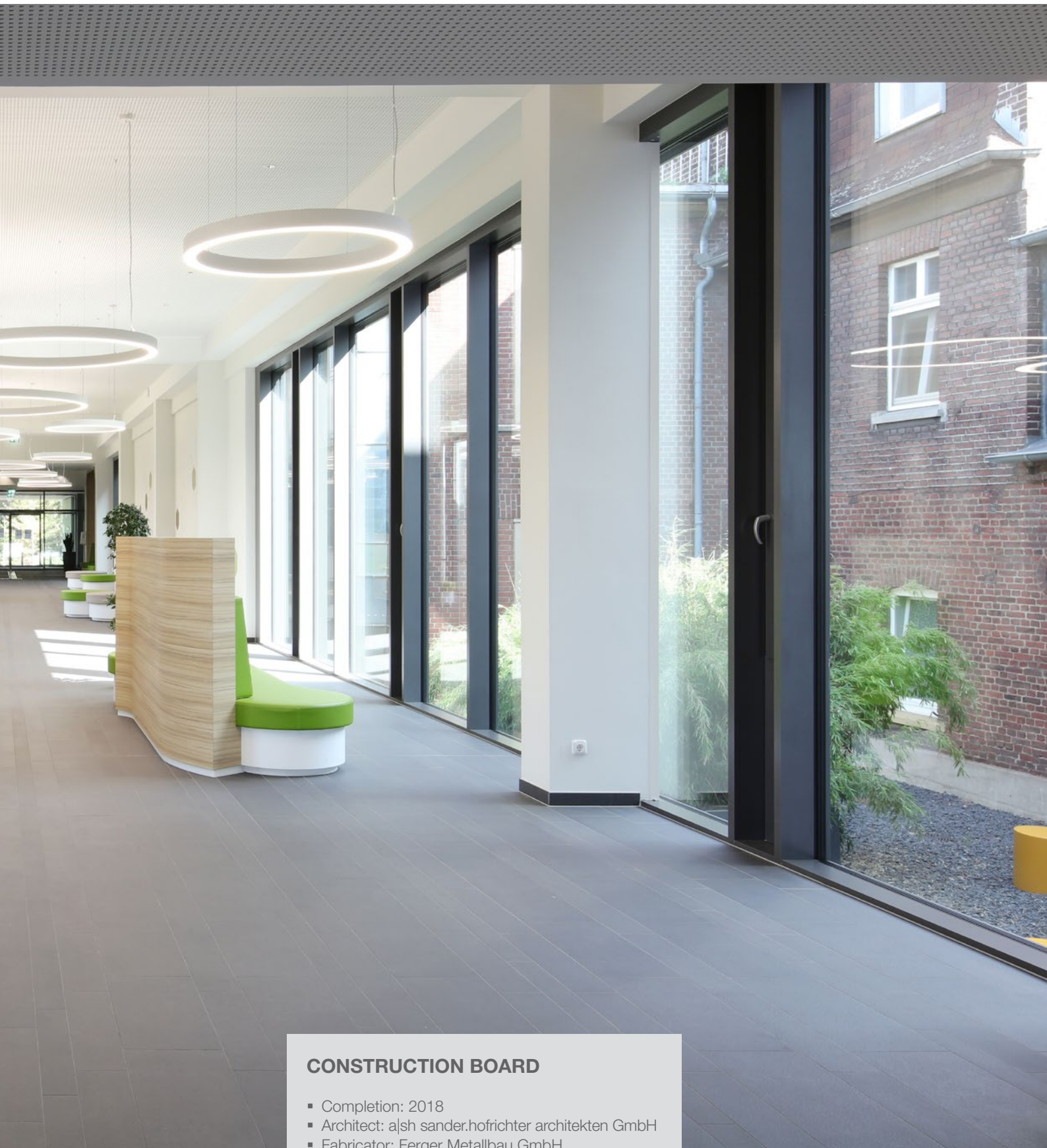
Photos: © Conne van d Grachten

» KLINIK KÖNIGSHOF ABTEILUNG FÜR ALLGEMEINE PSYCHIATRIE

Krefeld, Germany







CONSTRUCTION BOARD

- Completion: 2018
- Architect: alsh sander.hofrichter architekten GmbH
- Fabricator: Ferger Metallbau GmbH

