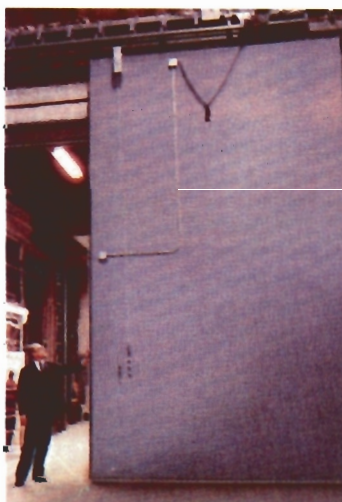
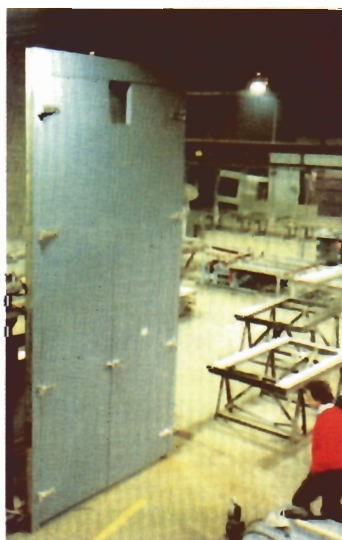
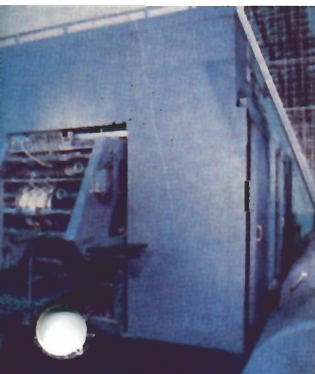


moduline®

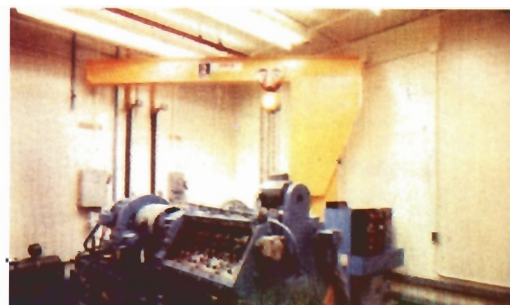
NOISE CONTROL by INDUSTRIAL ACOUSTICS COMPANY
UPDATED WITH NEW PANELS, FIRE & BALLISTIC RATINGS

Design Rugged Noise Control Structures Using Acoustically Rated and Field Proven Demountable Components...
 Readily Assembled, Demounted, Rearranged, and Reassembled Without Loss of Acoustical or Structural Performance



MODULINE APPLICATIONS

- Soundproof Partitions
- Machinery Enclosures
- Factory Offices
- Sound Barriers
- Quiet Rooms
- Quality-Control Rooms
- Test Environments
- Product-Development Rooms
- Acoustic/Thermal Plenums
- Transformer Stations
- Communication Centers
- Observation/Control Rooms
- Power-Plant Offices
- Traffic-Control Centers
- Vibration-Test Enclosures
- Radio, TV, Recording Studios
- Control Pulpits
- SCIF Rooms
- Conference Rooms
- Printing Press Enclosures
- Equipment Penthouses
- Coordinate Measuring Machine Enclosures
- Cooling Tower Enclosures
- Outdoor Construction Offices
- Document Storage Rooms
- and many others



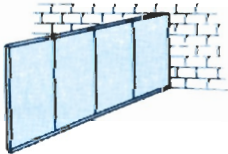
Designing a Moduline Structure is as Simple as A-B-C...

Industrial Acoustics Company's Moduline® System features modular Noishield® and Noise-Lock® components with high sound-transmission-loss and sound-absorption ratings providing excellent noise reduction characteristics.

Components include wall, roof, and floor panels, doors, windows, ventilation units and silencers, panel joiners, trim and hardware; all part of an acoustically and structurally rated 'building block' system for a multitude of applications.



