advanced equipment®

® CORPORATION

Established 1957

OPERABLE WALL APPLICATION MANUAL

- COMPLETE LAYOUT INSTRUCTIONS
- PRODUCT INFORMATION AND SPECIFICATIONS

 REVISED 2/24/2025

advanced equipment® CORPORATION
Established 1957

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USE OF THIS APPLICATION MANUAL

The people of Advanced Equipment Corporation are pleased to present this comprehensive manual pertaining to the application of our Operable Walls. Our family of Operable Walls is broad in scope, designed to fill a wide range of applications and performance requirements. An Operable Wall system consists of these basic components:

TRACK SYSTEM - PANELS - SEALS

The purpose of this document is to enable you to select the proper combination of these components to fulfill your specific space division requirements and gain optimum return on the owner's investment. By means of our numerical design system you can reduce specification writing to a few succinct sentences including one 8-digit number.

FOR EXAMPLE: TYPE 3 M C 1 4 S 3 * 1

See "AT A GLANCE" on page 5 or DWSpec online

SPECIALS

Advanced Equipment Corporation is not limited to the product line portrayed here. We have the people, experience, facilities, and equipment required to produce unusual walls to solve unusual problems. Vertical lift, curved panels and track, glass panels, and horizontal sliding are examples.

DESIGN ASSISTANCE

Invite our team to join yours - we are available. Just ask us. We will prepare drawings showings various space solutions, details, and cost estimates. Our telephone number is
P. 714-635-5350

E-MAIL OR FAX US YOUR "PLAN VIEWS"

sales@aecorp.net F. 714-525-6083

BASICS

PROPULSION

Manual or automatic electric? Factors to consider are:
Frequency of operation
Availability of time between functions
Availability of personnel to operate
Competency of operating personnel
Physical force required to operate
Consult us for recommendations based on the experience of many users.

ACOUSTICS

Refer to “panel construction” section for sound transmission class rating (S.T.C.) applicable to combinations of panels and seals. When verification of actual sound transmission is desired, specify a minimum (38, 40, 42) N.I.C. as determined by field measurement.

Sound absorption can be marginally increased by using carpet as a panel face finish. Significant absorption - N.R.C. 0.65 - can be provided by using perforated steel “P” panel construction.

TRACK

The “selection chart” with track limitations noted, will enable you to select the correct track for the method of propulsion, dimensions, and storage configuration.

SEALS

Those between the top of the panels and the track, and at vertical panel intersections are fixed-flexible. Horizontal seals between the bottom of the panel and the floor may be either fixed-flexible, or mechanical.

PANELS

COST

Our philosophy is predicated on cost effectiveness. You know the space problem you have to solve. We wish to assist you in doing it effectively and economically. Ask us to price optional materials and methods to serve as one of your design guides.

CONSIDERATIONS

Panel design limitations (see “panel construction” section), finish possibilities, sound transmission, sound absorption, fire hazard classification.

DURABILITY

ALPHA panels are the most ruggedly constructed panels available from Advanced Equipment. Using 16 ga. or 14 ga. face sheets robotically fusion welded to steel frame members, these panels are the most durable constructed panels available in today’s market. Designed to last the life of the building, ALPHA panels should be used whenever guaranteed acoustical performance, long service life and low maintenance costs are desired.

ALPHA panels correctly define the term Value Engineering.

AT A GLANCE

DIGIT 1 PANEL GROUPING SEE PAGES 8-9

TYPE 2 CONTINUOUSLY HINGED TOP SUPPORTED

TYPE 3 HINGED IN PAIRS OR TRIO TOP SUPPORTED

TYPE 5 INDIVIDUAL PANELS TWO TROLLEYS

TYPE 9 HINGED IN PAIRS FLOOR SUPPORTED

DIGIT 2 OPERATION
DIGIT 3 STACK

MC MANUAL - CENTER STACK

MS MANUAL - SIDE STACK

MR MANUAL - REMOTE STACK

EC ELECTRIC - CENTER STACK ONE STAGE

ET ELECTRIC - CENTER STACK TWO STAGE

DIGIT 4 TRACK SYSTEM SEE PAGES 13-30

1 ALUMINUM TRACK

1A SUPERTRACK - COMPOSITE

2 COMPOSITE TRACK

3 ALUMINUM TRACK - OMNI

4 VERTICAL STEEL TRACK

5 4" STEEL "I-BEAM" TRACK

6 6" STEEL "I-BEAM" TRACK

8 SUPERTRACK - COMPOSITE

8B SUPERTRACK - COMPOSITE

DIGIT 5 BOTTOM SEAL SEE PAGES 33-34

1 FIXED - FLEXIBLE

2 MECHANICAL - LEVER

3 MECHANICAL - AUTOMATIC

4 MECHANICAL - CRANK

DIGIT 6 PANEL CONSTRUCTION SEE PAGES 37-51

ALPHA	**S**	53 S.T.C.	8#/S.F.	3.5" WELDED STEEL
	T	54 S.T.C.	8.6#/S.F.	3.5" WELDED STEEL
	U	53 S.T.C.	9.2#/S.F.	4.0" WELDED STEEL
	P	53 S.T.C.	11#/S.F.	PERFORATED STEEL
	X	53 S.T.C.	9.5#/S.F.	1 HOUR FIRE RATED
SIGMA	**A**	49 S.T.C.	5.9#/S.F.	3.5" WELDED STEEL
	B	50 S.T.C.	6.4#/S.F.	3.5" WELDED STEEL
	C	51 S.T.C.	6.9#/S.F.	3.5" WELDED STEEL
	D	52 S.T.C.	7.4 #/S.F.	3.5" WELDED STEEL
GAMMA	**H**	45 S.T.C.	8.6#/S.F.	FIBERBOARD
	L	50 S.T.C.	6.7#/S.F.	GYPSUM BOARD
	M	46 S.T.C.	5.7#/S.F.	GYPSUM BOARD
	N	48 S.T.C.	6.8#/S.F.	GYPSUM BOARD
	O	52 S.T.C.	10.1#/S.F.	GYPSUM BOARD/STEEL
IMAGE	**J**	SINGLE OR DOUBLE GLAZED GLASS		

DIGIT 7 ALUMINUM FINISH SEE PAGE 52

1 STANDARD - CLEAR SATIN ANODIZED

3 STANDARD - BRONZE ANODIZED

5 OPT. - POWDER COAT - STANDARD RAL COLORS

6 OPT. - POWDER COAT - CUSTOM RAL COLORS

DIGIT 8 PANEL FINISH SEE PAGE 53

1 VINYL - ADVANCED STANDARD

2 VINYL - SPECIFY

3 CARPET - ADVANCED STANDARD

4 CARPET - SPECIFY

5 CHALKBOARD - FULL HEIGHT

6 WOOD VENEER - SPECIFY

7 FABRIC - ADVANCED STANDARD

8 PLASTIC LAMINATE - SPECIFY

9 PRIME PAINTED

0 OTHER - SPECIFY

SPECIFICATIONS

ADVANCED GENERAL PERFORMANCE SPECIFICATIONS

SECTION 10 22 26

1.00 GENERAL

1.01 DESCRIPTION

A. Scope: Work in this Section includes all labor, materials, equipment, tools and services incidental to the furnishings and installing complete the following items as shown on the drawings and specified herein.

B. Work Included: Operable Walls, including panels, operating hardware, track, perimeter trim, panel finish material, installed complete by the manufacturer or an authorized agent, as shown on the drawings and specified herein.

C. Work by Others: Furnishing and punching of overhead structure, control of floor level to be ± 3/16" in ten feet non-accumulative, and, where required (1) filling, staining, or painting, (2) sound barrier extending from top of ceiling to underside of roof or floor deck, (3) chase for floor guide track and grouting of same, and/or (4) electric wiring and conduit to motor operator, motor starter, and key switch. Electric hookup and disconnect switch, wiring and conduit for limit switch. (Electrical work applies only if the wall specified herein is designed as such.)

1.02 QUALITY ASSURANCE

A. Experience: Manufacturers of products which comply with these specifications must have a minimum of five (5) current years of experience in the production of flat panel OPERABLE WALLS.

B. Approved Installer: Perform installation by factory-approved installer.

1.03 SUBMITTALS

A. Shop Drawings: Submit, prior to fabrication and in accordance with general conditions for approval of Architect, showing cross sections, finishes, and attachment to adjacent construction.

B. Samples: Submit samples of all finish materials for approval. One set will be retained for comparison with the work.

1.04 GUARANTEE

A. Guarantee: The operable wall contractor will furnish a guarantee of the complete installation against defects on the workmanship and material for a period of one year.

2.00 PRODUCT

2.01 OPERATION

A. Minimum performance: For purpose of determining minimum performance and quality standards, the specification is based on ADVANCED TYPE_____(insert 8 digit number) OPERABLE WALLS as manufactured by Advanced Equipment Corporation, Fullerton, CA 92833.