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICLINE 75 evo windows
- WICSTYLE 75 evo doors

Photos: © Conne van d Grachten



Photos: © Franck Deletang

» HÔPITAL DE MAUBEUGE

Maubeuge, France

The new hospital in Maubeuge, located a few kilometres from the current hospital, has a surface area of 34 000 m² and a capacity of 265 beds. The facility will thus strengthen and modernise healthcare services in the Sambre-Avesnois region. It includes an emergency room, hospital and intensive care units, an outpatient platform and logistics and tertiary functions.

In order to achieve the greatest possible flexibility for the interior spaces, SOBATAL and WICONA proposed adapting the WICLINE 65 HI system solution with concealed leaves to the modulation requirements of the spaces in the building. To increase the comfort of patients and staff, SOBATAL also recommended the use of a secure opening system with a lock integrated into the handle, allowing an opening of 11 cm to ensure natural ventilation and complete opening for cleaning.

“In this context, the biggest challenge was to allow a lot of natural light into the building,” explains Vasiliki Noula of Brunet Saunier Architecture. Therefore, the WICTEC 50 façade solution for the three courtyards on the ground floor was the obvious choice. “The system is easy to install and met the requirements of the project,” says Gérald Langlet of SOBATAL. In the main street, with its floor-to-floor glazing, the slimline and extensively adaptable WICTEC 50 system lets light into the building’s inner courtyards.



Photos: © Franck Deletang

CONSTRUCTION BOARD

- Completion: 2021
- Architect: Brunet Saunier Architecture
- Fabricator: SOBATAL

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICLINE 65 HI windows
- WICSTYLE 65 doors



» EHPAH À CALAIS

Calais, France





Photos: © Franck DELETANG

CONSTRUCTION BOARD

- Completion: 2016
- Architect: IODA Architects
- Fabricator: Roger Dufeutrelle

PROJECT SOLUTION

- MECANO façades
- WICLINE 65 windows
- WICSTYLE 65 doors





» UNIVERSITÄTSKLINIKUM ULM

Ulm, Germany

CONSTRUCTION BOARD

- Completion: 2015
- Architect: KSP Jürgen Engel Architekten GmbH
- Fabricator: Dodel Metallbau GmbH

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICLINE 75 evo windows

Designed by Munich-based architects KSP Engel and Zimmermann, the state-of-the-art 70,000 m² medical facility in Ulm is the largest hospital in the region of Baden Württemberg, Germany, providing 235 ward beds, 80 intensive care beds and 15 operating rooms. Following the completion of the surgical department, the project has been presented with a prestigious architectural award from the German Architects Association. Since then, the energy-efficient building has served as a showcase project, whose design has influenced other developments in the healthcare sector.

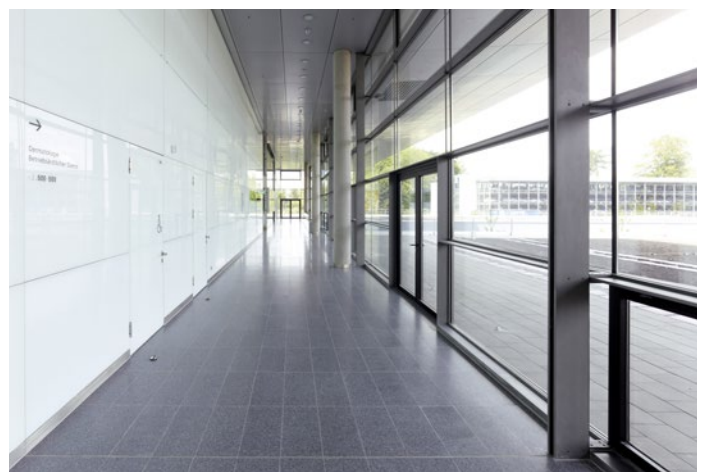
The new facility brings together six departments that were previously spread across several locations, improving standards of care. A key aspect of the design brief was to create a spacious and bright interior, and a building that blends well with its surroundings.



