

SPECIFICATIONS FOR IAC MEDICAL/LIFE SCIENCES EXAMINATION AND RESEARCH ROOMS

Medical Rooms shall be Model Number (insert as required) as manufactured by Industrial Acoustics Company, Inc., 1160 Commerce Avenue, Bronx, New York 10462.

Roof and Wall Panels shall be made of not less than 14 gauge cold rolled TEXTURED steel outside surfaces and 22 gauge galvanized perforated TEXTURED steel inside surfaces with 3/32 in. diameter openings on 3/16 in. staggered centers, reinforced with 18 gauge CRS channels for a rugged metal frame. Average weight to be not less than 8lbs/sq. ft.

Floor Construction - shall be 4 in. thick with 11 gauge hot rolled steel upper surface and 16 gauge CRS bottom sheets structurally reinforced. All floors shall be covered with carpeting. Average weight to be not less than 10lbs./sq. ft. Floors shall float on properly loaded isolators rated for natural frequency of 6 1/4 Hz for maximum elimination of structural noise.

Acoustic Infill for room panels shall be sound retardant, absorbing, inert, mildew-resistant and vermin proof. It shall have U.L. fire hazard classification of not greater than: Flame Spread - 0; Smoke Developed - 5; Fuel Contributed - 0. Heat transfer factor shall be no more than 0.07 BTU/hr/ft²/° F.

Door Construction - Noise-Lock® Flush-Mounted Cam-Lift magnetic seal doors shall be provided with a clear opening of 33 in. wide x 73 1/2 in. high. Door leaf shall be fabricated of 14 gauge cold rolled TEXTURED steel, inner and outer sheets. Sides and head of door and frame shall receive two (2) sets of self aligning magnetic compression seals. An acoustic labyrinth shall be created when the door is in the closed position. Bottom of door leaf shall contain continuous gravity activated seal which shall compress against floor as door is closed. RAISED SILL AND THRESHOLD DROP SEALS ARE NOT ACCEPTABLE.

Wall and Roof Panel "H" Members - Wall and roof panels shall be acoustically and structurally joined together by "H" members. One piece seamless, non-welded, rolled formed "H" members constructed of 20 gauge CRS shall maintain the acoustical integrity of the room.

Window Construction - Windows shall be 30 in. wide by 24 in. high double-glazed 1/4 in. thick safety glass with "pressured-sealed" ALUMINUM TRIM FRAME.

Jack Panel - A jack panel consisting of ten (10) Switchcraft 3-wire phone-type jacks with covers, one (1) each Cinch Jones Series No. 303 and 304 connectors and two (2) 1-inch ID grommeted holes shall be provided under the window. On Models 40a-1 and 40a-2 jack panel shall consist of six (6) Switchcraft and one (1) each Cinch Jones No. 303 and 304. Jack panels shall be designed to preserve the acoustical integrity of the room.

Electrical - All components shall be UL approved and Hospital Grade. All wiring shall be in accordance with the National Electric Code. All Series rooms shall be provided with recessed Low Harmonic Fluorescent lights and a factory wired "power panel" consisting of: Interior - Two (2) rocker switches to control lights and fans independently. Two (2) duplex outlets. Exterior - Two (2) duplex outlets to plug in lights and fans. One (1) 10 foot long power cord and plug for connection to a 110V/60Hz power supply. All ACT Series rooms shall be provided with one (1) surface mounted 6-outlet plug strip underneath window in control room.

Ventilation Systems - "spaSAVER"™ ceiling panels containing an all-in-one integrated Tranquil-Aire® ventilation system, roof or wall mounted shall be provided. Where rooms are directly coupled through a flexible duct to a building AC system, supplementary IAC Quiet-Duct Silencers are available for installation in the ductwork by others.

Fire Rating - (Recommended Option) - Rooms shall be constructed of Fire-Noise-Lock® Panels fire rated by U.L. for 90 min. with sound absorptive surfaces facing fire inside room. Rating for solid surfaces facing fire outside room shall be not less than 45 min. Each Fire-Noise-Lock Panel shall bear a label with Listing Mark of Underwriters Laboratories, Inc. certifying dual ratings.

Noise Reduction* - The minimum allowable noise reduction of completely assembled rooms as tested in accordance with ASTM Standard E-596 in a NVLAP accredited laboratory shall be as per the Table below:

1/1 OCTAVE BAND CENTER FREQUENCY, Hz.								
Noise Reduction, dB*	125	250	500	1K	2K	4K	8K	NIC**
Single-Wall Rooms †	25	37	48	55	59	60	58	50
Single Wall Rooms with Enhancement Package	28	41	50	58	59	61	62	53
800a Series Rooms	33	49	56	65	71	74	73	60
All Double-Wall Rooms	47	62	83	91	99	97	>91	70

*Defined as the difference between sound-pressure-level in a reverberation room outside the booth and that inside the booth. Copy of Laboratory Report available on request.

† Excluding Model 140act control room.

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

Finish - Degrease and clean all metal surfaces with welds ground smooth and filled as needed. Coat with rust inhibitive chromate modified alkyd primer. Finish with cellulose-nitrate polyester modified coating per quality standards of National Association of Architectural Metal Manufacturers. Color: Desert Sands as standard.

Erection Procedure - Rooms shall be so engineered as to allow the installation of this equipment within 4 in. of an existing wall.

No Exceptions To This Specification Are Allowed.

Optional Equipment Available at Additional Cost

- ✓ Outer room with Acousti-Flote™ floor floating on vibration isolators (double wall rooms only).
- ✓ Noise-Lock double-glazed 12 in. x 12 in. window in door.
- ✓ Additional or larger sized doors.
- ✓ Additional or larger sized Noise-Lock windows.
- ✓ Light-tight shades with frames.
- ✓ One-way Noise-Lock glass window substituted for standard.
- ✓ One-way Noise-Lock glass on sliding rails.
- ✓ Intercom system.
- ✓ RF and electrostatic shielding.
- ✓ Power filters.
- ✓ Five enhancement packages with choice of room, fabric and liner colors.
- ✓ Special jack panels, cutouts and plugs.
- ✓ Humidity and temperature control.
- ✓ Mortise type, lever handle, recessed keyed locks.
- ✓ Quiet-Duct sound attenuators.



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