2.02 PANEL SUPPORT TRACK (4TH DIGIT)

A. Track: (choose any of the 9 Track Systems available)
B. Trolleys: (follows Track)
C. Floor Trolleys: (if floor supported)
D. Floor Track: (if floor supported or Type 3 side stack)
E. Stacking: (if remote stacking)
F. Switching: (if required)
G. Mechanical Equipment: (If electrically operated)

2.03 PERIMETER SOUND SEALS (5th DIGIT)

A. Seals: Perimeter sound seals shall be: (choose one of the 4 types of bottom seals available)

2.04 PANEL CONSTRUCTION (6th DIGIT)

A. Panel Construction: (choose one of the panel constructions)
B. Sound Control: (follows Panel Construction)

2.05 FINISHES (7th AND 8th DIGIT)

A. Aluminum Finish: (choose one of the 4 Aluminum Finishes available)

B. Hardware: Exposed hardware to be powder coated match panel aluminum edge trim. Flush pulls shall be injection molded black A.B.S. with steel cover plate.

C. Panel Finish: (choose one of the Panel Finishes)

2.06 ACCESSORIES

A. Passdoors: Where indicated, shall be the same thickness and finish as folding operable wall panels. Hardware includes: 2 pair of hinges, flush pull both sides, and magnetic door seals.

B. Pocket Doors: Where indicated, shall be of same construction and finish as operable wall panels. Doors shall be complete with full perimeter acoustic seals, full height jambs, hinges, pulls and slot closure.

3.00 EXECUTION

3.01 FIELD INSPECTION

A. Verification of conditions: Verify at site, conditions affecting work of this Section and obtain accurate dimensions of opening, grades and levels and arrangements of all embedded anchorage. Report discrepancies between drawings and field conditions to Architect prior to commencing work. Commencing work shall indicate acceptance of conditions and surfaces underlying or adjacent to work of this section.

3.02 INSTALLATION

A. Operable Walls: Shall be installed in a neat and workman-like manner with all adjoined panels functioning in true and plumb alignment to form an effective operating sound barrier.

B. Installation: Shall be performed under the supervision of a factory-approved installer in strict accordance with the manufacturer's printed installation manual to ensure satisfactory operation and performance.

SELECTION CHART

The 8 digit model number is comprised of the following:

DIGIT 1 Panel Grouping
DIGIT 2 Operation
DIGIT 3 Stack
DIGIT 4 Track System
DIGIT 5 Bottom Seal
DIGIT 6 Panel Construction
DIGIT 7 Aluminum Finish
DIGIT 8 Panel Finish

This selection chart is to be used to determine the first four digits of your eight digit operable wall model number. The chart below displays the possible combinations of Panel Groupings, Operations, Stacks and Track Systems available. Plan View depicting the first three digits are shown on the following page with specifications for each combination. For additional information on Track Systems, see corresponding section in this manual. Select Digit 2 and 3 first before determining which Panel Grouping and Track System is applicable.

DIGIT 1	PANEL GROUPINGS					
TYPE 2	CONTINUOUSLY HINGED	X			X	X
TYPE 3	HINGED IN PAIRS	X	X			
TYPE 5	INDIVIDUAL-TWO TROLLEY/PANEL		X	X		
TYPE 9	FLOOR SUPPORTED-HINGED IN PAIRS	X	X			

DIGIT 2 OPERATION	DIGIT 3 STACKING
MC	MANUAL-CENTER STACK
MS	MANUAL-SIDE STACK
MR	MANUAL-REMOTE STACK
EC	ELECTRIC-CENTER STACK ONE STAGE
ET	ELECTRIC-CENTER STACK TWO STAGE

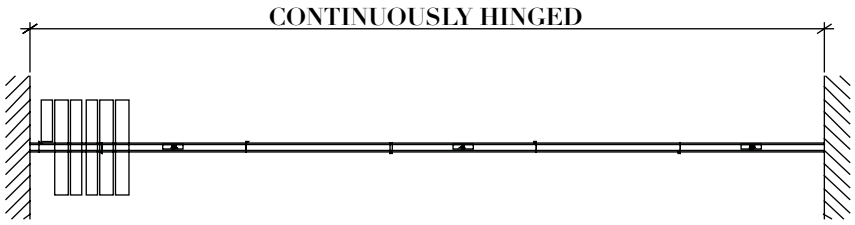
					DIGIT 4	TRACK SYSTEM	MAX TROLLEY LOAD
X	X	X	X		1	EXTRUDED ALUMINUM	800 lbs.
X	X	X	X		1A	SUPERTRACK-COMPOSITE	900 lbs.
X	X	X			2	COMPOSITE	600 lbs.
	X	X			3	EXTRUDED ALUMINUM	500 lbs.
X	X	X	X		4	VERTICAL STEEL	1500 lbs.
			X	X	5	4" "I" BEAM	1800 lbs.
			X	X	6	6" "I" BEAM	6000 lbs.
X	X	X	X		8	SUPERTRACK-COMPOSITE	1700 lbs.
X	X	X	X		8B	SUPERTRACK-COMPOSITE	1500 lbs.

TYPICAL PANEL GROUPS AND OPERATIONS

SPECIFICATIONS PLAN VIEW

TYPE 2MC

Top supported, manually operated, continuously hinged, center stacked in relation to track center line with alternating panels suspended from one four-wheel trolley. No floor track required. Maximum 5 1/2 panels.

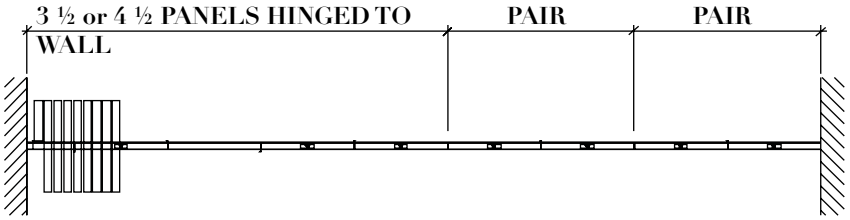


TYPE 2EC

Top supported, electrically operated, continuously hinged, center stacked in relation to track center line with alternating panels suspended from one four-wheel trolley. No floor track required except a guide track beneath the stack or within the storage pocket. If opening width exceeds 110' mono-fold or 220' bi-fold, then contact AEC for assistance.

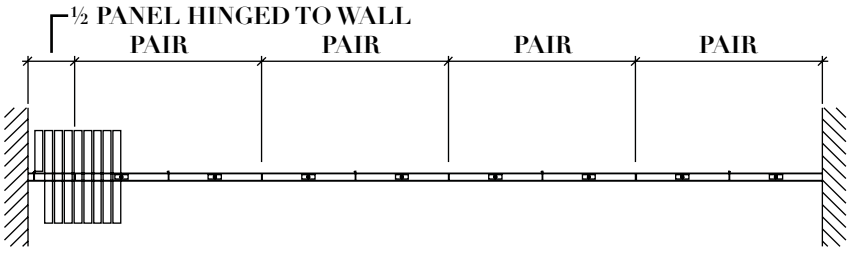
TYPE 3MC

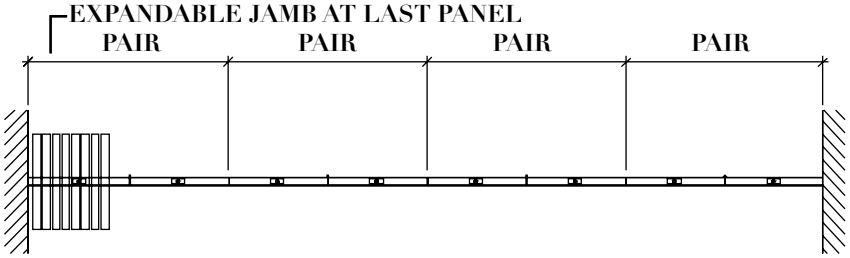
Top supported, manually operated, segmented in groups of two or three panels, center stacked in relation to track center line with each panel suspended from one four-wheel trolley. No floor track required.



TYPE 9MC

Floor supported, top guided, manually operated, segmented in groups of two or three panels, center stacked in relation to track center line with each panel supported on two-wheel floor rollers and top guided by four-wheel trolleys. Floor track required.





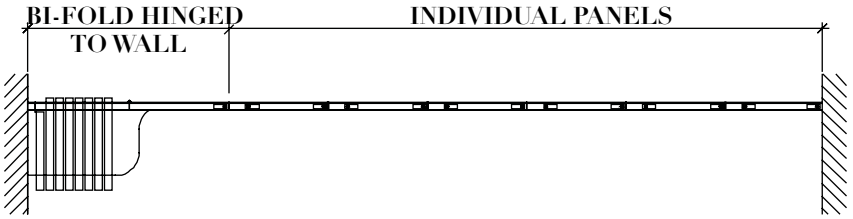
TYPICAL PANEL GROUPS AND OPERATIONS

SPECIFICATIONS

PLAN VIEW

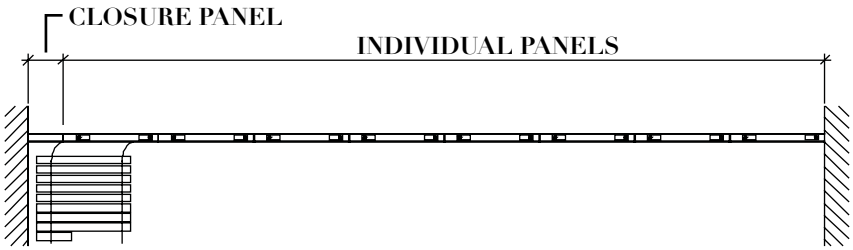
TYPE 5MS

Top supported, manually operated, individually suspended rolling panels, each equipped with two trolleys, side stacked in relation to track center line. No floor track required.