Photos: © Conné van d Grachten

The transparent areas of the façade were realised with the WICTEC 50 stick system curtain wall, which has a horizontal emphasis and large glass areas, contributing to a friendly and pleasant atmosphere for patients, staff and visitors to the hospital.

In addition, highly insulated WICLINE 75 evo casement windows were inserted into the glazing for a seamless finish. The window openings are fitted with multi-coloured glass to add interest to the front and rear elevations, bringing colour and light into the patient rooms to aid recovery and create a sense of well-being. By using both systems, it was possible to obtain maximum natural light and look out onto the green spaces.



» CENTRE MÉDICAL L'ÉGRÉGOR

Caveirac, France



Photo: © Herve FABRE-Photographies

RE







Photos: © Herve FABRE-Photographies



CONSTRUCTION BOARD

- Completion: 2016
- Architect: Groupe-6 architectes
- Fabricator: Entreprise Gargini

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICLINE 65 HI windows
- WICLINE 65 windows
- WICSTYLE 65 doors



Photos: © Conné van d Grachten



Photos: © Conné van d Grachten



» STADTRESIDENZ AM PARK

Heidelberg, Germany

CONSTRUCTION BOARD

- Completion: 2008
- Architect: KÖRKELE BEIERLEIN ARCHITEKTEN PartG mbB
- Fabricator: Wäcker Metallbau GmbH

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICLINE 75 evo windows
- WICSTYLE 75 evo doors



» KELLS PRIMARY CARE UNIT

Co. Meath, Ireland





Photos: © phot. Jed Niezgodą www.venidipfoto.net

CONSTRUCTION BOARD

- Completion: 2015
- Architect: Studio Blue Architects
- Fabricator: Hodgins Architectural Facades

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICLINE 65 windows
- WICSTYLE 65 doors





KAISER'S





MOHRE



» FAZ FACHARZTZENTRUM

Bonn-Beuel, Germany

CONSTRUCTION BOARD

- Completion: 2017
- Architect: bob-architektur BDA
- Fabricator: Ferger Metallbau GmbH

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICLINE 75 evo windows
- WICSTYLE 75 evo doors



Photos: © Conné van d'Grachten





Photos: © Conné van d Grachten





Photos: © Conné van d Grachten

» DIAKONISSENKRANKENHAUS SCHLADMING

Schladming, Austria

CONSTRUCTION BOARD

- Completion: 2006
- Architect: Nickl & Partner Architekten AG
- Fabricator: GIG - Fassadenbau GmbH

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICLINE 75 evo windows

» CENTRE HOSPITALIER
JACQUES COEUR

Bourges, France





CONSTRUCTION BOARD

- Completion: 2014
- Architect: ARCHITECTURE architecte
- Fabricator: Cancé Aluminium

PROJECT SOLUTION

- MECANO façades
- WICLINE 65 windows
- WICSOLAIRE solar shading



Photos: © Patrick Loubet

» UNIVERSITÄTSKLINIKUM FRAUEN- & KINDERMEDIZIN

Leipzig, Germany



Photos: © Conne van d Grachten



Photos: © Conne van d Grachten



Photos: © Conne van d Grachten



CONSTRUCTION BOARD

- Completion: 2011
- Architect: Wörner & Partner
- Fabricator: Klotz Metallbau GmbH

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICLINE 75 evo windows
- WICSTYLE 75 evo doors





Photo: © Conne van d'Grachten

» NATIONALES CENTRUM FÜR TUMORERKRANKUNGEN (NCT)

