



SCHÖCK ISOKORB®

Thermal break technology you can trust.



Structural thermal breaks for the
insulation of balconies, access
balconies and canopies connections.



“Schöck provides me opportunities to implement design solutions that would not be possible under the current energy saving requirements or would only be possible to a limited extent.”

Roland Bondzio, Partner with Behet Bondzio Lin Architekten, Münster

THE CHALLENGES

Construction today influences life tomorrow.

The goal: A 30% improvement in global average building energy intensity (in terms of energy use per m²) is necessary by 2030 in order to meet ambition set forth in the Paris Agreement to limit global average temperature rise to 2°C or below. Global Status Report 2017, United Nations Environment

Buildings and construction account for more than

35%

of global final energy use. They represent nearly

40%

of energy-related CO₂ emissions.

Global Status Report 2017, United Nations Environment

More than

50%

of the residential energy consumption is due to space heating and cooling.

(www.iea.org/reports/energy-efficiency-indicators-2020)

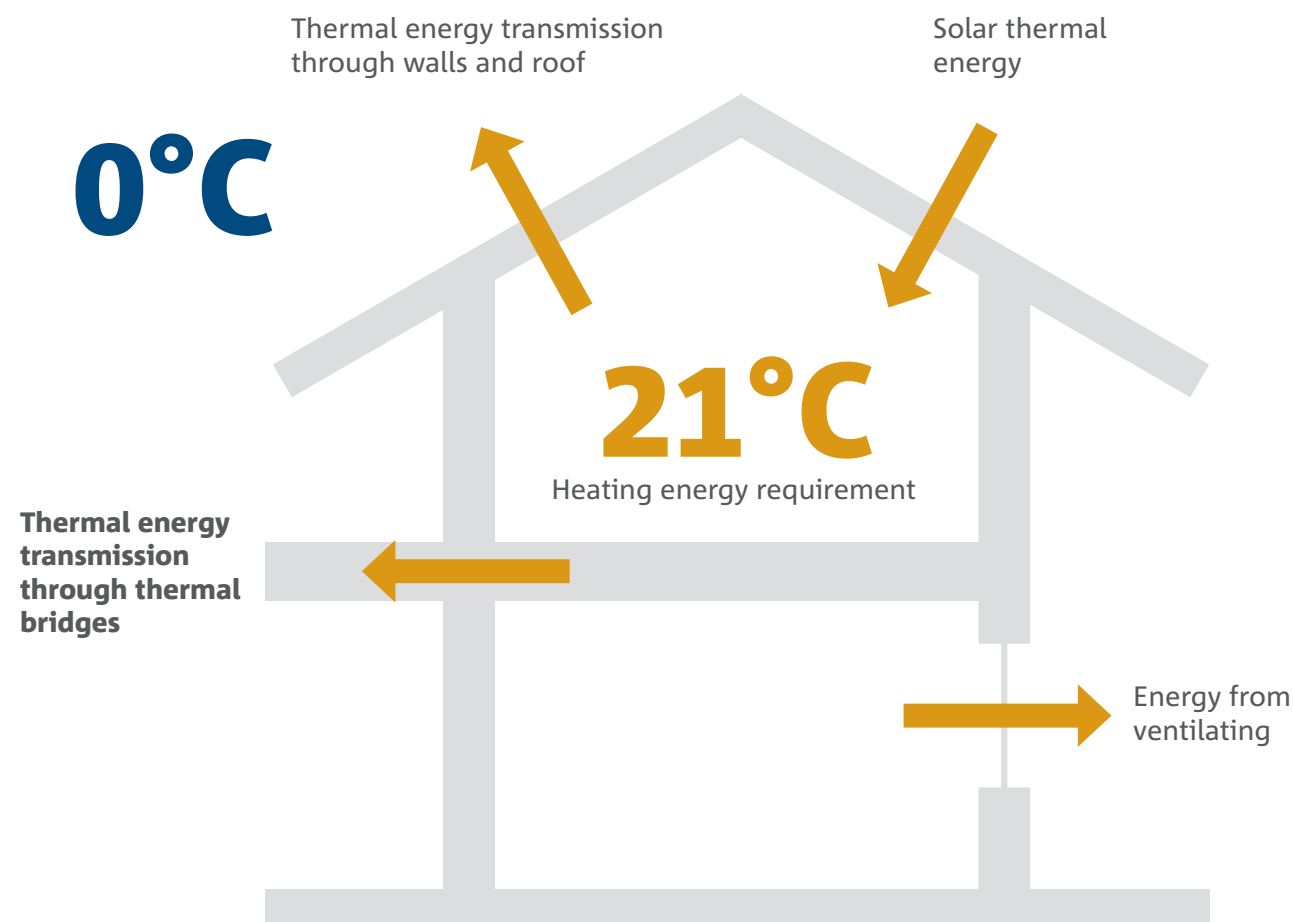
50

years is the planned useful life for all buildings.

ENERGY FLUX

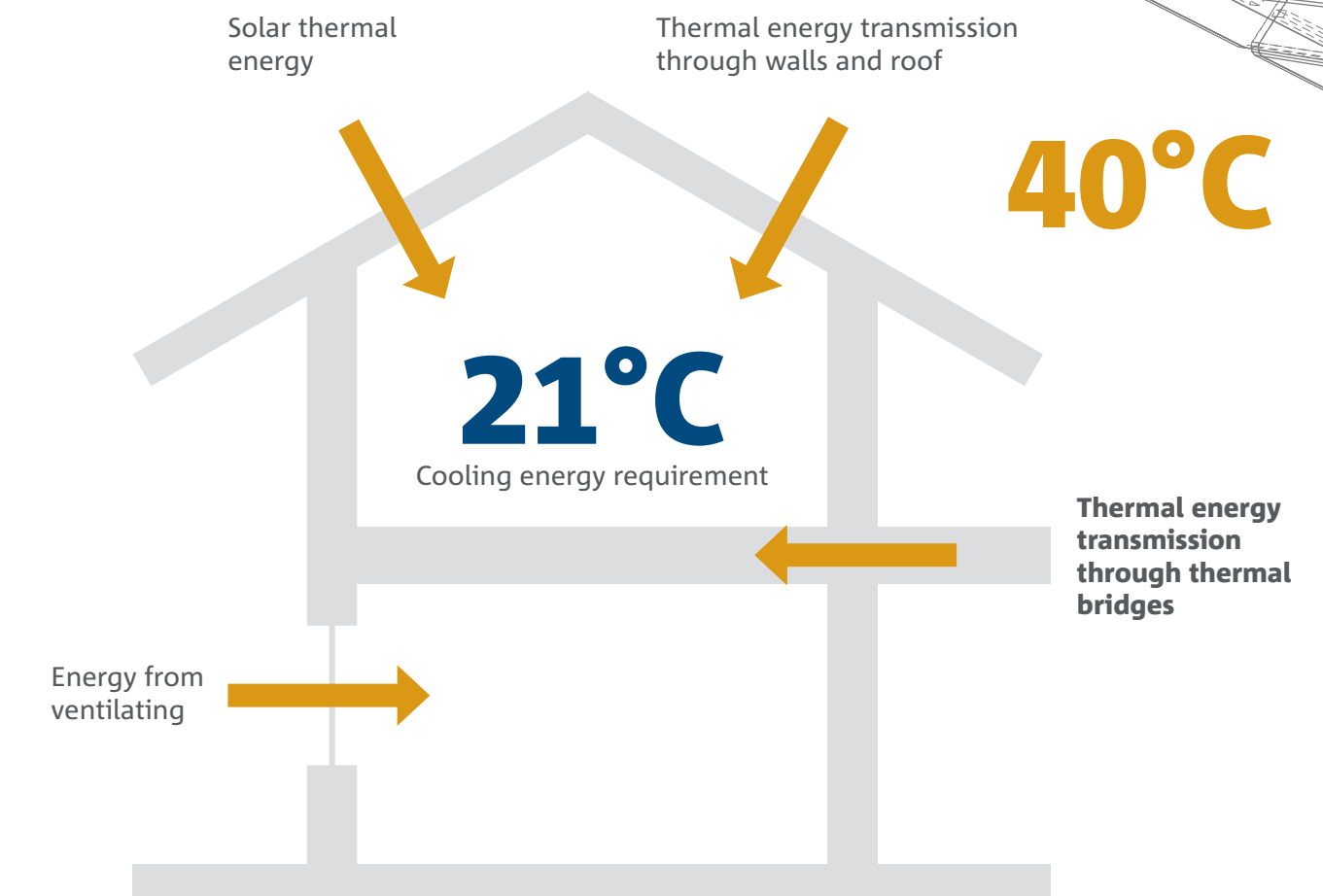
A perpetual flow – from warm to cold.