TYPE 5MR

Top supported, manually operated, individually suspended rolling panels, each equipped with two trolleys. (See Track systems for additional remote stacks.) Remote stacking, no floor track required.

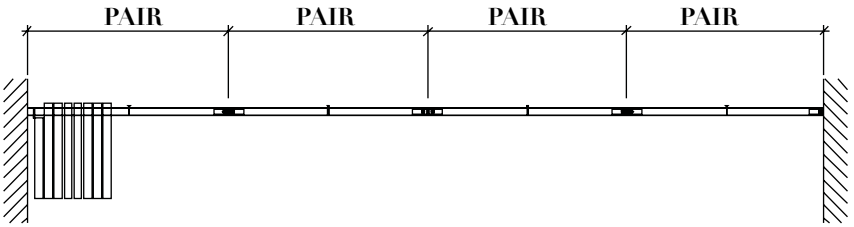


TYPE 3MS

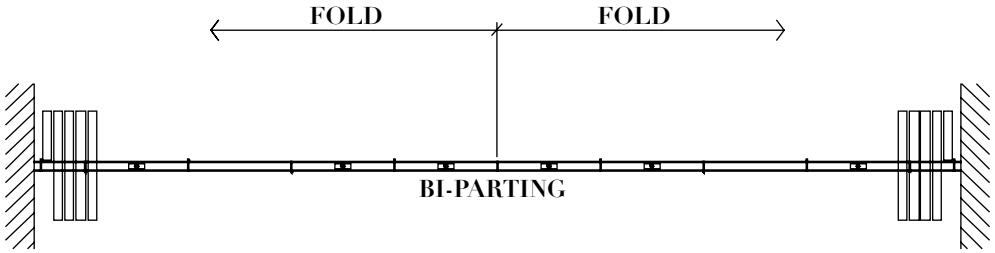
Top supported, manually operated, segmented in groups of two panels, side stacked in relation to track center line with each panel suspended from one four-wheel trolley. Floor track required.

TYPE 9MS

Floor supported, top guided, manually operated, segmented in groups of two panels, side stacked in relation to track center line with each panel supported on two-wheel floor rollers and top guided by four-wheel trolleys. Floor track required.

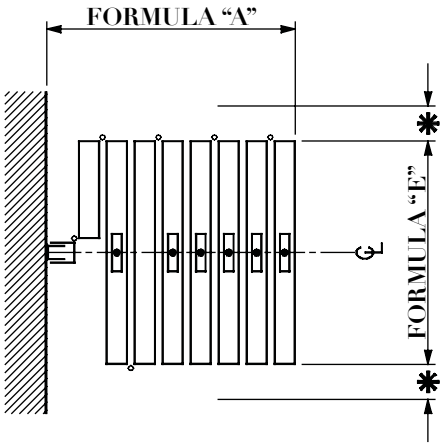


NOTE: The above layouts depict mono-fold operation (folding one direction to jamb.) Any of these may be bi-parting operation (folding two directions to jamb).

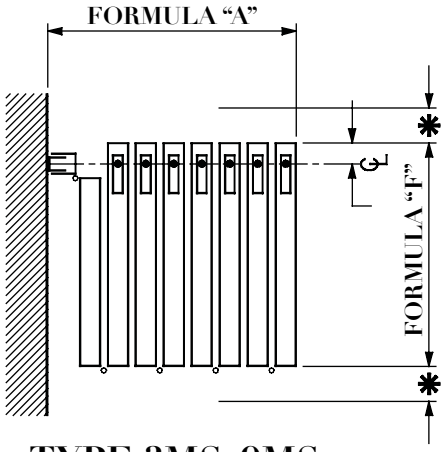


STACK DIMENSIONS
DEPTHS AND WIDTHS

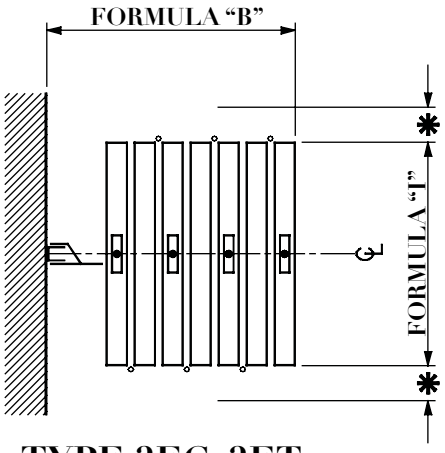
NOTE: These formulas do not apply to #8 Track & 8B Track Systems.



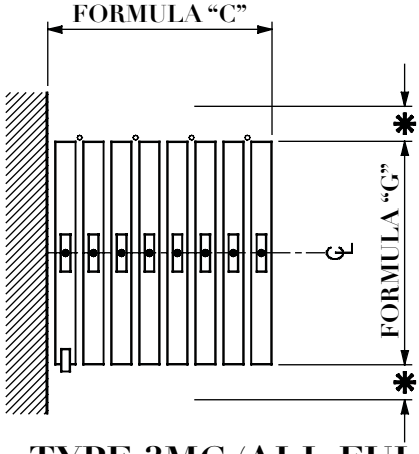
TYPE 2MC, 3MC, 9MC



TYPE 3MS, 9MS

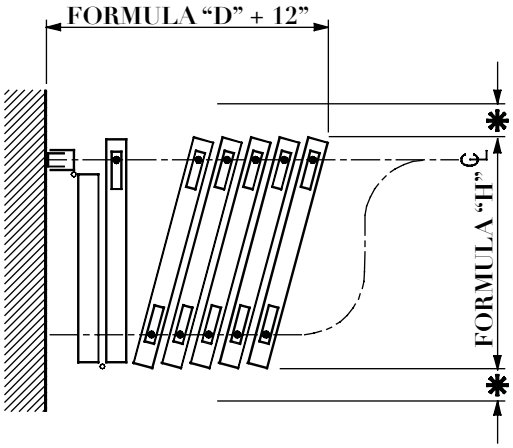


TYPE 2EC, 2ET

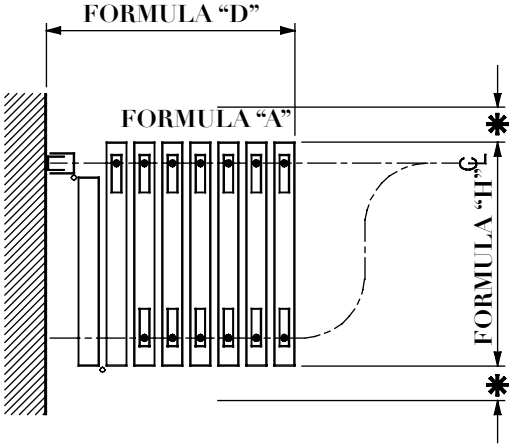


TYPE 3MC (ALL FULL PANELS)

* = 4½" MINIMUM CLEARANCE TO ANY OBSTRUCTION



TYPE 5MS



NOTE: Operable Wall panels can either be stored at 75 degrees or 90 degrees. We recommend the 75 degree stack for walls greater than 12 feet high for easier operation.

STACK FORMULAS

TYPICAL FORMULAS FOR MONO-FOLD OPERABLE WALLS. IF THE OPERABLE WALL IS BI-PARTING, THEN DIVIDE OPENING WIDTH IN HALF BEFORE PROCEEDING.

FORMULA "A"

PANEL THICKNESS	SERIES	STACK DEPTH
3 1/2"	ALPHA, SIGMA	4.5" X QTY OF PANELS + 3"
4"	ALPHA, GAMMA	5" X QTY OF PANELS + 3"

FORMULA "B" FOR ELECTRIC WALLS ONLY

PANEL THICKNESS	SERIES	STACK DEPTH
3 1/2"	ALPHA, SIGMA	4.5" X QTY OF PANELS + 10"
4"	ALPHA, GAMMA	5" X QTY OF PANELS + 10"

FORMULA "C"

PANEL THICKNESS	SERIES	STACK DEPTH
3 1/2"	ALPHA, SIGMA	4.5" X QTY OF PANELS
4"	ALPHA, GAMMA	5" X QTY OF PANELS

FORMULA "D"

PANEL THICKNESS	SERIES	STACK DEPTH
3 1/2" or 4"	ALPHA, SIGMA, GAMMA	4.75" X QTY OF PANELS + 3"

FORMULA "E" **STACK WIDTH - ALL SERIES**

OPENING WIDTH LESS 4" FOR JAMB, DIVIDED BY QUANTITY OF PANELS
i.e. 3 1/2, 4 1/2, 5 1/2, etc.

