



Reliable impact sound insulation for staircases.
Schöck Tronsole® – systematic soundproofing.

Soundproofing for improved living conditions.

High-quality impact sound insulation – with Schöck Tronsole®.

An all-inclusive system that fits any staircase

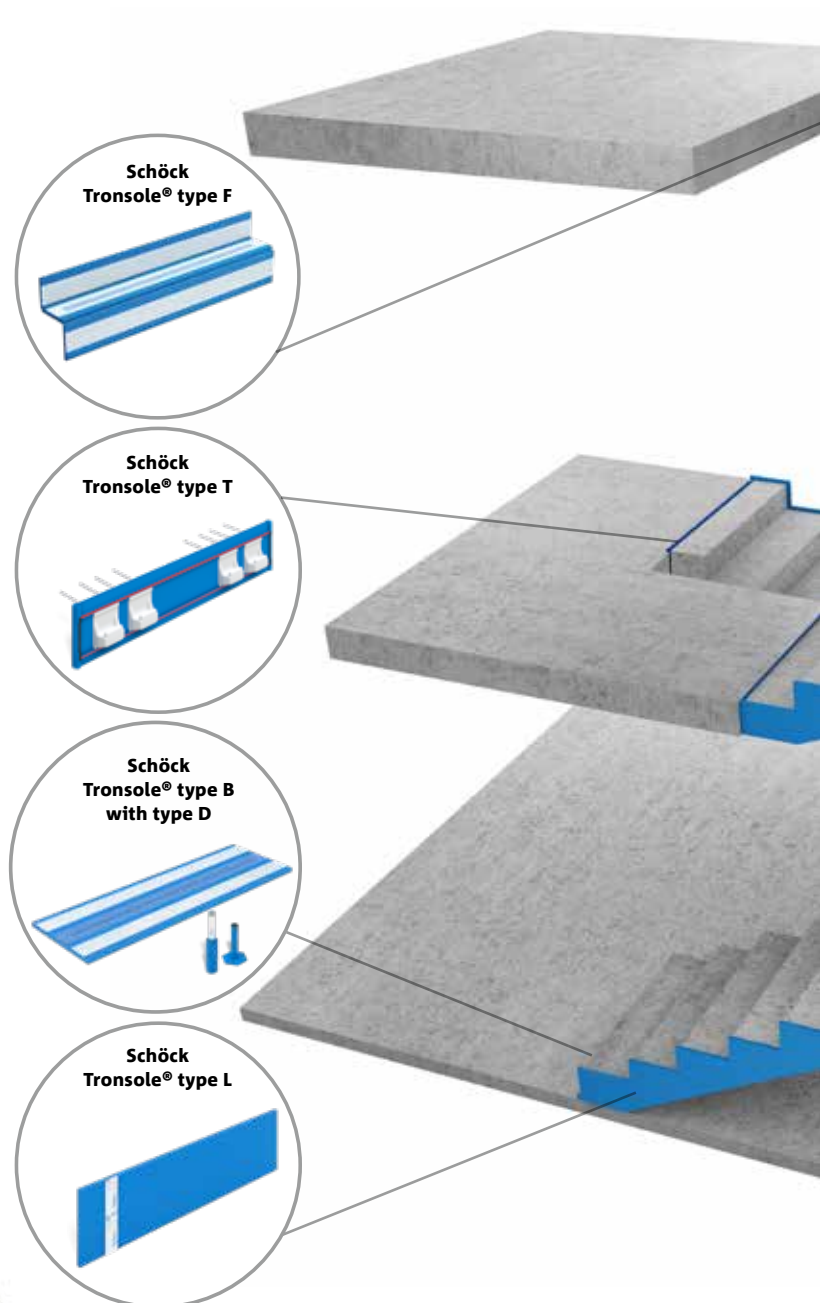
Perfectly matched and coordinated Schöck Tronsole® variants ensure efficient impact sound insulation across all structural subsections. They can be used on both straight and winding staircases.

