

**Sound Control Horizontal Sliding Door Model DS4-50-FS**  
**Specification Section 08 34 73**

**PART 1 - GENERAL**

**1.2 Scope:**

Furnish acoustical sliding door assembly where indicated on door schedule and specified. Unit shall include laboratory certified sound insulating steel door panel, sliding door hardware and perimeter sealing devices to meet the sound attenuation specified.

**1.5 Submittals:**

- 2 Before fabrication is started, manufacturer shall produce a set of submittal drawings and sound certification showing conformance for Architect's approval. The submittal shall be sent electronically in '.pdf' format.

Drawings shall include a door schedule with acoustical rating and detail door size and thickness and all dimensions necessary for proper installation. Ledger shall include door handing, door pulls, track, hangers, trolleys, door stop, stay rollers, auto-air seals and restraints, threshold conditions, field splicing arrangement (if necessary), and if required, power operator and controls.

**2.5 Warranty:**

Manufacturer shall warrant its products to be free of defects in labor and material for one year after shipment.

**PART 2 - PRODUCT**

**2.1 Design Basis:**

Horizontal sliding sound control door systems as shown on drawings shall be Sonicbar series Model DS4-50-FS manufactured by **Protective Door Industries, Harvey, IL 60426 at 708/225-3539 or [sales@protectivedoor.com](mailto:sales@protectivedoor.com)** or prior approved equal. Door manufacturer shall submit evidence of having been engaged in the successful design and manufacture of sound control door assemblies for a minimum of 10 years.

**2.2 Design Criteria:**

Door system shall be certified to have not less than 50 STC Sound Transmission Class per ASTM E-90 test method, tested as an operational horizontal sliding door with flush threshold.

Steel material shall conform to the standards of the American Institute of Steel Construction. All work shall be assembled using all welded construction per the standards of AWS D1.1.

Door panel shall be manufactured of noncombustible construction for the degree of protection specified.

**2.3 Fabrication:**

**2.3.1 Construction:**

Sound door shall be of flush design, noncombustible construction, fiberglass insulated with acoustical fill, nom. 4 1/4" thk. and fabricated of carbon steel face sheets. Door panel to have interior formed horizontal and vertical stiffening reinforcements spot-welded entire height and width of door to provide insulating air spaces and acoustical septum. Faces of doors shall not connect with each other except at perimeter edges and splicing joints. At oversized openings and where shipping constraints mandate size, door leaf shall be field spliced with each door panel prepared for proper set-up and alignment.

Structural channel frame or steel embeds shall be furnished and installed by others as specified in Section 05 10 00, Structural Steel, and shall be designed to support the door weight.

**2.3.2 Hardware:**

Sliding door unit shall be top-hung with heavy-duty hardware suitable to door weight. Door system shall include a track, track hanger brackets, four-wheel ball bearing type trolleys, trolley pendant,

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floor stops and stay roller assemblies. Track supports shall be furnished with anchorage bolts and steel shims necessary for proper alignment. Heavy-duty top door binders shall be included.

The door panel shall have a recessed pull on the wall side and a surface mounted bow handle on the exterior side.

**2.3.3 Operation:**

Manual or electro-pneumatic power operation shall be specified. The electric operation shall consist of an industrial chain drive operator of type NEMA 1 or NEMA 12. The unit shall be mounted on an angle iron frame and consist of a 460V AC, 3-phase, single speed motor of sufficient horsepower with low voltage controls and an emergency disconnect pin for manual operation in case of power failure. A rotary limit switch shall stop the door in the fully *open* or *closed* position. Starter shall be magnetic reversing type and controlled by either a 3-button pushbutton station or pull cord at each side. The leading edge of the power operated door shall be equipped with a reversing safety edge.

**2.3.4 Acoustical Seals:**

Doors in the closed position shall be completely sealed by means of Sonicbar Auto-air Seals, PDI Type H-265. Pneumatic sealing devices shall provide for instantaneous and positive sealing by air actuation and positive instantaneous retraction by spring actuation. Seals shall provide 2  $\frac{3}{4}$ " minimum contact area width. Sealing material shall be sponge neoprene. Seal travel shall be  $\frac{3}{8}$ "  $\pm$   $\frac{1}{4}$ ". All inflatable components shall be fully enclosed by the air seal housing so as to be completely shielded from external puncture and door abrasion. Air seals shall be self-restrained, preventing blow-out from accidental inflation at full line pressure. Door unit shall be furnished with a manual air control valve, filter regulator, and necessary hoses and piping for connection to the air supply/compressor unit, adjacent to the door opening.

**2.4 Finish:**

All tool marks and imperfections shall be removed and exposed welded joints dressed smooth. Surfaces shall be cleaned and/or ground smooth for maximum paint adhesion. Exposed surfaces shall be factory prime painted with the manufacturer's standard rust inhibitive prime paint.

**PART 3 - EXECUTION**

**3.1 Storage:**

Prior to installation, cover and store all materials in a dry, protected location to prevent damage.

**3.2 Installation:**

Installation of materials shall be performed by Contractor's skilled mechanics or by manufacturer's trained personnel. Installation shall be in strict accordance with installation instructions and approved installation drawings provided by the door manufacturer. Doors shall be securely hung in place and adjusted for proper operation and ease of slide. The air seals shall be continuously wedged against the wall and floor when activated. Doors shall be finished painted as applicable under another referenced section.