Building for the future.

Whether you are a real estate developer, a contractor, an architect, a structural engineer or someone else within the construction value-chain, the problem of thermal bridging has likely become a more important building design consideration. Besides the obvious desire of building professionals to create efficient, durable and differentiated projects, the need to protect against future liability of building regulations and healthy living environments are becoming ever more important. As building regulations emphasize air barriers and buildings become more airtight, the local weaknesses of structural thermal bridges can lead to mold problems that could come back in the future to harm a builder or designer.

Alternatives for dealing with thermal bridging have been around for many years, although they are only now becoming more widespread. Schöck North America’s builds on the foundation of a company whose focus has been finding reliable solutions to thermal bridging with over 10 million installations completed worldwide.

Where does thermal bridging occur?

Balconies
Concrete and steel balconies are prime locations for thermal bridging. Installing Schöck Isokorb® structural thermal breaks at these connections prevents heat loss, condensation and cold interior floors, in addition to maintaining the same structural integrity of conventional concrete or steel components.

Canopies and Beams
Building canopies and the beams that support these structures often cause a thermal bridge as they penetrate through the building envelope. Schöck Isokorb® structural thermal breaks can connect these elements to a concrete or steel primary structure while maintaining a virtually continuous insulation layer.

Parapets and Rooftop Connections
Parapets and rooftop connections supporting equipment, ducts or screens cause thermal bridges that are significant due to the common practice of well insulating roof assemblies. Schöck Isokorb® provides solutions for cast-in-place parapet thermal breaks.

Slab Edges
Exposed slab edges can produce nearly the same thermal bridging as balconies, but are often not considered in the same way. When a high volume of slab edges are left untreated in a complete façade design, the effects can be staggering. Schöck Isokorb® solves the thermal bridging problem while maintaining the traditional look of concrete slab edges.
Concrete-to-concrete products.

Schöck Isokorb® Type CM
- Used for: Cantilever concrete slabs
- Typical application: Balconies
- Transfers: Bending moment, shear force

Products for offset balconies also available.

Schöck Isokorb® Type CM-WB
- Used for: Cantilever concrete structures projecting out from a wall
- Typical application: Sunshades and balconies
- Transfers: Bending moment, shear force

Schöck Isokorb® Type CMD
- Used for: Cantilever concrete slabs that require uplift forces resistance
- Typical application: Balconies
- Transfers: Positive and negative bending moment, shear force

Schöck Isokorb® Type CV
- Used for: Supported concrete projections
- Typical application: Balconies with columns
- Transfers: Vertical shear force

Schöck Isokorb® Type CVB
- Used for: Supported concrete projections with a point connection
- Typical application: Balconies with columns
- Transfers: Vertical shear force with a point connection

Schöck Isokorb® Type CEQ
- Used for: Transferring earthquake loads (used in conjunction with other linear connection products)
- Typical application: Balconies with seismic resistance requirements
- Transfers: Horizontal shear and tensile force (and uplift forces when used with Type CM)

Schöck Isokorb® Type CPA
- Used for: Vertical concrete projections at the roofline
- Typical application: Concrete rooftop parapets
- Transfers: Compressive force, shear force, bending moment

Schöck Isokorb® Type CSE
- Used for: Small concrete projections
- Typical application: Exposed slab edges
- Transfers: Shear force, bending moment

Schöck Isokorb® Type Z
- Used for: Certain concrete connections
- Typical application: Insulation filler module used between concrete Isokorb products
- Transfers: None

Expansion Joint Former (accessory)
- Used for: Accessory for certain concrete connections
- Typical application: Helps build expansion joints for certain thermally broken concrete projections that have a width greater than a critical width
- Transfers: None
Steel-to-steel products.

Schöck Isokorb® Type S
- Used for: For steel-to-steel connections
- Typical application: Steel balconies, canopies, beams, rooftop equipment
- Transfers: Axial forces, shear forces, modules in combination resist bending moments

Insulation Filler (accessory)
- Used for: Certain steel connections
- Typical application: Accessory used to fill space between structural modules in certain steel-to-steel applications
- Transfers: None

Concrete-to-steel products.

Schöck Isokorb® Type KS
- Used for: For concrete-to-steel connections
- Typical application: Cantilevered steel attachments, such as balcony supports, canopies or sunscreens that connect to concrete slabs
- Transfers: Shear force, bending moment

Working with Schöck.

As the inventor and world’s largest manufacturer of structural thermal breaks, with proven success in 34 countries since 1983, Schöck provides you with the reliability and technical assistance you need to design with confidence.

Why work with Schöck?
- Tailored solutions
  Schöck’s dedicated engineering team creates a solution specific to your project, every time.
- Technical expertise
  All Schöck Regional Sales Managers (RSMs) are architects or engineers, so they understand your world and the challenges you face.
- Design details
  Schöck provides easy-to-access design files that are ready to drop into your design.
- Peace of mind
  Every project includes a shop drawing package outlining the solution, design and layout signed and sealed by a professional engineer licensed in your project’s jurisdiction.
- Proven reliability
  Schöck has completed over 10 million installations worldwide since 1983.

About Schöck
Schöck North America is comprised of Schöck USA, Inc. and Schöck Canada, Inc. and is part of the Schöck Group, headquartered in Baden-Baden, Germany. Schöck operates 34 companies around the globe with a staff of more than 1000 employees.