Dresden, Germany





Photos: © Frank Blümner

CONSTRUCTION BOARD

- Completion: 2020
- Architect: wörner traxler richter planungsgesellschaft mbH
- Fabricator: Radeburger Fensterbau

PROJECT SOLUTION

- WICTEC 60 curtain walls
- WICLINE 75 evo windows
- WICSTYLE 75 evo doors



» MEDICINAREN & NEO

Huddinge, Sweden





Photos: © Magnus Fjörberg

CONSTRUCTION BOARD

- Completion: 2017
- Architect: Tengbom
- Fabricator: Staticus

PROJECT SOLUTION

- Double skin façade based on WICLINE 75 evo windows
- WICLINE 75 evo windows
- WICLINE 90 SG windows
- WICSTYLE 75 evo doors
- WICSTYLE 65 evo doors (push-pull)
- WICTEC 50 SG curtain walls
- WICTEC 50 curtain walls
- WICSLIDE 160 sliding systems



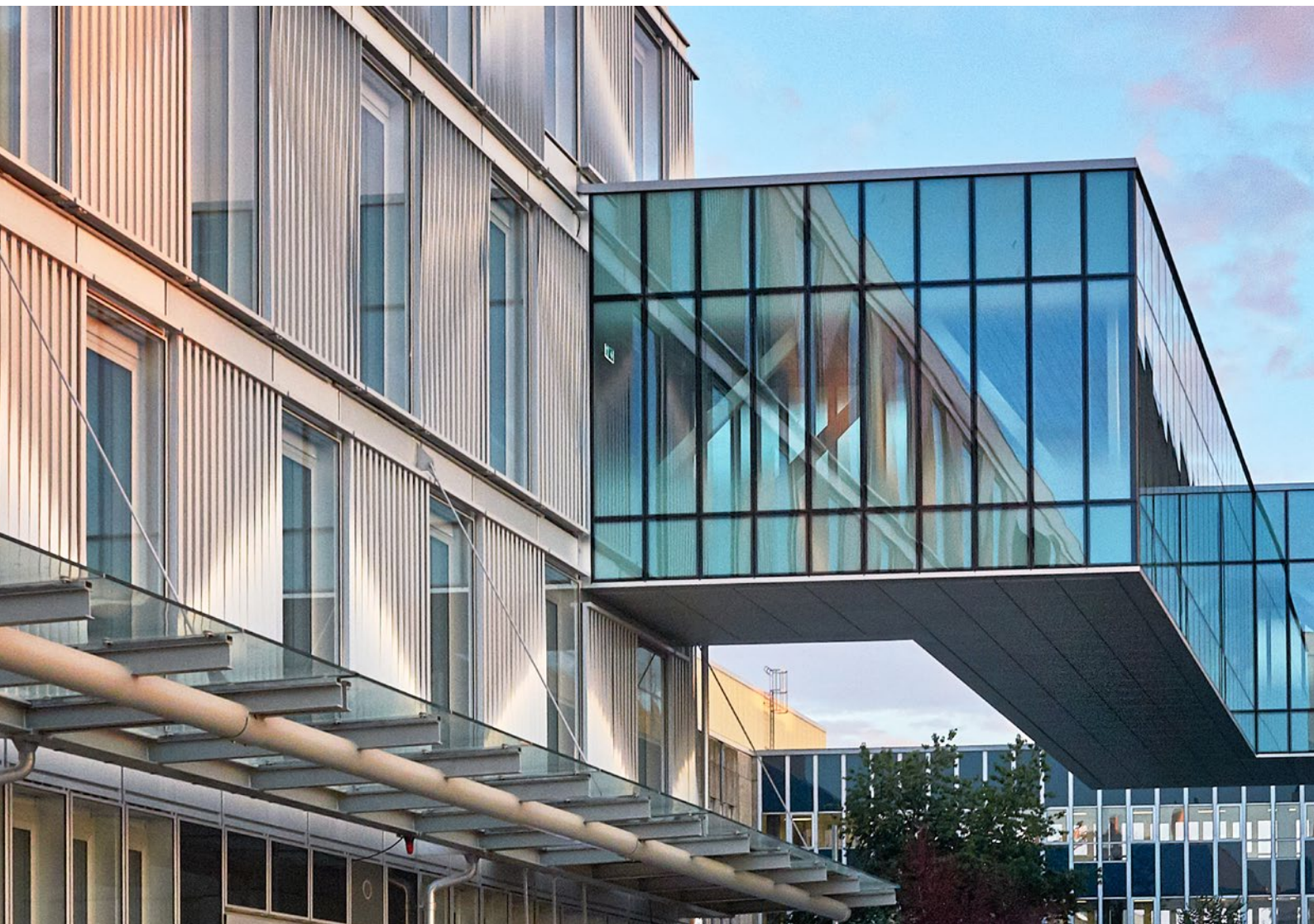
Photos: © Magnus Fröderberg



Photos: © Magnus Fröderberg



Photos: © Staticus



» LKH VÖCKLABRUCK

Vöcklabruck, Austria





Photos: © Rüdiger Ettl

CONSTRUCTION BOARD

- Completion: 2008
- Architect: Moser architects
- Fabricator: GIG Fassadenbau GmbH

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICTEC EL evo façades
- WICLINE 115 AFS windows
- WICLINE 75 evo windows



A photograph of a modern building with a prominent wooden staircase and a glass facade. The building features a large, multi-level structure with a white canopy supported by columns. The sky is blue with some clouds. The text is overlaid on the top half of the image.

