



## CLEAR-DIVISIONS VARIOTEC TRIMLESS

### Introduction:

The following three (3) part specification offers the Standard and *Optional* features for the CLEAR-DIVISIONS VARIOTEC TRIMLESS moveable glass wall system. The yellow highlighted areas in the specification indicate an *Optional* selection that is available based on your project requirements.

In order to assist you with the design criteria KWIK-WALL has provided a Product Guide for the VARIOTEC TRIMLESS moveable glass wall system.

The Product Guide indicates the stack arrangements, perimeter trim and seals, final closures available, and also establishes the maximum partition height and width.

VARIOTEC TRIMLESS Product Selection Guide							
Model	Operation	Stack Arrangements	Glass	Perimeter Trim and Seals	Final Closure Options	Maximum Panel Height	Maximum Wall Width
VARIOTEC TRIMLESS	Individual Panels	Standard: Perpendicular <i>Optional: Parallel or Remote Stack</i>	Standard: Clear <i>Optional: Etched, Decorated, Patterned or Berman editions</i>	Standard: Trimless <i>Optional: Protective Edge</i>	Standard: Fixed Pivot Panel <i>Optional: Fixed Swing Panel</i>	*12'-0" (3.66 m)	Unlimited

\*Maximum panel height for Sliding Swing and Sliding Pivot Panel = 10'-0" (3.05 m) with a maximum panel weight of 200 lb. (90.7 kg).

\*Maximum panel height for *Berman editions glass* = 11'-0" (3.35 m).

## CLEAR-DIVISIONS VARIOTEC TRIMLESS Product Specification

### PART 1 – GENERAL SPECIFICATIONS

#### 1.01 WORK INCLUDED

- A. Moveable glass wall system shall be furnished, installed, and serviced by wall manufacturer's authorized distributor, in compliance with the architectural drawings and specifications contained herein.

#### 1.02 RELATED WORK

- A. Structural Support: Structural support system required for suspending the moveable glass wall shall be designed, installed, and pre-punched by others, in accordance with ASTM E 557 and manufacturer's shop drawings.
- B. Opening Preparation: Proper and complete preparation of the moveable glass wall system opening shall be by others in accordance with ASTM E 557, and shall include floor leveling; plumbness of adjoining permanent walls; substrate and / or ceiling tile enclosures for the track system; and the painting and finishing of trim and other materials adjoining the head and jamb areas of the moveable glass wall. Refer to a copy of the shop drawings for additional details.

**1.03 SYSTEM DESCRIPTION**

- A. The moveable glass wall system shall consist of Individual Panels that are top supported by two (2) carriers riding through radius Curve and Diverter type intersections.
- B. The moveable glass wall system shall consist of nominal 3/8" [10] or 1/2" [12.7] thick tempered glass panels suspended from a continuous aluminum glass retainer located at the top and bottom of each panel.

**1.04 QUALITY ASSURANCE**

- A. Installer Qualifications: An experienced installer who is certified in writing by the moveable glass wall manufacturer as qualified to install the manufacturer's systems for work similar in material, design, and extent to that indicated for this project.
- B. The moveable glass wall panel shall utilize clear tempered glass per ASTM C 1048-04.
- C. The moveable glass wall shall be installed by the manufacturer's authorized distributor in accordance with ASTM E 557.
- D. The glass wall panel construction and finish materials shall consist of Class A rated materials in accordance with ASTM E 84.

**1.05 REFERENCES**

- A. ASTM C 1036-01: Standard Specification for Flat Glass.
- B. ASTM C 1048-04: Standard Specification for Heat Treated Flat Glass.
- C. ASTM E 557: Architectural Application and Installation of Operable Partitions.

**1.06 SUBMITTALS**

- A. Manufacturer shall provide written technical information and related detail drawings, which demonstrate that products comply with contract documents for each type of moveable glass wall system specified.
- B. Manufacturer shall provide detailed engineering drawings featuring track plan, panel elevation, horizontal and vertical details and beam punching template as required.
- C. Manufacturer shall provide written instructions specifying the proper operation and maintenance of the moveable glass wall system.
- D. Manufacturer shall provide a color selector demonstrating the manufacturer's selections of the specified hardware finish.

