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Luminous™ – *Movable Glass Walls by Kwik-Wall*
Technical Data

STELLA · LUNA · ILLONA · AVA · MATA

STELLA™ – Individual, Fully-Automatic Panels

SECTION 10 22 39 FOLDING PANEL PARTITIONS
SECTION 10 22 39.13 FOLDING GLASS-PANEL PARTITIONS

Overview

Panel Type
- [x] Individual
- [ ] Hinged-Paired
- [ ] Continuously-Hinged

Partition Support
- [x] Top Support
- [ ] Floor Support

Stacking Configurations
- [ ] Centerline
- [x] Offset
- [x] Remote
- [x] Bi-Parting

Frame Thickness

[x] 4-11/16”	[119]	50 STC
[x] 4-9/16”	[116]	44 STC
[ ] 2-13/16”	[71]	
[ ] 1-3/4”	[44]	
[ ] 1-3/8”	[35]	
[ ] Frameless		

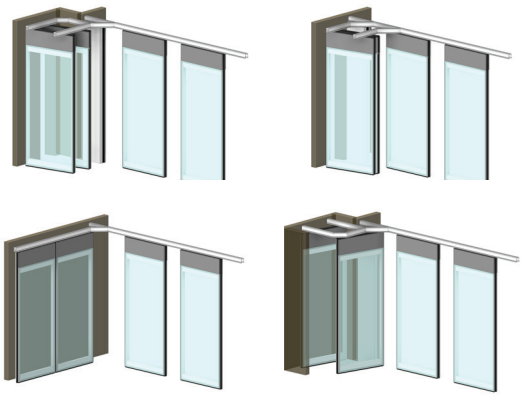
Operation – Panels
- [x] Fully-Automatic
- [ ] Manual

Operation – Seals
- [x] Automatic
- [ ] Manual
- [ ] Fixed

Sound Control
- [x] 50 STC
- [x] 44 STC
- [ ] 43 STC
- [ ] 35 STC
- [ ] 33 STC
- [ ] Non-Acoustic

Power Requirement
- [x] Yes – Fully-Automatic
- [ ] Yes – Auto-Seals only
- [ ] No – Manual

Luminous Stella the industry’s premium performance glass wall, Luminous Stella **individual, fully-automatic panels** provide 44 or 50 STC sound control, with programmable, fully automatic operation – panels travel in and out of the stacking area to their location in the opening and automatically set perimeter top, bottom and final closure seals. Pass doors with full ADA compliant panic hardware can be located in any panel.



WEIGHTS:
8.0 - 9.85 lbs. / sq. ft.
[39-48kg / m2]

STELLA
Video

STELLA
More Information

Dimensions in [ ] are millimeters. Visit Kwik-Wall.com for additional product information and to connect with your authorized Kwik-Wall distributor.

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SECTION 10 22 39 – FOLDING PANEL PARTITIONS – GLASS

PART 1 – GENERAL

1.01 DESCRIPTION

A. General
   1. Furnish and install acoustically rated, movable glass partitions, and suspension system with fully automatic, electrically operated seal systems. Provide all labor, materials, tools, equipment, and services for glass movable walls 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, fully automatic, acoustically rated glass panels, with Basis-of-Design the STELLA™ series by Kwik-Wall.
B. Panel Construction
   1. Panels shall be nominally 4 9/16" – 4 11/16" [116-119] thick and up to 51 1/8" [1300] in width.
   2. Frames shall be of architectural grade aluminum with powder coated or anodized finish with vertical edges that form a male and female style interlocking connection. Standard panel heights up to 11'-1 3/4" [3397] with full glass fronts.
      a. Optional heights up to 15'-10 3/4" [4845] using horizontal mullions and dual stacked glass
      b. Top 13 3/4" [350] of panel to be solid faced and removable for housing drive system. Solid face to be selected from manufacturer's standard options as outlined in 2.02.D.3. Remainder of panel face is glass as outlined in 2.02.B.7.
   3. Glazing sealants and gaskets suited and shaped for the glass configuration and thickness.
   4. Fully automatic I-Core built-in battery-operated carrier drive system position the wall automatically by pre-programmed electronic wall mounted keypad. Each panel is driven electrically along the track and contains a wireless two-way control unit which the master control unit is able to identify & communicate. Panels to be pre-programmed for operating speed of closure and configuration.
      a. Panels' operating batteries charge both in extended and stacked positions. In the event of a long power interruption, a battery back-up is supplied as standard.

