

CISILENT[®] Type E Efficient
Noise control

Flexible sound insulation for indoors and outdoors

RELIABLY PROTECTED AGAINST NOISE

FIND PEACE AND WELL-BEING WITH CALENBERG

The patented flexible noise barrier Cisilent® Type E achieves a sound reduction index of $R_w = 21$ dB and ensures improved airborne sound insulation. Its special design concept, low transport weight and easy installation mean it can also be used in mobile structures.

HOW

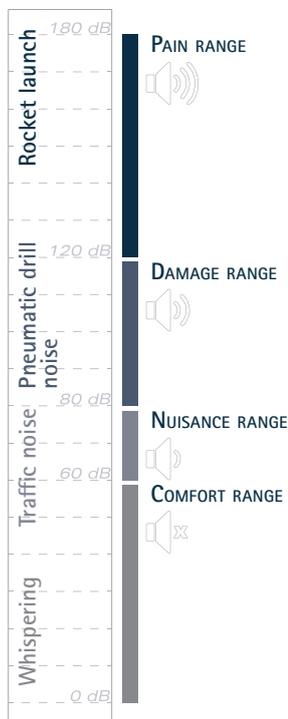
KNOW





Peace and quiet as basic need

Increasing construction projects and heavy traffic in inner city areas cause significant and permanent noise pollution for residents. Calenberg has developed a lightweight flexible sound insulation system to protect the environment from intrusive air-borne noise and meet requirements for an increased need for rest. The systems are quick and flexible in their use (for corner cut-outs and pipe penetrations, for example) to provide different noise control measures and can also be optimally integrated into the surrounding area, even where there is little space.



Early noise control planning with Cisilent® Type E will avoid delays or hindrance in your project.

The adjacent decibel scale shows the noise level for common ambient noises.

Structure

The textile structure made of high-strength polyester fabric features three layers interconnected in such a way that they form pockets to hold the filling medium. These pockets are offset from one another at the sides on the front and rear, thus offering unique flexibility in the panels. Their surfaces are resistant to water, ozone, UV radiation, dirt and micro-organisms. Filling the chambers with non-flammable insulation rock wool potentially increases the sound reduction index up to 53 dB. There are no standard sizes as all elements are manufactured to client specifications. Only the length parallel to the chambers is limited to 4 m for production reasons.



Noise control — light and flexible

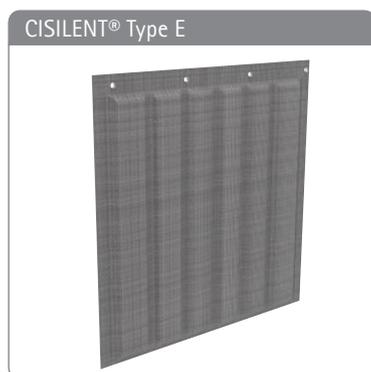
Effective protection for outdoor installations, construction sites and noisy events

The combination between special materials, flexible lightweight structure and matching design achieves high efficiency even at low frequencies. Such efficiency is generally only achieved with solid, heavy systems. Enclosures and shielding for machines in industry can be implemented without loss of effectiveness, for example. Noisy areas in office buildings can be divided by soundproofing curtain systems without intruding on the ordinary course of business. Cisilent® Type E helps satisfy the human need for rest, whether it insulates noise from humming fans or city festivals.

Stationary noise protection measures can be implemented in both buildings and outdoors. Cisilent® Type E's enormous absorption capacity delivers solution approaches which are impossible for rigid systems. Thanks to its light weight, Cisilent® Type E is particularly suitable for mobile sound insulation. It can insulate the noise from vehicles and crane systems effectively, for example.

Cisilent® Type E can also be fitted to standard scaffolds as a temporary application during building activity. The panel size is adapted to the scaffolding system with an overlapping layout providing complete protection.

Cisilent® Type E can be purchased or rented.



ADVANTAGES

Properties, application

Highly sound-absorbing; low weight of around 5.5 kg/m²; flexible use in terms of place, subsurface, installation length and similar; easy to install/dismantle; can be moved; easy to transport; long service life; heat-, -ozone and weather-resistant; sturdy panel structure; resource-efficient thanks to reusability; quickly available.