Reliability from planning to execution

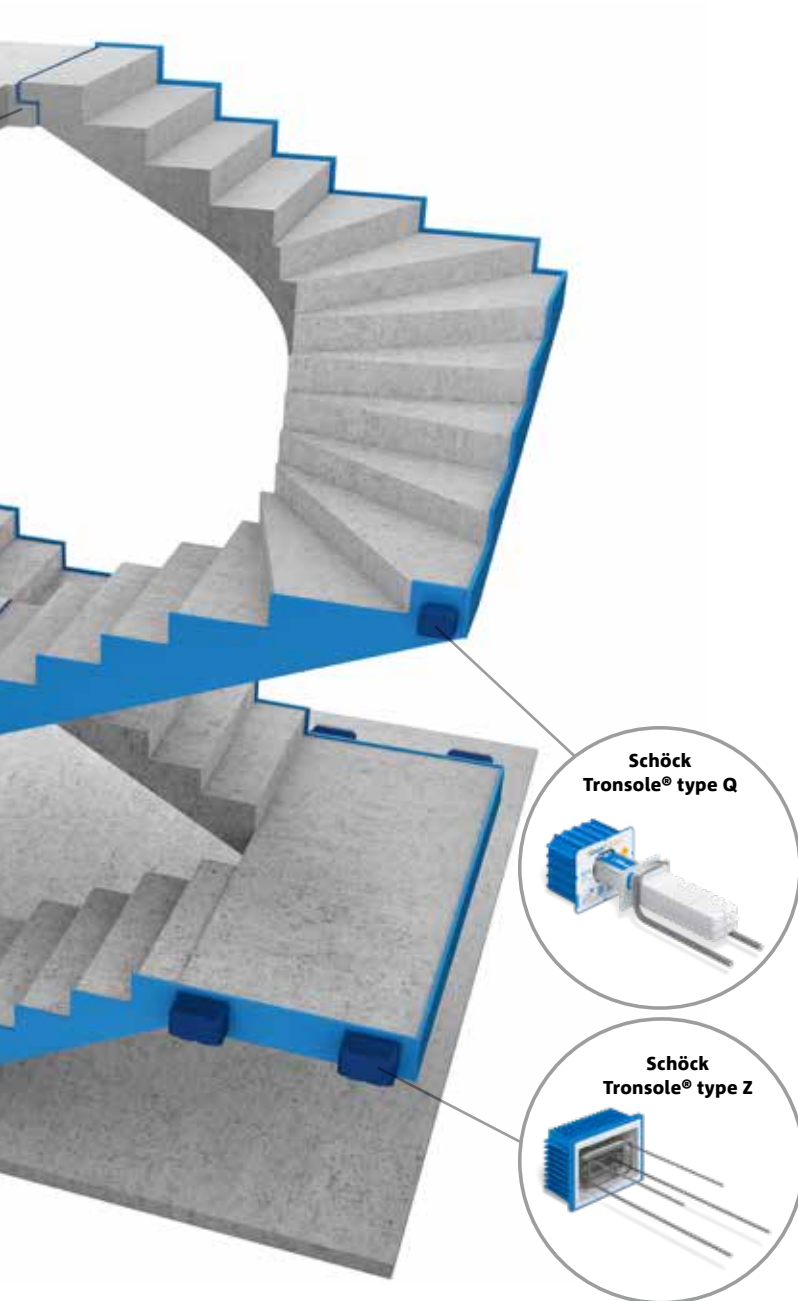
A blue line indicates a staircase that is acoustically insulated throughout with Schöck Tronsole®. During planning and installation, this blue line serves as the seal of quality for superior impact sound insulation.

Straightforward installation, without acoustic bridges

Schöck Tronsole® products are not only ready for installation; they also seal joints, thus minimising the risk of acoustic bridges. For a perfect result, without acoustic bridges.



Soundproofing is an increasingly important quality criterion for residential or office buildings. Few things are as noticeable or as intrusive in a finished building than impact sound. In the execution of soundproofing in buildings, therefore, the work should be carried out with particular care. Schöck has been developing innovative product solutions for the impact sound insulation of stairs and landings for over 30 years now. Schöck Tronsole® gives you the reassurance of components that are perfectly matched to each other. So you can rely on an integrated system that encompasses all structural element subsections.



