



**Troy Acoustics Corporation**

**1. Product Name**

Troy System® for Broadcast and Studio

**2. Manufacturer**

Troy Acoustics Corporation  
 26332 Ferry Court  
 Santa Clarita, CA 91350  
 (800) 987-3306  
 (818) 376-8490  
 Fax: (818) 376-8495  
 E-mail: troyinfo@troyacoustics.com  
 www.troyacoustics.com

**3. Product Description**

**BASIC USE**

The Troy System® is a custom designed blend of materials that has been developed specifically for sound attenuation in broadcast and recording studios, editing rooms, sound stages, movie and home theaters, as well as in conference and media rooms. Patented, certified and standardized, Troy System® sound treatments are cost effective, install quickly and easily in new or retrofit applications and provide excellent acoustical ratings.

Sound leakage - sounds from other instruments and sources not intended to be picked up by a microphone or other type of production equipment - can be a significant problem for digital transmission. The Troy System not only handles noise, cross talk and other potential interferences inherent in older analog systems, but is also capable of absorbing noise interference ranging from that of electronic circuitry to lighting to a neighbor's power tools, all of which can equally impede digital broadcast clarity.

Each Troy System is customized to meet project-specific acoustical objectives and comply with OSHA requirements. Installed over exposed wall surfaces, overhead baffles and safety ceilings, the Troy System delivers superior sound control, achieving guaranteed reverberation times as low as .75 seconds. As an added benefit, the system provides increased thermal protection, thereby improving a facility's overall energy efficiency.

**COMPOSITION & MATERIALS**

The Troy System is comprised of 2 primary com-



Broadcast systems can be designed to read as low as NC15 with a reverb time of .75 seconds .....guaranteed.

ponents that absorb, trap and muffle sound energy: Troy Board®, a composite wood fiber cement matrix board, and Troy Wool®, a high density mineral wool. Rugged, strong and waterproof, Troy Board is composed of dimensionally stable, unfaced rigid cement wood fiber board containing only natural materials. Board density is 3.5 psf minimum per 1" (25.4 mm) section. Troy Board and Troy Wool contain no asbestos, urea-formaldehyde or CFC blown agents.

**SIZES**

The Troy System is typically designed to meet specific size and sound level isolation or reverberation requirements. Standard sizes as detailed below.

**Troy Board**

- Thickness - 1" or 2" (25.4 or 51 mm)
- Width - 2' (0.6 m)
- Length - 8.5' (2.6 m)

**Troy Wool**

- Thickness - 1 1/2" (38 mm)
- Width - 2' (0.6 m)
- Height - 4' (1.2 m)

**COLOR**

The Troy Board finish comes in a natural wood tone. Exposed interior surfaces can be covered with fabric or painted with acrylic latex, and edges can be trimmed for a beveled or squared appearance.

**BENEFITS**

- Provides full sound spectrum absorption that meets or exceeds OSHA sound level requirements
- Guaranteed reverberation time of .75 seconds or less equates to low overall sound exposure and noise levels
- Thermal value of R5 for every inch of Troy Wool used
- Waterproof; does not support mold or fungi growth
- Custom designed to project specifications; standard designs available
- System components can be shipped directly to the jobsite, ready for installation
- Fast, easy installation; multiple contractors not required

**ACCESSORIES**

- Nontoxic, nonsag, paintable, nonstaining latex sealant complying with ASTM C834

**4. Technical Data**

**APPLICABLE STANDARDS**

- ASTM C136 Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
- ASTM C423 Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
- ASTM C612 Standard Specification for Mineral Fiber Block and Board Thermal Insulation

- ASTM C665 Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing
- ASTM C834 Standard Specification for Latex Sealants
- ASTM E84 Standard Test Method for Surface Burning Characteristic of Building Materials
- ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- ASTM E413 Classification for Rating Sound Insulation

**APPROVALS, LISTINGS**

City of New York MEA-346-90

**PHYSICAL PROPERTIES**

- Cement wood fiber board to ASTM C612, Type IA or Types IA and IB
- Sound transmission class (STC) 72 on Troy Ultra 300 Wall, 10" steel studs, ASTM E90, ASTM E413
- Sound transmission class (STC) 68 on Troy Digital Wall, 8" steel studs, ASTM E90, ASTM E413
- Reverberation time .75 seconds or less, ASTM C423
- Sound absorption coefficients Type B and A mountings, to ASTM C423
- Thermal value R5 per inch, ASTM C612
- Noise reduction coefficient (NRC) of 0.95, ASTM C423

**ENVIRONMENTAL CONSIDERATIONS**

- Meets GREENGUARD criteria for IEQ Credit 3
- May contribute points toward LEED® certification

