

ArtUSA 4" S-65 A-F-MW Alum A Frame Enclosure Specification

1. Enclosure shall be designed to be a tight fitting to the perimeter/envelope of the equipment. A 2" clearance shall be provided between the enclosure and the equipment on all sides and the top.
2. Each sound enclosure should be factory assembled and skidded if size and scale permits. The enclosure shall be designed to incorporate: forced air ventilation with acoustically treated air intake for ventilation.
3. The enclosure frame shall be made
 - of a heavy-duty aluminum square tubing frame that allows one of each wall and roof panel to be removable without utilizing any screws. A three directional slip fit aluminum corner fitting piece shall be provided at each of the eight corners to connect all aluminum frame pieces together.
 - or the panels shall be self framing with a galvanized angle that allows one of each wall and roof panel to be removable without demounting the structure. Enclosures over 14" clear shall have 4" structural steel spanners.
4. Acoustical panels shall have 16 gauge galvanized steel channel provided for bottom caps and top caps and opening.
5. Acoustical Panels:
 - a. Wall and roof panels shall have exterior skin of 16-gauge damped galvanized steel. Skin shall be 2.5#/sq.ft.
 - b. 4" absorption material. 6#/cu.ft. bagged in a 2-mil polyethylene bag and all edges of bag to be heat-sealed.
 - c. 22-gauge perforated galvanized steel inner liner.
6. All doors should be provided with acoustic seals on all four sides with galvanized, stainless steel, or nylon hinges and handles.
7. Acoustical seal strips provided between panels, frame, and the floor.
8. One each side wall panel to be easily removable via a quick release retainer clamps.
9. Panel Acoustical Performance shall have been tested by an independent laboratory and achieve an STC=40 & NRC=1.0

4" Panelized Enclosure Specification

ArtUSA Steel Sound Enclosure Specification

1.0 General

Acoustical Panel Enclosures shall be insulated double-wall construction and shall be provided as indicated on drawings by a recognized manufacturer with published standards of construction and technical performance. The manufacturer shall have produced a standard factory-fabricated panel system and components for at least 5 years. Performance of the fabricated and installed system shall conform to all specifications listed herein.

2.0 Materials

2.1 Acoustical Metal Panels

A. All panels and their components shall be pre-fabricated, sectional, all metal-clad, modular and designed for easy and accurate field assembly. The panels and components shall not be susceptible to damage due to extended exposure to vibration, air temperature or humidity with the passage of time.

B. Panel Construction

1. All panels shall be (4) inches thick, as noted on drawings, with a solid galvanized steel Type G90 exterior shell and a perforated/solid galvanized steel type G90 interior shell. The panels shall be connected together by means of a tongue and groove connection and held together rigidly by the use of self-drilling sheet metal screws.
2. The panel shell framing members and internal reinforcements shall be welded, screwed and/or riveted together to form a metal-sheathed panel of sufficient strength for maximum operating loads specified in the structural performance section of these specifications.
3. The solid exterior outer galvanized steel shell thickness shall be 18 ga. minimum and the interior perforated galvanized steel shell shall be 22-ga. minimum thick.
4. Where perforated materials are indicated, all perforations shall be 3/32" dia. holes on 3/16" staggered centers and shall result in an open area of no less than 23 percent.
5. All panel internal and external reinforcing members shall be minimum 18 ga. galvanized steel.
6. Each panel shall be filled with sound-absorbing materials that are inert, mildew-resistant, verminproof, and incombustible.

C. Panel Components and Installation

1. All accessory trim items shall be of 18 ga. minimum galvanized steel and shall be furnished in factory-standard lengths to be field cut to specified dimensions. Location and quantity of sheet metal screws and trim requirements shall be in accordance with the manufacturer's installation details.
2. Base channel shall be installed on a level and structurally sound surface.
3. All external panel connectors, trim items, accessories, base channel/panel interfaces/base channel/floor interfaces, and other sections as noted on the drawings

shall be sealed with an acoustical sealant that shall not harden and prevent disassembly in the future.

D. Structural Performance

1. Any special external panel loading conditions including wind, snow and equipment shall be provided for as per specifications.
2. Under the indicated loading conditions, the entire enclosure system shall be self-supporting and/or will be supported as per the specifications. The installer shall furnish and assemble all structural members in strict accordance with drawings and manufacturer's installation details.
3. Under the above loading conditions, the assembled acoustical structure shall not exhibit any panel joint deflection in excess of $L/240$, where L is the unsupported span length of any panel section in the erected structure.

E. Acoustical Performance

The manufacturer shall provide certified testing data indicating sound absorption and transmission loss characteristics of the panel assembly.

F. Accessory Items

Doors, windows, electrical systems, ventilating systems, accessory components, etc., shall be provided in accordance with drawings.

G. Manufacturer

All materials shall be provided by ArtUSA Noise control Products, Inc.