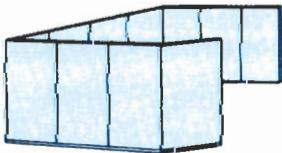
Straight Walls — Barriers



A straight wall or barrier is the most basic of configurations, and constitutes a starting point. The sound-retardant panel wall may be part of a full enclosure, or a partial barrier between existing walls. The panels are connected by 'H'-joiners and securely joined to the floor by placement in a standard floor channel. Seal against other structures is made with angle connectors and felt stripping.



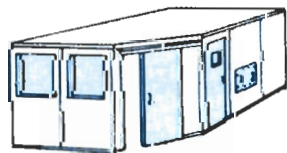
Partial Enclosures/Shields



Walls at right angles to the basic wall may be added by using a corner joiner. If other than a right angle connection is desired angular joiners are used.



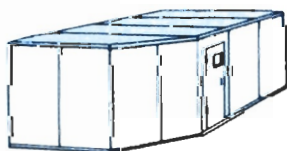
Access to Enclosed Equipment



Doors, Removable Panels, Windows — no-sill personnel access is provided with manual or automated sliding doors, framed openings, or a wide range of hinged single- and double-leaf magnetic seal doors. For vision, standard double-glazed windows range from 12 in. x 12 in. (305 x 305mm) to 27 in. x 74.5 in. (686 x 1892mm).



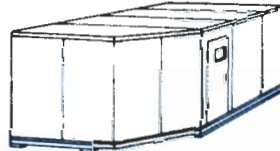
Roof for a Complete Enclosure



Roof construction is similar to that used for walls. Standard 'H'-joiners, roof channels and apron provide the necessary structural and acoustical seals and may be used for most applications on spans up to 20 ft (6096mm). When the roof must support more than its own weight, and for spans greater than 30 ft (9144mm), a special structural 'H'-joiner is utilized.



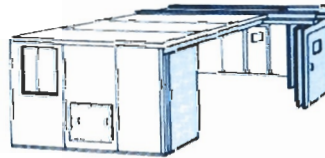
Floors and Vibration Control



Where structurally transmitted noise and/or vibration must be controlled, the enclosure is built upon a Moduline floor floating upon vibration isolators.



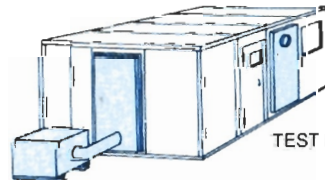
Trackwall for Completely Removable yet Captive Walls



Trackwall® components are stored in a convenient storage area when removed from the structure. These sturdy, all-steel jacking panels seal between the existing floor and the overhead structural track. When 'open' Trackwall panels leave no trip hazard sills. All hardware is captive, ensuring long-term maintenance-free acoustic integrity.



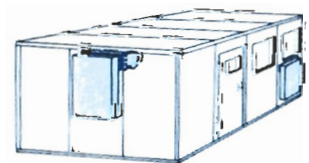
Ventilation for Complete Enclosures



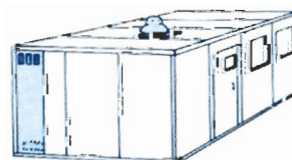
TEST ENVIRONMENTS

Moduline Ventilation Systems in low- and high-volume flow designs are offered in both Noishield and Noise-Lock constructions. Air conditioning is available for personnel shelters and test environments.

MACHINERY ENCLOSURES



PERSONNEL STRUCTURES



...with Versatile Components Designed for Ease of Installation

Walls, Ceilings, and Floors

- Moisture protection for absorption materials prevents entrapment of volatile or corrosive liquids.
- Optional Fire-Noise-Lock[®] construction provides certification of 1.5 hr fire rating – all components shipped with U.L. label.
- Heavy-duty applications – up to 1/4 in. (6.35mm) plate vault construction
- Noise-Foil™ sound absorption system reduces reverberant build-up within existing 'hard' structures.

