

ACOUSTIC HOLLOW METAL WINDOW ASSEMBLIES

PART 1 – GENERAL

1.01 DESCRIPTION

This Section includes acoustic fixed windows and other applicable items required to provide a complete assembly.

1.02 PRODUCTS PROVIDED UNDER THIS SECTION

- A. Acoustic fixed window frames.
- B. Perimeter gaskets.
- C. Applied Stops.
- D. Desiccant where required by the assembly.
- E. Other additional items as required.

1.03 RELATED WORK BY OTHER SECTIONS

- A. Glass and Glazing.
- B. Installation (Including grout fill where necessary).
- C. Finish Painting

1.04 REFERENCES

- A. ASTM A653/A653M-06a: Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot Dip Process.
- B. ASTM B117-07: Standard Method of Salt Spray (Fog) Apparatus.
- C. ASTM E90-04: Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
- D. ASTM E336-05: Standard Test Method for Measurement of Airborne Sound Insulation in Buildings.
- E. ASTM E413-04: Standard Classification for Rating of Sound Insulation.
- F. ANSI/NFPA 80-1999: Standard for Fire Doors and Fire Windows.

G. ANSI/UL-9-2000: Fire Tests of Window Assemblies, 7th Edition.

H. ICBO/UBC 7-4: Fire Tests of Window Assemblies.

I. NAAMM/HMMA 840-99: Installation and Storage of Hollow Metal Doors and Frames.

1.05 TESTING AND PERFORMANCE

A. Assemblies provided shall be identical to those tested at an independent acoustical laboratory qualified under the National Voluntary Laboratory Accreditation Program (NVLAP) by the National Institute for Science and Technology (NIST) in accordance with ASTM E90 and ASTM E413. Test reports will contain the laboratory name, test report number and date of test.

B. Fire rated assemblies provided shall comply with the provisions contained in ANSI/NFPA 80, ANSI/NFPA 252, and ANSI/UL-9.

1.06 QUALITY ASSURANCE

A. Provide acoustic assemblies manufactured by a single firm specializing in the production of this type work for a minimum of 5 years and has a successful history of products provided to the Architect.

B. All assemblies shall meet the requirements set forth in paragraphs 1.04 and 1.05 of this specification.

1.07 SUBMITTALS

A. Provide shop drawings showing fabrication, installation and wall anchorage. Include elevations of frame, frame section details, and all accessories.

B. Provide test reports from a qualified accredited testing agency as outlined in paragraph 1.05A of this Section.

C. Provide manufacturer's recommended installation instructions which will become the basis for accepting or rejecting actual installation.

1.08 WARRANTY

A. Provide manufacturer's written warranty upon completion and acceptance of all work in this Section.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

A. Provide products designed and manufactured by Security Acoustics, Division of Security Metal Products Corporation.

2.02 MATERIALS

A. Steel sheets and strips as specified in paragraph 1.04 and as further recommended by Security Acoustics.

B. Shop primer shall be Security Acoustics standard water based rust inhibitive type either baked on or air dried.

C. Based on the specified rating, components are to include perimeter gaskets, loose stops for single and/or double glazing and vapor control desiccant.

D. All preparation shall be of the proprietary type and size as designed and tested by the Security Acoustics for the specified STC rating.

2.03 FABRICATION

A. Frames shall be minimum 14 Ga. with mitered and full depth continuously welded corners. Knock down frames are not permitted. Provide 14 Ga. anchors as required for attachment to adjacent construction. Field splice joints, when required for shipping purposes, shall be field welded by others under the direction of the manufacturer.

B. Provide all loose stops, gaskets and accessories to facilitate single or double glazing. Design shall be of the type which allows for independent installation or removal of each pane of glass. Glass, as recommended by Security Acoustics, is to be by others and provided under Section 08800, Glass and Glazing.

2.04 FINISH

A. After fabrication, all tool marks and surface imperfections shall be filled, sanded and dressed smooth. All weld joints shall be ground, filled and dressed smooth. All exposed surfaces shall then be coated with a water-based rust inhibitive primer.

PART 3 – EXECUTION

3.01 SITE STORAGE

- A. Upon receipt of material, all frames and accessories shall be uncrated, thoroughly inspected and all quantities and tag numbers double checked and verified according to the packing list provided. All discrepancies, deficiencies and/or damage shall be reported immediately to Security Acoustics in writing.
- B. Store all materials on planks in a dry location. Frames shall be stored vertically with minimum 2” airspace between. All material shall be covered to protect from damage but in a manner to allow proper circulation.
- C. Prior to installation, check all frames for correct size. Verify that frames are plumb, square and aligned without twist in accordance with tolerances published by NAAMM/HMMA and SDI.

3.02 INSTALLATION

- A. Install all assemblies in accordance with the installation instructions provided by Security Acoustics.
- B. Set frames accurately in position, plumbed and properly aligned.
- C. As designed by the specified STC rating and in accordance with the installation instructions provided by Security Acoustics, fully fill all frames in wood stud or metal stud partitions with light weight plaster grout.
- D. Fully fill all frames in masonry or concrete walls with appropriate grout.
- E. Install all fire rated frames in accordance with ANSI/NFPA 80.
- F. Install glass, gaskets and other accessories in accordance with Security Acoustics installation instructions.

3.03 CLEAN AND ADJUST

- A. Immediately after installation, sand smooth any rusted or marred areas of prime coat and apply touch up of compatible primer.
- B. Check all glass and gaskets for proper fit. Remove and replace any defective items. Install a small bead of clear silicone caulk to all exposed joints of exterior glazing.

3.04 FIELD TESTING

A. Secure the services of a qualified independent testing agency to test specific installations as selected by the Owner/Architect in accordance with ASTM E336. Installed product shall perform no less than five FSTC or NIC rating points below the specified laboratory STC rating. Any installation not meeting that criteria shall be examined adjusted and retested until compliance is obtained.