

Model 4010 Individual Panels / Curve & Diverter

Introduction:

The following three (3) part specification offers the Standard and *Optional* features for the Model 4010 Curve & Diverter Operable 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 and Track & Carrier Selection Chart for the Model 4010.

The Product Guide indicates the acoustical ratings (STC) available, and also establishes the maximum partition height and width.

| MODEL 4010 PRODUCT GUIDE Standard Steel Skin Construction | | | | |
|--|-----------------|---------------------------------|-----------------------|--------------------|
| | PANEL THICKNESS | MAXIMUM PANEL WEIGHT | MAXIMUM PANEL HEIGHT* | MAXIMUM WALL WIDTH |
| STC RATING | (nominal) | lb. / ft. ² | | |
| 53 | 3 5/8" [92] | 9.5 (46 kg/m ²) | 42'-3" (12.9 m) | UNLIMITED |
| 55 | 3 5/8" [92] | 13.3 (65 kg/m ²) | 30'-0" (9.14 m) | UNLIMITED |

*Contact factory for taller heights.

The Track & Carrier Selection Chart determines the appropriate track and carrier system based on the STC Rating and Panel Fabrication Height.

| MODEL 4010 - TRACK AND CARRIER SELECTION CHART | | | | |
|--|--|------------|---------------------------|--------------------------|
| PANEL SKIN TYPE | MAXIMUM PANEL WEIGHT lb. / ft. ² | STC RATING | PANEL FABRICATION HEIGHT* | |
| | | | Up to 30'-0" (9.14 m) | Up to 42'-3" (12.9 m) |
| Steel Skins | 9.5 (46 kg/m ²) | 53 | H.D. Track and Carriers | |
| Steel Skins | 13.3 (65 kg/m ²) | 55 | | Contact KWIK-WALL |

*Based on 4'-0" (1.22 m) Intermediate panel widths.

Model 4010 Individual Panels / Curve & Diverter Product Specification

PART 1 – GENERAL SPECIFICATIONS

1.01 WORK INCLUDED

- A. Operable 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 operable wall shall be designed, installed and pre-punched by others, in accordance with ASTM E 557 and manufacturer's shop drawings.
- B. Insulation: Sound insulation and baffles for the plenum area above the track system, under the permanent floor, inside air ducts passing over or around the operable wall, and in permanent walls adjoining the operable wall system shall be by others, in accordance with ASTM E 557.
- C. Opening Preparation: Proper and complete preparation of the operable wall system opening shall be by others in accordance with ASTM E 557, and shall include floor leveling; plumb ness 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 operable wall. Any permanent wall(s) receiving an adjustable or fixed wall jamb will require internal structural blocking in order to secure the jamb to the permanent wall. Refer to a copy of the shop drawings for additional details.

1.03 SYSTEM DESCRIPTION

- A. The operable 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 operable wall system shall consist of acoustically rated panels tested in accordance with ASTM test procedures, and shall have achieved an STC rating as specified herein (see "Acoustical Performance" article listed under Part 2 – Products).

1.04 QUALITY ASSURANCE

- A. The operable wall shall have been tested in an independent acoustical testing laboratory in accordance with ASTM E 90 and ASTM E 413 test procedures.
- B. The operable wall panel construction and finish materials shall consist of Class A rated materials in accordance with ASTM E 84.
- C. The operable wall shall be installed by the manufacturer's authorized distributor in accordance with ASTM E 557.

1.05 REFERENCES

- A. ASTM E 90: Laboratory Measurement of Airborne-Sound Transmission Loss of Building Partitions.
- B. ASTM E 413: Determination of Sound Transmission Class (STC).
- C. ASTM E 557: Architectural Application and Installation of Operable Partitions.
- D. ASTM E 84: Surface Burning Characteristics of Building Materials.
- E. ASTM A 653: Specification for General Requirements for Steel Sheet, Alloy-Coated (Galvannealed) by the Hot Dip Process.
- F. ASTM C 423: Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
- G. CCC-W-408A-D: Federal Specification, which applies to Vinyl Coated Wall Coverings.

- H. CFFA-W-101-B: Chemical Fabrics and Film Association Quality Standard for Vinyl Coated Fabric Wall Coverings.

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 operable partition 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 test report of the independent acoustical testing laboratory certifying the attainment of the specified STC rating, upon request.
- D. Manufacturer shall provide written instructions specifying the proper operation and maintenance of the operable wall system.
- E. Manufacturer shall provide a color selector demonstrating the manufacturer's selections of the specified finish material. Samples shall consist of actual swatches of the specified finish material.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Panels shall be individually wrapped in a protective plastic covering to keep panels clean 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 operable wall track installation shall occur after structural overhead support has been properly and completely fabricated and installed by others.
- C. Panel Installation: Operable 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

- A. Manufacturer shall warrant each partition and its component parts to be free from defects in material and workmanship for a period of five (5) years from the date of delivery to the original purchaser, when installed by an authorized KWIK-WALL distributor.

PART 2 – PRODUCT SPECIFICATIONS

2.01 ACCEPTABLE MANUFACTURER

- A. Operable walls shall be Series 4000, Model 4010 Individual Panels / Curve & Diverter as manufactured by KWIK-WALL Company.