FORMULA "F" **STACK WIDTH - ALL SERIES**

OPENING WIDTH LESS 4" FOR JAMB, DIVIDED BY QUANTITY OF EVEN PANELS
i.e. 2, 4, 6, 8, etc.

FORMULA "G" **STACK WIDTH - ALL SERIES**

OPENING WIDTH DIVIDED BY THE QUANTITY OF FULL PANELS
i.e. 2, 3, 4, 5, etc.

FORMULA "H" **STACK WIDTH - ALL SERIES**

OPENING WIDTH LESS 4" JAMB, DIVIDED BY QUANTITY OF PANELS
i.e. 2, 3, 4, 5, 6, 7, 8, etc.

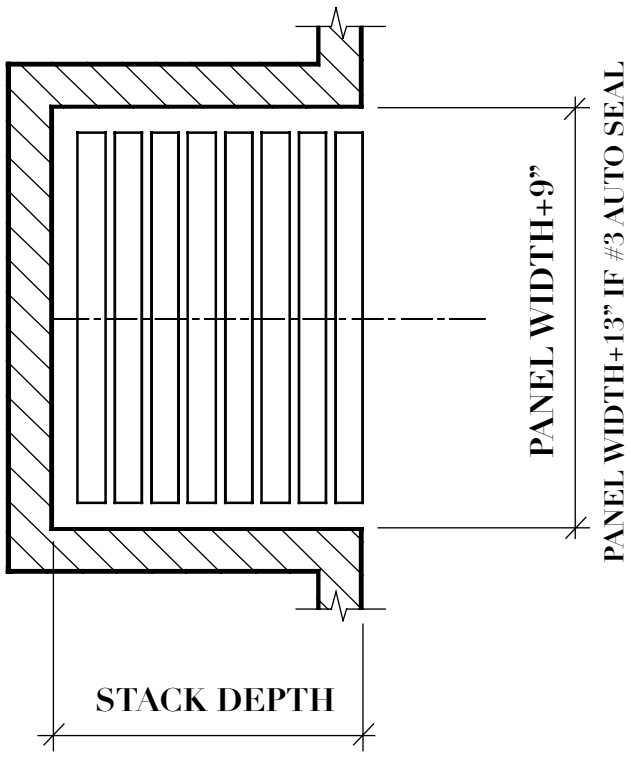
FORMULA "I" **STACK WIDTH - ALPHA & SIGMA**

OPENING WIDTH LESS 8" FOR JAMB, DIVIDED BY QUANTITY OF PANELS
i.e. 4, 5, 6, 7, 8, etc.

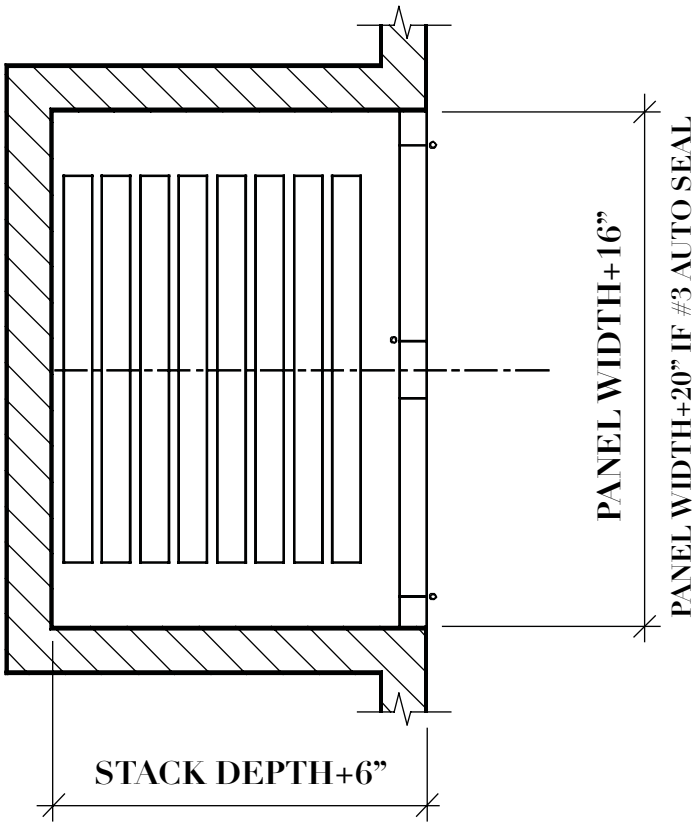
NOTE: With the exceptions of H & I, these formulas do not apply to #8 or #8B track systems - see page 22.

STORAGE POCKETS

Storage pockets may be utilized when a concealed stack is desired. Panels may be stacked in an “open” storage pocket with lead panel face flush with the finish wall. Panels may also be stacked in a “closed” storage pocket incorporating pocket doors which may be finished to match operable wall or room decor. The storage pockets below are for center stacked operable walls only.



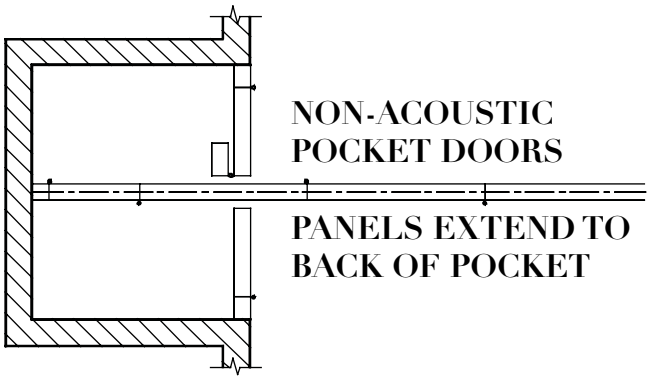
“OPEN” STORAGE POCKET



“CLOSED” STORAGE POCKET

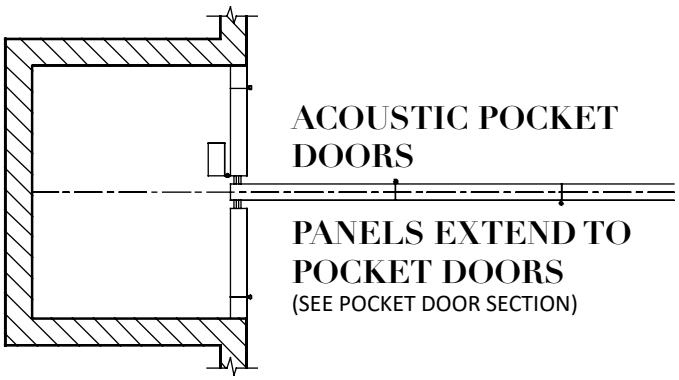
NOTE: If the pocket doors can only open 90 degrees, then add 8” to the above width.

TYPICAL PANEL LAYOUTS WITH POCKET DOORS



NON-ACOUSTIC POCKET DOORS

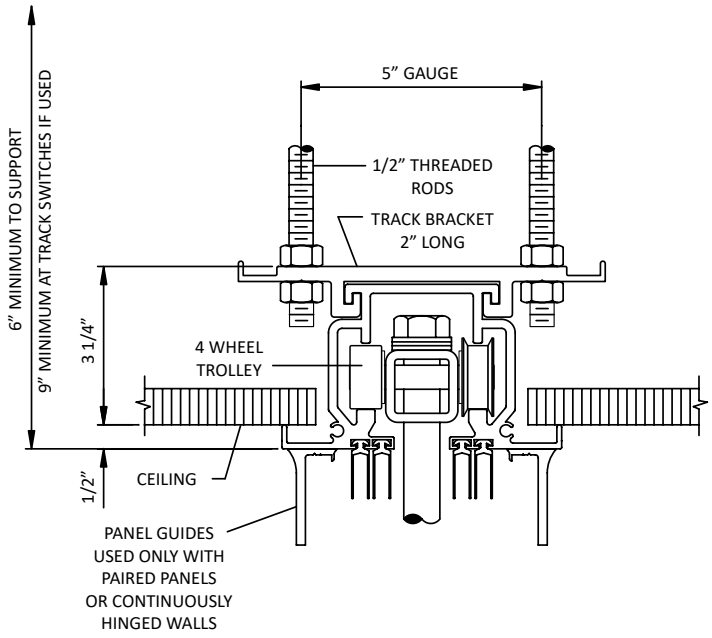
PANELS EXTEND TO BACK OF POCKET

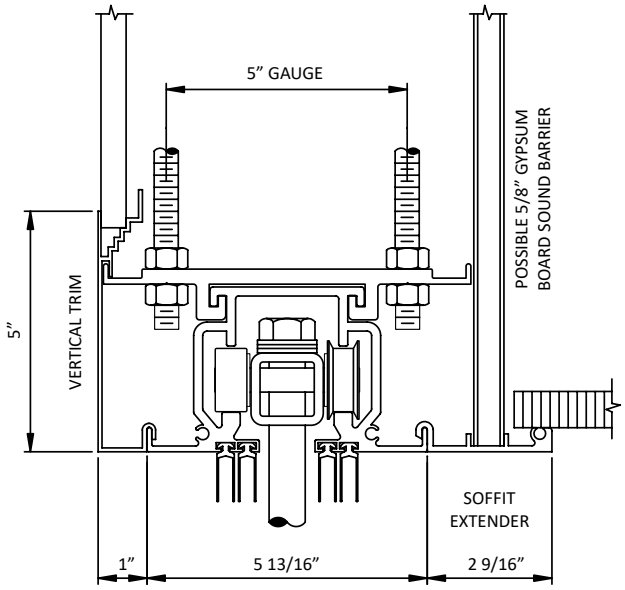


ACOUSTIC POCKET DOORS

PANELS EXTEND TO POCKET DOORS
(SEE POCKET DOOR SECTION)