Doors & Other Accessories

- Single- and double-leaf 'cam-lift', no-sill personnel doors. Clear opening to 8 ft x 14 ft (2438 x 4267mm). Special designs for larger openings available.
- Panic hardware.
- Manual and automated single- and double-leaf sliding doors.
- Single-leaf maintenance access doors.
- Trackwall track-mounted movable wall system – also with 1.5 hr fire rating.
- Removable panel details – all hardware captive.
- Access plugs for local access.
- Double-glazed window units provide vision access at no loss of acoustic integrity.
- U.L. fire-rated doors – 3 hrs – up to 42 in. x 90 in. (1067 x 2286mm) single-leaf clear opening. 84 in. x 90 in. (2134 x 2286mm) double-leaf clear opening.

Materials

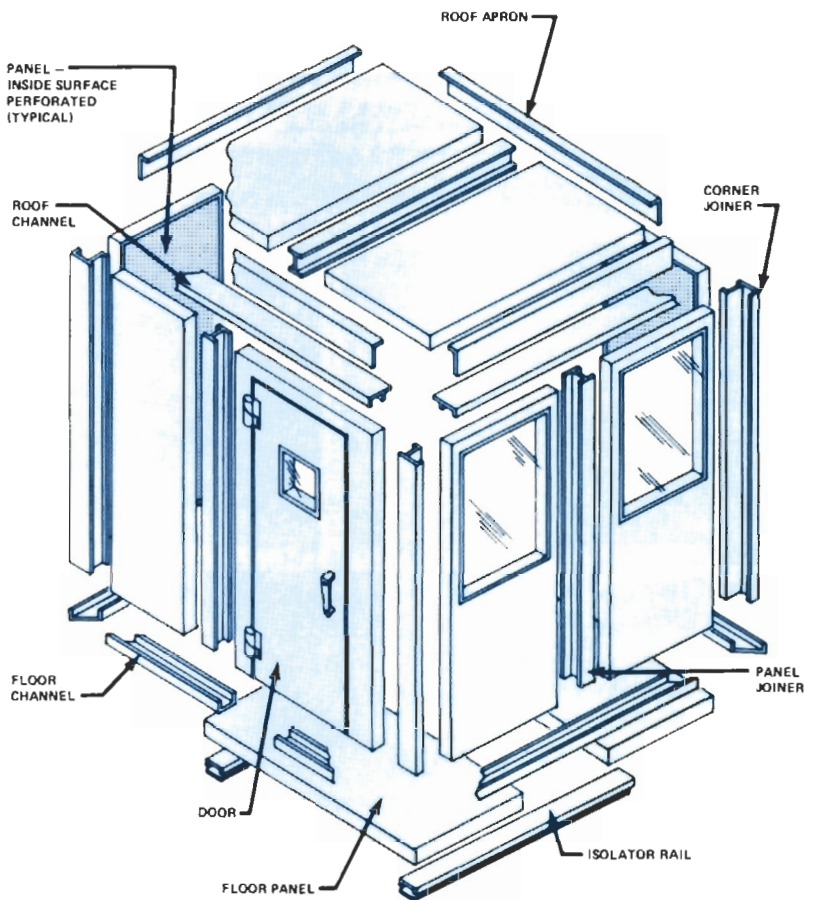
- Standard – cold-rolled solid steel and galvanized perforated steel.

OPTIONAL

- All galvanized construction.
- All stainless construction. Types 304, 316, 316L, 321, and 409
- Stainless steel perforated only

Ventilation

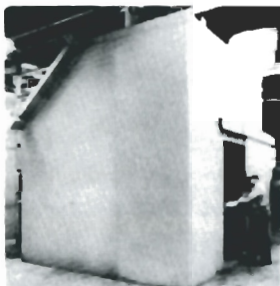
- Acoustically compatible systems – 100–10,000 cfm (170–17,000 m³/hr).
- Wide range of acoustically and aerodynamically rated silencers for normal and most exacting requirements.



