

Modernfold GWS PureView Movable Glass Walls with COMFORTDRIVE
10 22 26 (10650)
Operable Partitions

SPECIFICATION – SECTION 10 22 26 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. This Section includes the following:

1. Automatically operated, individual glass panel partitions.

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 glass 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 for power supply, conduit, wiring, and electrical connections.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who is certified in writing by the glass 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. Preparation of the opening shall conform to the criteria set forth per ASTM E557 "Standard Practice for Architectural Application and Installation of Operable Partitions."

C. The movable glass 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.

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.

1.5 SUBMITTALS

- A. Product Data: Material descriptions, construction details, finishes, installation details, and operating instructions for each type of operable glass panel partition, component, and accessory specified.
- B. Shop Drawings: Show location and extent of operable glass panel partitions. Include plans, elevations, sections, details, 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 for selection 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 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.
- H. Buy American: Glass wall products are to be manufactured in the United States in compliance with applicable U.S. Federal Trade Commission (FTC) and U.S. Customs Service and Border Protections regulations and be labeled "Made in America".

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 panel and glazing materials during delivery, storage, and handling to comply with manufacturer's direction and as required to prevent damage to the glass and hardware.

1.7 WARRANTY

A. Manufacturer's Special Project Warranty on Glass Panels: Provide written warranty signed by the manufacturer of glass operable partitions agreeing to replace those panels with manufacturing defects.

1. Manufacturing defects are defined as any defect materially obstructing vision through the glass, and mechanical failure of hardware which prevents the proper operation of the panels after appropriate installation.

2. Warranty period: Five (5) years for PureView panels. Five (5) years for ComfortDrive with registered service agreement (required).

PART 2 - PRODUCTS

2.1 MANUFACTURERS, PRODUCTS, AND OPERATION

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Modernfold, Inc.

B. Panels to be manufactured in the U.S.A.

C. Products: Subject to compliance with the requirements, provide one of the following products:

1. Modernfold Glass Wall Model PureView with COMFORTDRIVE with 4-1/8-inch (105 mm) square top and bottom rails.

2.2 OPERATION

A. Fully automated and top-supported series of individual electrically controlled glass panels. Panels use two-piece, clamp-on top and bottom rail that fastens together from alternating sides. Each panel is equipped with its own drive motor integrated into the panel trolley and travels at a speed of 30 feet/minute.

B. Final closure (select one):

1. Pivot panel electrically controlled and equipped with an electromechanical locking device to prevent unauthorized manual operation. Closures requiring manual operation are not acceptable.

2. Standard intermediate panel ending within storage pocket, or at face of storage pocket.

C. Partition shall be operated by a digital control panel. A configurable microprocessor control system is to be provided to monitor and control the motion sequences and the position of the panels. "Open", "Close" and "Stop" push buttons provided to allow the partition to be opened, closed or stopped at any position. Programming must allow for partial-opening, personnel-access, gapped and alternate panel configurations.

D. In the event of power failure, it must be possible to easily operate the partition by hand and move the panels into any desired position. An unlocking device is required to allow the closed and locked partition to be opened if needed. The subsequent electrical restart sequence must be possible with the panels in any position.

2.3 CONSTRUCTION

A. Provide top reinforcement as required to support panel from suspension components and provide reinforcement for hardware attachment. Fabricate panels with concealed fasteners. Finished in-place partition shall be rigid, level, plumb, aligned with uniform joints and appearance, free of bow, warp, twist, deformation, and surface and finish irregularities.

B. Dimensions: Fabricate operable glass panel partitions with manufacturer's standard panel sizes to form an assembled system of dimensions indicated on Drawings and verified by field measurements.

1. Maximum panel width: 48-inches (1219 mm)
2. Standard rail thickness: 1-9/16-inches (40 mm)
- C. Top and Bottom Rails: Continuous two-piece assemblies with removable end caps. Rails fasten together from alternate sides of partition allowing for field adjustment to job site conditions. Snap-on covers are furnished to facilitate installation.
- D. Horizontal Top Seals: Continuous contact vinyl seals without the need for mechanically operated parts.
- E. Horizontal Bottom Seals: Touch bottom seal. Continuous contact operable seals provide nominal 1/2-inch (13 mm) operating clearance within operating range of +1/8-inch (3 mm) to – 1/8-inch (3 mm) and shall provide continuous floor contact as panels are positioned with no need for tools or cranks.
- F. Bottom Rail Locking System: Engage adjacent panels by use of interlocking bolts to stabilize panels from movement in all directions. Panels are equipped with a bottom guide pin which travels in a recessed stainless-steel floor track.
 1. Equip end panel with an electromechanical locking device to protect against unauthorized manual operation. In the event of power failure, locking device must be easy to manually disengage by mechanical means.
- G. Fully Framed (Optional): Extruded aluminum vertical stiles measuring 1-9/16 inch (40 mm) by 3/4 inch (19 mm) with a minimum wall thickness of 3/64-inch (1.2 mm). Vertical stile shall have integral channel to accept Dri-Fit Gasket on any surface that contacts glass. Stile shall have an exterior integral channel capable of accepting vinyl gasket. Stile shall be continuous and run the entire length of the panel covering both rails and glass edge. Stile mechanically fastened to both top and bottom rails. Silicone applied stiles are not acceptable.
- H. 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. 15 STC
 - b. 33 STC – Fully Framed
 - c. 35 STC – Fully Framed
 - d. 37 STC – Fully Framed