Soundproofing certification for homes and buildings

The German Acoustics Society (Deutsche Gesellschaft für Akustik e.V., DEGA) has defined distinct soundproofing classes to classify sound insulation in buildings. They are easy to understand and can be used to agree specific soundproofing levels between property owners and planners.

Classification of Schöck Tronsole®

Staircases insulated with Schöck Tronsole® are classified under the DEGA soundproofing system as class B or even A. The impact sound insulation performance of Schöck Tronsole® ranges from 27 dB to 33 dB. A reduction of 10 dB is equivalent to halving the perceived volume.

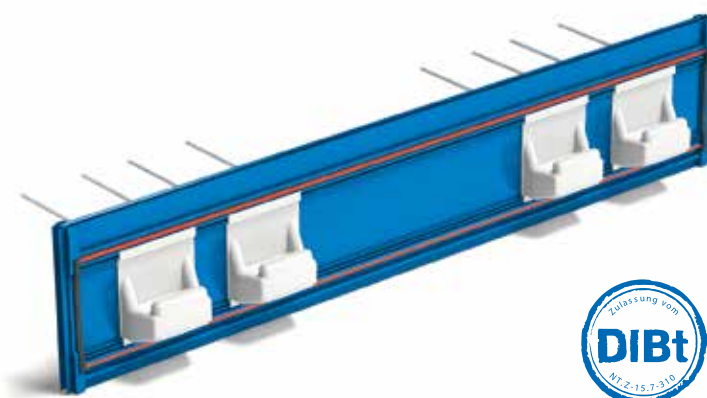
$L'_{n,w}$	Noises from walking are	DEGA
≤ 33 dB	inaudible	A*
≤ 38 dB	inaudible	A
≤ 43 dB	slightly audible	B
≤ 48 dB	audible	C
≤ 53 dB	clearly audible	D



$L'_{n,w}$: weighted normalized impact sound pressure levels in rooms requiring insulation

Perfect in detail, systematically convincing.

Schöck Tronsole®: the standard for effective impact sound insulation.



Schöck Tronsole® Type T

Impact sound insulation element for connecting staircases (in-situ concrete or precast elements) in landings or ceilings (in-situ concrete or semi-precast elements).

- ▶ Technical approval by the German Institute for Structural Engineering (DIBt) for reliable planning
- ▶ With fire resistance class R90 as standard for reliable fire protection

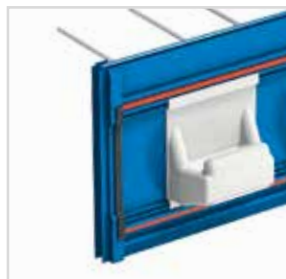
Schöck Tronsole® type T combines high architectural standards with easy handling on the construction site or in the prefabricating plant. All common landing thicknesses and staircase widths are possible. The straight joint profile enables connections with even, all-round joints. The creation of a corbel support in the landing and soffit is not required.



Sound isolation using Elodur® elastomer support for superior impact sound insulation.



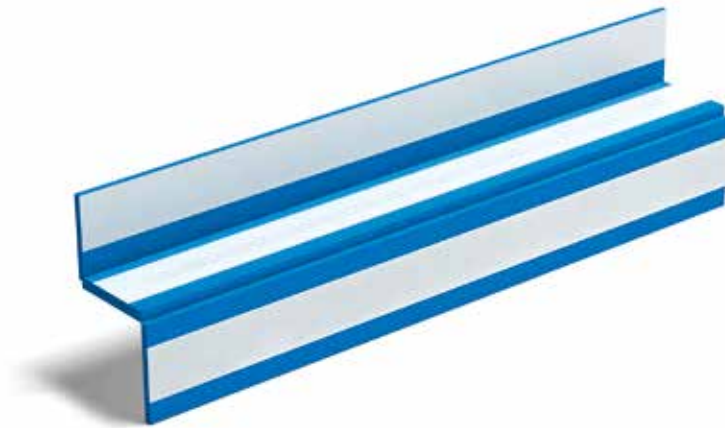
Simple installation: supplied complete with grippers that are fastened straight onto the formwork.



Straight joint profile allows straightforward setting of stop ends in the prefabricating plant and on site.



Can be ordered to the desired length or cut to length on site.