Installation Information and Sequence

1. Two men can handle Moduline components.
2. Install doors as other panel components, leaves shipped pre-assembled in panel frame.
3. Place floor channels in lengths needed for room perimeter. Anchor to floor.
4. Starting at a corner install panels and joiners to make up walls.
5. Install roof angles. Place ceiling panels and joiners. Finish off with external roof apron.
6. Install accessory items, including forced ventilation system and electrical work.
7. Use easy to follow, detailed, and illustrated installation instructions provided with each structure.

"Here's How" Case Histories Illustrate Moduline Noise Reduction Capability



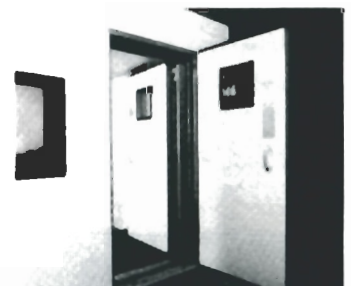
MACHINERY ENCLOSURES
Rumbler Noise Reduction
35 dBA



STRUCTURES WITH SILENCERS
Furnace Noise Reduction
23 dBA



PARTIAL ENCLOSURES
Printing Press Noise Reduction
9 dBA



TEST FACILITIES
Noise Reduction
60 dBA

Over 100 detailed case histories describe a wide range of small-and large-scale Moduline Installations. Highlighting mechanical, structural, and acoustical characteristics. "Here's How" stories il-

lustrate efficient and economical methods to solve your noise control problems. Tell us about the nature of your noise problem and we will mail you appropriate case histories.

MODULINE® CHECKLIST

✓ Acoustic Performance Ratings

Moduline Panels are available with a wide range of sound-transmission-loss and sound-absorption ratings to accommodate any noise-control requirement:

SOUND TRANSMISSION LOSS, dB

SOUND ABSORPTION COEFFICIENTS

| Octave Band Center Freq., Hz | 63 | 125 | 250 | 500 | 1K | 2K | 4K | 8K | STC | Wt, lb/ft ² | Octave Band Center Freq., Hz | 125 | 250 | 500 | 1K | 2K | 4K | 8K | NRC |
|-----------------------------------|----|-----|-----|-----|----|----|----|----|-----|------------------------|-----------------------------------------------------------------|------|------|------|------|------|------|------|----------------|
| Noishield Septum | 21 | 19 | 23 | 35 | 50 | 60 | 68 | 72 | 37 | 9 | Noishield Regular and Trackwall Regular | 0.89 | 1.20 | 1.16 | 1.09 | 1.01 | 1.03 | 0.93 | (1.10) 0.95 |
| Noishield Regular | 20 | 21 | 27 | 38 | 48 | 58 | 67 | 66 | 40 | 8 | Noishield Septum | 0.50 | 0.68 | 1.03 | 1.05 | 1.00 | 0.99 | — | (1.10) 0.95 |
| Mill Duty Regular | 28 | 27 | 28 | 41 | 50 | 57 | 57 | 64 | 43 | 10.5 | Noise-Lock I, II, Fire-Noise-Lock and Super-Noise-Lock | 0.94 | 1.19 | 1.11 | 1.06 | 1.03 | 1.03 | 1.04 | (1.10) 0.95 |
| Noise-Lock I | 25 | 27 | 31 | 41 | 51 | 60 | 65 | 66 | 44 | 9.5 | Noishield and Trackwall Regular with fill protection and spacer | 0.56 | 0.99 | 1.09 | 0.97 | 0.95 | 0.90 | — | (1.00) 0.95 |
| Noise-Lock II and Fire-Noise-Lock | 27 | 30 | 32 | 41 | 50 | 59 | 67 | 71 | 45 | 10.5 | Noise-Lock III | 0.49 | 0.37 | 0.83 | 0.96 | 0.99 | 1.00 | — | 0.80 |
| Trackwall Regular | 18 | 25 | 35 | 45 | 52 | 51 | 56 | 58 | 46 | 10 | Noise-Foil I and II, (2 in.-51mm thk) | 0.35 | 0.65 | 1.20 | 1.21 | 1.07 | 0.92 | — | 0.95 |
| Super-Noise-Lock | 31 | 34 | 35 | 44 | 54 | 63 | 62 | 68 | 48 | 15 | Noise-Foil I and II (4 in.-102mm thk) | 0.97 | 1.39 | 1.34 | 1.29 | 1.19 | 1.01 | — | 1.30 |
| Trackwall Hard | 31 | 38 | 43 | 48 | 53 | 53 | 58 | 59 | 51 | 10 | Noise-Foil V | 0.24 | 0.95 | 1.13 | 0.99 | 0.94 | 0.86 | — | 1.00 |
| Noishield Hard | 22 | 33 | 45 | 52 | 58 | 68 | 75 | 65 | 56 | 9.5 | | | | | | | | | |
| Vault | 34 | 39 | 46 | 56 | 62 | 59 | 60 | 64 | 57 | 15.5 | | | | | | | | | |
| Noise-Lock III | 20 | 36 | 51 | 68 | 75 | 83 | 84 | 73 | 59 | 11 | | | | | | | | | |
| Noise-Lock II Hard | 24 | 40 | 50 | 57 | 65 | 73 | 80 | 78 | 61 | 12 | | | | | | | | | |
| Noise-Lock IV Hard | 21 | 30 | 50 | 60 | 73 | 79 | 80 | 71 | 62 | 11.3 | | | | | | | | | |
| Gemini Regular | 34 | 48 | 58 | 69 | 75 | 82 | 86 | 76 | 70 | 21 | | | | | | | | | |