**FIRE PERFORMANCE**

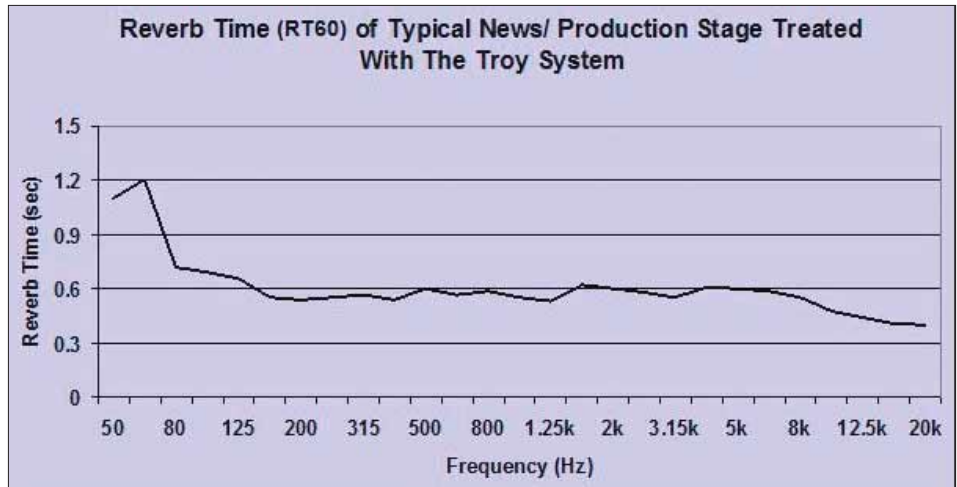
The system is Underwriters Laboratories, Inc., (UL) classified as noncombustible per ASTM C136 and complies with ASTM C665, Type I.

- Surface burn characteristics:
- Flamespread - 5 or less, ASTM E84
- Smoke developed - 0, ASTM E84

**5. Installation**

**PREPARATORY WORK**

Comply with manufacturer's written instructions for minimum and maximum temperature and humidity requirements for shipment, storage and handling. Protect panel edges from crushing and impact. Deliver materials and panels in manufacturer's original, unopened, undamaged bundles with identification labels intact. Store materials protected from exposure to harmful environmental conditions in a



temperature-controlled dry space with adequate air circulation.

Examine substrates, blocking and conditions for compliance with requirements, installation tolerances and other conditions affecting performance of acoustical wall panels. Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected.

**METHODS**

Construct panel onsite. Verify locations of acoustical wall panels by field measurements. Install to tolerances and use methods in accordance with manufacturer's instructions. Install after exterior spaces are enclosed and weatherproof, wet work is complete and dry and work above ceilings is complete.

Install with vertical surfaces and edges plumb, top edges level and in alignment with other boards, and faces flush and scribed to fit adjoining work accurately at borders and at penetrations. Cut units to at least 50% of width, with facing material extended over the cut edge to match the uncut edge. Staggered seams are preferred; however, for heights less than 8' (2.4 m), sheets may be run vertically. Anchor panels securely to supporting substrate using concealed mounting accessories.

In interior walls, friction fit Troy Wool batts between metal or wood studs, filling the entire cavity to the full height of the wall. Leave no voids.

In ceilings, lay Troy Wool batts over designated area. Stick clips may also be used over concrete decks.

**PRECAUTIONS**

- Use an approved dust mask and goggles when cutting and installing Troy Board and

Troy Wool, and wear appropriate clothing and headwear to protect skin and eyes

- Maintain ambient temperature and humidity at levels specified for project when it is occupied for its intended use
- Install acoustical wall panels only when a minimum lighting level of 50 fc (583 lux) is provided on surfaces to receive acoustical wall systems
- Install panels under conditions free from odor contamination of ambient air
- No special material cutting devices are necessary, although use of carbide blades is recommended
- Stagger and acoustically seal penetrations in acoustical system

**BUILDING CODES**

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

**6. Availability & Cost**

**AVAILABILITY**

Products are available from certified distributors. Contact manufacturer for information concerning local availability.

**COST**

Consult the manufacturer for project-specific pricing information.

**7. Warranty**

Troy System material and acoustical performance is warranted for 5 years when installed in accordance with manufacturer's recommendations and written instructions. Complete warranty terms and conditions are available from the manufacturer. For details, consult Troy Acoustics Corporation.

**8. Maintenance**

None required.

**9. Technical Services**

Technical assistance, including onsite acoustical performance review, preliminary drawing evaluation, more detailed information, product literature, test results, project lists, onsite evaluations, assistance in preparing project specifications, post-installation analysis and arrangements for application supervision, is available by contacting Troy Acoustics Corporation.

**10. Filing Systems**

- Reed First Source®
- First Source CAD
- MANU-SPEC®
- Additional product information is available from the manufacturer upon request.

Troy Acoustics Corporation hopes the information here will be helpful. It is based upon data and knowledge considered to be true and accurate and is offered for the users' consideration, investigation and verification, but we do not warrant the results to be obtained unless provided in a written proposal for a specific project based on Troy's engineered solution. Please read all statements, recommendations or suggestions in conjunction with our general conditions of sale, which apply to all goods supplied by us. No statement, recommendation or suggestion is intended for any use which would infringe any patent or copyright. Troy Acoustics Corporation, 26332 Ferry Court, Santa Clarita, CA 91350. Troy Board, Troy Wool and Troy System are registered trademarks of Troy Acoustics Corporation.