**1.07 DELIVERY, STORAGE AND HANDLING**

- A. Panels shall be shipped in a completely enclosed wooden crate with high-density polystyrene blocks positioned between each panel to protect glass and hardware during delivery, storage and handling.
- B. Panels shall be stored on edge and above the floor on cushioned blocking in a dry and ventilated area, protected from humidity and temperature extremes.

**1.08 SEQUENCING / SCHEDULING**

- A. Beam Punching: Manufacturer shall provide beam punching template drawing detailing the anchor locations for the suspended track system for Drop Rod Mounting, as required for the fabrication and installation of structural overhead support by others.
- B. Track Installation: Scheduling of moveable glass wall track installation shall occur after structural overhead support has been properly and completely fabricated and installed by others.
- C. Panel Installation: Moveable glass wall panel installation shall occur after fixed wall substrate construction is properly and completely installed by others, as required to protect panels from ongoing adjacent construction.

**1.09 WARRANTY**

Dimensions in [ ] are millimeters.

- A. Manufacturer shall warrant each moveable glass wall system and its hardware components to be free from defects in material and workmanship for a period of two (2) years from the date of delivery to the original purchaser, when installed by an authorized KWIK-WALL distributor. (Glass is specifically excluded from the warranty.)

## PART 2 – PRODUCT SPECIFICATIONS

### 2.01 ACCEPTABLE MANUFACTURER

- A. Moveable glass walls shall be CLEAR-DIVISIONS VARIOTEC TRIMLESS Individual Panels / Curve & Diverter as manufactured by KWIK-WALL Company.

### 2.02 PANEL CONSTRUCTION

- A. Panel Dimensions: Standard panel dimension shall be a nominal 1 7/16" [36.5] thick.
- B. Horizontal Top and Bottom Rails: Top and bottom rails shall be continuous one-piece extrusion manufactured of structural grade aluminum as engineered by HAWA® 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.)
- C. Bottom Rail Locking System: Each bottom rail glass retainer shall contain (select):
1. *Standard Operable Floor Lock*: consisting of a thumb turn 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 moveable glass wall system is setup in the extended position. Intermediate panels shall have horizontal interconnecting foot-operated lock or centering pin for additional stability and security.
  2. *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. Intermediate panels shall have horizontal interconnecting foot-operated locks or centering pin for additional stability and security.
- D. Glass: Panels shall be glazed with 3/8" [10] or 1/2" [12.7] tempered glass that is manufactured in accordance with ASTM C 1036-01, ASTM C 1048-04, and ANSI Z97.1. Glass finish shall be (select):
1. *Standard Clear*: consisting of clear tempered glass (select):
    - a. 3/8" [10] thick glass for Panel Heights up to 9'-0" (2.74 m).
    - b. 1/2" [12.7] thick glass for Panel Heights over 9'-0" (2.74 m).
  2. *Optional Clear Satin Etched*: consisting of translucent tempered glass (select):
    - a. 3/8" [10] thick glass for Panel Heights up to 9'-0" (2.74 m).
    - b. 1/2" [12.7] thick glass for Panel Heights over 9'-0" (2.74 m).
  3. *Optional Decorated or Patterned*: consisting of 3/8" [10] tempered glass decorated or patterned as selected by designer. (Maximum Panel Height 9'-0" (2.74 m)).
  4. *Optional Berman editions*: consisting of 3/8" [10] textured tempered glass with repeating pattern every 27" [685.8]. (Maximum Panel Height 11'-0" (3.35 m)). Texture shall be (select):
    - a. *esto*: directional texture, multi-directional, random, horizontal forms across a lightly brushed background.
    - b. *être*: organic texture inspired by the natural markings found in granite.
    - c. *ima*: linear design with 1/8" [3.2] thick freehand lines every 1/2" [12.7] on a light être texture background.
    - d. *aquí*: organic texture with freehand vertical markings.
- E. Panel Weight: Maximum panel weight shall not exceed 330 lb. (150 kg) calculated at 7.4 lb. / ft.<sup>2</sup> (36 kg / m<sup>2</sup>). Sliding swing panel or sliding pivot panel shall not exceed 200 lb. (90.7 kg)

### 2.03 OPERATION

- A. Operation shall be Individual Panels / Curve & Diverter, consisting of Individual Panels that are top supported by two (2) carriers riding through radius Curve and Diverter type intersections.

