



Luminous™ – Movable Glass Walls by Kwik-Wall

Technical Data

AVA™ – Hinged-Paired Panels, Frameless Panels

SECTION 10 22 39 – Folding Glass Partitions

SECTION 10 22 43 – Sliding Glass Partitions

PART 1 – GENERAL

1.01 DESCRIPTION

A. General

1. Furnish and install hinged pair folding glass panel partitions and suspension system for interior use only that provides separation between rooms when extended. Provide all labor, materials, tools, equipment, and services for sliding folding glass partitions in accordance with provisions of contract documents.

1.02 RELATED WORK BY OTHERS

- A. Preparation of opening will be by General Contractor. Any deviation of site conditions contrary to approved shop drawings must be called to the attention of the architect.
- B. All header, blocking, support structures, jambs, and track enclosures, as required in 1.04 Quality Assurance.
- C. Pre-punching of support structure in accordance with approved shop drawings.
- D. Paint or otherwise finishing all trim and other materials adjoining head and jamb of the partitions.

1.03 SUBMITTALS

- A. Complete shop drawings are to be provided prior to fabrication indicating construction and installation details. Shop drawings must be submitted within 60 days after receipt of signed contract. Show performance test results and details of construction materials, colors, profiles, and opening dimensions. Appropriate LEED 2009 (v3) credit for the following:
IEQ Credit 8.1: Daylight & Views – Daylight 75% of Spaces
IEQ Credit 8.2: Daylight & Views – Daylight 90% of Spaces

1.04 QUALITY ASSURANCE

- A. Preparation of the opening shall conform to the criteria set forth per ASTM E557 Standard Practice for Architectural Application and Installation of Operable Partitions.
- B. Glass wall panel construction and finish materials shall consist of Class A-rated materials in accordance with ASTM E 84.
- C. Glass shall meet ASTM C 1036-01: Standard Specification for Flat Glass.
- D. Glass shall be safety glass per ISO 28278-1:2011 or ASTM C1048-18 equivalent standard

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Proper storage of partitions before installation and continued protection during and after installation will be the responsibility of the General Contractor.

1.06 MANUFACTURER WARRANTY

- A. Provide folding glass partitions system's standard limited warranty guaranteed against defects in material and workmanship for a period of five (5) years for panels and 10 years for tracks. Warranty does not cover glass damage after delivery, abuse or misuse, and must be installed by a factory trained, approved installer.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Upon compliance with all the criteria specified in this section, Manufacturers wishing to bid products similar to the product specified must submit to the architect 10 days prior to bidding complete data in support of compliance and a list of three past installations of products similar to those listed. The submitting manufacturer guarantees the proposed substituted product complies with the product specified and as detailed on the drawings.

2.02 MATERIALS

- A. Product to be top supported, hinged pair glass panels, with Basis-of-Design the AVA™ series by Kwik-Wall.
- B. Panel Construction
 1. Panels shall be nominally 1 7/16" [36] thick and up to 48" [1219] in width. Standard panel heights up to 10'-6" [3200].
 2. Horizontal top and bottom rails shall be continuous one-piece extrusion manufactured of structural grade aluminum with removable end caps. Rails shall utilize a cam lock feature to provide positive mechanical attachment to glass. (Passive friction type or adhesive applied rails shall not be allowed for safety reasons.)
 3. Perimeter trim and seals:
 - a. Panels to have sanded/beveled vertical edges, resulting in a minimal groove appearance between adjacent glass panels.
 - b. Top and bottom seals to be continuous contact black nylon brush seals.
 - c. Optional vertical protective edge trim encapsulating the edge of the glass.
 4. Bottom Rail Locking System: each bottom rail glass retainer shall contain (select):
 - a. Standard operable floor lock consisting of a face or edge activated engagement hardware, located on one (1) side of the panel connected to a floor lock that engages a recessed spring-loaded dust-proof strike to provide stability and security when the movable glass wall system is set up in the extended position. Intermediate panels shall have horizontal interconnecting foot-operated lock or centering pin for additional stability and security.



