Acousti-Clear Motorized Seal – Single Panel
10 22 26 (10650)
Operable Partitions

SPECIFICATION - SECTION 10 22 26 (10650) OPERABLE 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 and electronically activated, individual panel operable partitions with glass panels.
B. Related Sections include the following:
1. Division 03 Sections for concrete tolerances required.
2. Division 05 Sections for primary structural support, including pre-punching of support members by structural steel supplier per operable partition supplier's template.
3. Division 06 Sections for wood framing and supports, and all blocking at head and jambs as required.
4. Division 09 Sections for wall and ceiling framing at head and jambs.
5. Division 26 Sections: Power supply, conduit, wiring, and electrical connections.

1.3 QUALITY ASSURANCE
A. Installer Qualifications: An experienced installer who is certified in writing by the operable partition manufacturer, as qualified to install the manufacturer's partition systems for work similar in material, design, and extent to that indicated for this Project.
B. Acoustical Performance: Test operable partitions in an independent acoustical laboratory in accordance with ASTM E90 test procedure and classified in accordance with ASTM E413 to attain no less than the STC rating specified. Provide a complete and unedited written test report upon request.
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. Do not begin installation until permanent HVAC systems are properly operating and building and temperature and humidity have stabilized.
E. The operable wall must be manufactured by a certified ISO-9001-2015 company or an equivalent quality control system.

1.4 Reference Standards
A. ASTM International
1. ASTM E557 Standard Practice for Architectural Application and Installation of Operable Partitions.
2. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
3. ASTM C1036 - Standard Specification for Flat Glass.
4. ASTM C1048 - Heat-Treated Flat Glass—Kind HS, Kind FT Coated and Uncoated Glass.

5. ASTM E84 - Surface Burning Characteristics of Building Materials.
6. ASTM E413 - Classification for Rating Sound Insulation
B. Health Product Declaration Collaborative
1. Health Product Declaration Open Standard v2.1
C. International Standards Organization
1. ISO 14021 - Environmental Labels and Declarations - Self-Declared Environmental Claims (Type II Environmental Labeling).
2. ISO 14025:2011-10, Environmental Labels and Declarations - Type III Environmental Declarations - Principles and Procedures.
3. ISO 14040:2009-11, Environmental Management - Life Cycle Assessment - Principles and Framework.
4. ISO 14044:2006-10, Environmental Management - Life Cycle Assessment - Requirements and Guidelines.
5. ISO 21930 – Sustainability in Buildings and Civil Engineering Works — Core Rules for Environmental Product Declarations of Construction Products and Services.
D. Other Standards
1. ADA – Americans with Disabilities Act.
2. ANSI Z97.1 - Safety Glazing Materials Used in Buildings.
3. CPSC 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.
4. NEMA LD3 - High Pressure Decorative Laminates.
5. NFPA 70 - National Electrical Code.
6. NFPA 701-99 - Fire Tests for Flame-Resistant Textiles and Films.

1.5 SUBMITTALS
A. Product Data: Material descriptions, construction details, finishes, installation details, and operating instructions for each type of operable partition, component, and accessory specified.
B. Shop Drawings: Show location and extent of operable partitions. Include plans, elevations, sections, details, wiring diagrams, attachments to other construction, and accessories. Indicate dimensions, weights, conditions at openings, and at storage areas, and required installation, storage, and operating clearances. Indicate location and installation requirements for hardware and track, including floor tolerances required and direction of travel. Indicate blocking to be provided by others.
C. Setting Drawings: Show imbedded items and cutouts required in other work, including support beam punching template.
D. Samples: Color samples demonstrating full range of finishes available by architect. Verification samples will be available in same thickness and material indicated for the work.
E. Reports: Provide a complete and unedited written sound test report indicating glass thickness and spacing in test specimen matches product as submitted.
F. Create spaces that are healthy for occupants.
1. Furnish products and materials with Health Product Declaration (HPD), Manufacturer Inventory, or other material health disclosure documentation. Products without an HPD or other disclosure documentation are not acceptable.
G. Furnish materials that generate the least amount of pollution.
1. Furnish products and materials that have third party verified environmental product declarations (EPD’s). Consider products and materials that have optimized

environmental performance (reduced life cycle impacts). Products without an EPD or other disclosure documentation are not acceptable.

