



Acoustic Test Facility
for **Walls**
with suppressed flanking transmission

Technical Data

Test facility for walls P6 with suppressed flanking transmission

Installation frame:	width:	3,67 m
	height:	2,93 m
	depth:	0,30 m
	object area:	10,75 m ² (\approx 10,35 m ² Test area at dismountable panels)

Dimensions:

Source room:	width:	3,56 m
	height:	2,95 m bis 3,01 m (average height 2,99 m)
	depth:	4,70 m until installation frame
	volume:	50,82 m ³ *

Receiving room:	width:	3,56 m
	height:	2,95 m bis 3,01 m (average height 2,99 m)
	depth:	5,87 m until installation frame
	volume:	62,64 m ³ *

*) depending on position and thickness of the test object

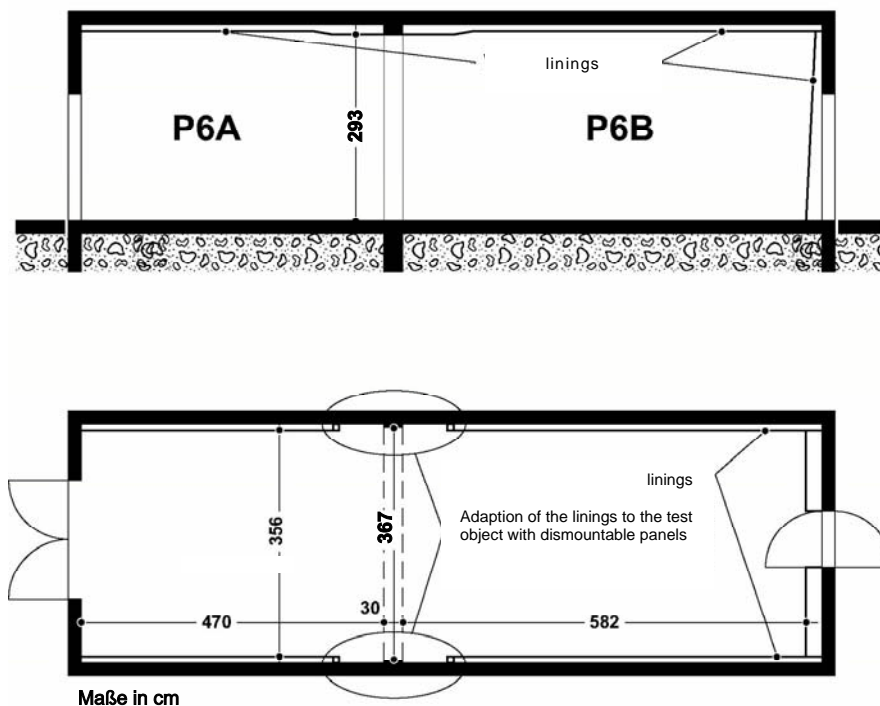
Maximum measured sound insulation with a solid wall (mass per unit area $m'' = 496 \text{ kg/m}^2$) with additional linings on both sides ($R'_{\text{max,w}} \geq 75 \text{ dB}$), with a light weight partition wall and additional lining ($R'_{\text{max,w}} \geq 77 \text{ dB}$).

The test facility with suppressed flanking transmission for the determination of the airborne sound insulation of walls at the accredited laboratory (according to DIN EN ISO/IEC 17 025) fulfils the requirements of the Standard DIN EN ISO 140, part 1. The suppression of the flanking transmission is provided by additional linings along the flanking walls, the ceiling and the back side of the receiving room.

The walls consist of masonry of calcium silicate blocks (24 cm thick). The ceiling is made of 24 cm thick concrete, the floor consists of concrete as well and is based on the ground in place.

The test object will be mounted in an installation frame between both rooms underneath the reinforced concrete lintel. Dismountable panels are used at both sides of the installation frame for the adaption of the acoustical linings to the test object.

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For the determination of the spatial and temporal averaged sound pressure level, two microphones are moved along inclined circular paths inside the source and receiving room. A dodecahedral loudspeaker is moved along an inclined straight path inside the source room.