### 2.04 STACK ARRANGEMENTS

- A. Stack Type: Panel storage configuration shall be (select):

1. *Standard Perpendicular Stack*: consisting of panels stacking at a 90° angle perpendicular to the wall's installed position.

2. *Optional Parallel Stack*: consisting of panels stacking parallel to the wall's installed position.

3. *Optional Remote Stack*: consisting of panels located remotely from the wall's installed position, as shown on the submitted shop drawings.

B. Stack Quantity: Panels shall be stored in designated stack area as required for panel storage.

## 2.05 FINISHES

A. Hardware Finish: Panel hardware including horizontal rails shall be finished of (select):

1. *Standard Finish*: Clear Anodized Brushed Aluminum.

2. *Optional Finish*: Dull Chrome Effect.

3. *Optional Finish*: Stainless Steel Satin Effect.

4. *Optional Finish*: Polished Brass Satin Effect.

5. *Optional Finish*: Custom Anodized per supplied sample.

6. *Optional Finish*: Powder Coated Paint to any RAL code.

B. Pull Handle Finish: Handle finish shall be (select):

1. *Standard Finish*: consisting of Stainless Steel Satin Effect finish.

2. *Optional Finish*: consisting of Pull Handle to match Hardware Finish selection (as close as possible).

## 2.06 PERIMETER TRIM AND SEALS

A. Trim and Seals shall consist of (select):

1. *Standard Trimless*: consisting of 3/8" [10] or 1/2" [12.7] tempered glass with a sanded / beveled edge, resulting in a minimal groove appearance between adjacent glass panels.

2. *Optional Protective Edge Trim*: consisting of 3/8" [10] or 1/2" [12.7] tempered glass with a sanded / beveled edge utilizing a full vertical transparent protective edge trim encapsulating the edge of the glass.

3. *Optional Protective Edge Trim with Brush Seal*: consisting of 3/8" [10] or 1/2" [12.7] tempered glass with a sanded / beveled edge utilizing a full vertical transparent protective edge trim with light grey nylon brush seals to encapsulate the edge of the glass.

4. *Optional Horizontal Top and Bottom Brush Seals*: consisting of continuous contact black nylon brush seals provided on both sides of each panel.

## 2.07 CLOSURE SYSTEMS

A. Initial Closure System: The lead panel (the first panel exiting the stack) shall intersect vertically against a rigid wall surface utilizing a centering pin with dust-proof strike recessed in permanent wall, as accomplished by a lead panel that does not use any vertical jamb to affect initial closure. Trail edge of lead panel shall contain a foot-operated floor lock.

B. Final Closure System: The final closure panel (the last panel at the stack end) shall provide a method for affecting final closure of the moveable glass wall system. The type of final closure panel shall be (select):

1. *Standard Fixed Pivot Panel Closure*: consisting of a panel utilizing top and bottom pivots that allows the panel to pivot 90° in both directions and be used to affect final closure, and provides access thru the moveable glass wall system when it is setup in the extended position.

2. *Optional Fixed Swing Panel Closure*: 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 pivot 90° in both directions and be used to affect the final closure, and provides access thru the moveable glass wall system when it is setup in the extended position.

3. *Optional Pocket Door(s)*: (see “Glass Wall Pocket Door” brochure for complete details and specifications).

