Reverberation Room P20

**Measurement**
- sound power, sound absorption coefficient (at diffuse incidence)

**Standard**
- DIN EN ISO 3741, DIN EN ISO 354

**Measuring objects**
- Machinery and equipment, for example of ventilation and air-conditioning systems, air terminals and other noise sources, sound absorber, suspended ceilings, wall linings, office partitions, furniture, seats, panels, textiles, noise barriers

**Technical data**
- **Floor area** 60 m²
- **Room volume** 392 m³
- **Entrance door (H x W)** 2,4 m x 2,2 m
- **Connection to a semi-anechoic room** Measurement of sound insulation and sound absorption of elements between reverberation and anechoic room
- **Size of the connecting door** 3,8 m x 2,35 m

**Further information**
- Low vibration doors with high sound reduction
- Separate plinth to measure the sound power of machines etc.
- Flexible storage in the room to reduce impact sound introduction.
- Controllable air-condition system for the adjustment of temperature and humidity
- Test surface are to determine sound absorption: 12 m² to max. 18 m², aspect ratio between 0,7 and 1
- Compressed air and electric power available

The test laboratory of the Fraunhofer IBP has been granted flexible accreditation according to DIN EN ISO/IEC 17025 by Deutsche Akkreditierungsstelle GmbH (DAkkS).
With the adjacent semi anechoic room (model room) the Fraunhofer Institute for Building Physics offers the opportunity to install large-size machine unit, 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.

**Floor plan and section of test facility (dimensions in m)**

<table>
<thead>
<tr>
<th>1 reverberation room</th>
<th>4 diffusors</th>
<th>7 model room</th>
<th>10 basement</th>
<th>13 closable wall opening</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 test surface area</td>
<td>5 doors</td>
<td>8 plinth</td>
<td>11 floor</td>
<td></td>
</tr>
<tr>
<td>3 ventilation and air-conditioning system</td>
<td>6 sliding doors</td>
<td>9 joint</td>
<td>12 steel springs</td>
<td></td>
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</tbody>
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