2.02 PANEL CONSTRUCTION

- A. Panel Dimensions: Standard panel dimension shall be a nominal 3 5/8" [92] thick.
- B. Panel Frame: Steel frame shall be 16-gauge galvaneal steel, which meets or exceeds ASTM A 653 requirements. Frame shall be all-welded construction with steel corner supports and cross-bracing reinforcement. Panel frame shall be Class A rated, fire retardant, non-combustible and non-corrosive in accordance with ASTM E 84.

- C. Panel Skins: Panel skins shall be Class A rated in accordance with ASTM E 84. Panel skin material shall consist of minimum 14-gauge tension-leveled galvanized steel skins welded to the steel frame to form a rigid, unitized and structural panel.
- D. Panel Weight: Maximum panel weight shall be 9.5 – 13.3 lb./ft.² (46 – 65 kg/m²) depending on STC rating, size and options selected.

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 70° angle perpendicular to the wall's installed position.
 2. *Optional Parallel Stack*: consisting of panels stacking at a 20° angle parallel to the wall's installed position.
 3. *Optional Remote Stack*: consisting of panels stacking at a 20° angle located remotely from the wall's installed position, as shown on submitted shop drawings.
- B. Stack Quantity: Panels shall be stored in separate stack areas as required for panel storage.

2.05 FINISHES

- A. Standard Unfinished: Unfinished panels consisting of steel skins for field-applied wall covering or painting.
- B. Optional Finish Material Type: Panel finish material shall be Class A rated in accordance with ASTM E 84 consisting of (select from below or delete this section if panels are to be supplied "Unfinished"):
 1. *Optional Standard Vinyl*: consisting of Type I, reinforced vinyl weighing 15 oz./lin. yd. (465 g/lin. m). Standard Vinyl shall meet or exceed CCC-W-408A-D and CFFA-W-101-B quality standards.
 2. *Optional Upgrade Vinyl*: consisting of Type II, reinforced vinyl weighing 20 oz./lin. yd. (620 g/lin. m). Upgrade Vinyl shall meet or exceed CCC-W-408A-D and CFFA-W-101-B quality standards.
 3. *Optional Upgrade Fabric*: consisting of fade and tear resistant fabric that resists water-based stains weighing 13 oz./lin. yd. (403 g/lin. m).
 4. *Optional Basic Carpet*: consisting of acoustically absorbent, non-woven needle punch fibers fused to prevent fraying and unraveling of material weighing 28.5 oz./lin. yd. (884 g/lin. m). Basic Carpet shall achieve a minimum NRC rating of .25 (applied over gypsum substrate) in accordance with ASTM C 423.
 5. *Optional Upgrade Carpet*: consisting of acoustically absorbent, non-woven needle punch fibers fused to prevent fraying and unraveling of material weighing 23 oz./lin. yd. (713 g/lin. m). Upgrade Carpet shall achieve a minimum NRC rating of .20 (applied over gypsum substrate) in accordance with ASTM C423.
- C. Finish Material Supplier: Finish material shall be (select from below or delete this section if panels are to be supplied "Unfinished"):
 1. *Optional Factory Supplied*: from manufacturer's optional selection of finish materials, as specified.
 2. *Optional Customer Supplied*: from customer's selection of finish material, by others, and as approved by KWIK-WALL Company.
- D. Finish Material Application: Finish material shall be (select from below or delete this section if panels are to be supplied "Unfinished"):
 1. *Optional Factory Applied*: by operable wall manufacturer. Customer supplied finish material samples must be submitted to manufacturer for testing and approval prior to acceptance and application.
 2. *Optional Field Applied*: by others.

2.06 PERIMETER TRIM AND SEALS

- A. Vertical Trim and Seals: Panels shall have *Trimless* vertical astragals consisting of an aluminum extrusion containing flexible vinyl seals and shall incorporate a tongue-and-groove-type configuration for positive interlocking with adjacent panels. Vertical trim shall not be permitted on the panel faces, resulting in a minimal groove appearance between adjacent panels.
- B. Horizontal Top Trim and Seals: Top seals shall consist of flexible vinyl sweep seals installed on both sides of the panel. The seals shall consist of a compressed bulb between two (2) fingers of vinyl. Top seal shall be *Fixed* consisting of continuous-contact flexible vinyl, sealing against the bottom flange of the overhead track.
- C. Horizontal Bottom Trim and Seals: Bottom seals shall consist of multiple fingers of flexible vinyl for positive contact and sealing with various floor surfaces. Bottom seal type shall be (select):
1. *Standard Operable Bottom Seals*: consisting of an edge-activated seal using a removable wrench as supplied by manufacturer. Bottom seals shall provide 3" [76] of nominal travel.
 2. *Optional Adjustable Bottom Seals*: consisting of field-adjustable, continuous-contact vinyl sweep seals that allow for 3/4" [19] of nominal adjustment.
 3. *Optional Automatic Bottom Seals*: consisting of self-activated seals providing 1 1/2" [38] of nominal travel.
- D. Horizontal and Vertical Panel Trim: All exposed panel trim and hinges shall be of one (1) similar color (select):
1. Dark Bronze.
 2. Grey.

