

# 400 Series

- Single wall construction
- 102mm thick Acoustic Modular Panels
- Structurally isolated
- Equipped with ventilation, lighting and jack panel
- Fast, clean installation
- Wide range of sizes and configurations available
- BS EN ISO 9001 quality registered
- Excellent value for money



# audiometric booths

# IAC 400 SERIES AUDIOMETRIC BOOTHS PROVIDE A SUITABLE ENVIRONMENT FOR HEARING TESTING, EXAMINATION AND RESEARCH

IAC has been a World Leader in the design and manufacture of prefabricated acoustic booths and rooms for hearing testing and research for over 50 years. The IAC 400 series of booths is a popular choice worldwide. Users appreciate the high acoustic quality, flexibility and robust construction of IAC booths and rooms.

The IAC 400 Series booths are constructed from 102 mm thick acoustic modular panels and offer a fitting environment for a whole range of audiological investigations and measurements including bone conduction tests, speech therapy and psychological tests.



IAC TETRA Audiology Booth

# **NOISE REDUCTION AND SOUND ABSORPTION**

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

**Sound Absorption:** The composite sheet metal and sound absorbing assembly shall have a minimum overall noise reduction coefficient of 0.9 (1.10) based on laboratory in accordance with ASTM C423-77 as shown in the table below.

	OCTAVE BAND CENTRE FREQUENCY,HZ								
Noise Reduction, dB	63	125	250	500	1K	2K	4K	8K	
400-A Series Booths	33	31	39	50	57	61	68	62	NIC 53
Sound Absorption Coefficient	0.38	0.94	1.19	1.11	1.06	1.03	1.03	1.04	(1.10) NRC 0.95



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.

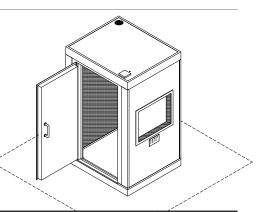
\*\*+ 3dB for field instrument accuracy.

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

# 400 SERIES - STANDARD SIZES AVAILABLE

# The IAC 400 Series is a range of single walled booth for individual or multiple occupancy.

- Door Opening: 838mm wide x 1857mm high
- Window Clear View: 750mm wide x 600mm high
- Ventilation: Models 400-A & 401-A have a ventilation system built into the roof panel. For Models 402-A to 405-A a further 370mm should be added to the height, width or length of the booth depending on the preferred location of the ventilation system.



	INTERNAL				EXTERNAL	ROOM WEIGHT	VENT m³/min	
MODEL	WIDTH	DEPTH	HEIGHT	WIDTH	DEPTH	HEIGHT	kg	
400-A	1016	914	1995	1220	1118	2317	820	2.85
401-A	1220	1016	1995	1424	1220	2317	950	2.85
402-A	1930	1826	1995	2210	2030	2343	1580	5.66
403-A	2235	2131	1995	2515	2335	2343	1890	5.66
404-A	2740	2540	1995	3020	2744	2343	2380	5.66
405-A	3050	2845	1995	3125	3049	2343	2800	8.50

# The IAC 401-A-SE is a "single walled" compact design incorporating both the door and window in the front wall panel making this booth ideal for tight spaces.

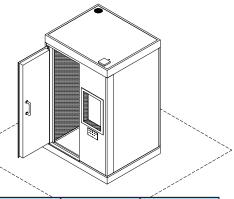
- Door Opening: 610mm wide x 1857mm high
- Window Clear View: 405mm wide x 610mm high
- Ventilation: Built into the roof panel

	INTERNAL				EXTERNAL	ROOM	VENT	
MODEL	WIDTH	DEPTH	HEIGHT	WIDTH	DEPTH	HEIGHT	WEIGHT kg	m³/min
401-A-SE	1220	1016	1995	1424	1220	2317	890	2.85

# The IAC TETRA is a uniquely shaped alternative to the options above, designed for single occupancy.

- Door Opening: 838mm wide x 1857mm high
- Window Clear View: 750mm wide x 600mm high
- Ventilation: Built into the roof panel

