

SECTION 102233 - ACCORDION FOLDING PARTITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Manually operated, fire-rated accordion folding partitions.

B. Related Sections:

- 1. Section 055000 "Metal Fabrications" for supports that attach supporting tracks to overhead structural system.
- 2. Section 087100 "Door Hardware" for hardware to the extent not specified in this Section.

1.3 DEFINITIONS

- A. NIC: Noise Isolation Class.
- B. NRC: Noise Reduction Coefficient.
- C. SAA: Sound Absorption Average.
- D. STC: Sound Transmission Class.

1.4 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design accordion folding partitions, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Seismic Performance: Accordion folding partitions shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
- C. Fire Resistance: Provide fire-rated accordion folding partition assemblies with fire-resistance ratings indicated.

1.5 ACTION SUBMITTALS

- A. Submittals shall comply with the requirements of Section 013300 “Submittal Procedures” and the individual sections specifying the work.
- B. Product Data: For each type of product indicated.
- C. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 - 1. Indicate storage and operating clearances. Indicate location and installation requirements for hardware and track, blocking, and direction of travel.
 - 2. Indicate facing-material seam locations if any.
- D. Samples for Initial Selection: For each type of exposed material, facing material, and finish indicated.
 - 1. Include similar Samples of accessories involving color selection.
- E. Delegated-Design Submittal: For accordion folding partitions indicated to comply with performance requirements and design criteria, including analysis data and calculations signed and sealed by the qualified professional engineer responsible for their preparation.
 - 1. Design Calculations: Calculate requirements for seismic restraints.

1.6 INFORMATIONAL SUBMITTALS

- A. Submittals shall comply with the requirements of Section 013300 “Submittal Procedures” and the individual sections specifying the work.
- B. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, based on input from installers of the items involved:
 - 1. Suspended ceiling components.
 - 2. Structural members to which suspension systems will be attached.
 - 3. Size and location of initial access modules for acoustical tile.
 - 4. Items penetrating finished ceiling, including the following:
 - a. HVAC ductwork, outlets, and inlets.
 - b. Speakers.
 - c. Sprinklers.
 - d. Smoke detectors.
 - e. Access panels.
 - 5. Plenum fire and smoke barriers.
- C. Setting Drawings: For embedded items and cutouts required in other work, including support-beam, mounting-hole template.
- D. Qualification Data: For manufacturer and installer.

- E. Seismic Qualification Certificates: For accordion folding partitions, accessories, and components, from manufacturer.
- F. Product Certificates: For each type of accordion folding partition, from manufacturer.
- G. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each accordion folding partition.
- H. Field quality-control reports.
- I. Warranty: Sample of special warranty.

1.7 CLOSEOUT SUBMITTALS

- A. Submittals shall comply with the requirements of Section 013300 "Submittal Procedures" and the individual sections specifying the work.
- B. Operation and Maintenance Data: For accordion folding partitions to include in maintenance manuals. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
 - 1. Facing materials and finishes for exposed trim and accessories. Include precautions for cleaning materials and methods that could be detrimental to finishes and performance.
 - 2. Seals, hardware, track, carriers, and other operating components.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Fire-Test-Response Characteristics: Provide partitions with finishes meeting the following as determined by testing identical products by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
 - 1. Surface-Burning Characteristics: As determined by testing per ASTM E 84.
 - a. Flame-Spread Index: 25 or less.
 - b. Smoke-Developed Index: 450 or less.
 - 2. Fire Growth Contribution: Meeting acceptance criteria of local code and authorities having jurisdiction when tested according to NFPA 286.
- C. Fire-Rated Assemblies: Provide fire-rated accordion folding partitions with the following characteristics as determined by testing identical products by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
 - 1. Fire-Rated Door Assemblies: Comply with NFPA 80, based on testing according to UL 10B.
 - 2. Oversize Fire-Rated Door Assemblies: For units exceeding sizes of tested assemblies, provide certification or label certification by a testing agency acceptable to authorities

having jurisdiction that doors comply with standard construction requirements for tested and labeled fire-rated door assemblies except for size.

- D. Preinstallation Conference: Conduct conference at Project site.

1.9 PROJECT CONDITIONS

- A. Field Measurements: Verify actual dimensions of accordion folding partition openings by field measurements before fabrication.

1.10 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of accordion folding partitions that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Faulty operation of accordion folding partitions.
 - b. Deterioration of metals, metal finishes, and other materials beyond normal wear.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 FIRE-RATED ACCORDION FOLDING PARTITION

- A. Fire-Rated Accordion Folding Partition: Accordion folding frame with pantograph sections designed for horizontal extension and retraction, covered with decorative facing material, reinforced for hardware attachment, supported by overhead suspension system, and equipped with manufacturer's standard air-release method to prevent billowing.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide "Won-Door FireGuard - Cross Corridor," Won-Door Corporation.
 - a. Cornell Iron Works, Inc.
 - b. Modernfold, Inc.
- B. Partition Type: Single sliding jamb partition with the following hardware:
 - 1. Lead Post Locking Hardware: Key-operated lock cylinder, keyed to master key system, operable from both sides of post.