2.07 CLOSURE SYSTEMS

- A. Initial Closure System: The lead panel (the first panel exiting the stack) shall form a seal vertically against a rigid wall surface, as accomplished by a (select):
1. *Standard Bulb Seal*: consisting of continuous-contact, flexible vinyl bulb seals installed along the vertical edge of the lead panel for positive compression against a rigid wall surface.
 2. *Optional Fixed Starter Jamb*: consisting of an aluminum extrusion, which is permanently mounted to a structural wall surface. The Fixed Starter Jamb shall incorporate a tongue-and-groove-type vertical astragal for positive interlocking with the lead panel.
 3. *Optional Adjustable Starter Jamb*: consisting of an aluminum extrusion which is permanently mounted to a structural wall surface and is field-adjustable to compensate for out-of-plumb conditions of the fixed wall. The Adjustable Starter Jamb shall incorporate a tongue-and-groove-type vertical astragal for positive interlocking with the lead panel.
- B. Final Closure System: The final closure panel (the last panel exiting the stack) shall form a seal vertically against a rigid wall surface. The type of final closure panel shall be (select):
1. *Standard Hinged Panel(s) Closure*: consisting of a panel(s) hinged permanently and directly to a permanent wall surface. The Hinged Panel(s) shall be equipped with an adjustable bottom seal, an expander mechanism with a nominal 5" [127] of travel, activated from the face of the panel using a removable wrench, and a flush pull handle on each side of the panel.
 2. *Optional Expander Panel Closure*: consisting of an expander mechanism with a nominal 5" [127] of travel, activated from the face of the panel using a removable wrench. The Expander Panel shall be equipped with an adjustable bottom seal (standard) or (optional) operable bottom seal, and a flush pull handle on one side of the panel.
 3. *Optional Pocket Door(s)*: (see "Series 4000 Pocket Door(s)" brochure for complete details and specifications).

Note: Optional Automatic Bottom Seal is *not* available in conjunction with Final Closure panel(s).

2.08 ACOUSTICAL PERFORMANCE

- A. Certification: The operable wall shall have been tested in an independent acoustical testing laboratory in accordance with ASTM E 90 and ASTM E 413 test procedures.

- B. STC Rating: The operable wall acoustical performance rating shall be based on Standard Steel Skin Construction with a standard rating of 53 STC, or optional rating of 55 STC.

2.09 PANEL ACCESSORIES

- A. Accessories including Pass Doors; Single or Double, Keyed Cylinder Locks, Concealed Door Closures, Room Viewers, Exit Signs, Dry Marker Writing Surfaces, Recessed Eraser Trays, Vision Lites, Tack Surfaces and Pocket Doors shall be compatible with other accessories and options, furnished and installed by the operable wall manufacturer as noted on submitted shop drawings.

2.10 TRACK SYSTEM

- A. Type H.D. Curve & Diverter Steel Track: The Curve & Diverter track running surface shall be made of cold-rolled, high carbon steel tread surfaces to facilitate ease of panel movement and operation.
- B. The steel tread surface shall be contained within a continuous structural track housing extruded from aluminum, which prohibits deterioration caused, by rust or corrosion. The track housing shall have a durable anodized clear satin finish, which resists color fading and flaking. The track housing shall utilize grooves and interlocking steel pins for positive alignment of adjacent track sections, and shall be reinforced overhead by heavy-duty steel drop rod brackets. Aluminum track housing shall include an integral nut slot to accept a hardened steel square nut for attaching each drop rod bracket to the top flange of the track. Each drop rod bracket shall have a pair of steel all-rod extending to the overhead structural support.

2.11 INTERSECTIONS

- A. The "Curve" and "Diverter" intersections shall be fabricated from structural plate steel 3/8" [10] thick, and bolted together to form a complete assembly. Diverter guide plates, as required for diverting the panel carrier(s) through a radius turn, shall consist of 1/8" [3] structural plate steel and shall be completely field adjustable.

2.12 CARRIER SYSTEM

- A. Type H.D. Curve & Diverter Steel Wheel Carrier: Each Curve & Diverter panel shall be top supported by two (2) carriers utilizing 5/8" [16] diameter pendant bolts. Each carrier shall consist of four (4) permanently-lubricated, precision ground ball bearing polished steel wheels, as required for ease of panel movement.

2.13 SUSPENSION SYSTEM

- A. Mounting System: The track shall be suspended by 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.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Proper and complete preparation of the operable wall system opening shall be by others in accordance with the architectural drawings, manufacturers 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 operable wall opening shall be corrected by others prior to installation of the operable wall.

3.02 INSTALLATION

- A. The operable wall system shall be installed by manufacturer's authorized distributor.
- B. The operable 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 operable wall panels and track system shall be adjusted and cleaned in accordance with manufacturers written instructions.

3.04 PROTECTION

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

3.05 DEMONSTRATION

- A. The operable wall manufacturer's authorized distributor shall demonstrate proper operation and explain proper and necessary maintenance requirements of the operable 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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