



Anechoic chamber

Technical Data

Anechoic chamber P22

Element:

Dimensions without lining	11,0 x 13,15 x 12,0 m ³
Volume of structure	1736 m ³
Dimensions inside the lining	9,3 x 10,4 x 10,3 m ³
Usable volume of the facility	1090 m ³
Dimensions of the door opening	1,89 x 2,34 m ²

Workspace:

Height of the accessible grid above the uncovered ground	4,25 m
Clearance above the accessible grid	6,90 m
Distance between safety grid and accessible grid	ca. 1,0 m
Surface of the mounting grid	4,0 x 4,0 m ²
Width of the access to the mounting grid	1,5 m
Load capacity of the accessible grid	2000 N/m ²
Load capacity of the mounting grid	5000 N/m ²
Load capacity of the central support	20.000 N
Load capacity of the suspension hook	1000 N

Acoustic data:

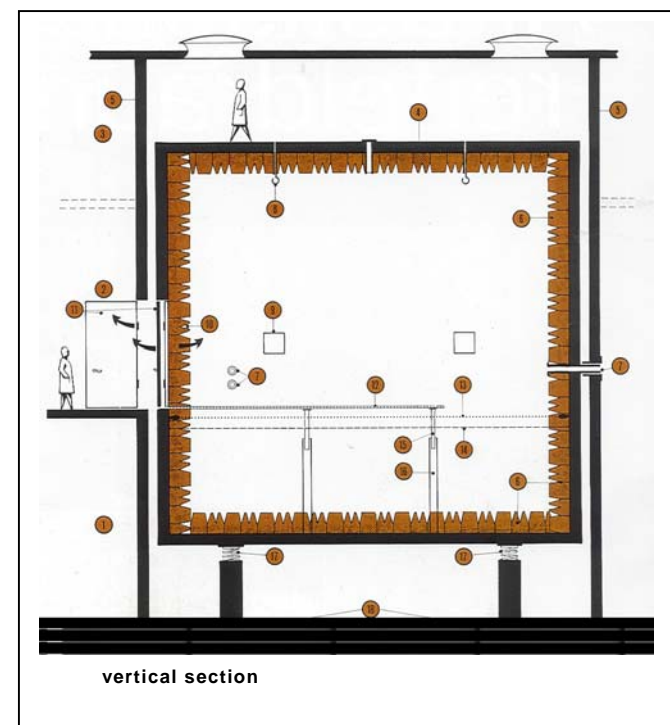
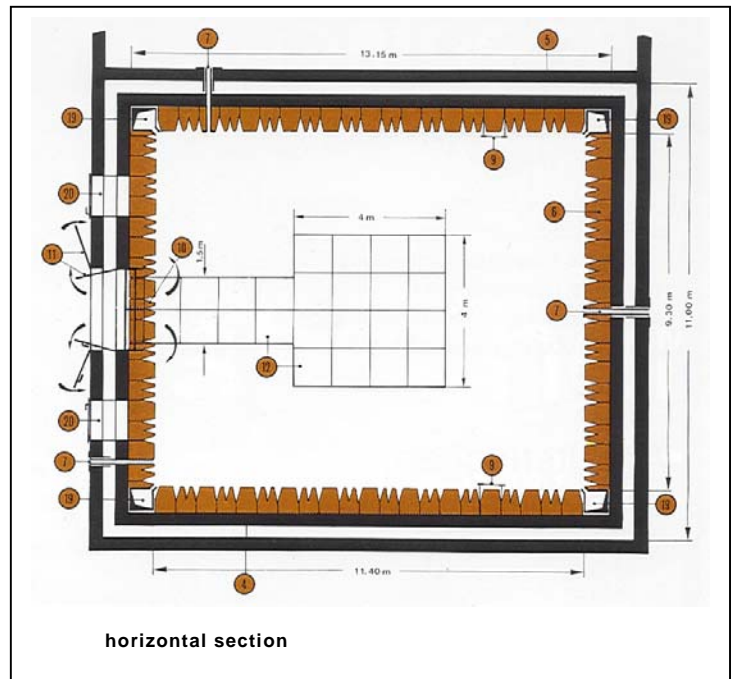
Depth of lining	0,86 m
Lower cut-off frequency	80 Hz
Sound reduction index of the doors (single)	48 dB
Resonance frequency of the suspension	2 Hz
Interference level of the ventilation	< 25 dB/okt

The building shell (4) of the anechoic chamber of reinforced concrete extends from the cellar (1) to the ground floor (2) and up to the first floor of the IBP laboratory and test facilities. The structure is acoustically shielded towards the rest of the building by means of concrete curtain walls (5). The anechoic chamber has spring bearings on separated pedestals to avoid interfering structure-borne sound.

The internal walls are covered with wedges made of glass fibers. A steel cable grid (accessible grid) (13) serves as working level. During the measuring set-up and for heavy loads, a removable grating (12), which can be dismantled except for the pillars (16) during ongoing measurements, serves as working level, too.

Two successively arranged double-leaf steel doors (11) and the movable part of the absorber lining (10) are used as exits. Two clacks (20) with removable absorber lining serve as passage to the test facilities (e.g. exit gas pipes). A total of six steel pipes (200 mm Ø) establish connection to all adjacent rooms for cables and pipes with smaller diameters. All passages to the outside are sound-absorbing or sound-insulating. Ten hooks (8) in the ceiling and flat-steel frames (9) in the side walls allow the fastening of measuring devices.

Ventilation ducts (19) with absorbing slit nozzles are arranged in the vertical corners of the facility over the whole ceiling height. A constant suppressive flow allows a low-noise forced ventilation of the anechoic chamber.



The ventilation systems and the grid, which is capable of bearing loads, allow examinations of machinery and automobiles. The numerous passages to the outside allow the implementation of control tools, power transmission, air supply and ventilation etc. The various fasteners can be used to install automatically controlled microphone scanning.