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SECTION 10 22 39 – FOLDING PANEL PARTITIONS – GLASS

5. Horizontal Seals
    a. Top and bottom horizontal low voltage, electrically operated, automatically activated seals shall provide continuous contact with the track and floor with a total clearance of 3/4" [20] when extended and provide a minimum 40lbs [18kg] of seal forces. Each top and bottom seal has an operating range of 3/4" [20].
    b. Top and bottom panel seals to operate using built-in seal actuators.
    c. When using switchable glass, panel edges to have key-fob activator providing supplemental power assist.
    d. Top and bottom PVC vinyl seal shoes to form tight acoustic connections with track and floors.

6. Vertical Seals: Vertical sound seals shall be of male/female configuration with full length gaskets, ensure panel-to-panel alignment and prevent sound leaks between panels.
7. Glass: The glass shall be factory installed low iron, clear tempered on both sides of the panels with a minimum 3 1/2" [89] airspace between the glass. Either laminated or tempered safety glass can be supplied to meet the safety and acoustical performance requirements in Section 1.04
    a. Models with STC 44: Glass thickness to be nominally 1/4" [6] and with final overall panel thickness of nominally 4 9/16" [116].
    b. Models with STC 50: Glass thickness to be nominally 5/16" [8] and with final overall panel thickness of nominally 4 11/16" [119].
    c. Glass shall be back painted around the perimeter frame thickness and be glazed directly to the frame eliminating face trims.
    d. Options:
        i. Glass can be fully back painted or custom to create opaque writing surfaces
        ii. Glass can be customized with decals and etching (requires factory pre-approval)
        iii. Switch glass films can be applied to the interior side of one glass surface.
8. Weight of Panels: 8.0 – 9.85 lbs./sq. ft. [39-48kg/m2]

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 factory 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. Trail carriers are electronically driven by I-Core battery operated drive system embedded inside top of panel.
    4. 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 clear anodized, black or white 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.
    3. Optional solid faced panels to be of same frame construction and match the profiles of adjacent panels. These solid faced panels in lieu of glass shall be of (select one):
        a. Manufacturer's standard selection of melamine laminated to medium density fiberboard (MDF).
        b. High pressure laminate (HPL) from manufacturer's standard selection laminated to MDF.
        c. Manufacturer's standard writable and magnetic high-pressure laminate with MDF.

E. Available Accessories/Options
    1. Inset pass door, single "U" shaped pass door, ADA compliant, allows the pass door to be located in any location in the opening. Pass door includes a turn handle on both sides and solid back painted glass above door.
        a. Panic hardware with lock override available.
    2. Locks
    3. Fully or partially back painted glass
    4. Switchable glass (requires power)
    5. Internal blinds (requires power)
    6. Internal muntins
    7. Face Options
        a. Panel(s) may have partial height glass and standard face options (example: bottom 4' [1219] section of HPL, melamine, or glass window at the top).

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b. Panels will contain horizontal mullions in specified locations that do not interfere with panel seal operation.

2.03 OPERATION

A. Panels shall be individually and automatically moved from the storage area to position in opening and seals extended automatically.
   1. Activate the wall-mounted system LED controller.
   2. Hit 'WALL' command to activate system that drives panels into place and drives seals tightly in place when positioned correctly.
   3. Expandable telescoping closure, embedded within the permanent fixed wall, automatically seals the final panel into place vertically.

B. Stack/Store Panels
   1. Activate the wall-mounted electric switch and power the low-voltage system.
   2. Hit 'PARK' command to activate system that retracts seals and drives panels into storage area.
   3. Panels extend top seals once stacked into storage area.
   4. Power down the wall-mounted controller.

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 (select those that apply): 43 dB/44 STC, 49 dB/50 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. Operating handle and owner's manuals shall be provided to owner's representative.

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SECTION 10 22 39 – FOLDING PANEL PARTITIONS – GLASS

STACKING CONFIGURATIONS

Please contact the Kwik-Wall Preliminary Design Team @ prelim@kwik-wall.com with your project requirements and we will assist you with layout options and preliminary project drawings.