1.6 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 direction and as required to prevent damage.

1.7 WARRANTY

A. Provide written warranty by manufacturer of operable partitions agreeing to repair or replace any components with manufacturing defects.
B. Warranty period: Two (2) years.

PART 2 – PRODUCTS

2.1 MANUFACTURERS, PRODUCTS, AND OPERATION

A. Manufacturers: Subject to compliance with requirements, provide product by the following:
1. Modernfold, Inc.
B. Products: Subject to compliance with requirements, provide the following product:
1. Acousti-Clear Motorized Seal - manually operated and electronically activated individual panel operable partition.

2.2 OPERATION

A. Acousti-Clear Motorized Seal: Series of individual flat panels, manually operated, top supported with electrically operated top and bottom seals.
B. Final Closure (select one):
1. Horizontally Expanding Panel Edge (Solid Panel) – panel edge shall operate electrically with push button activation. Hinged closure or closures requiring tools or cranks are not acceptable.
2. Horizontally Expanding Jamb (Solid Panel) – jamb edge shall operate electrically with push button activation. Hinged closure or closures requiring tools or cranks are not acceptable.
3. Pivot Panel (Glass Panel)
a. Hardware – Satin Stainless-Steel Finish (select one):
1. Non-locking Lever (Handle mounted in vertical rail not acceptable)
2. Locking Lever (Handle mounted in vertical rail not acceptable)
3. Non-locking Rail Handle
4. Locking Rail Handle

2.3 PANEL CONSTRUCTION

A. Glass Panels
1. Type: Acousti-Clear Motorized Seal – Glass Panel.
2. Nominal 4-inch (100 mm) thick panels in manufacturer's standard 48-inch (1220 mm) widths. All panel horizontal and vertical framing members shall be fabricated from

aluminum extrusions and mechanically fastened. Frame shall be designed to minimize exposure on face of panels.
3. Panel Faces:
a. 5/16-inch (8 mm) clear glass on one face, mechanically fastened and sealed in frame.
b. 3/8-inch (9.5 mm) clear glass on one face, mechanically fastened and sealed in frame.
c. Glass Type: Tempered, complying with ASTM C1036, ASTM C1048, CPSC 16 CFR 1201 Categories 1 & 2, and ANSI Z97.1.
4. Glass Finish (select one):
a. Clear tempered
b. Low-iron tempered
c. Frosted tempered
d. Clear tempered – high STC
e. Low-iron tempered – high STC
f. Frosted tempered – high STC
g. MorphGlas: Acousti-Clear panel assembled with polymer dispersed liquid crystal glass using low-iron tempered glass and achieving UL certification. All comparable products without valid UL panel assembly certification are not acceptable. (45 STC only)
5. Panel Trim: Pre-finished aluminum to protect edge of glass in one of the following finishes (select one):
a. Clear Anodized
b. Satin Stainless Anodized
c. White Powder Coat (RAL 9016)
d. Black Powder Coat (RAL 9004)
e. RAL “Classic” (Solids collection) Powder Coat available (Sherwin Williams’ Powdura Super Durable TGIC Free Polyesters) provided in one of the following (select one):
1. Gloss finish (80°-85° gloss)
2. Satin finish (30° gloss)
6. Acoustical ratings of panels with this construction achieve Sound Transmission Class of (see below) minimum STC when tested in accordance with ASTM E90 and classified in accordance with ASTM E413. (select one)
a. 45 STC
b. 51 STC (not available with MorphGlas)
7. U.L. listing: UL 962 - Household and Commercial Furnishings; CSA C22.2 No. 68 - Motorized Appliances
B. Solid (Non-Glass) Panels:
1. Type: Acousti-Clear Motorized Seal – Classic Panel.
2. Nominal 4-inch (100 mm) thick panels in manufacturer’s standard 48-inch (1220 mm) widths. All panel horizontal and vertical framing members shall be fabricated from aluminum extrusions and mechanically fastened.
3. Panel Faces: 3/8-inch (9.5 mm) thick medium density fiberboard continuously bonded to aluminum panel frame.
4. Panel Finishes:
a. High pressure plastic laminate on MDF board.
b. Wood veneer on MDF board.
c. Full height steel or laminate markerboard.
5. Panel Trim: No visible trim permitted.