1 | TRACK | CONTINUOUS ALUMINUM TRACK

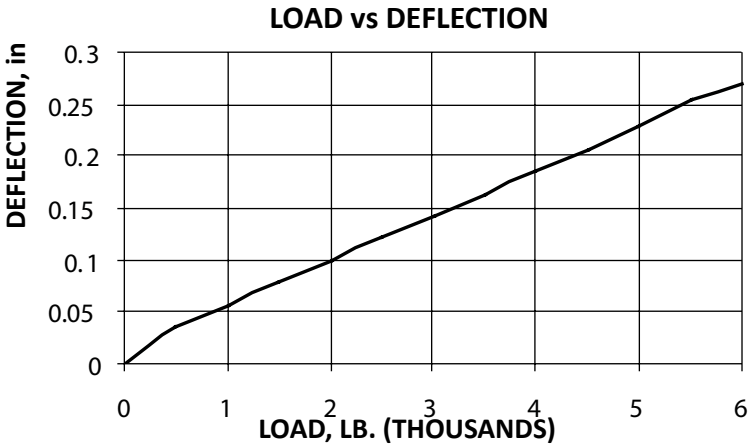




#1 track may be used for straight runs with paired panels, remotely-stored individual panels, or continuously hinged electric walls (see page 24).

2-year limited warranty.

Maximum trolley load is 800 pounds.

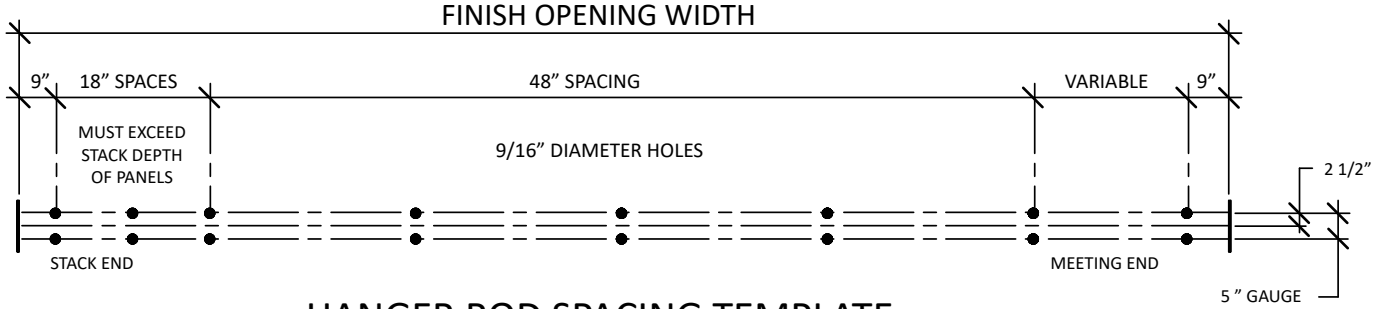


SPECIFICATIONS

Suspension system shall include Advanced #1 aluminum alloy track incorporating soffit trim and seal retainers. Track brackets interlock top flange and attach to structure with pairs of 1/2 inch diameter steel hanger rods. Approximate weight of track assembly is 7.5#/Lin. Ft.

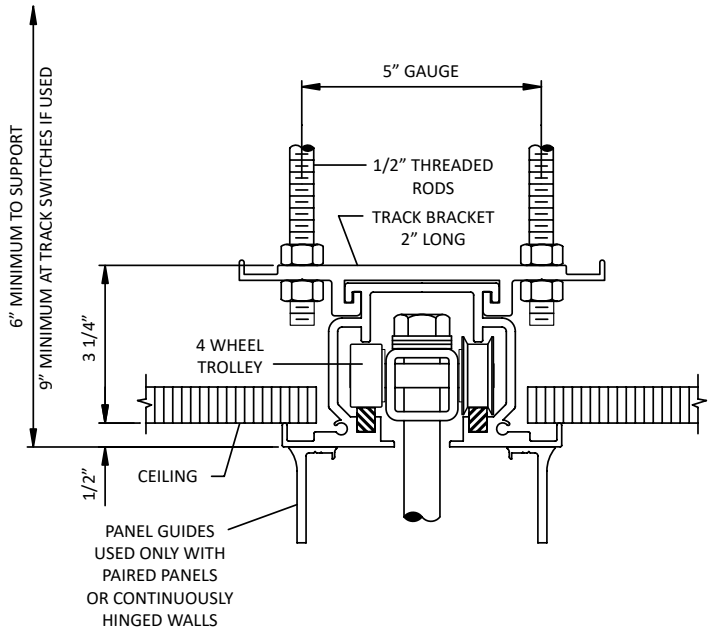
TRACK: Track shall have minimum 6 inch-to-the-fourth moment of inertia. Provide test report from nationally recognized independent laboratory showing track/trolley/bracket/hanger rod assembly sustains a load of 6,000 pounds at mid point of 36 inch simple span without damage.

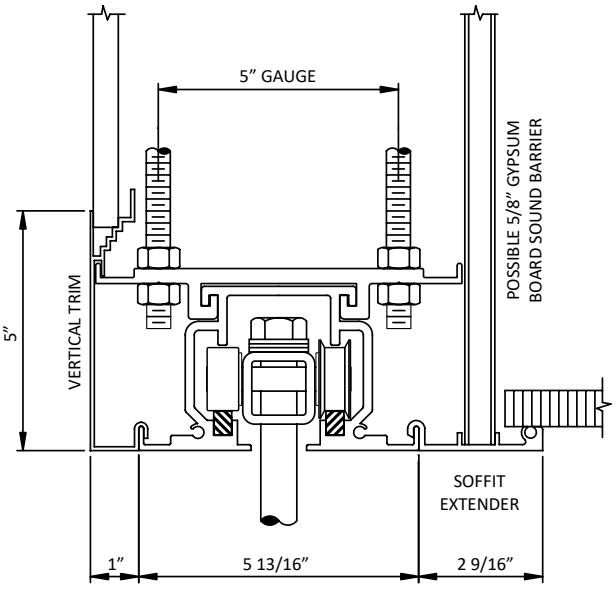
TROLLEYS: Trolleys to have four all-steel wheels 1 5/16 inch diameter with shielded and prelubricated ball bearings. Wheels to be independently replaceable. Pendant bolt to be 3/4 inch diameter and attach to panel through a steel plate mounted internally within panel frame. Individual trolley capacity is 800 pounds.



HANGER ROD SPACING TEMPLATE

1A|TRACK| SUPERTRACK
COMPOSITE TRACK
SOLID STEEL RUNNING SURFACE



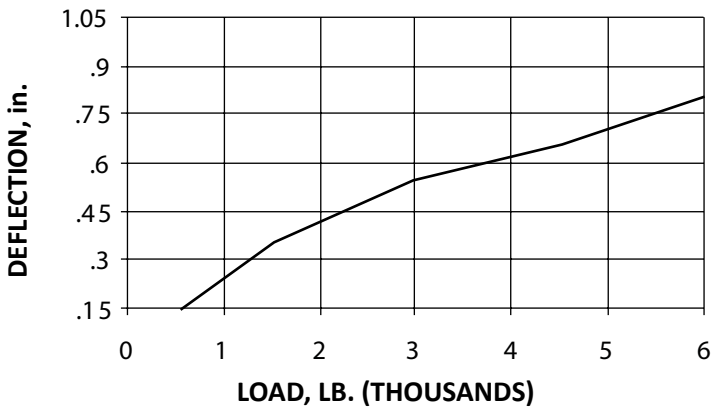


#1A track may be used for straight runs with paired panels, remotely-stored individual panels, or continuously hinged electric walls (see page 25).

5 YEAR LIMITED WARRANTY

Maximum trolley load is 900 pounds.