## 2.08 PANEL ACCESSORIES

- A. Accessories including Sliding Pivot Panel, Sliding Swing Panel, and Floor Guide Channel shall be compatible with other accessories and options, furnished by the moveable glass wall manufacturer as noted on submitted shop drawings.
1. *Sliding Pivot Panel*: consisting of a panel that is moved into position and utilizes a top and bottom pivot that allows the panel to pivot 90° in both directions and be used to provide access thru the moveable glass wall system when it is setup in the extended position. Both sides of the panel shall contain a pull handle. (Refer to Part 2.05 “B. Pull Handle Finish”).
  2. *Sliding Pivot Panel with Surface Mounted Top Closure*: consisting of a panel that is moved into position utilizing a top and bottom pivot that allows the panel to pivot 90° and be used to provide access thru the moveable glass wall system when it is setup in the extended position. Top horizontal rail shall contain a surface mounted self-closing unit for the purpose of closing the panel when opened up. Both sides of the panel shall contain a pull handle. (Refer to Part 2.05 “B. Pull Handle Finish”).
  3. *Sliding Swing Panel*: consisting of a panel that is moved into position and utilizes a 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 90° in both directions and be used to provide access thru the moveable glass wall system when it is setup in the extended position. Both sides of the panel shall contain a pull handle. (Refer to Part 2.05 “B. Pull Handle Finish”).
  4. *Floor Guide Channel*: consisting of a clear anodized extruded aluminum channel that is recessed into the floor (flush with finished floor) to provide additional stability to panels as they are moved in and out of their storage location.

## 2.09 TRACK SYSTEM

- A. Curve & Diverter Aluminum Track: The VARIOTEC track system shall be extruded of structural grade aluminum alloy, as engineered by HAWA®, and shall have a durable anodized clear satin finish, which resists color fading and flaking. Track shall utilize in line track splice connectors which provide positive track alignment of adjacent sections and shall be reinforced overhead by heavy-duty steel Drop Rod Brackets. Each Drop Rod Bracket shall have a pair of steel all-rods extending to the overhead structural support.

## 2.10 INTERSECTIONS

- A. The “Curve” and “Diverter” intersections shall be fabricated from structural grade aluminum and fastened together to form a complete assembly.

## 2.11 CARRIER SYSTEMS

- A. Carrier: Each panel shall be top supported by two (2) carriers utilizing 3/8" [10] (for panel weights up to 154 lb. (70 kg)) or 9/16" [14] (for panel weights over 154 lb. (70 kg)) diameter pendant bolts. Each carrier shall contain permanently-lubricated, ball bearing steel wheels with high-density polymer tires as required for ease of panel movement.
- B. Carrier Size: The carrier size shall be (select):
1. *Type 154 Curve & Diverter Carrier*: certified to be capable of supporting up to 154 lb. (70 kg) of total live load weight per panel.
  2. *Type 220 Curve & Diverter Carrier*: certified to be capable of supporting up to 220 lb. (100 kg) of total live load weight per panel.
  3. *Type 330 Curve & Diverter Carrier*: certified to be capable of supporting up to 330 lb. (150 kg) of total live load weight per panel.

## 2.12 SUSPENSION SYSTEMS

- A. Mounting Systems: The VARIOTEC track system shall be supported by (select):
1. *Standard Drop Rod Bracket Mount*: consisting of steel drop rod brackets with drop rods, consisting of adjustable rods of grade 2, 3/8" [10] diameter threaded steel all-rod provided with 3/8" [10] serrated steel nuts.

2. *Optional Direct Mount*: consists of #16 x 3" [76] wood screws for attachment to a level overhead structural (wood) support.

## **PART 3 – EXECUTION**

### **3.01 INSPECTION**

- A. Proper and complete preparation of the moveable glass wall system opening shall be by others in accordance with the architectural drawings, manufacturer's shop drawings and ASTM E 557. Any deviation of the actual opening from these specifications shall be called to the attention of the architect prior to the installation of the operable wall.
- B. Deficiencies in the moveable glass wall opening shall be corrected by others prior to installation of the moveable glass wall system.

### **3.02 INSTALLATION**

- A. The moveable glass wall system shall be installed by manufacturer's authorized distributor.
- B. The moveable glass wall shall be installed in accordance with manufacturer's written instructions, shop drawings, and ASTM E 557 installation guidelines.

### **3.03 ADJUSTING AND CLEANING**

- A. The moveable glass wall panels and track system shall be adjusted and cleaned in accordance with manufacturer's written instructions.

### **3.04 PROTECTION**

- A. The moveable glass wall panels shall be stored in the stacked (retracted) position prior to acceptance by the owner's representative.

### **3.05 DEMONSTRATION**

- A. The moveable glass wall manufacturer's authorized distributor shall demonstrate proper operation and explain proper and necessary maintenance requirements of the moveable glass wall system to the owner's representative.

#### **For additional information contact:**

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#### **Note:**

Due to ongoing research and development, some variations may occur in product specifications.

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