



Fraunhofer Institut
Bauphysik

Acoustic Test Facility
for **Windows**
Glazings, Panels
Roller Blinds
and Small Components

Technical Data

Test facility for Acoustic Measurements of Windows P4

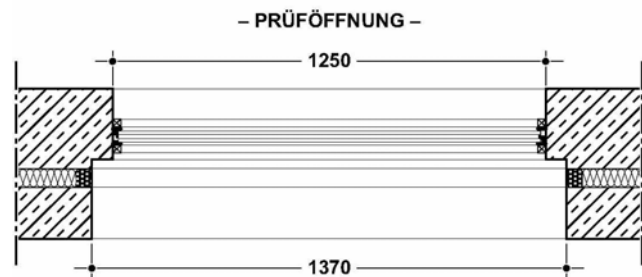
Volumes	67 m ³ and 57 m ³	
Height:	3,11 m and 3,11 m	
Width:	3,75 m and 3,74 m	
Length:	5,74 m and 4,85 m	
Dimensions of the test opening	1250 mm x 1500 mm	(usual mounting)
	1370 mm x 1560 mm	(mounting into the staggered niche)
Test object's dimensions *)	1230 mm x 1480 mm or 1350 mm x 1540 mm	
Test facility's door opening area:	0,85 m x 2,00 m and 1,90 m x 2,04 m	
upper limit related to the test opening	$R'_{max,w} = 72$ dB	
Compressed air and electric power available		

*) larger objects can be tested in the test facilities for walls or facades.
(Adaption to the test facility necessary)

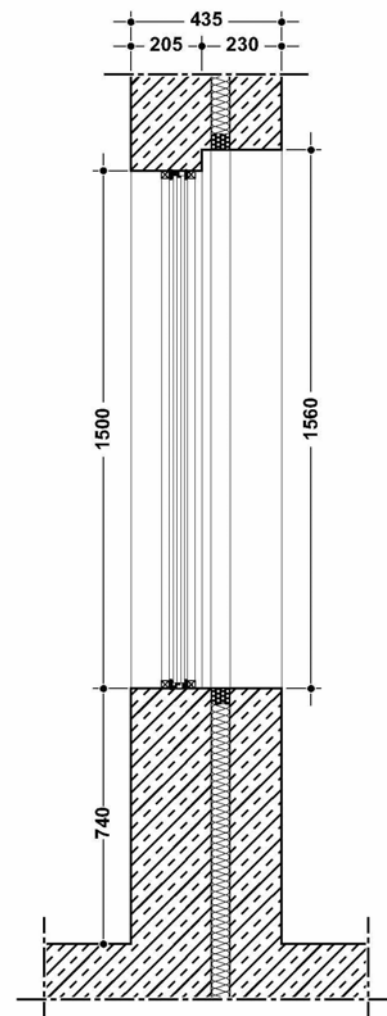
The test facility of the accredited laboratory (according to DIN EN ISO/IEC 17 025) fulfils the requirements of the Standard DIN EN ISO 140, part 1. The test opening has a rectangular shape with a staggered niche to mount windows in different positions.

In this test facility the sound reduction of glazings, windows, panels, building boards, roller blinds, ventilation systems, sealing materials and other small building elements can be tested. When the test elements are smaller than the test opening, the remaining area has to be closed by a multi-layer construction of high sound insulation. For the determination of the spatial and temporal averaged sound pressure level the dodecahedral loudspeaker is moved along an inclined straight path in the source room. The microphones are moved along an inclined circular path in the source room and the receiving room. The measurement of the sound pressure levels and their averaging is performed by a special building acoustic measuring system. The single number values of sound reduction R_w , and the spectrum adaption terms C and C_{tr} are derived from the one-third octave band input data according to DIN EN ISO 717, part 1.

PRÜFSTAND FÜR FENSTER



HORIZONTAL - SCHNITT



VERTIKAL - SCHNITT

MASSE IN MM