Schöck Tronsole® Type F

Impact sound insulation element for connecting staircases (precast elements) in landings or ceilings (semi-precast or fully precast elements).

Absolute reliability during installation: Schöck Tronsole® is fixed to the precast staircase with the integrated adhesive tapes. In this way, the Tronsole® remains in the correct position even when the stairs are moved. A full-surface separation of the soffit and the ceiling ensures that no dirt can get into the joint, thus minimising the risk of acoustic bridges during execution.

- ▶ Variable for support depths of 130 mm - 160 mm
- ▶ Efficient solution for reliable impact sound insulation between the staircase and the landing / floor slab
- ▶ Available in 5 different lengths. Available as standard with 2 load capacities. Higher load capacities on request



Sound isolation using Elodur® elastomer support for superior impact sound insulation.



With integrated adhesive strips: can be stuck onto precast element without any additional measures required.



Clip hinge for excellent shape stability and easy handling.



Elastomer support and clip hinge recessed by 5 cm for easy cutting on site.



Schöck Tronsole® Type Q

Impact sound insulation element for connecting winding staircases to staircase walls.

Schöck Tronsole® type Q is a shear force dowel developed for impact sound insulation. It is made up of three separate elements: wall element, support profile and collet with integrated hanging loop. Technical approval, which ensures easy planning and smooth inspection, is mandatory for shear force dowels.

Type Q offers enormous freedom of design thanks to its ability to allow joints of up to 10 cm. Air joints are of course also possible.

- ▶ Type Q can be used from a panel thickness of only 140 mm
- ▶ Support profile in stainless steel (A2) or hot dip galvanised
- ▶ Fireproofing kit for fire resistance class R90 for joints of up to 65 mm



Sound isolation using Elodur® elastomer support for superior impact sound insulation.



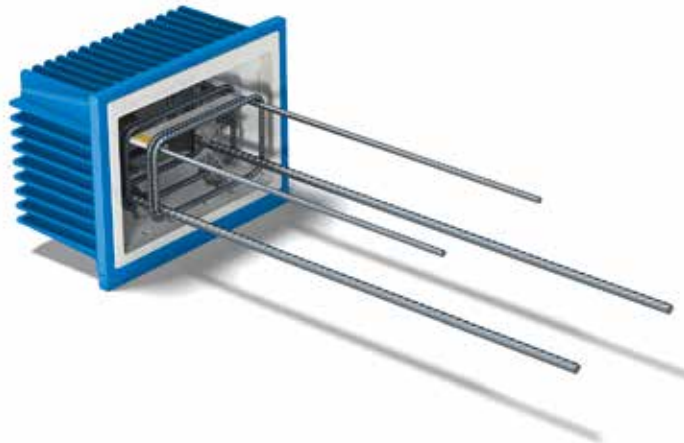
Rotatable supporting element with tongue and groove ensures correct sitting; and also adapts to inclination and makes installation easier.



Suspension stirrup on collet for load-bearing integration and correct positioning – increases execution reliability.



Fire protection R90 up to joint width 65 mm possible with fireproofing kit.

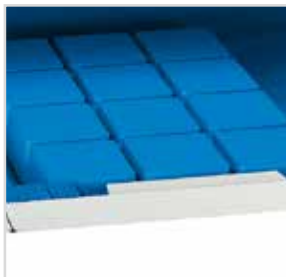


Schöck Tronsole® Type Z

Impact sound insulation element for connecting landings (in-situ concrete or precast element) to staircase walls.

Schöck Tronsole® type Z makes the use of floating floor screed on the intermediate landing superfluous. The construction process is optimised and the intermediate landing can be made thinner. For example, as of a landing panel thickness of 180 mm, the joint is smooth and uninterrupted, since the wall element is no longer visible from the underside. Schöck Tronsole® type Z consists of a wall element and an optional supporting element, type Z part T.

- ▶ Wall element with surrounding push-on frame for the acoustic bridge-free connection of the type L joint panel
- ▶ Tronsole® type Z (wall element + supporting element) achieves fire resistance class R90 as standard
- ▶ Reliable planning thanks to type approval



Sound isolation using Elodur® elastomer support for superior impact sound insulation.



Surrounding connection frame for acoustic bridge-free connection.



type-tested load-bearing element with spacers for safe and simple installation.



