

Pressure Chamber

During architectural acoustics measurements, a knowledge of the structure-borne sound vibrations on the structural elements is often also expedient or even necessary, in addition to determining the air-borne sound insulation and the footfall sound level, in order to gain a closer insight into the sound transmission paths, e.g. as part of research into causes. Such structure-borne sound measurements for determining the bending vibration amplitudes are generally performed using piezoelectric acceleration transducers.

In some cases the mechanical linking of these transducers to the structural elements to be measured presents considerable problems and can be very time-consuming.

The pressure chamber is a simple structure-borne sound measurement instrument that can be used as an attachment on the normal "measuring microphones of sound level measuring instruments and

is pressed against the vibrating structural element. It is thus possible to carry out far more measurements cost-effectively in the same period of time as part of brief architectural acoustics measurements.

This allows a significantly better overview of the soundproofing of a house or apartment and of possible variations in the work quality to be obtained.

The development of the new pressure chamber has now made it possible for the first time to carry out structure-borne sound measurements even during the building skeleton phase (without doors and windows) without a great deal of effort or cost.

Applications

- Determination of the direct insulation of solid structural elements
- Determination of the flank insulation index of solid structural elements
- Determination of the joint insulation at junction points
- Clarification of sound transmission paths in order to determine causes
- Determination of the air and footfall sound insulation of structural elements by structure-borne sound measurements
- Localisation of sound bridges
- Examination of the structure-borne sound insulation of sanitary installations
- Measurements possible directly on the wallpaper

