

**SECTION 10 2239
FOLDING PANEL PARTITIONS**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Manually operated, paired panel operating partitions.

1.2 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Section 05 1200 - Structural Steel: Overhead track structural support framing.
- C. Section 05 5000 - Metal Fabrications: Bracing of overhead track, if required.
- D. Section 06 1000 - Rough Carpentry: Wood blocking and track support shimming.
- E. Section 07 2100 - Thermal Insulation: Sound insulation above track system, and in permanent walls adjoining the operable wall system, in accordance with ASTM E 557.
- F. Section 07 9005 - Joint Sealers: Acoustical sealant.
- G. Division 9 Sections for wall and ceiling framing at head and jambs.

1.3 REFERENCE STANDARDS

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2024.
- B. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 2023.
- C. ASTM E413 - Classification for Rating Sound Insulation; 2022.
- D. ASTM E557 - Standard Guide for Architectural Design and Installation Practices for Sound Isolation Between Spaces Separated by Operable Partitions; 2012 (Reapproved 2020).

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Sequencing/Scheduling
 - 1. Track Installation: Scheduling of operable wall track installation shall occur after structural overhead support has been properly and completely fabricated and installed.
 - 2. Panel Installation: Operable wall panel installation shall take place after fixed wall substrate construction is properly and completely installed, as required to protect panels from ongoing adjacent construction.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on partition materials, operation, hardware and accessories, electric operating components, track switching components, and colors and finishes available.
- C. Shop Drawings: Indicate opening sizes, track layout, details of track and required supports, location and details of pass door and frame, adjacent construction and finish trim, and stacking depth. Indicate blocking provided by others.
- D. Samples for Selection: Submit two samples of full manufacturer's color range for selection of colors.

- E. Samples for Review: Submit two samples of surface finish, 12 by 12 inches size, illustrating quality, colors selected, texture, and weight.
- F. Manufacturer's Instructions: Indicate special procedures.
- G. Setting Drawings: Show imbedded items and cutouts required in other work, including support beam punching template.
- H. Certificates: Certify that partition system meets or exceeds specified acoustic requirements.
- I. Maintenance Data: Include recommended cleaning methods, cleaning materials, and stain removal methods. Describe cleaning materials detrimental to finish surfaces and hardware finish.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified this section with minimum three years of documented experience.
- B. Operable wall panel construction and finish materials shall consist of Class A rated materials in accordance with ASTM E 84.
- C. Preparation of the opening shall conform to the criteria set forth per ASTM E557 "Standard Practice for Architectural Application and Installation of Operable Partitions."
- D. Installer Qualifications: Operable panels partition shall be installed by manufacturer's authorized distributor in accordance with ASTM E 557.
- E. Acoustical Performance: Test operable partitions in an independent acoustical laboratory in accordance with ASTM E90 and ASTM E 413 test procedure to attain no less than the STC rating specified. Provide a complete and unedited written test report by the testing laboratory upon request.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Clearly mark packages and panels with numbering systems used on Shop Drawings. Do not use permanent markings on panels.
- B. Protect panels during delivery, storage and handling to comply with manufacturer's directions and as required to prevent damage.
- C. Panels shall be stored on edge and above the floor on cushioned blocking in a dry and ventilated area, protected from humidity and temperature extremes.

1.8 WARRANTY

- A. Manufacturer shall warrant each partition and its component parts to be free from defects in material and workmanship for a period of five (5) years from date of shipment.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Design is based on Modernfold, Inc. Product; Acousti-Seal Legacy-Paired Panel partition (932). Manually operated paired panel..
- B. Other Acceptable Manufacturers:
 - 1. Hufcor, Inc: www.hufcor.com.
 - 2. Kwik-Wall: www.kwikwall.com.
 - 3. Panelfold, Inc: www.panelfold.com.
 - 4. Moderco, Inc; www.moderco.com

2.2 OPERATION

- A. Series of paired flat panels hinged together in pairs, manually operated, top supported with operable floor seals.
- B. Final Closure: Horizontally expanding panel edge with removeable crank.