LOAD vs DEFLECTION

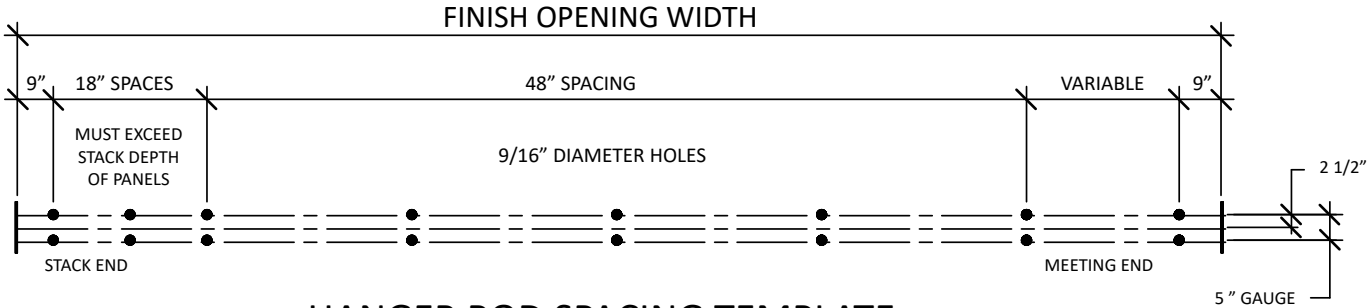


SPECIFICATIONS

Suspension system shall include Advanced #1A composite aluminum alloy track with zinc-plated solid steel running surfaces. Track brackets interlock top flange and attach to structure with pairs of 1/2 inch diameter steel hanger rods. Approximate weight of track assembly is 8.0#/Lin. Ft.

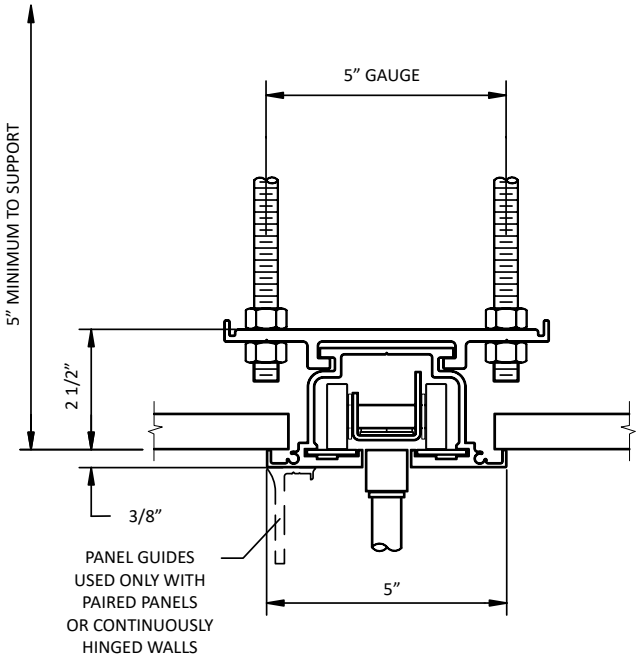
TRACK: Track shall have minimum 6 inch-to-the-fourth moment of inertia. Provide test report from nationally recognized independent laboratory showing track/trolley/bracket/hanger rod assembly sustains a load of 6,000 pounds at mid point of 48 inch simple span without damage.

TROLLEYS: Trolleys to have four all-steel wheels 1 5/16 inch diameter with radial and thrust type roller bearings, shielded and pre-lubricated. Wheels to be independently replaceable and capable of re-lubrication. Pendant bolt to be 3/4 inch diameter and attach to panel through a steel plate mounted internally within panel frame. Individual trolley capacity is 900 pounds.



HANGER ROD SPACING TEMPLATE

2|TRACK| COMPOSITE TRACK STEEL RUNNING SURFACE



#2 Track is intended for straight runs with paired panels, or using curves, "y"s, or switches for remotely stored INDIVIDUAL panels.

2-year limited warranty.

For use with Panels not exceeding 20' in height.

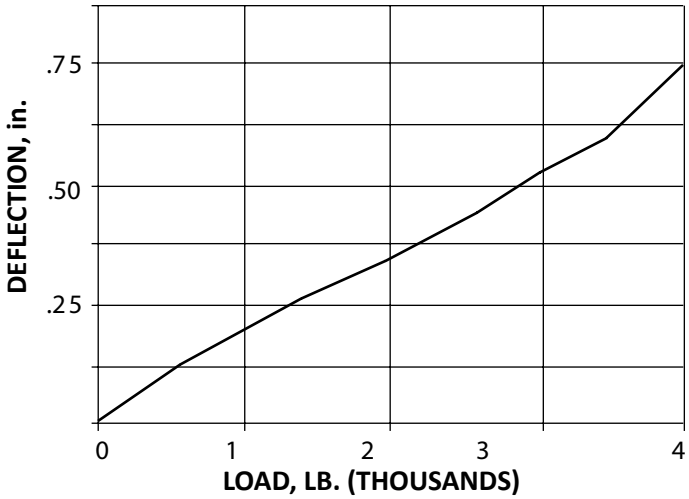
Maximum trolley load is 600 pounds.

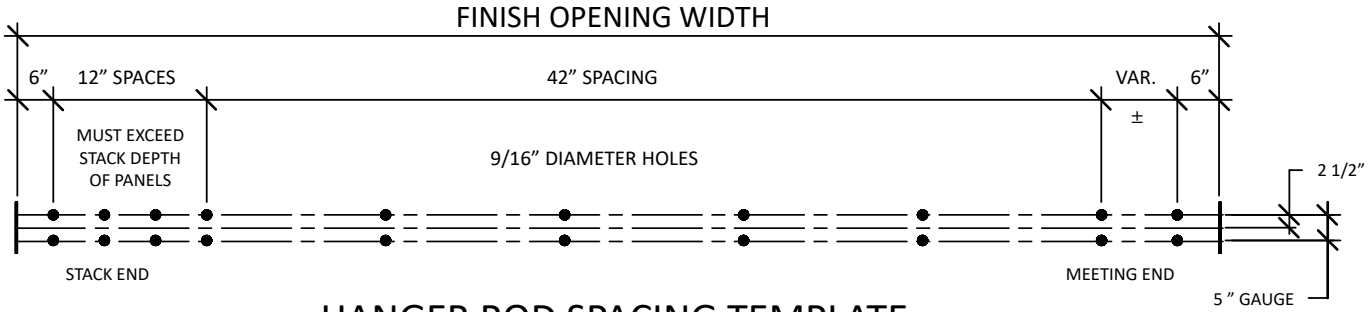
SPECIFICATIONS: Suspension system shall include Advanced #2 composite track consisting of extruded aluminum case and steel running surface. Aluminum alloy track brackets shall interlock with top flange of track and be spaced to limit local track deflection to 0.09 inches. Bracket spacing not to exceed 48" O.C. Brackets attach to structure with pairs of ½ inch diameter steel hanger rods. Approximate weight of track is 6.0 #/Lin. Ft.

TRACK: Track shall have minimum of 2.07 inch-to-the-fourth Moment of Inertia. Independet testing laboratory results shall be supplied to the architect upon request showing that a track/trolley/bracket/hanger rod assembly sustains a load of 3,000 pounds at mid-point of 42-inch simple span without damage.

TROLLEYS: Trolleys to have four all-steel wheels with sealed pre-lubricated ball bearings. Pendant bolt to be steel with minimum 5/8" diameter and attached to panel through a steel plate mounted internally within panel frame. Individual trolley capacity is 600 pounds.

LOAD vs DEFLECTION



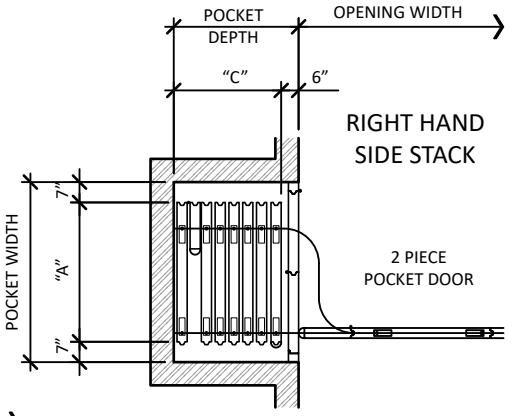


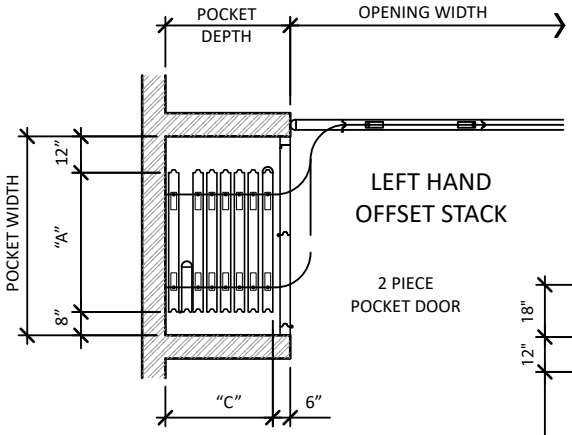
HANGER ROD SPACING TEMPLATE

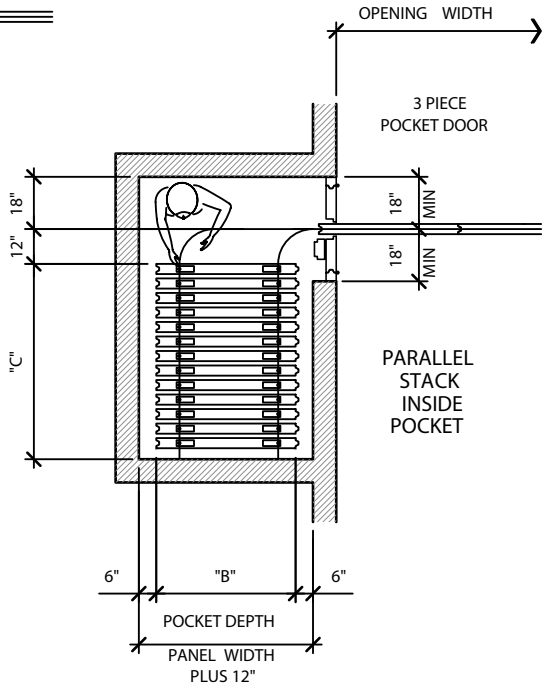
REMOTE STACK PLANS
#1, #1A, AND #2 TRACK

