

Cisilent[®] Noise Protection System for Expansions Joints



Effective noise protection by flexible elements

Cisilent[®] Noise Protection System

Technical Description

The Cisilent Noise Protection System for expansion joints in road bridges reduces effectively structure-borne and airborne sound emitted by the expansion joint when crossed by vehicles.

The system mainly consists of the components

- Cisilent Element
- Cisilent Noise Protection Sheet
- Jigging

The components are frost-proof, water-resistant and keep their favourable properties regardless of the weather.

The Cisilent Noise Protection System is installed underneath the expansion joint, thus effectively absorbing and reflecting sound. As a result the transmission of noise into the environment will be remarkably reduced.

The flexibility of the Cisilent Noise Protection System either allows an installation on site regardless of the design of the expansion joint or pre-assembling in the factory. The mounting would have to be adapted to the local conditions of the construction project. Dismantling of the expansion joint for maintenance purposes is possible without problem and if requested can be done section by section.

Measurements confirm an average reduction of the airborne sound level of more than 17 dB(A).



coaction of the components at the wing wall area

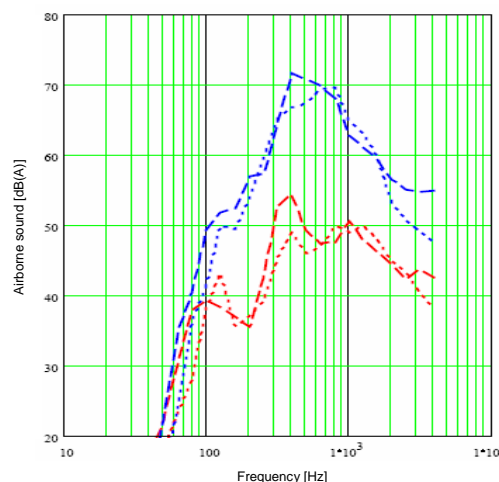


crossing pipes do not restrict the efficiency of the system

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Spectral airborne sound level before and after reconstruction:

Before reconstruction:

Bridge pier, inner side / truck lane

Bridge pier, inner side / central reservation

After reconstruction:

Bridge pier, inner side / truck lane

Bridge pier, inner side / central reservation

In parts considerable reduction of the airborne sound level up to 23 dB within the relevant frequency range between 400 Hz and 1 kHz.

Excerpt taken from IMB dynamik report dated August, 20st 2008

