Semi-anechoic chamber P19

**Measurement**
- sound power (enveloping measurement surface), sound intensity, localization of sound sources
- sound pressure level (averaging and statistic distribution)
- directivity of sound sources, sound propagation, acoustical shielding

**Standard**
- DIN EN ISO 3745, DIN EN ISO 3744

**Measuring objects**
- Machinery and equipment, for example of ventilation and air-conditioning systems, and other noise sources
- Models of systems, buildings and monuments, for example noise barriers and noise reducing devices

**Technical data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Room size (L x B x W)</td>
<td>19.43 m x 5.25 m x 6.17 m</td>
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<tr>
<td>Room volume</td>
<td>629 m³</td>
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<tr>
<td>Entrance door (H x W)</td>
<td>2.37 m x 1.90 m</td>
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<tr>
<td>Connection to the reverberation room</td>
<td>Measurement of sound insulation and sound absorption of building components between reverberation room and anechoic room</td>
</tr>
<tr>
<td>Sliding door to the reverberation room (measurement surface area)</td>
<td>3.8 m x 2.35 m</td>
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</tbody>
</table>

**More information**
- Lower cut-off frequency 125 Hz (according to standard)
- Resilient mounting of the room for vibration isolation.
- Model measurements to a measurement scale of 1:40, model measurements of rooms
- Determination of sound propagation via railing model, for example radiation from buildings, shading by buildings, acoustical screens and noise barriers
- Ventilation systems (volume flow max. 4000 m³/h)
- Ventilation and air-conditioning system allows the simulation of wind and temperature profiles
- Test facility trafficable by forklift

The test laboratory of the Fraunhofer IBP has been granted flexible accreditation according to DIN EN ISO/IEC 17025 by Deutsche Akkreditierungsstelle GmbH (DAkkS).
- Floor level installation of sound sources possible
- Gas connection and evacuation (firing systems) available
- Measuring device to determine the impact sound performance of wall-installed equipment available
- Feed-through for measurement connections or supply lines available
- Compressed air and electric power available

With the adjacent reverberation room the Fraunhofer Institute for Building Physics offers the opportunity to install large-size machine units, to simulate systems and building complexes as well as for the transition from a free field to a diffuse field by means of a round 10 qm opening. Flanking transmission can be practically excluded.

Section and floor plan of the test facility (dimensions in m)

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