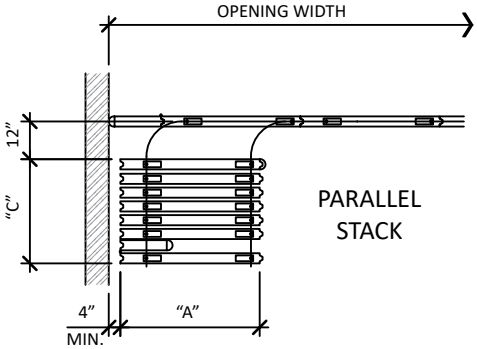
SPECIFICATIONS
Track and switch system shall provide the "free flow" method of panel travel through radius turns at every change in track direction, through switch turns and stacking "Y"s.

STACKING: In all stacking areas trolleys shall be pre-programmed to direction and select the appropriate and separate stacking track automatically and without the use of switches, cam-trip assemblies, or any other device.



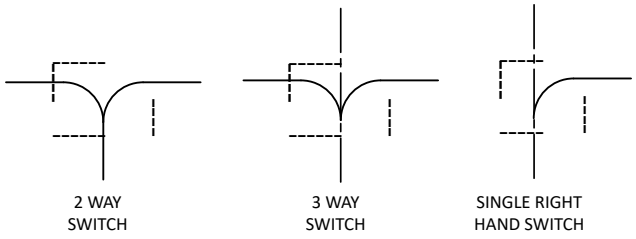


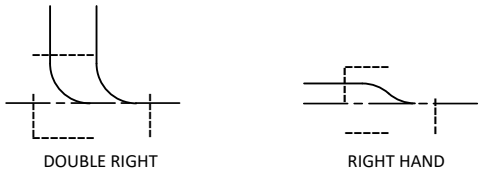




FORMULAS
"A" OPENING WIDTH LESS 18" FOR CLOSURE PANEL DIVIDED BY QUANTITY OF FULL PANELS.
"B" OPENING WIDTH PLUS 6" DIVIDED BY QUANTITY OF PANELS.
"C" QUANTITY OF PANELS TIMES 4.75".

ELECTRIC TRACK SWITCHES
SOME POSSIBLE CONFIGURATIONS



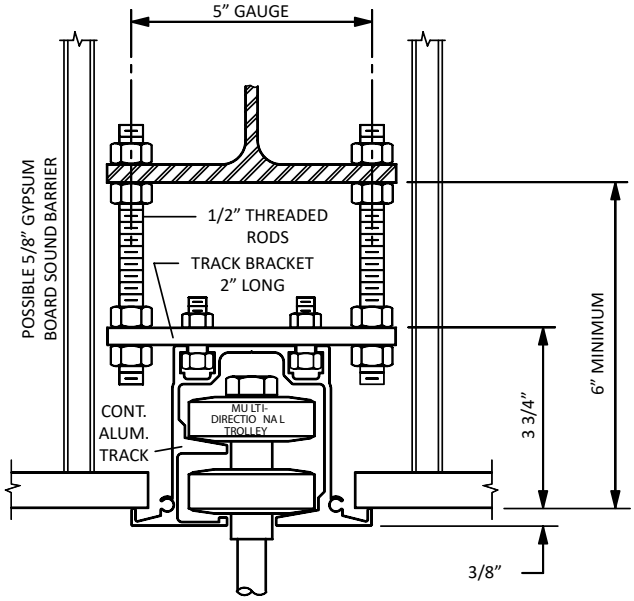


SPECIFICATIONS
ELECTRIC SWITCHES: Changes in direction of panel travel shall be through the use of an electric positive lock switch operated from a remote location using a key switch. Switch control locations shall be indicated on drawings.

Switch control panel, one for each visual operating area, shall be diagrammatic as to location and direction. Operator shall not be required to see track switch in order to set up desired panel flow. Manufacturer to provide an etched plate with aforementioned diagrams to retain key-control assemblies.

Switch operation by pole, trolley tripped devices or any other manual fashion will not be acceptable.

3|TRACK| OMNI-DIRECTIONAL



Using multi-directional ball bearing trolleys, this system is capable of universal movement throughout the track system without the use of radius turns or switching mechanism.

As is typical of right angle and sharp angle track systems, it is necessary for the operator to consciously "steer" the panel to the proper direction at all intersections. Thought must be given to avoid reversing panels or placing panels in the wrong sequence.

This track system is for manual individual (opera tion) panels, each with two trolleys.

1-year limited warranty.

Maximum trolley load is 500 pounds.

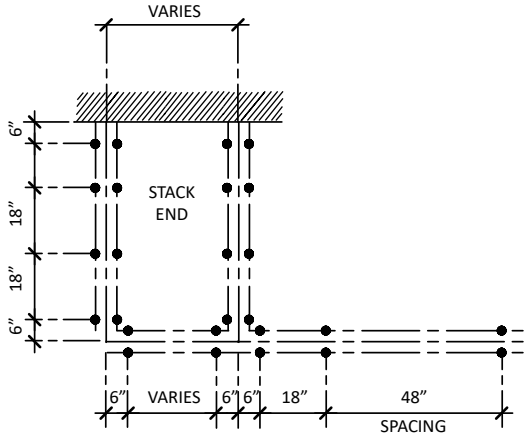
For use with panels not exceeding 16' in height.

LOAD vs DEFLECTION

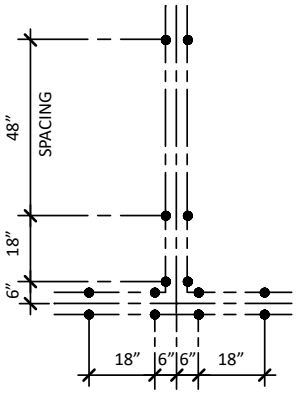
SPECIFICATIONS

TRACK: Top track shall be Advanced #3 aluminum alloy track incorporating soffit trim. Joints aligned by concealed steel dowels, intersections welded. Suspension brackets bolted to top portion of track. Brackets spaced 2'-0" o.c. maximum in stack area and 5'-0" o.c. maximum elsewhere. Track assembly weight approximately 7.5#/Lin. Ft.

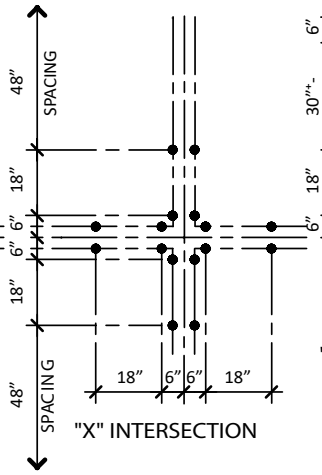
TROLLEYS: Individual panels top supported by two trolleys. Trolleys shall each have two ball bearing wheels and attach to panel with 5/8" diameter pendant bolt. Each panel shall be capable of negotiating any angular turn or intersection, including 90° degree turns at "L", "T" and "X" intersections of the supporting track. Individual trolley capacity is 500 pounds.