6. Acoustical ratings of panels with this construction achieve Sound Transmission Class of 50 minimum STC when tested in accordance with ASTM E90 and classified in accordance with ASTM E413.
7. U.L. listing: UL 962 - Household and Commercial Furnishings; CSA C22.2 No. 68 - Motorized Appliances
C. Panel Weights:
1. Glass Panel
a. 45 STC – 10 lbs./square foot
b. 51 STC – 11.5 lbs./square foot
2. Classic/Solid Panel
a. 50 STC – 10 lbs./square foot

2.4 SOUND SEALS
A. Vertical Interlocking Sound Seals between panels: Extruded aluminum astragals with interlocking convex/concave resilient quad-lip gaskets. Rigid plastic astragals or astragals with gaskets on only one panel edge are not acceptable.
B. Horizontal Top and Bottom Seals shall be Modernfold ComforTronic® seals providing 7/8-inch (22 mm) operating clearance with an operating range of +9/16-inch (14 mm) to -3/8-inch (9.5 mm). Seals shall operate electrically without tools or cranks and shall extend as panels are positioned. Fixed top or bottom seals or seals requiring cranks or tools for manual activation are not acceptable.

2.5 SUSPENSION SYSTEM (SELECT ONE)
A. G-330 Suspension System
1. Suspension Tracks: Extruded aluminum with a minimum wall thickness of 0.235-inches (6 mm). Incorporate cast aluminum or mitered intersections, switches, and curves in stacking area. Provide alignment pins for track, intersections, and switches and curves insuring both fit and roller surface integrity.
a. Exposed track soffit: Factory-finished aluminum with white powder coat.
2. Carriers:
a. Smart Track™ - Two stainless steel trolleys with vinyl roller surfaces (except Pivot Panel). Trolley design incorporates eight (8) wheels of varying dimensions. Automatic indexing of panels into stack area is provided by pre-programmed switches and trolleys without electrical, pneumatic, or mechanical activation.
b. Right Angle Turn - Two stainless steel trolleys with vinyl roller surfaces. Trolley design incorporates eight (8) wheels of varying dimensions that permit panels to traverse L, T, and X intersections without mechanical switching, on all panels (except Pivot Panel).
3. Warranty period: Two (2) years.

-OR-

B. #17G Suspension System - Smart Track™
1. Suspension Tracks: Minimum 11 gauge, 0.12-inch (3 mm) roll-formed steel track 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 (9.5 mm) diameter threaded steel rods.
a. Exposed track soffit: Steel, integral to track, and pre-painted off-white.

2. Carriers: Two all-steel trolleys with steel ball-bearing wheels and vinyl tires (except Pivot Panel). Automatic indexing of panels into stack area is provided by pre-programmed switches and trolleys without electrical, pneumatic, or mechanical activation.
3. Warranty period: Five (5) years.

2.6 OPTIONS
A. Pass Doors (Solid Panel):
1. Single Pass Doors:
a. Matching pass door same thickness and appearance as the panels. ADA-compliant pass door equipped with non-locking lever latch. No threshold will be permitted.
2. Double Pass Doors:
a. Matching pass door same thickness and appearance as the panels. No center post is permitted. Active leaf to be trimless and equipped with non-locking lever latch. In-active leaf to be trimless and with non-locking lever and friction latch. No threshold will be permitted.
3. Hardware (choose as required):
a. Panic hardware.
b. Locking lever latch.
c. Self-Illuminated exit signs:
i. Chemical exit sign – recess mount
ii. Chemical exit sign – surface mount
iii. Photo luminescent exit sign – surface mount
d. Butt hinges.
B. Pass Doors (Glass Panel):
1. Single Pass Doors:
a. Matching pass door same thickness and appearance as the panels. ADA-compliant pass door equipped with non-locking lever latch. No threshold will be permitted. Pass doors hinged or attached to adjacent panels are not permitted.
2. Hardware (choose as required):
a. Locking lever latch.
b. Self-Illuminated exit signs:
i. Chemical exit sign – recess mount
ii. Chemical exit sign – surface mount
iii. Photo luminescent exit sign – surface mount
c. Panic hardware.
d. Door closer.
C. Available Accessories/Options:
1. Motorized Privacy Shades by Draper®:
a. Fabrication:
1. Shade Motor and Control System
a) 24V DC ST30 Dry Contact Motor - 24V DC quiet motor with dry contact for connection to third party control systems. Tubular motor concealed inside each shade roller tube. 2 Nm of torque.
2. Roller: Fabricated from extruded aluminum or steel. Wall thickness and material selected by manufacturer to accommodate shade size. Provide with roller idler assembly of molded nylon and zinc-plated steel pin. Sliding pin to allow easy installation and removal of roller. Fabric connected to the roller tube with LSE (low surface energy)

