

## Acoustic Test Facility for **Ceilings** and **Roofs**

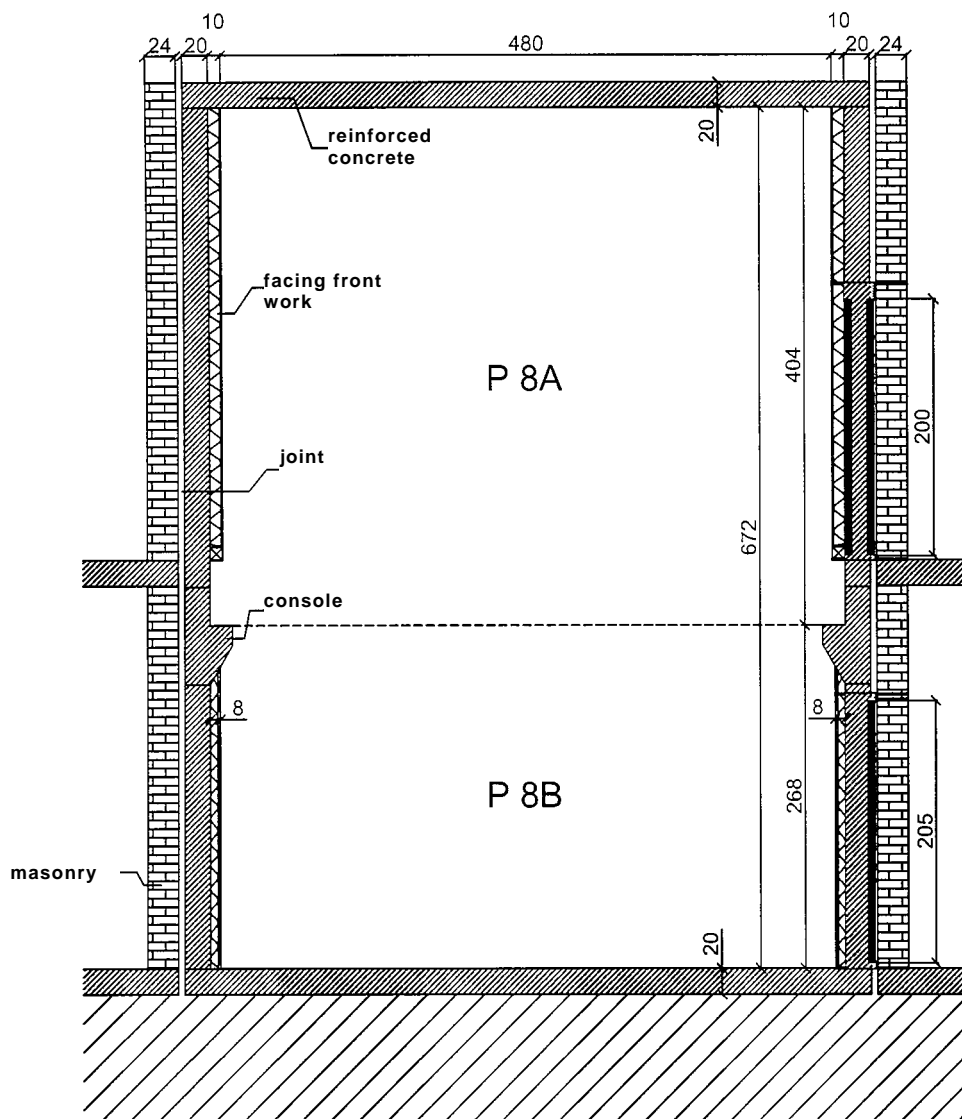
### Technical Data

#### Test facility for ceilings and roofs P8 with suppressed flanking transmission

Installation area	
length	5,00 m
width	4,00 m
Dimension of the test object	
length	4,90 m
width	3,90 m
Installation height	mutable
Room dimension without test object	
A (EG)	70,6 m <sup>3</sup>
B (UG)	50,0 m <sup>3</sup>
Access through the facility doors	
A (EG) width	0,83 m
height	2,18 m
B (UG) width	1,95 m
height	2,02 m

Compressed-air and current adapter available

Verification of maximum sound insulation by measurement of a ceiling with floating floor and counter ceiling ( $R'_{\max,w} \geq 69$  dB).



The test facility with suppressed flanking transmission of the testing center accredited according to DIN EN ISO/IEC 17 025 complies with the requirements of standards DIN EN ISO 140, part 1 and DIN EN ISO-140-12. The test facilities allow measurements of various ceiling constructions (e. g. solid slabs, hollow slab floors, hollow filler block floors and single timber floors). A circular console allows the bedding of the individual parts of the ceiling.

#### **Measurement method to determine the airborne sound insulation of ceilings**

The measurements are carried out in rooms with a volume of more than 50 m<sup>3</sup>. Third-octave noise is used as sound level. For the spatiotemporal average determination of the sound pressure level in the source room, the dodecahedron loudspeaker is pneumatically moved along an inclined plane. The microphones are moved along an inclined circular path in the room.

#### **Measurement method to determine the impact sound insulation of ceilings**

The measurements are carried out according to the requirements of standard DIN EN ISO 140, part 6. The ceiling is activated by a standardized impact generator according to DIN EN ISO 140-6, annex A. For the spatiotemporal average determination of the sound pressure level inside the source rooms, the microphones are moved along inclined circular paths.