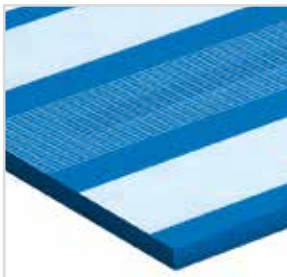
Schöck Tronsole® Type B with Type D

Impact sound insulation element for connecting staircases (in-situ concrete or precast elements) to floor slabs.

With Schöck Tronsole® type B, the base point of in-situ concrete and precast staircases can be supported by the floor slab so that they are impact sound insulated, for example in basement stairs. Can be bonded to the precast staircase with integrated adhesive tapes, to reliably secure Schöck Tronsole®. In this way, Tronsole® type B remains in the correct position even when the stairs are moved.

A full-surface separation of the soffit and the floor slab ensures that no dirt can get into the joint, thus minimising the risk of acoustic bridges during execution. Tronsole® type D can be used for correct non-structural sitting.

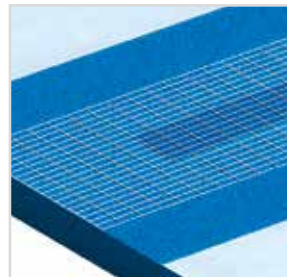
- ▶ Full-surface separation of soffit and floor slab for reliable impact sound insulation
- ▶ Tronsole® type B is available in 5 different lengths and 2 different widths.



Sound isolation using Elodur® elastomer support for superior impact sound insulation.



With integrated adhesive strips: can be stuck onto precast element without any additional measures required.



Elastomer support recessed by 5 cm for easy cutting on site.



Correct non-structural sitting made of high-quality stainless steel with elastomer cap.



Schöck Tronsole® Type L

Acoustic bridge-free joint formation between staircases / landings and walls.

Schöck Tronsole® type L fills the joint completely, thus ensuring that no acoustic bridges can occur through dirt ingress. Only if all the joints between the staircase wall and the staircase (soffit and landing) remain free of dirt can the sound reduction measure become effective. The Tronsole® type L thus completes the soundproofing system and, in conjunction with the other product types, forms the blue line as an aid to acoustic bridge-free planning and execution.

- ▶ In all acoustic measurements, the transmission of sound through the joint panel was also tested
- ▶ For superior impact sound insulation
- ▶ The safety of the use of the Tronsole® in escape routes has been confirmed by fire prevention experts



Also available as a soundproofing kit, consisting of 15x Tronsole® type L, adhesive tape, cutter and a carpenter's pencil for easy installation.



Full-surface adhesive strip: for simple, quick and secure installation.



Heights of 420 mm and 250 mm for optimised adjustment to standard soffit and landing slab thicknesses.

Systematic freedom from acoustic bridges.
The right choice of components plus careful installation.



The correct planning and installation of Schöck Tronsole® in the system results in a blue line. It is the mark of quality for reliable impact sound insulation and acoustic bridge-free installation. In comparison to elaborate individual solutions on the construction site, Schöck Tronsole® minimises installation errors and reduces the risk of injury. The blue line also reduces the risk of acoustic bridges.



In the prefabricating plant and on site: Tronsole® makes installation easy and safe.

We make freedom from acoustic bridges easy for you

One of the main features of Schöck Tronsole® is the easy and safe way that each individual type is used on site. Whether in the prefabricating plant or directly on site. All components are designed in such a way that they allow short installation times and an optimised installation process.

- ▶ The all-round blue line as a sign of acoustic bridge-free execution
- ▶ Installation instructions for all types – without words, easy to understand in picture language

Your safety is our primary concern

No matter what kind of reinforced concrete stairs have to be connected, Schöck Tronsole® provides a reliable option. It makes technical approval easy.

- ▶ Increased soundproofing requirements are reliably achieved with all products
- ▶ The necessary static evidence is available for inspection, for example the technical approval for type Q
- ▶ The safety of the use of Tronsole® in escape routes has been confirmed by fire prevention experts



Saves time and minimises errors: all components have been optimised for easy installation.



No reworking necessary after relocating: integrated adhesive tapes ensure that everything stays right where it should be.