Stack Depth Allowance: 5-1/8" [130] / panel*

*Add: 1-1/2" [38] glass jamb; 3.9" [100] for HPL jamb; 3-3/4" [95] for hinged jamb.

Pocket Width:

Angle Stacked Panels – Consult Kwik-Wall for required pocket diemesnion

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HORIZONTAL DETAILS

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VERTICAL SECTIONS

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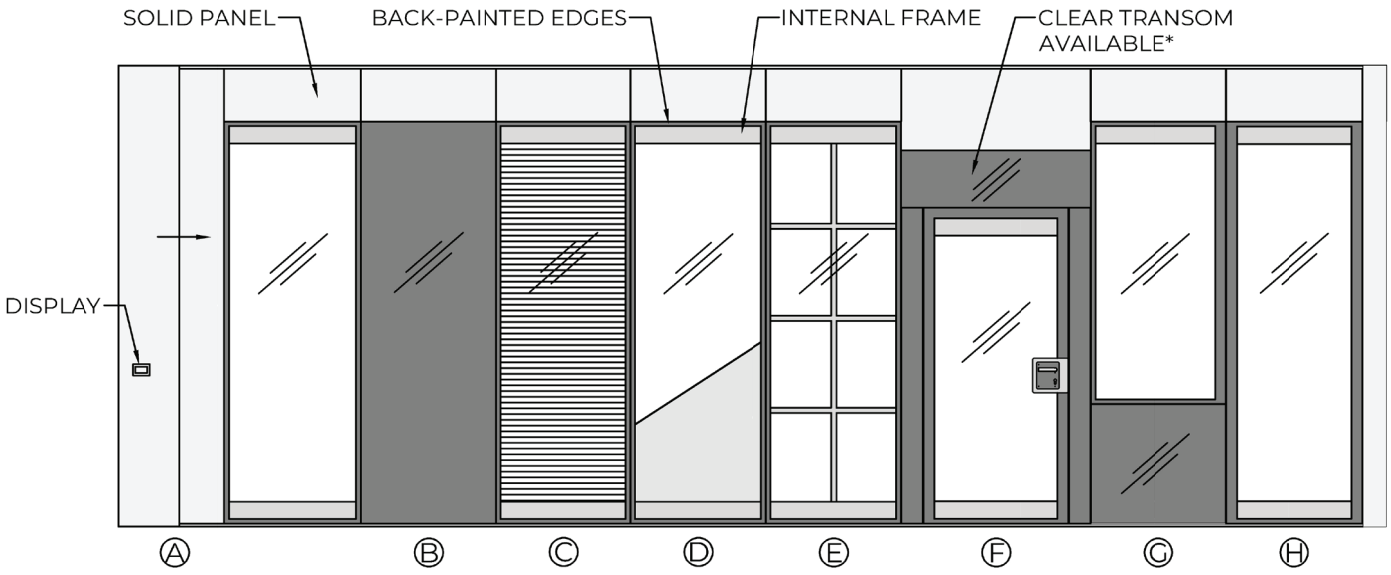
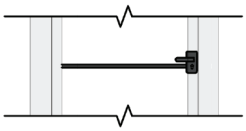
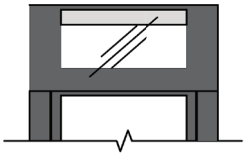
ELEVATION DETAILS





OPTIONAL PANIC HARDWARE FOR INSET PASS DOOR



*OPTIONAL CLEAR TRANSOM OVER INSET PASS DOOR FOR PANEL HEIGHTS OVER 9'-11 11/16" [3040]

Ⓐ FIXED TELESCOPIC EXPANDER

Ⓑ FULLY BACK-PAINTED GLASS

Ⓒ INTERNAL BLINDS

Ⓓ SMART GLASS

Ⓔ HORIZONTAL AND VERTICAL INTERNAL MUNTINS

Ⓕ INSET PASS DOOR, AVAILABLE FOR PANEL HEIGHTS OVER 8'-9 1/2" [2680]
OPTIONAL PANIC HARDWARE, OPTIONAL CLEAR TRANSOM

Ⓖ SPLICED GLASS (EX: BACK-PAINTED BOTTOM AND CLEAR TOP)

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