



# Luminous™ – Movable Glass Walls by Kwik-Wall

## Technical Data

### ILLONA™ – Individual, Multi-Directional Panels

#### SECTION 10 22 39 – FOLDING PANEL PARTITIONS – GLASS

#### SECTION 10 22 43 – Sliding Glass Partitions

#### PART 1 – GENERAL

##### 1.01 DESCRIPTION

###### A. General

1. Furnish and install multi-directional, individual folding panel glass partitions and suspension system for interior use only that provide an acoustic 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 shall be safety glass per ISO 28278-1:2011 or ASTM C1048-18 equivalent standard
- C. Partition shall be tested to the ISO 10140-2 or ASTM E90 equivalent standard
- D. Product to meet ANSI/ASA Standard S12.60, Acoustical Performance Criteria, Design Requirement and Guidelines for Schools.

##### 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, individual, multi-directional, acoustically rated glass panels, with Basis-of-Design the ILLONA™ series by Kwik-Wall.
- B. Panel Construction
  1. Panels shall be nominally 1 3/8" [35] thick and up to 39 3/8" [1000] in width.
  2. Frames shall be of architectural grade aluminum with powder coated finishes and gasketed vertical edges that form a tight panel-to-panel connection. Standard panel heights up to 9'-10" [3000] with full glass fronts.
  3. Glazing sealants and gaskets suited and shaped for the glass configuration and thickness.
  4. Horizontal seals will have top and bottom brush seals on both edges of the panel frame to form tight acoustic connections with track and floors.
  5. Panels to have manually activated floor pins integrated into the bottom rail to interact with bottom floor strikes locking the panels flat and providing lateral stability to the system.
  6. Panel hinges shall be invisible type providing uninterrupted panel edge when system is extended into place.
  7. Glass: The glass shall be factory installed low iron, clear tempered, nominal 5/16" [8]. Either laminated or tempered safety glass can be supplied to meet the safety and acoustical performance requirements in Section 1.04. Glass can be customized with decals and etching (requires factory pre-approval).



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- 8. Weight of Panels: 5.12 lbs./sq. ft. [25.0 kg/m<sup>2</sup>]
- C. Suspension system
  - 1. Track shall be of clear anodized, black or white powder coated architectural grade extruded aluminum alloy 6063-T6. Track design shall provide integral support for adjoining ceiling, soffit, or plenum sound barrier. Track shall be connected to the structural support by pairs of threaded steel hanger rods. L, T, or X intersections shall be field assembled and field adjustable. 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.
  - 2. Each panel shall be supported by two 2-wheeled dual horizontal counter-rotating carriers.
  - 3. 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 frames shall be black powder coated aluminum.
    - a. Optional (upcharge):
      - i. Customer selected custom RAL color (requires factory pre-approval and may extend lead time)
  - 2. Fixed, continuous gasketing and sound seals gaskets shall be black.
- E. Available Accessories/Options
  - 1. Fixed full height pass door on the wall jamb either within or opposite the stack area.
    - a. Vertical edge of doors to have roller latch.
    - b. Lock available.
  - 2. Full-height panel attached to carrier panel
    - a. Vertical edge of doors to have roller latch.
    - b. Lock available.
  - 3. Double door configuration available.
  - 4. Surface mounted muntins on single side.

#### 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 pins located inside the bottom panel rail.
- B. Final partition closure to be by (select one):
  - 1. Hinged closure panel. Full height hinged panel at one end of the opening that is hinged to a fixed two-piece adjustable aluminum jamb and is permanently attached in the opening.
  - 2. Full height panel hinged to carrier panel located within the partition.

- C. Stack/Store Panels
  - 1. Retract floor pins and move to storage area.

#### 2.04 ACOUSTICAL PERFORMANCE

- A. Supply a copy of the acoustical test report certifying that the partition was tested by an independent laboratory. The partition tested must be fully functional and meet ISO or ASTM standards. The test results must be similar to or exceed the performance specified. Any sound test not showing panel construction details and weight or not disclosing all of the information will not be valid. Manufacturers must also guarantee that the products proposed have the same characteristics as the products specified and are in accordance with the drawings.
- B. Standard panel construction shall have obtained either an ISO dB or ASTM STC rating of 33 dB/STC.

### 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.