double sided adhesive specifically developed to attach coated textiles to metal. Adhesive attachment to eliminate horizontal impressions in fabric.
b. Opaque Window Shade
1. Fabric retainer: System designed to prevent disengagement of fabric from side channels due to normal variations of air pressure caused by doors opening, HVAC systems, and temperature differences between room and window well. System consists of horizontal steel stays installed in shade, covered with fabric, and spaced at regular intervals. Grommets installed through stays are held within groove of side channel chamber.
c. Fabric (select one):
1. Light-Filtering Fabrics
a) E Screen ME-05 Series by Mermet: PVC coated fiberglass yarn woven in 2 by 2 basketweave. .016 inches thick. GREENGUARD Gold. Manufacturer to supply GREENGUARD Gold certificate. Fire rating: NFPA 701, both small- and large-scale tests/California U.S. Title 19. ME-05 Series: Avg. 5 percent open.
2. Room Darkening Fabrics
a) SunBloc Series SB9000: Close woven fiberglass base textile with sun-resistant vinyl film bonded to each side, opaque with minimum tensile strength of 190 pounds for warp and 180 pounds for fill. Fire rating: NFPA 701 1006-Test 1. Washable and stain resistant. Wt. 12 oz/sq yd. Same color both sides, .015 inches thick.
2. Motorized Blinds:
a. Fabrication: Aluminum slats suspended on nylon ladders.
b. Installation: Install between panes of glass.
c. Operation: Raising and tilt of slats shall be electrically operated. Blinds requiring external handles or wands are not acceptable. All blinds in an operable partition shall operate in unison.
d. Control: Key switch.
e. Finish (select one):
1. Breeze #0262
2. Black #0048
3. Alabaster #0002
4. Flex White #0885
3. Horizontal mullions
a. Prefinished aluminum to match trim finish.
b. Same appearance and thickness as panel frame/trim.
c. Plastic mullions are not acceptable.
d. Mullions attached directly to the glass or panel face are not acceptable.
4. Pocket Doors: Acousti-Seal Pocket Doors by Modernfold, Inc.
5. Intersecting partition interface (select one):
a. Solid Panel – “Classic”:
1. “L” Interface
2. “T” Interface
3. “X” Interface
b. Glass Panel:
1. “L” Post
2. “T” Post
3. “X” Post
4. 135° Angle Post

6. Provide recessed, wall-mounted box for key switches, complete with satin-finished stainless-steel cover plate.
7. Protector Series
a. Point of location emergency line of sight deployment. Activation deploys shades or blinds in closed position or transitions MorphGlas to opaque and temporarily disables closure and seals for maximum security. Activation initiates shade or blind deployment or transitions MorphGlas for point of location partition.
b. Main command location, emergency line of sight deployment. Activation deploys shades or blinds in closed position or transitions MorphGlas to opaque and temporarily disables closure and seals for maximum security. Activation initiates shade or blind deployment or transitions MorphGlas of all partitions in security group.

PART 3 – EXECUTION

3.1 INSTALLATION
A. General: Comply with ASTM E557, operable partition manufacturer's written installation instructions, Drawings and approved Shop Drawings.
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. Make connections to power as specified in Division 26 – Electrical.

3.2 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. Lubricate hardware and other moving parts.

3.3 EXAMINATION
A. 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.

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

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