Thermal bridges are one of the major areas in a building where the energy flux occurs since they can produce up to 25% of the whole energy losses. As a result, some parts of the building have a different temperature than the rest of the structure often leading to condensation, mold growth and even structural damage that affect the durability of the building and may cause severe safety issues.



COLD ENVIRONMENT

The designer aims to maximize solar thermal energy ingress and minimize energy egress. Energy going out needs to be balanced by the heating system. Improving thermal efficiency allows the installation of a smaller and cheaper heating system and uses less energy to operate.



HOT ENVIRONMENT

The designer aims to minimize all kind of energy ingress. Energy going in needs to be balanced by the air conditioning system. Improving thermal efficiency allows the installation of a smaller and cheaper cooling system and uses less energy to operate.

SAME COMFORT

Different situations – One solution.

The Schöck Isokorb® is lined up with the insulating envelope to re-establish its continuity. It prevents the energy flowing through the thermal bridge thus improving the effectiveness of the building envelope and solving the associated issues. The Schöck Isokorb® provides the best comfort and ensures the best quality and durability of the building to your customers and investors.



A HUGE IMPACT

Thermal bridging at balconies.

The Schöck Isokorb® reduces the heat losses by up to 90%. Its exclusive characteristics and technologies are the result of almost 40 years of continuous R&D. The Schöck Isokorb® is a unique thermal break and the most efficient on the market, and therefore makes from your building a comfortable, safe and long-lasting investment.

An exclusive combination of high-end materials such as glass-fibre tension bars and fiber reinforced ultra-high-performance concrete for high resistance and durability.

Dependable quality

The thermal break Schöck Isokorb® is made from an insulating material with structural elements going through it. Those elements have been developed to ensure a proper transfer of all loads over the lifetime of the building. On top of that, the Isokorb® offers a fire protection up to 120 minutes.



Insulating while bearing loads

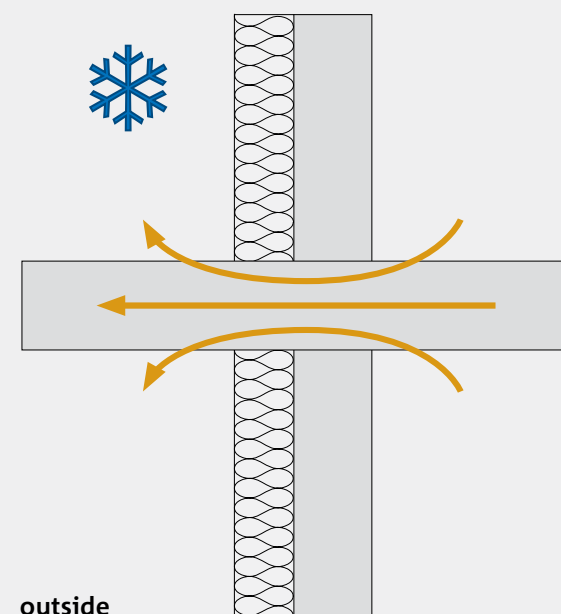
Schöck Isokorb® plays two key functions:

- Supporting the own weight and all other loads from the balcony.
- Closing the insulating envelope and therefore preventing the energy flow through the thermal bridge.

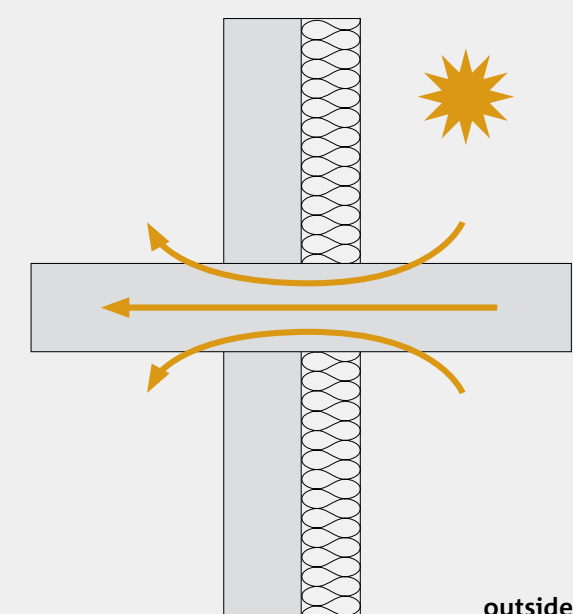
No further elements are required to carry forces from the balcony or extra insulation to reduce the energy flow.