You do not have
to reinvent the wheel
to make it better

ve
e world
ter.



Photos © François Maura



Photos: © Francois Moura



Photos: © Francois Moura



Photos: © François Moura

» HÔPITAL DE LA TIMONE

Marseille, France

CONSTRUCTION BOARD

- Completion: 2014
- Architect: Aart Farah Architectes associés
- Fabricator: Metalsigma, Kyotec

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICLINE 65 windows



Photos: © Sergio Grazia - Photographe





Photos: © Sergio Grazia - Photographe

» CENTRE HOSPITALIER LE VINATIER

Bron, France

CONSTRUCTION BOARD

- Completion: 2015
- Architect: Agence Michel Beauvais
- Fabricator: Gauthier

PROJECT SOLUTION

- WICTEC 50 curtain walls
- WICSTYLE 65 doors

» HÔPITAL ROBERT SCHUMAN

Metz, France

The Robert Schuman Hospital, the result of the merger of the Belle Isle, Saint André and Sainte Blandine hospitals, was opened in March 2013. This advanced building was designed by the architectural office AIA (Architectes Ingénieurs Associés), which covers an area of 38 264 m² and has 284 rooms, 15 operating rooms and 16 intensive care beds. The state-of-the-art hospital building is modular according to needs, so that new buildings can be added without architectural interruption.





