

**JAMISON SOUND DOOR SPECIFICATIONS
HORIZONTAL SLIDING SOUND REDUCTION DOOR
BOTTOM ROLLER WITH FLOOR TRACK
POWERED OPERATION - STC 59**

PART 1 - GENERAL

1.1 **APPLICABLE PUBLICATIONS:** The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 FEDERAL SPECIFICATION: QQ-Z-325 Plating, Zinc (Electrodeposited), Type I, Class 3.

1.1.2 American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA 19103

A36 Structural Steel

A325 High Strength Carbon Steel Bolts for Structural Joints, Including Suitable Nuts and Plain Hardened Washers

1.2 **SUBMITTALS:**

1.2.1 **APPROVAL DRAWINGS:** Approval drawings will be required for these items. Six copies of an approval drawing will be furnished.

1.2.2 **SHOP DRAWINGS:** Shop drawings may be specified when required. If provided, drawings shall be submitted prior to delivery of materials to the jobsite. Drawings shall include detail assembly drawings showing the complete installation, a listing of all materials, surface finishes, fabricating assembly and installation tolerances.

1.3 **GENERAL REQUIREMENTS**

1.3.1 **GENERAL:** Sound reduction doors shall be provided complete with gaskets, fasteners, anchors, hardware, sealing systems, and all other equipment and accessories as indicated, specified and necessary for a complete installation to meet the acoustical performance and operational requirements specified by the customer. Structural embeds will not be supplied.

1.3.2 QUALIFICATIONS OF MANUFACTURER: The manufacture of the sound reduction doors shall be performed by a manufacturer who has at least fifteen (15) years of proven successful experience in the design and fabrication of similar acoustical doors. The organization shall be regularly engaged in this type of work and shall have complete facilities, equipment, and technical personnel for the design and fabrication of the complete system.

1.3.3 PROVISIONS FOR INSTALLATION: The contractor will employ an organization other than the manufacturer to install the sound reduction doors in the field provided the following requirements are complied with.

- a. The organization shall have trained and skilled mechanics with previous experience in the installation of similar precision fabricated assemblies.
- b. The door manufacturer will have a trained engineer or mechanic at the jobsite supervising the unloading, erection, final adjustments and final check out of the doors, frames, hardware, and accessories.

PART 2 - PRODUCT

2.1 GENERAL: Materials and equipment specified hereinafter will establish the minimum requirements for quality and performance.

2.1.1 DOOR PANELS: Door panels shall be fabricated from cold rolled steel and hot rolled pickled and oiled steel. Steel shall not be less than 16 gauge (.060"). Steel shall be straight and free of twist.

2.1.1.1 Door panels shall have an inner core of non-resonating, fire resistant, inorganic, and acoustically damping material. Face sheets shall be stiffened by steel stiffeners with welds not more than six inches (6") apart. Door panels shall have internal reinforcing for external hardware to adequately stiffen and provide sufficient thickness for tapping to achieve four (4) full thread engagement of bolts. Doors shall be a minimal eight inches (8") thick.

2.1.1.2 Header shall be constructed of structural steel channel, tube, or of steel plate. The header shall be securely fastened to the wall with 3/4" diameter grade 5 studs.

2.1.2 BOLTED AND SCREWED CONNECTIONS: Bolts shall conform to ASTM A325 or have a minimum strength of 105,000 psi. Bolt holes shall be drilled or punched and at right angles to member. When assembled, all joint surfaces, including those adjacent to bolt heads, nuts or washers, shall be free of burrs, dirt and other foreign material that would prevent solid seating of the parts.

2.1.2.1 All fasteners shall be finished per QQ-Z-325.

2.1.3 SEALING SYSTEM: Door seals shall be provided as indicated herein to achieve the required sound attenuation. Sides shall be sealed with a single seal providing a gasketed overlap of door against frame. A pneumatically actuated seal shall be provided at at three sides of frame and at the sill.

2.1.4 HARDWARE: Door hardware shall be provided as required to accommodate the design loads and acoustical performance as follows:

- a. Doors shall be carried by a minimum of two wheels. The maximum radial load of the bearings shall exceed the door weight by a factor of six.
- b. Each wheel shall be securely fastened to the door structure with an adjustable bracket to raise or lower the door.
- c. The door shall be guided by rollers at the head.

2.1.5 POWER OPERATION: Power operation of the sliding door shall be provided by an electromechanical device consisting of a motor, gear reducer, and chain drive powering steel wheels on an embedded floor track.

- a. The motor shall be rated for 1/2 hp minimum, TEFC, NEMA Class B, 480 VAC, 3 phase, 60 HZ. The motor shall have thermal overload protection.
- b. The gear reducer shall be encased in a cast iron housing and conform to AGMA standards.
- c. The operator shall drive the door at an opening and closing speed not to exceed 8 inches per second.
- d. The power operator shall be electrically connected using 600 VAC connectors. The opening/closing relay shall be operated at 24 VAC. The electrical switch gear are to be mounted in a NEMA IV rated enclosure.
- e. Two NEMA IV rated push button stations are to be furnished. Each station shall have "Open" and "Close" buttons.
- f. A fail safe electrical sensitive edge shall be provided at the leading edge of the door. The sensitive edge shall override the "close" pushbutton operator and return the door to the full open position.

PART 3 - EXECUTION

3.1 INSTALLATION:

3.1.1 GENERAL: The installation shall be carefully performed by skilled mechanics. Special care must be exercised to follow the manufacturer's printed instructions including recommended tolerances to achieve required acoustical seal.

3.1.2 Store doors and frames at the building site under cover. Place units well above the ground to prevent rust and damage and to provide room for air circulation. Avoid the use of non-vented plastic or canvas shelters which create humidity chambers.

3.1.3 Installed frames shall be plumb, rigid, in true alignment.

3.1.4 Install doors plumb and in true alignment. Operate doors and verify that doors open and close smoothly with no binding. Inspect fit of all door seals. Inspect final erection and fit of all assemblies and components.