Data in complete accordance with ASTM E 90 (Transmission Loss) and E 413 (Sound Absorption).

✓ Fire Resistance Ratings

Fire-Noise-Lock® Panels are shipped with U.L. labels certifying 1-hour (solid side) and 1.5-hour (absorptive side) ratings. Doors are certified and shipped with 1-, 1.5-, or 3-hour rating as required. Trackwall® available with 1.5-hour rating. See Data Sheet MDS 1113 for further details.

✓ Blast Resistance

Moduline Structures and Components can be designed to withstand 1 psi (6895N/m²) blast load. All doors remain operable after blast.

✓ Bullet Resistance

Moduline Noise-Lock Acoustic/Ballistic Panels are Underwriters Laboratory listed for bullet resistance in accordance with U.L. Standard 752. System is rated for High Power Rifle (HPR), Super Power Small Arms (SPSA), High Power Small Arms (HPSA), and Medium Power Small Arms (MPSA).

✓ Tax Advantages Reduce Cost

Moduline Structures qualify in many applications for tax savings associated with accelerated depreciation. Other construction components such as dry wall or concrete block do not qualify. Savings with Moduline can amount to 30% to 40% of purchase price. Industrial Acoustics Company recommends consultation with tax or financial advisors on the specifics of each application.

✓ Detailed Moduline Application Manual

Each Moduline Component is fully described in nearly 100 detailed engineering and application data sheets which make up a new expanded edition of the Moduline Application Manual. It provides engineering data including sound transmission loss, sound absorption, sizes, weights, materials of construction, and application information utilized in the design and installation of noise-control structures. Request IAC Moduline Application Manual, Bulletin 6.0502.

✓ Unequaled Engineering and Manufacturing Organizations

Since 1949 Industrial Acoustics Company has pioneered exclusively in noise-control products and systems for industry, architecture, research, aerospace, power generation, and air conditioning. IAC possesses a unique reservoir of practical noise-control engineering know-how as applied in thousands of installations. IAC will be pleased to make recommendations to meet any acoustical criteria and requirement. For unusual problems let IAC's engineers and research facilities go to work for you.

ALL DESIGNS AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



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