A linear solution for the same level of efficiency all along the thermal bridge.

Cold environment



Hot environment



FREEDOM OF DESIGN

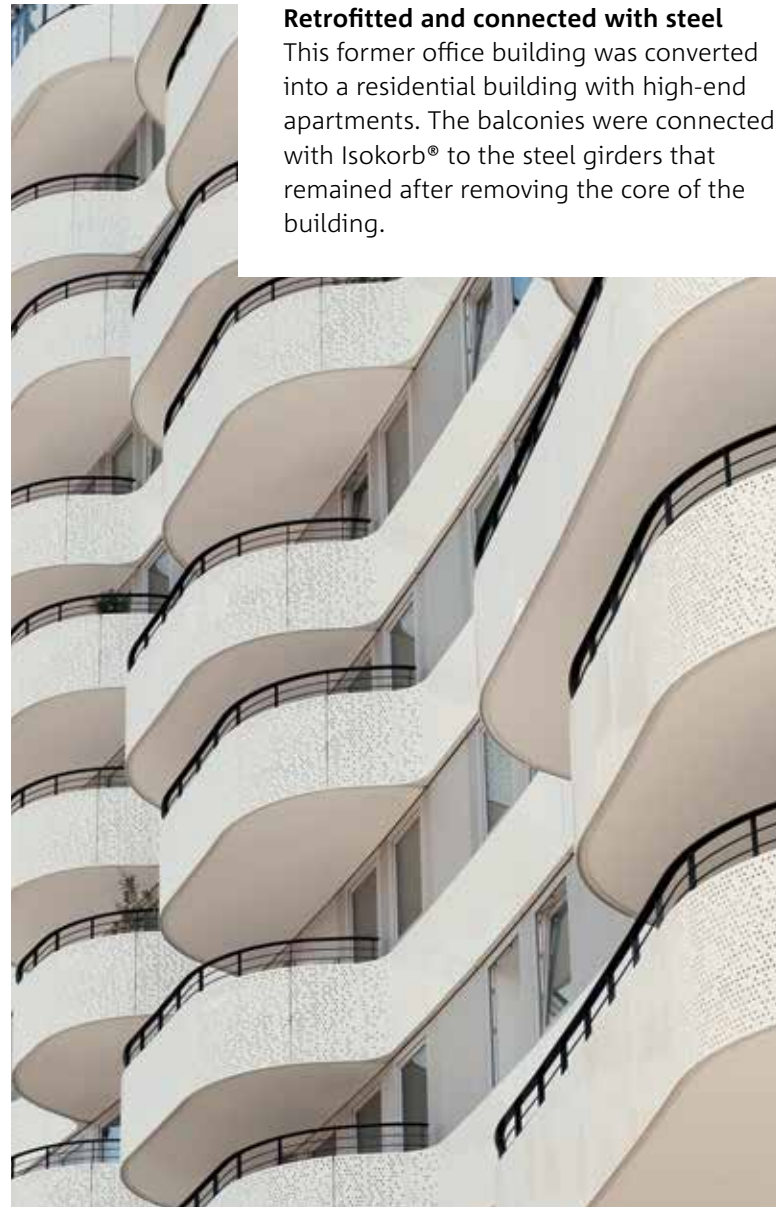
Create balconies in your own unique style.

Balconies are a prominent feature of architecture and give their personality to the building. The Schöck Isokorb® allows you to design the most appealing balconies and buildings with the highest efficiency requirements. It has been used for decades in all types of building, from the simplest balconies to fanciest ones.



Covering the corner of the building

The design of these balconies enables the residents to enjoy different perspectives while lingering on their balconies or patios. Seen from the outside, the corners of the building elegantly disappear behind the balconies.