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- b. Optional keyed / thumb turn lock consisting of key-operated cylinders on both sides or key operation on one (1) side and thumb turn operation on opposite side.
 - c. Optional thumb turn consisting of an operable floor lock operated by a thumb turn that engages a recessed spring-loaded dust-proof strike to provide stability and security when the movable glass wall system is extended.
5. Glass shall be manufactured in accordance with ASTM C 1036-01, ASTM C 1048-04, and ANSI Z97.1.
- a. Panels to have 1/2" [13] clear tempered glass.
 - b. Glass can be customized with decals and etching (requires factory pre-approval).
 - c. Specialty glass can be provided (requires factory pre-approval).
6. Weight of Panels: 7.35 lbs./sq. ft. [35.9 kg/m²], maximum panel weight shall not exceed 240 lb. (110 kg). Fixed pivot panel shall not exceed 330 lb. (150 kg).
- C. Suspension system
- 1. The track size shall be Type 425 hinged pair aluminum track certified to be capable of supporting up to 425 lbs. (193 kg) of total live load weight per panel.
 - 2. Track shall be architectural grade extruded structural aluminum alloy which prohibits deterioration caused by rust or corrosion. The aluminum track shall have a durable anodized clear satin finish, which resists color fading and flaking.
 - 3. Track shall utilize grooves and interlocking steel pins for positive alignment of adjacent track sections. The track joints shall be reinforced overhead by a heavy-duty steel bracket made of hot-rolled, 3/8" [10] thick plate steel. Track shall include an integral nut slot to accept a hardened steel square nut to facilitate attachment of each threaded steel all-rod and splice brackets to the overhead structural support.
 - 4. Track design shall provide integral support for adjoining ceiling, soffit, or plenum sound barrier. Built-in ceiling trim shall match finish, providing enclosure of plenum sound barrier on both sides of the track for maximum sound control. A section of track will be removable in order to make it possible for a panel to be removed from the track for later maintenance.
 - a. Optional direct mounting of track to level overhead structural (wood or steel) support by means of 3/8" [10] x 3" [76] lag screws.
- b. Optional drop rod bracket mounting of track consisting of 3/8" [10] thick steel brackets mounted to top flange of track and supported with adjustable all-thread rods of grade 2, 3/8" [10] diameter, with 3/8" [10] serrated steel nuts.
5. Each panel shall be top supported by one, 4-wheeled carrier utilizing a 5/8" [16] diameter pendant bolt. Each carrier shall consist of permanently lubricated, ball bearing steel wheels with high-density polymer tires as required for smooth and quiet operation. Carriers shall be capable of supporting 425 lbs. (193 kg) of total live load weight per panel.
6. Plenum closure (by others): Design of plenum closure must permit lifting out of header panels to adjust track height. Plenum closure required for optimum sound control of partition per ASTM E-557.
- D. Finishes
- 1. Panel top and bottom horizontal rails shall be clear anodized.
 - a. Optional (upcharge):
 - i. Customer selected custom RAL color (requires factory pre-approval and may extend lead time)
 - 2. Fixed seals shall be black.
 - 3. Hardware finish shall be clear anodized.
 - 4. Pull handle finish shall be stainless steel, satin effect.
 - a. Optional (possible upcharge):
 - i. Customer selected and/or supplied handle (requires factory pre-approval and may extend lead time)
- E. Available Accessories/Options
- 1. Fixed swing panel consisting of a panel utilizing top pivot and bottom pivot that engages with a self-closing unit containing a hold-open feature that is recessed flush into the floor allowing the panel to swing and be used to affect the final closure and provides access through the movable glass wall system when it is set up in the extended position. Configuration allows for 90 degree swing in both directions.
 - a. Locks available.
 - 2. Fixed pivot panel consisting of a panel utilizing top and bottom pivots that allows the panel to pivot 90 degree and be used to affect final closure and provides access through the movable glass wall system when it is set up in the extended position. Configuration allows for 90 degree pivot in both directions.
 - a. Locks available.



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2.03 OPERATION

- A. Panels shall be manually moved from the storage area, positioned in the opening, and locked into place via built-in floor lock located inside the bottom panel rail.
- B. Stack/Store Panels
 - 1. Retract floor locks and move to storage area.

PART 3 – EXECUTION

3.01 EXECUTION

- A. Installation. The complete installation of the operable wall system shall be by an authorized factory-trained installer and be in strict accordance with the approved shop drawings and manufacturer's standard printed specifications, instructions, and recommendations.
- B. Cleaning
 - 1. All track and panel surfaces shall be wiped clean and free of handprints, grease, and soil.
 - 2. Cartoning and other installation debris shall be removed to onsite waste collection area, provided by others.
- C. Training
 - 1. Installer shall demonstrate proper operation and maintenance procedures to owner's representative.
 - 2. Owner's manuals shall be provided to owner's representative.