**Crystal Acoustical Glass Panels**

**Part 1 - General**

1.01 DESCRIPTION

 A. General

 1. Furnish and install operable partitions and suspension system. Provide all labor, materials, tools, equipment, and services for operable 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, track enclosures, surrounding insulation, and sound baffles 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 operable 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.

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. The partition STC (Sound Transmission Classification) shall be achieved per the standard test method ASTM E90-99 and E413-87. Test run under ASTM procedures prior to E90-99 shall not be permitted. All tests must be from an independent, currently operating, NIST-accredited Laboratory available to verify results.

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 WARRANTY

 A. Partition Panels shall be guaranteed for a period of two years with all mechanical parts including track and carriers guaranteed for a period of five years. This guarantee is against defects in material or workmanship of manufacturer’s product.

**Part 2 - Products**

2.01 MANUFACTURERS

 A. Manufacturers: Subject to compliance with requirements, provide products by the following:

 1. Moderco Inc.

2.02 MATERIALS

 A. Product to be top supported Crystal Acoustical Glass panels as manufactured by Moderco Inc.

 1. Panels shall be nominally 4” [102mm] thick, in manufacturer’s standard widths up to 48 1/2” [1230mm].

 2. Panel faces shall be ¼” [6mm] thick tempered glass.

 3. Frames shall be a composite of steel and aluminum alloys, formed to protect the edges of the glass.

 4. Interlocking vertical seals between the panels shall consist of tongue and groove aluminum and vinyl astragals creating a shock-absorbing, deep nesting, impact resistant acoustical interlock between panels.

 5. Horizontal top seals shall be continuous contact multi-fingered vinyl. *or*

 *Optional:*

 Horizontal top seals shall be retractable and operate simultaneously with the bottom seals. Top seals which can make contact with track soffit or ceiling during movement of the panels will not be permitted.

1. Horizontal bottom seals shall be automatically setting and retracting, providing 2” [50mm] nominal clearance, and exert downward force when extended. *or*

 *Optional:*

 Horizontal bottom seals shall be mechanically retractable, providing 1 ½” [38mm] nominal operating clearance, and exert downward force when extended. Crank type seals requiring more than one rotation of the actuator to set or release or the use of a fixed sweep on any panel shall not be acceptable.

 B. Weight of the panels shall be 13 lbs./sq. ft. plus or minus 1 lb. [63 kg/sq.m] based on options selected.

 C. Suspension system:

 1. Track shall be clear anodized tempered aluminum with soffit trim of clear anodized aluminum providing a transition to the ceiling. Track shall include support brackets and hanger rods, spaced to manufacturer’s standards.

 a. Each panel shall be supported by two dual horizontal wheel trolley assemblies made of glass-reinforced, self lubricating nylon with steel precision ground bearings. Carrier design shall use a counter rotating concept to move panels along the track and through 90 degree “L”, “T”, & “X” intersections. Carriers using friction discs shall not be permitted.

 D. Finishes:

 1. Tempered glass finish shall be *(select one)*:

 a. Clear (standard) *or*

 *Optional upgrade:*

 b. Tinted (select color).

 c. Colored (select color).

 d. Etched.

 e. Acid etched

 f. Sandblasted.

 2. Frame color shall be *(select as required)*:

 a. Clear Anodized Aluminum *(standard) or*

 *Optional upgrade:*

 - Dark Bronze Painted. *or*

 - Custom Color Painted. *or*

 - Custom Anodized.

 3. Aluminum track and soffit shall be clear anodized. *or*

 *Optional upgrade:*

 - Custom Anodized. *or*

 - Custom Color Painted.

 E. Accessories/Options *(select as required)*

 1. Electrically tilting blinds with remote control.

 2. Full-height passdoor.

 3. Acoustical Pocket doors finished with *(please select one)* reinforced vinyl, vertical ribbed carpet, *or* 100% polyolefin stain resistant fabric.

  *Optional:*

 a. Non-Acoustical Pocket Doors

 b. Dead bolt Lock

2.03 OPERATION

 A. Panels shall be manually operated, top supported, moved individually from the storage area, positioned in the opening, and seals set.

B. Retractable Bottom Seals

 1. Bottom seals shall automatically activate as panels are deployed / positioned without the use of any handle or action by the operator and shall automatically retract when panels are moved to be stored. *or*

 *Optional:*

1.Retractable Mechanical Bottom seals shall be activated by a removable operating handle located approximately 40” [1050mm] from the floor in the panel edge.

 2. Seal activation shall not require more than one rotation of the removable handle.

 *Or*

1. Retractable Top and Bottom Seals
2. Retractable Mechanical Top and Bottom seals shall be activated by a removable operating handle located approximately 40” [1050mm] from the floor in the panel edge.
3. Seal activation shall not require more than one rotation of the removable handle.

 C. Final partition closure to be by:

 1. Telescopic closure panel incorporating an expanding jamb member operated from either side of the panel. Panel shall be capable of compensating for minor out-of-plumb wall conditions and provide a positive vertical seal between partition and building structure. *or*

 *Optional:*

 1. Pivot Closure Panel permanently positioned at the back end of the partition. Panel permits access between adjacent rooms and shall be of the same finish as basic panels. Top and bottom seals shall be continuous contact multi-ply vinyl.

2.04 ACOUSTICAL PERFORMANCE

 A. Acoustical performance shall be tested at an independent laboratory in accordance with ASTM E90-99 Test Standards. Standard panel construction shall have obtained an STC rating of 44.

 1. Copies of the written test report are to be made available upon request.

**Part 3 - Execution**

 A. Installation.

 1. 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. Packing and other installation debris shall be removed from the job site.

 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.