Retrofitted and connected with steel

This former office building was converted into a residential building with high-end apartments. The balconies were connected with Isokorb® to the steel girders that remained after removing the core of the building.



Elegant and spacious

The continuous balconies along the entire facade determine the design of this transformed building. These retrofit balconies are very spacious and span two to three and a half meters depending on the part of the building.

Colourful and eye-catching

This intriguing building stands out from neighbouring blocks – and not just because of its colourful finish. The large protruding cantilever balconies are a major feature, made possible by using Schöck Isokorb® thermal breaks.



VERSATILE APPLICATION

Schöck Isokorb® meets your strongest requirements.

The Schöck Isokorb® can be used in residential, commercial, or industrial buildings, wherever a structural element penetrates the insulation envelope, creating a thermal bridge. They can also connect various materials, like concrete, steel, or wood. Those properties make them widely used on all continents for high-requirement projects.

Djamaâ El Djazaïr Mosque, Algiers

The Great Mosque is the third largest mosque in the world. Most of the exterior facade is covered with natural stone while its 265-meter minaret is crowned by a modern glass structure. Thermal breaks of Schöck were installed to avoid thermal bridges in this hot and humid climate.

Architect: KSP Jürgen Engel Architekten, Germany



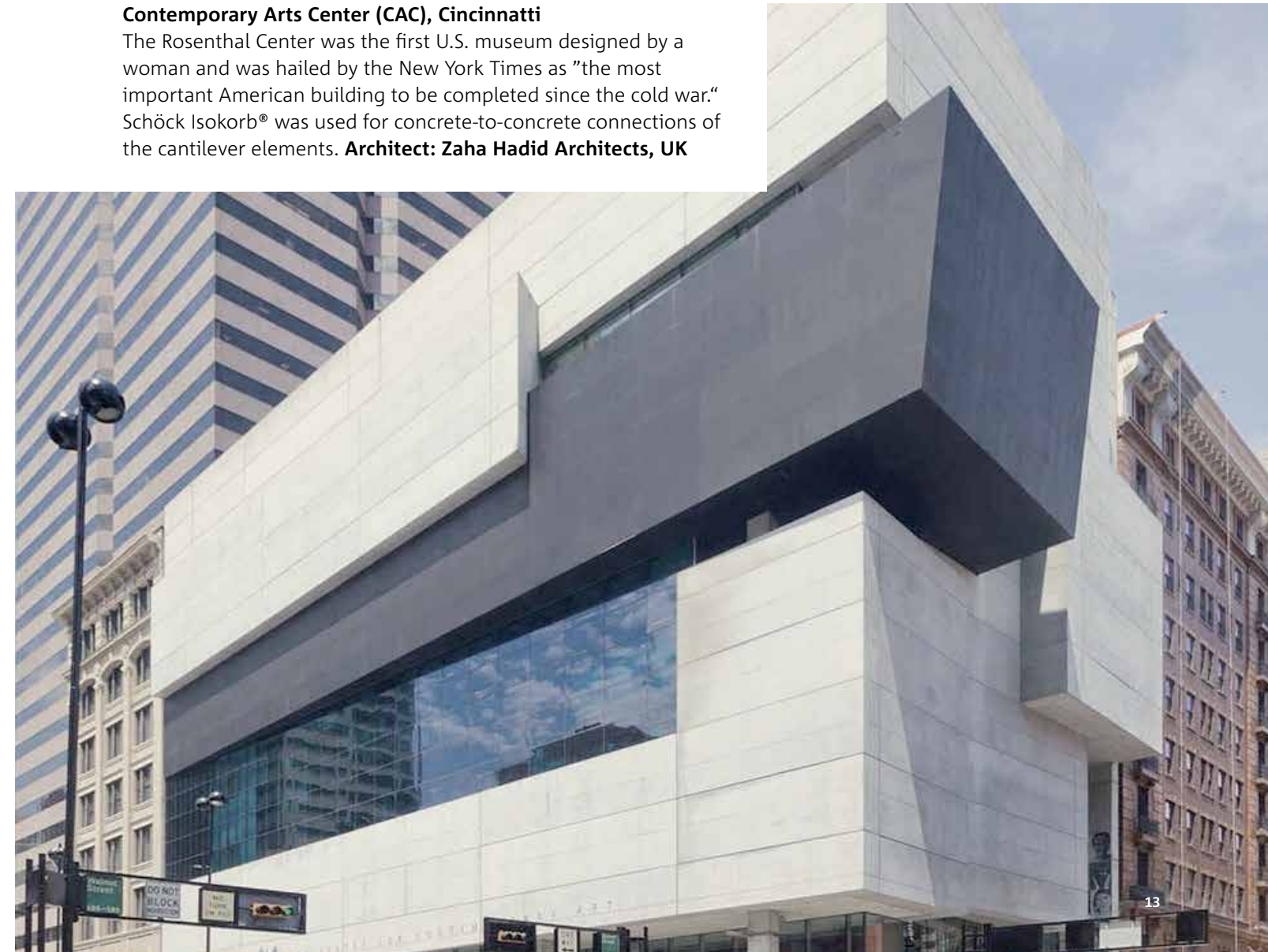
Comandante Ferraz Station, Antarctica

To mitigate what may be the most extreme example of thermal bridging in the world, the project team deployed 218 Schöck Isokorb® structural thermal breaks between the building's interior steel-framing and its exterior steel support pillars and staircases.

Architect: Estúdio 41, Brazil

Contemporary Arts Center (CAC), Cincinnati

The Rosenthal Center was the first U.S. museum designed by a woman and was hailed by the New York Times as "the most important American building to be completed since the cold war." Schöck Isokorb® was used for concrete-to-concrete connections of the cantilever elements. **Architect: Zaha Hadid Architects, UK**



WORKING WITH SCHÖCK

Your projects in expert hands.

Schöck's headquarters are located in Germany. The company was founded in 1962 by Eberhard Schöck who invented the thermal break solution Schöck Isokorb® in 1983 and the Schöck Tronsole® – a solution for the impact sound insulation of staircases – in 1985. Since its introduction on the market over 16 millions Schöck Isokorb® have been installed worldwide. We are constantly striving to improve our products in collaboration with international partners, so you can be sure of opting for the right product each time – no matter where you and your project are.



An international company