Installation is easy to check

The quality of all planning is only as good as its implementation. If the acoustic separation of the components is not executed correctly, the effects of the errors can be particularly severe. With the Schöck Tronsole® system, you can check whether installation was sound bridge-free at any time. Simply follow the blue line. Schöck Tronsole® has been correctly installed if it can be seen all round the entire staircase. And then you can rely on optimum impact sound insulation.

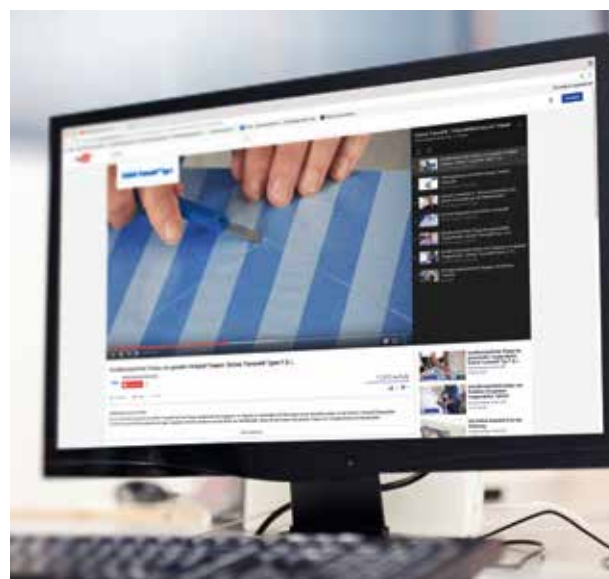
Form your own impression

If you would like further information about the installation of Schöck Tronsole®; or additional details about how to install a particular component - we will be pleased to help.

- ▶ **Installation guide - concisely explained.** The installation guide supports you with helpful tips and practical examples when installing Schöck Tronsole®.
- ▶ **Installation films - Schöck Tronsole® in use.** The installation films show the individual processing steps for our impact sound insulation elements for straight and winding staircases and landings.



The Schöck Tronsole® types form a blue line in the system. This line denotes the technical approval of the sound bridge-free connection.



Our clear and instructive videos provide a reliable guide to the correct installation method for the Schöck Tronsole®.

Case studies.

Schöck Tronsole® – systematic sound proofing.

The Kranhaus of Cologne, Cologne, DE

The unusual architecture of the three Kranhäuser buildings in Cologne's former commercial harbour is reminiscent of the old loading cranes that could once be found here. While the two original structures were designed as office spaces, the last in the collection - Kranhaus Nord



- is entirely residential. This meant there were particular standards to meet with regard to impact sound insulation during its construction. Fortunately, Schöck Tronsole® type T offered the perfect system solution in this regard.



Hotel Roomers, Baden-Baden, DE

Just a stone's throw from Baden-Baden's famous festival hall, a brand new lifestyle hotel has opened its doors in the form of Hotel Roomers. The hotel's rooftop bar is a real eye-catcher, with its lightweight steel canopy that connects to the reinforced concrete slabs with Schöck

Isokorb® type KS elements in a low thermal bridge construction. And when it comes to getting a good night's sleep, the stairwells are fitted with Schöck Tronsole® to ensure a restful stay.



Residential park at the south end of Luisenstrasse, Karlsruhe, DE

The residential project was built in Karlsruhe in 2015. Spacious rental and owner-occupied apartments with 1, 2 and 3 bedrooms were designed on a floor area totalling 18,000 m². At the client's request, architects AGP Generalplaner GmbH

designed the building with enhanced impact sound insulation. The stairs are soundproofed using Schöck Tronsole® type F on the ceiling slabs while Tronsole® type Z separates the landings from the stairs and outer walls.



University centre for dentistry (UZB), Basel, CH

Several disciplines are going to be joining forces under one roof in the future university centre for dentistry (UZB). A centre of dentistry competence ranging from basic care to research and teaching is being built. Every year, dentists, dental and preventive care assistants and dental

hygienists will be administering more than 80,000 treatments in the 5-storey building. The staircases were a key area of focus, both for architectural reasons and in light of the strict sound insulation requirements.



Find more case studies with Schöck Tronsole®
www.schoeck.com/case-studies-tronsole



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