Areas of use: Civil engineering and building construction sites of all types; changing work sites in rail track and road construction; temporary events, machine enclosures, soundproof booths, room partitions, demolition works and noise-sensitive locations such as schools, hospitals and retirement homes.

Cisilent® Type E is manufactured by hand in many dimensions when it is for sale. When rented, it is tailored to the scaffolding section size. A fastening system suitable for construction sites simplifies installation and saves time. There is no need for heavy tools or devices for its installation. Our mobile solution offers a decisive advantage over solid construction concepts in the higher frequency range in that it achieves the same or better noise control despite its low mass per unit area.



Mobile noise barrier

Covering scaffolding surfaces with Cisilent® Type E is used to insulate and absorb air-borne noise. The system can also be used as screening and a dust protection wall. The supporting structure is either provided by the client or consists of modular scaffolds.

Two fitting variants of Cisilent® Type E are suitable for installation on scaffolding systems. The first version features eyelets 16 mm in diameter. These are located at about every 30 cm along the surrounding fastening edge. Each eyelet can bear a load of around 1 kN. Cisilent® Type E panels are fastened to the scaffolding poles through the eyelets with cable binders or similar.

The second version is fastened to scaffolding poles using buckle belts. These buckle belts are fitted to the cover layer. Each buckle belt can bear a load of around 1kN when secured firmly by hand.

Unrolled in a scaffold section



Fastened and aligned



Noise control indoors

Effective protection against noisy machines and other sources of intrusive noise

The Cisilent® Type E's low mass per unit area provides bespoke noise control in both production and administration areas. Customised solutions and measures are developed to protect those affected from noise and maintain productivity. Our comprehensive sound insulation includes reduction of sound transmission from one room to another in the building interior and prevents sound transmission in the event of loud noise emission inside the building. Temporary sources of noise can be sealed off acoustically. Clamping strips, bayonet connectors or castors in rails can be used to fasten the system in such cases.

Cisilent® Type E is used, for example, in a curtain system, in soundproof booths or mounted on a frame to provide acoustic separation in workplaces.



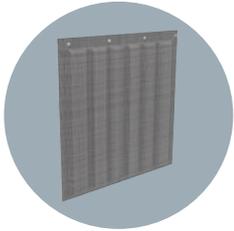
Noise control outdoors

Minimising noise exposure

Cisilent® Type E's absorption effect is often sufficient to provide effective noise control. In such cases, Cisilent® panels can often be attached quickly and easily to existing structures thanks to flexible manufacturing options, such as angled cuts or pipe penetrations. If this is not possible, simple supporting structures are often adequate to ensure effective noise control for the long term.

The options for using Cisilent® Type E range from machine enclosures and installation on construction scaffolding through to permanent sound insulation surfaces.

Extract from our client reference projects



CISILENT® TYPE E

- Canal bank crane enclosure, Berlin, Germany
- Event stage enclosure, Hannover, Germany
- Drill rig enclosure, Ascheberg, Germany
- Extruder enclosure, Kuala Lumpur, Malaysia
- Mobile noise barrier, Düsseldorf, Germany
- Pipe milling cutter enclosure, Salzgitter, Germany
- Powder coating machine curtain system, Gaggenau, Germany
- Hangar aircraft maintenance curtain system, Luxembourg
- Milling cutter housing, Dortmund, Germany
- Mobile noise barrier, Hamburg, Germany



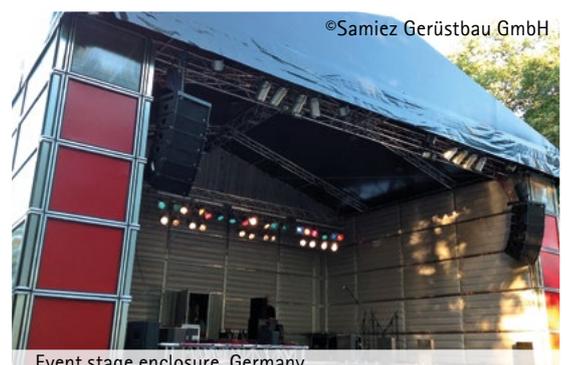
Canal bank crane enclosure, Germany



Drill rig enclosure, Germany

Mobile system for rent

Would you like to rent Cisilent® Type E? Tell us what your requirements are and how long you need to rent. We'll gladly give you a quote for your event, construction site or other temporary use.



Event stage enclosure, Germany

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