2.3 COMPONENTS

- A. Panel Finishes
 - 1. Panel Face shall be:
 - a. Heavy duty Type II Vinyl wall covering with woven backing not less than 30 ounces per lineal yard.
 - b. Style and color: As selected from Manufacturer's full range of standard fabric offerings and trim offerings.
- B. Panel Construction:
 - 1. Panel faces laminated to metal frames. Provide with internal insulation to achieve 50 STC.
 - 2. Panel thickness: 3-inches nominal. All panel horizontal and vertical framing members fabricated from minimum 16-gage formed steel with overlapped and welded corners for rigidity. Top channel is reinforced to support suspension system components. Frame is designed so that full vertical edges of panels are formed steel and provide concealed protection of the edges of the panel skin.
 - 3. Panel Skin: Roll formed 21-gage steel wrapping around panel edge. Panel skins shall be lock formed and welded directly to the frame for unitized construction. Acoustical ratings of panels with this construction: 50 STC.
 - 4. Panel width: Reference drawings for opening size.
 - 5. Panel weights: Not greater than 10 lbs./square foot.
 - 6. Hinges: SOSS Invisible laminated hinge with antifriction segments mounted between each heat-treated link. Hinge to be attached directly to panel frame. Welded internal hinge bracket shall support the hinge and allow for adjustment of hinge plates. Concealed hinges mounted into edge or vertical astragal are not acceptable.
- C. Panel Trim: No vertical trim required or allowed on edges of panels; minimal groove appearance at

2.4 SOUND SEALS

- A. Vertical seals between panels shall consist of deep nesting, universal interlocking bronze steel astragals, incorporating continuous vinyl, acoustical seals. Vertical astragal vinyl seals shall be installed on outboard edges of the panel skins in a double row with an acoustical labyrinth.
 - 1. Vertical jamb seals shall consist of expandable panel with soft seal.
- B. Horizontal Top Seals shall be continuous contact extruded vinyl bulb shape.
- C. Horizontal Bottom Seals shall be 1-1/2-inch clearance-type manually actuated at waist height on panel edges.

2.5 SUSPENSION SYSTEM

- A. Suspension Tracks: Minimum 11-gage, 0.12-inch (3mm) roll-formed steel track (equal to ModernFold #17 Suspension System #AS-123), suitable for either direct mounting to a wood header or supported by adjustable steel hanger brackets, supporting the load-bearing surface of the track, connected to structural support by pairs of 3/8-inch (9.5mm) diameter threaded rods. Aluminum track is not acceptable.

1. Exposed track soffit: Steel, integral to track, and pre-painted off-white.
2. Carriers: One all-steel trolley with steel-tired ball bearing wheels per panel (except hinged panels). Non-steel tires are not acceptable.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Examine flooring, structural support, and opening, with installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of operable partitions. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install partition in accordance with manufacturer's instructions and ASTM E557.
- B. Install operable partitions and accessories after other finishing operations, including painting have been completed.
- C. Match operable partitions by installing panels from marked packages in numbered sequence indicated on Shop Drawings.
- D. Broken, cracked, chipped, deformed or unmatched panels are not acceptable.
- E. Fit and align partition assembly and pocket doors level and plumb.
- F. Lubricate moving components.
- G. Install acoustic sealant to achieve required acoustic performance.
- H. Coordinate electrical connections.

3.3 ADJUSTING

- A. Adjust operable partitions to operate smoothly, easily, and quietly, free from binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range (from stacked to full open position). Do not over-compress acoustic seals.
- B. Lubricate hardware and other moving parts.
- C. Visually inspect partition in full extended position for light leaks to identify a potential acoustical leak.
- D. Adjust partition assembly to achieve lightproof seal.

3.4 CLEANING

- A. Clean finish surfaces and partition accessories, to remove dust, dirt, adhesives, and other foreign materials according to manufacturer's written instructions.

3.5 DEMONSTRATION

- A. Demonstrate proper operation and maintenance procedures to Owner's representative.
- B. Provide Operation and Maintenance Manual to Owner's representative.

3.6 PROTECTION

- A. Provide final protection and maintain conditions in a manner acceptable to the manufacturer and installer that insure operable partitions are without damage or deterioration at time of Substantial Completion.

END OF SECTION 10 2239

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