2.4 MATERIALS

- A. Aluminum: Alloy and temper recommended by aluminum producer and finisher for type of use, corrosion resistance, and finish indicated; ASTM B221 (ASTM B221M) for extrusions; manufacturer's standard strengths and thicknesses for type of use.
- B. Glass Type: Tempered, 1/2-inch (13 mm) complying with safety standards specified in ANSI Z97.1 CPSC16, CFR1201, ASTM C1036 and ASTM C1048.
- C. Glass Finish (select one):
 1. Clear tempered
 2. Frosted tempered
 3. Low iron tempered
 4. Low iron frosted tempered
 5. Laminated clear tempered
 6. Laminated "Markerboard" low iron tempered "Polar White"
 7. Laminated clear tempered – high STC
 8. Laminated frosted tempered – high STC
 9. Laminated low iron tempered – high STC
 10. Laminated low iron frosted tempered – high STC

11. Laminated "Markerboard" low iron tempered "Polar White" – high STC
D. Panel weight: 7.5 lbs./square foot

2.5 PANEL FINISHES

- A. Provide top and bottom rails with one of the following finishes (select one):
1. Clear anodized aluminum
 2. Dark Bronze anodized aluminum
 3. Black anodized aluminum
 4. Satin stainless anodized aluminum
 5. White Powder Coat (RAL 9016)
 6. Black Powder Coat (RAL 9004)
 7. RAL "Classic" (Solids collection) Powder Coat available provided in one of the following (select one):
 - a. Gloss finish (80°-85° gloss)
 - b. Satin finish (30° gloss)

2.6 SUSPENSION SYSTEM

- A. ComfortDrive Suspension System
1. Suspension Tracks: Extruded aluminum. Incorporate cast aluminum or mitered intersections, switches, and curves in stacking area. Provide alignment pins for track, intersections, switches and curves insuring both fit and roller surface integrity.
 - a. Exposed track soffit: Factory-finished aluminum with white powder coat.
 2. Carriers: Two multi-wheeled trolleys featuring track rollers mounted in ball bearings. Trolleys comprising of ball-type carriers or sliding discs/pucks are not acceptable. Automatic indexing of panels into stack area is provided by mechanical switches without electrical or pneumatic activation.
 3. Control System: The entire partition's opening and closing operation including stacking the panels in the storage area must be performed fully and automatically by the electric drive system. Panels are individually driven and electronically controlled with self-monitoring capabilities for all control functions. The entire partition system must be UL 325 approved, will stop on contact with an obstruction and is compliant to maximum entrapment forces described under Section 29.4 of UL 325 certification.

2.7 OPTIONS

- A. Pivot Panel – manual operation (lead end)
- B. Door pulls back-to-back – Pivot Panel
1. 12-inch (305 mm) tubular pull
 - a. clear anodized
 - b. black anodized
 - c. dark bronze anodized
 - d. satin stainless-steel
 2. Manet 1240 mm "Ladder Pull" – satin stainless-steel
 3. TG-138 49-inch (1245 mm) locking "Ladder Pull" – satin stainless-steel
 - a. **SFIC** Mortise Cylinder Floor Locks
- C. Automatic door closer – Pivot Panel
1. BTS80 floor closer
- D. Intersecting partition interface
1. 90° corner post

- a. "L" configuration
- b. "T" configuration
- c. "X" configuration
- E. Bottom rail cover
- 1. 4-1/8-inch (105 mm) cover (matches top rail cover)
- 2. 10-inch (254 mm) cover

PART 3 EXECUTION

3.1 INSTALLATION

- A. General: Comply with ASTM E557, operable glass partition manufacturer's written installation instructions, Drawings, and approved Shop Drawings.
- B. Install operable glass partitions and accessories after other finishing operations, including painting, have been completed.
- C. Match operable glass 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 CLEANING AND PROTECTION

- A. Clean metal and glass surfaces upon completing installation of operable glass partitions to remove dust, loose fibers, fingerprints, adhesives, and other foreign materials according to manufacturer's written instructions.
- B. Provide final protection and maintain conditions in a manner acceptable to manufacturer and Installer that ensure operable glass partitions are without damage or deterioration at time of Substantial Completion.

3.3 ADJUSTING

- A. Adjust operable glass partition 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.

3.4 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 glass partitions. Proceed with installation only after unsatisfactory conditions have been corrected.
- 1. Ensure finished floor under operable glass partition is level ± 0.13 -inch (3 mm) in ten (10) feet (3048 mm) non-cumulative.

3.5 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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