2. Storage-End Hardware: Sliding jamb within storage pocket.
3. Pendant Pull: Near top of lead post in addition to standard pull handle/latch for units more than 10 feet high or 20 feet wide, or both.
4. Foot Bolt: On lead post; secured to post to avoid interference with seals.

C. Fire Rating: 1 hour.

D. Dimensions:

1. Stack Width (Stored): As indicated on Drawings.
2. Width When Extended: As indicated on Drawings.
3. Total Stack Depth (Stored): As indicated on Drawings.

E. Facing Material: Vinyl film.

1. Color/Pattern: As selected by Architect from manufacturer's full range.

2.2 COMPONENTS

A. Posts and Seals: Provide types of posts and seals that produce accordion folding partitions complying with performance requirements.

1. Posts: Steel or aluminum; formed with deep-nesting and interlocking interfaces and fabricated to ensure rigidity of accordion folding partition.
2. Perimeter Seals: Manufacturer's standard vinyl, neoprene, or woven silica vertical seals, horizontal top and bottom seals, and closures for lead posts and jambs. Seals and closures at fire-rated partitions shall be identical to products tested for fire rating indicated and shall form an effective smoke and draft seal.

B. Hardware: Manufacturer's standard manually operated pulls, latches, locks, and bolts as required to operate accordion folding partitions; with decorative, protective finish.

C. Trim: Manufacturer's standard with decorative, protective finish.

D. Tiebacks: As required to maintain accordion folding partitions in stacked position; with manufacturer's standard finish.

2.3 SUSPENSION SYSTEMS

A. Suspension Tracks: Steel or aluminum with adjustable steel hanger rods for overhead support, designed for type of operation, size, and weight of accordion folding partition indicated. Size track to support partition operation and storage without damage to suspension system, accordion folding partitions, or adjacent construction. Limit track deflection to no more than 0.10 inch between bracket supports. Provide a continuous system of track sections and accessories to accommodate configuration and layout indicated for partition operation and storage.

1. Track: Recessed.

- a. Head Closure Trim and Track Channel Pocket: For protecting overhead surfaces and enclosing overhead track opening; with factory-applied, decorative, protective finish.
- B. Carriers: Trolley system as required for size and weight of partition and for easy, quiet operation; with manufacturer's standard ball-bearing carriers at lead post and manufacturer's standard ball-bearing carriers at intermediate panel supports.
 - 1. Wheels: Manufacturer's standard.
- C. Track Switches and Accessories: Manufacturer's standard switches as required for type of operation, storage, track configuration, and layout indicated.
- D. Aluminum Finish: Mill finish or manufacturer's standard, factory-applied, decorative finish unless otherwise indicated.
- E. Steel Finish: Factory-applied, corrosion-resistant, protective coating unless otherwise indicated.

2.4 FACING MATERIALS

- A. General: Provide facing materials with appropriate backing that comply with indicated fire-test-response characteristics, and that are factory attached to accordion folding partitions with concealed fasteners.
 - 1. Factory-apply facing material free of air bubbles, wrinkles, blisters, and other defects; with vertical invisible seams complying with Shop Drawings for location; and with no gaps or overlaps. Tightly secure and conceal raw and selvage edges of facing material for finished appearance. Horizontal butted edges or seams are not permitted.
 - 2. Where facing material with directional or repeating pattern is indicated, mark facing-material top and attach facing material in same direction.
- B. Vinyl Film: Manufacturer's standard vinyl film laminated to partition substrate.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine flooring, structural support, and opening, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of accordion folding partitions.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Comply with ASTM E 557 except as otherwise required by accordion folding partition manufacturer's written installation instructions. Install accordion folding partitions level and

plumb, with tight joints and uniform appearance, and free of deformation and surface and finish irregularities.

- B. Install accordion folding partitions and accessories after other finishing operations, including painting, have been completed.

3.3 ADJUSTING

- A. Adjust accordion folding partitions to operate smoothly, without warping or binding. Lubricate hardware and other moving parts.
 - 1. Fire-Rated Accordion Folding Partitions: Verify that operations are functional and comply with requirements of authorities having jurisdiction.

3.4 CLEANING

- A. Clean soiled surfaces of accordion folding partitions, to remove dust, loose fibers, fingerprints, adhesives, and other foreign materials according to manufacturer's written instructions.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain accordion folding partitions.

END OF SECTION