In addition to its headquarters in Germany, Schöck operates 13 international sales offices and is represented by partners in 17 more countries. Furthermore our dedicated international team in Baden-Baden supervises and takes charge of all inquiries coming from the rest of the world.



Open transfer of expertise

Our thermal solutions have changed how designers and builders work in many markets. And the superior quality and safety of our products set the benchmark for energy efficient and convenient construction. We greatly appreciate feedback from our customers. Many ideas that reach us straight from the building site are incorporated into the development of new products.



ICC-ES issues technical approvals for building products in the US



European Technical Approval (ETA) with CE mark

Worldwide research and development

Architecture is constantly facing new challenges from new style trends to stricter energy regulations and new construction materials. This is why Schöck cooperates with the world's leading research institutes and universities. By working on joint projects and exchanging lessons learned, Schöck can continuously improve its products and extend its technological lead.

Certifications and approvals

The requirements in terms of construction products are not the same everywhere. So it is reassuring to know that Schöck solutions have been certified in a wide range of geographies from impartial and internationally acknowledged institutes.

Schöck supports you

Our in-house engineering and sales team can help. Whether your solution is standard or customized, we ensure you are in safe hands, starting at the planning stage. Our experienced international team can offer you expert support tailored to your individual project requirements, answering your questions on structural design or installation and offering advice over the telephone or by e-mail, including detailed calculations and solutions for your specific project.

■ Tender support

Help in creating or answering tenders.

■ Design support

Ensure correct and efficient application of Schöck solutions.

■ Customized solutions

For non-standard requirements or installation situations.

■ Technical proposals

Help with any structural questions you may have.

■ BIM libraries

For the integration of detailed Schöck applications into your overall building plans.

■ Layout plans, details and section drawings

Customized to fit your specific project.

COMPREHENSIVE EXPERTISE

Dependably the right solution.

With forward-looking product solutions and systems, we fulfill the structural, static and design requirements for various building components and applications in new and existing buildings. Our focus lies in particular on the reduction of thermal bridges, impact sound insulation and reinforcement technology.

Balcony, access balcony
and canopy



Wall, column



Roof superstructure



Façade



Slab



Stairs



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