The IAC 120a-Series is a range of double-walled booths for individual or multiple occupancy.

Door opening: 760/840 mm wide x 1860 mm high
Window Clear View: 750 mm wide x 600 mm high

Ventilation: A further 380mm should be added to the height, width or length of the booth, depending on the preferred location of the ventilation system.

### IAC Acoustics Standard cabins 120a-Series

<table>
<thead>
<tr>
<th>Model</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
<th>Height (mm)</th>
<th>Weight approx. (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>120a-1</td>
<td>External 1,828</td>
<td>1,624</td>
<td>2,349</td>
<td>ca. 1,760</td>
</tr>
<tr>
<td></td>
<td>Internal 1,220</td>
<td>1,016</td>
<td>1,995</td>
<td></td>
</tr>
<tr>
<td>120a-2</td>
<td>External 2,538</td>
<td>2,438</td>
<td>2,349</td>
<td>ca. 3,150</td>
</tr>
<tr>
<td></td>
<td>Internal 1,930</td>
<td>1,830</td>
<td>1,995</td>
<td></td>
</tr>
<tr>
<td>120a-3</td>
<td>External 2,843</td>
<td>2,738</td>
<td>2,349</td>
<td>ca. 3,660</td>
</tr>
<tr>
<td></td>
<td>Internal 2,235</td>
<td>2,130</td>
<td>1,995</td>
<td></td>
</tr>
<tr>
<td>120a-4</td>
<td>External 3,348</td>
<td>3,148</td>
<td>2,349</td>
<td>ca. 4,500</td>
</tr>
<tr>
<td></td>
<td>Internal 2,740</td>
<td>2,540</td>
<td>1,995</td>
<td></td>
</tr>
<tr>
<td>120a-5</td>
<td>External 3,658</td>
<td>3,453</td>
<td>2,349</td>
<td>ca. 5,160</td>
</tr>
<tr>
<td></td>
<td>Internal 3,050</td>
<td>2,845</td>
<td>1,995</td>
<td></td>
</tr>
</tbody>
</table>
Specification for IAC 120a Series Audiometric Examination & Medical Research Booths

Roof & Wall Construction: Roofs and walls are constructed from standard IAC Noise-Lock® 2 acoustic panels, 102mm thick. Average weights are no less than 50 kg/m².

Floor Construction: IAC Acousti-flote™ floors shall be 50/80 mm high and structurally reinforced. All floors are carpeted. Average weights are no less than 90 kg/m². Floors float on properly loaded vibration isolators rated for a natural frequency of 6.5–14 Hz for maximum elimination of structural noise. This enables a low-level entry, e.g using a wheelchair.

Acoustic Infill: Floor, wall, door and roof panels shall be sound retardant, absorbing, inert, mildew resistant and vermin proof. Heat transfer factor shall be no more than 0.397 W/m² °C.

Door Construction: IAC Noise-Lock®, flush fitting doors with twin magnetic seals, special hinges and pull handles shall be provided with a clear opening of 760/840 mm wide x 1860 mm high.

Wall & Roof Panel ‘H’ Joiners: Wall and roof panels shall be acoustically and structurally joined together by IAC ‘H’ joiners, to maintain the acoustic integrity of the booth.

Window Construction: Windows shall be 760 x 610 mm (sizes may vary in some orientations), using sealed double glazed assemblies within profiled steel frames.

Jack Panel: Jack panel comprising of nine 6.3 mm three-pole jack sockets and one Type A USB connector is provided below the window. The panel shall be designed and installed to preserve the acoustic integrity of the booth.

Electrical: All booths are provided with lighting operated from an adjacent switch. A separate switch will control the ventilation system. Power operation 230 volts, 50 Hz.

Ventilation: All models have the ventilation system roof or wall mounted and be operated in conjunction with special ventilation panels. A further 380 mm should be added to the height, width or length of the booth, depending on the location of the system. All IAC booths equipped with a ventilation system should be installed in rooms with sufficient ventilation.

Finish: All booths are supplied in a factory finish coated condition. Color: RAL 9010 (white). All floors are covered with an anti-static carpet, color: grey.

Optional Extras (additional costs apply)
- Acoustic double glazed vision panel within door (300 mm x 915 mm high)
- Emergency light pack
- Internal power sockets
- RF and electromagnetic shielding
- Fabric covering to internal walls
- Special connection panels, cut-out
- Increased clear opening width doors (where possible)
- Additional colour options are available for all panels and doors
- Power filters

Noise Reduction & Sound Absorption

Noise Reduction*: The minimum allowable noise reduction of completely assembled rooms, as tested in a recognized independent and approved laboratory, as shown in the table below.

Sound Absorption: The composite sheet metal and sound absorbing assembly shall have a sound absorption coefficient based on laboratory tests as shown in the table below.

<table>
<thead>
<tr>
<th>Oktave Band Centre Frequency</th>
<th>63Hz</th>
<th>125 Hz</th>
<th>250 Hz</th>
<th>500 Hz</th>
<th>1,000 Hz</th>
<th>2,000 Hz</th>
<th>4,000 Hz</th>
<th>8,000 Hz</th>
<th>NIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise Reduction for Double Wall Booths</td>
<td>37</td>
<td>47 dB</td>
<td>62 dB</td>
<td>80 dB</td>
<td>&gt; 85 dB</td>
<td>91 dB</td>
<td>&gt; 88 dB</td>
<td>&gt; 80 dB</td>
<td>50</td>
</tr>
</tbody>
</table>

| Sound Absorption Coefficient | - | 0,49 | 0,37 | 0,83 | 0,96 | 0,99 | 1,00 | - |

Noise Reduction measurements shall be made in accordance with the following ASTM Designations: E596 and, where applicable, portions of E90 and E336.

* Defined as the measured difference between the sound pressure levels in a reverberant room, outside the booth and inside the booth.

** +/- 3 dB for field instrument accuracy.

NIC – Noise Isolation Class, single number rating system for noise-reduction characteristics.

IAC GMBH
Sohlweg 17
41372 Niederkrüchten

T: +49 2163 9991-0
F: +49 2163 9991-23
E: deutschland@iac-gmbh.de

www.iac-gmbh.de