	INTERNAL			EXTERNAL			ROOM	VENT
MODEL	WIDTH	DEPTH	HEIGHT	WIDTH	DEPTH	HEIGHT	WEIGHT kg	m³/min
TETRA	1930	1930	1995	2135	2135	2317	1140	5.66



# SPECIFICATION FOR IAC 400 SERIES AUDIOMETRIC EXAMINATION & MEDICAL RESEARCH ROOMS

**ROOF & WALL CONSTRUCTION** – Roofs and walls shall be constructed from standard medical acoustic panels, 102mm thick. Outer panel faces shall be 1.6mm steel sheet while inner faces will be 0.7mm galvanised perforated steel sheet with 2.5mm diameter openings on 5.0mm staggered centres. Panels are reinforced and framed with 1.2mm channels. Average weight to be not less than 50kg/m2.

**FLOOR CONSTRUCTION** – Acousti-Flote® floor shall be 50mm thick with 3.0mm steel sheet upper surface and 1.6mm steel sheet lower surface, structurally reinforced. All floors are carpeted. Average weight shall be not less than 51kg/m2. Floors shall float on properly loaded vibration isolators rated for a natural frequency of 6.5 Hz for maximum elimination of structural noise.

**ACOUSTIC INFILL** – for floors, walls, door and roof panels shall be soundretardant, absorbing, inert, mildew resistant and vermin proof. Heat transfer factor shall be no more than 0.397Wm C.

**DOOR CONSTRUCTION** – IAC Noise-Lock®, flush fitting, level swing doors with magnetic seals and pull handles shall be provided with a clear opening of 838mm wide x 1857mm high (excluding model 401-A-SE). The door leaf shall be fabricated from 1.6mm thick steel on the outer and inner face and 1.6mm framing and reinforcing sections.

**WALL & ROOF PANEL 'H' JOINERS** – Wall and roof panels shall be acoustically and structurally joined together by 'H' joiners, constructed from 0.9mm steel shall maintain the acoustical integrity of the booth.

**WINDOW CONSTRUCTION** – Windows shall be 750mm x 600mm (sizes may vary in some orientations), double glazed, using 6.0mm thick laminated safety glass, with 'pressure-sealed' aluminium trim frame.

**JACK PANEL** – A jack panel consisting of nine 6.4mm three-pole jack sockets shall be provided below the window. This jack panel shall be designed and installed to preserve the acoustic integrity of the booth.

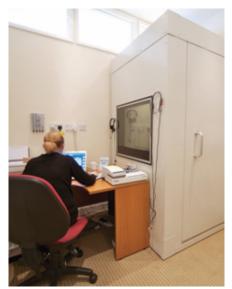
**ELECTRICAL** – All booths are provided with lighting operated from an adjacent switch. A separate switch will control the ventilation system. Power operation 240V, 50Hz. (All cable supplied by others).

**VENTILATION** – Booth models 400-A, 401-A and 401-A-SE shall be provided with the IAC Tranquil-Aire® ventilation system integrated in the roof panel. All other models shall have the ventilation system roof or wall mounted and be operated in conjunction with special ventilation panels. A further 370mm should be added to the height, width or depth of the booth, depending on the location of the system.

**FINISH** – All booths are supplied in a factory finish polyester powder coated condition. Colour: RAL 9002 Grey/White.All floors are covered in an anti-static carpet, colour: Light Blue.

### **OPTIONAL EXTRAS** (Additional costs apply)

- Acoustic double glazed vision panel within door (150mm x 600mm high).
- Emergency light pack.
- Internal power sockets.
- RF and electrostatic shielding.
- Fabric covering to internal walls.
- Power filters.
- Special jack panels, cut-outs and plugs.
- Increased clear opening width doors (where possible).
- One-way viewing film fitted to window.
- High frequency fluorescent lights.



IAC 401-A Audiometric Booth





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