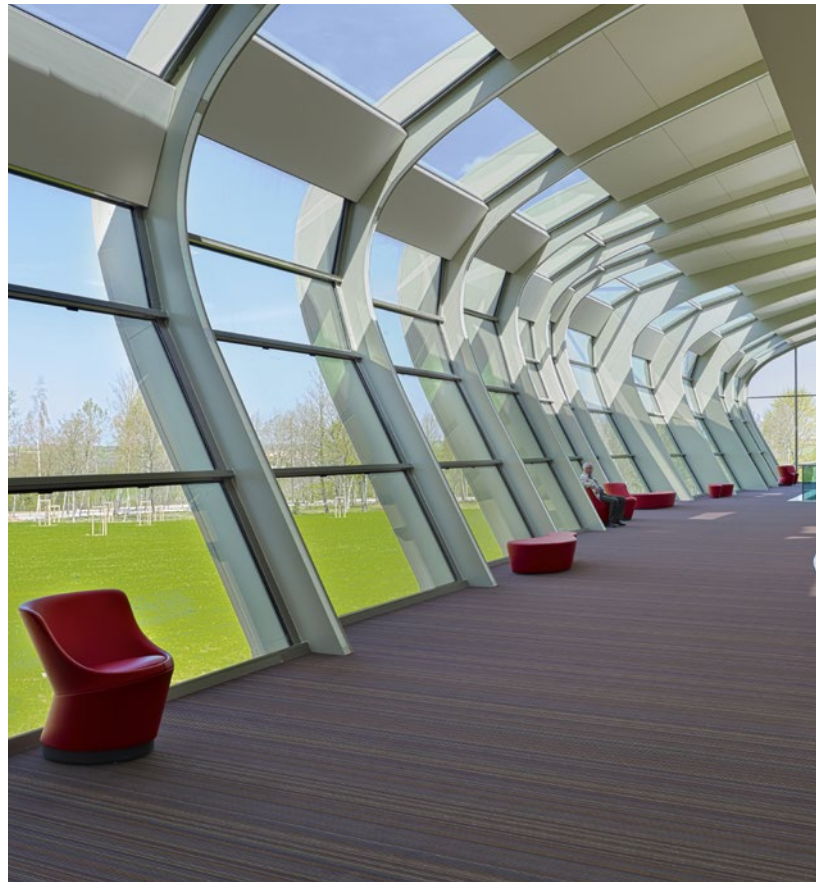
Photos: © PhotoFiltre 7

CONSTRUCTION BOARD

- Completion: 2013
- Architect: AIA (Architectes Ingénieurs Associés)
- Fabricator: Alu-Badré / Brayer SAS

PROJECT SOLUTION

- MECANO curtain walls
- WICLINE 65 windows



» KLINIKUM REINKENHEIDE

Bremerhaven-Reinkenheide, Germany





Photos: © Conné van d'Grachten

CONSTRUCTION BOARD

- Completion: 2012
- Architect: wörner traxler richter planungsgesellschaft mbH
- Fabricator: Christophe Lenderoth GmbH,
Heinrich Kammeyer Metallbauplanung

PROJECT SOLUTION

- WICTEC EL evo façades
- WICLINE 115 AFS windows
- WICSTYLE 77 FP fire protection doors



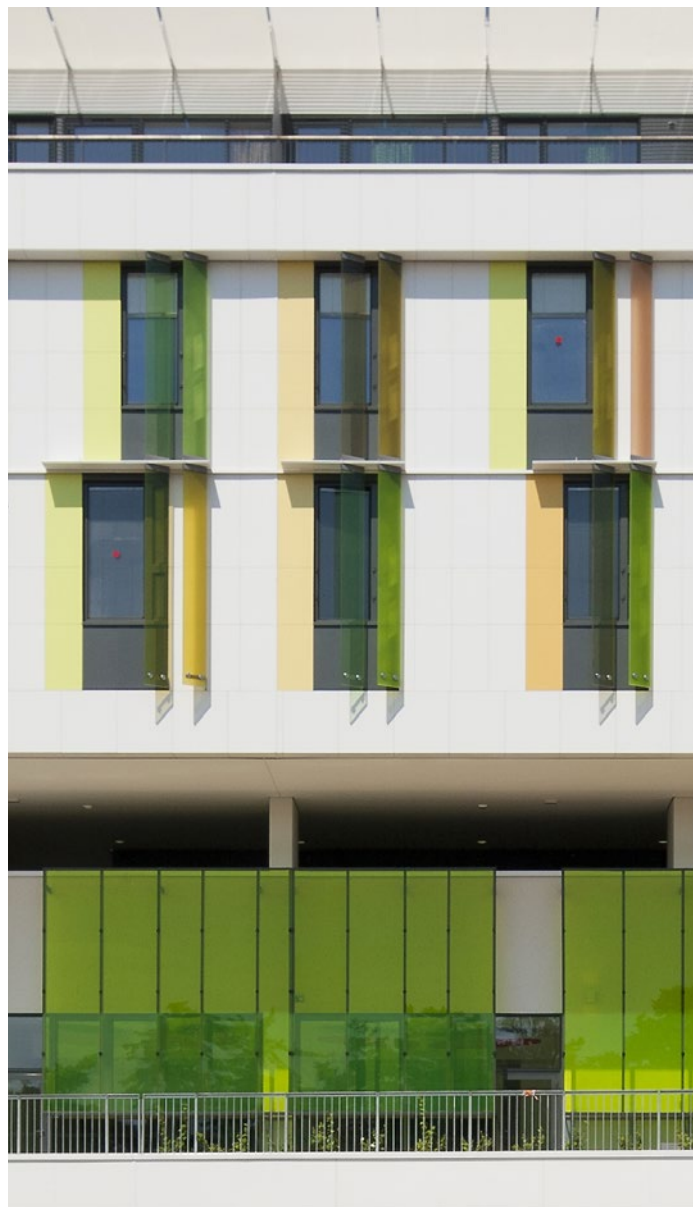


» HCR ORLÉANS

Orléans, France



Photos: © Mathieu Ducros, Opictures



CONSTRUCTION BOARD

- Completion: 2015
- Architect: Groupe 6
- Fabricator: MARTIFER GROUP Zona Industrial

PROJECT SOLUTION

- WICLINE 115 AFS composite windows



» CHU HÔPITAL DE SÈVRES

Sèvres, France



Photos: © Nicolas Borel



CONSTRUCTION BOARD

- Completion: 2011
- Architect: Cabinet Atelier 11
- Fabricator: France Façades

PROJECT SOLUTION

- MECANO VEC (Structural-Glazing)
- WICLINE 65

» YOUR PARTNER FROM THE START

The WICONA support team has many years' experience, and will support you through your project – with planning, technical drafts, calculations and drawings.

At WICONA, we know the importance of local contacts and fast, efficient support in project planning and implementation. We also know that a global reference and knowledge base is invaluable in all phases of the construction process. WICONA combines both of these strengths.

With our local presence, we make sure you always get the support you need for efficient, optimum planning. We will work together to design the perfect solution for your specific project, with regular meetings and a close dialogue.

We offer you a strong reference portfolio of global WICONA projects realised worldwide. With our know-how and support, you can rely on us throughout the whole process, whatever the nature of your project.

Beyond the richness of its catalogue, WICONA has developed a renowned know-how and established a team for special projects situated in Germany and Poland. More than 30 engineers are working on special projects with bespoke designs for large international architectural projects. This guarantees the quality and homogeneity of the WICONA range, gathering, adapting and approving all the products in accordance with the technical requirements and test certificates.

For each design, its experts control the process from start to finish, ensuring that all performance commitments are met.





Photos : © Conné van d'Grachten

Test Centre Bellenberg

The Test Centre in Bellenberg in Germany was founded in 2009 and is one of the most modern Test Centres in Europe. In two areas of 100 square metres each, you have the possibility to test your windows, doors and façades according to a wide range of test specifications.

Individual tests are required for special designs, project solutions and generally for requirements that deviate from the system tests according to the product standards within the scope of CE marking. If the façades pass all tests, they receive the CE certificate, which confirms that the façade complies with the European guidelines and may be sold throughout Europe. The test facilities are coordinated with the renowned institute ift Rosenheim. On this basis, individual test programs according to customer specifications are possible, as well as tests by ift Rosenheim as an accredited/notified testing institute.

As a competent partner with extensive experience in testing of system products and project solutions, we can support you with our knowledge and expertise. The WICONA Technology Centre with its workshop is directly located next to the Test Centre, so that any necessary measures can be implemented immediately on site. Our modular test rigs for curtain walls, windows and fittings are flexible and can be adapted up to maximum sizes of 10 x 10 metres. On these test rigs we can execute various tests, such as air permeability, tightness, wind resistance and much more. In addition, we can offer a compression/tension tester and a hot box.

Overall, we are able to deliver quickly and on time as our "inhouse" test rig enables to carry out tests throughout the year, irrespective of the weather, ensuring that we reliably meet deadlines.

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