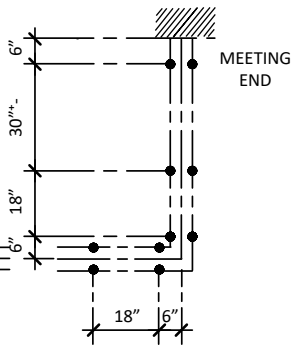
STACK LAYOUT



"T" INTERSECTION



"X" INTERSECTION

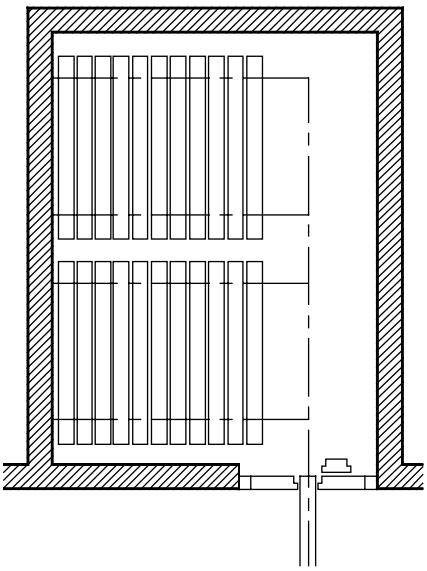


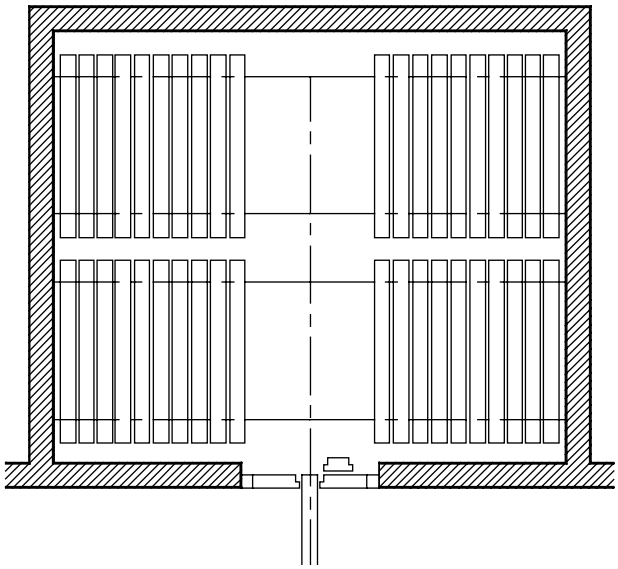
"L" INTERSECTION

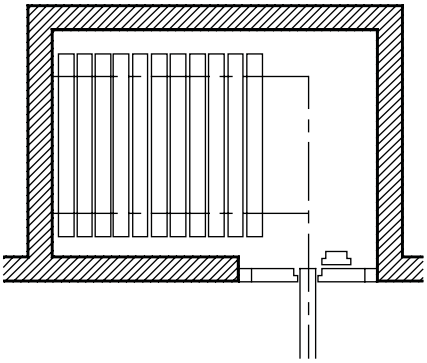
HANGER ROD SPACING TEMPLATE

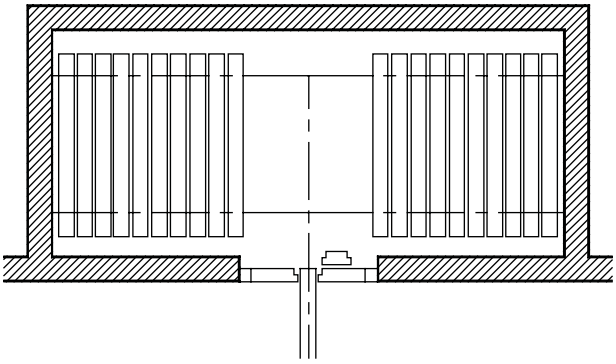
REMOTE STACK PLANS
#3 TRACK

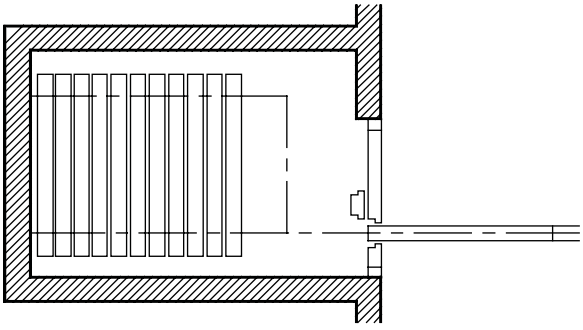
Using various combinations of T's, L's and X's, this track system gives you total space saving storage versatility. The illustrations below show just a few of the many possible storage combinations.

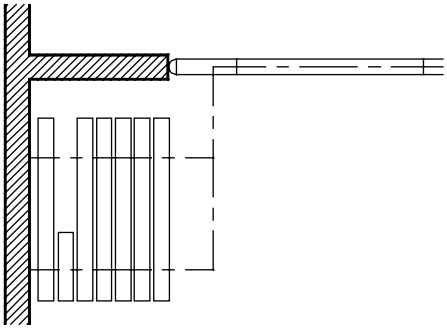


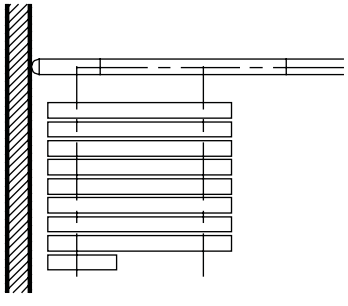




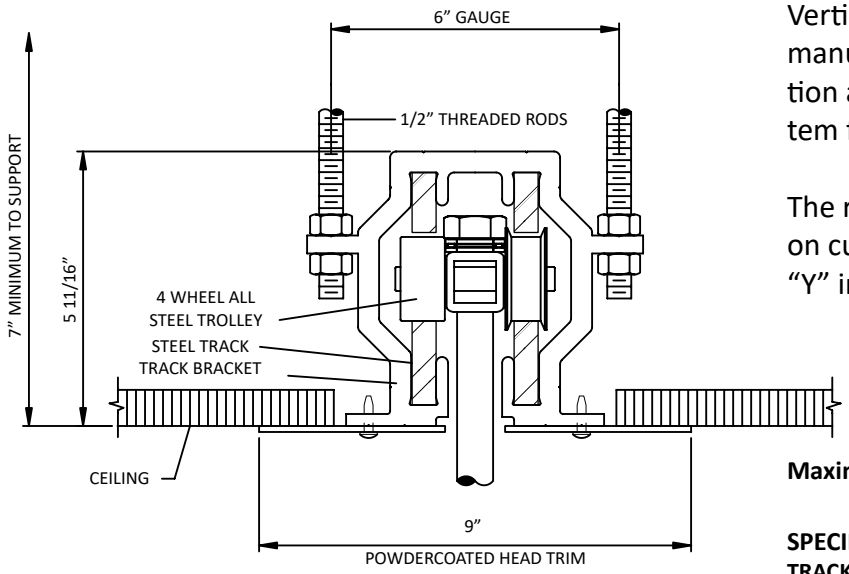








4|TRACK| VERTICAL STEEL



MANUAL

Vertical steel track is to be used only for curved walls, manual or electric. Smooth operation and rigid construction allows the designer freedom to make the track system fit the building.

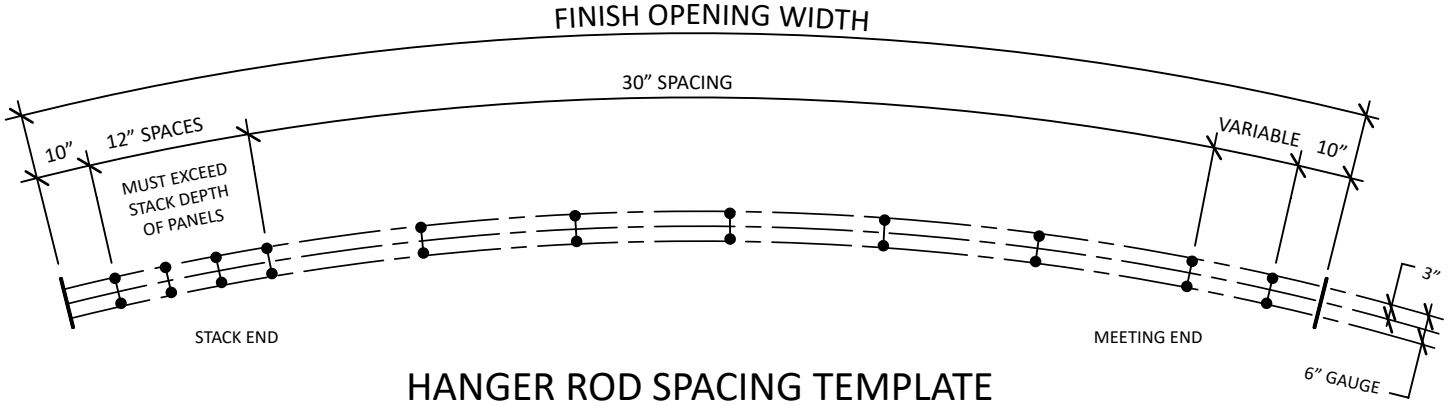
The radius to the track centerline may be as small as 12" on curves. Certain changes in track direction, such as a "Y" intersection may be accomplished without switches.

Maximum trolley load is 1,500 pounds.

SPECIFICATIONS

TRACK: Top track shall consist of two ½" x 1¼" and two ½" x 1¾" HR steel bars. Track members are to be zinc plated. Track brackets are 6063-T6 aluminum alloy, 3" long and located on 42" centers maximum, except over stacking area where spacing will be 18" O.C. maximum. Steel bar track shall be secured in the track bracket recess by means of 3/16" diameter spring pins acting in double shear. Independent testing laboratory results shall be supplied to the architect upon request showing that an assembly of hanger rod/track bracket/track/trolley sustains, without damage, a load of 5,000 pounds applied to trolley pendant bolt with trolley positioned in track at mid-point of 30" span between brackets. Track assembly weight appromately 15#/Lin. Ft.

TROLLEYS: Trolleys shall have four all-steel wheels, 1¾" tread diameter, with radial and thrust type roller bearings and two thrust bearings. Roller bearings shall be precision ground, solid-race type, equipped with roller retainers, sealed and pre-lubricated. Bearings and wheels are to be independently replaceable and capable of re-lubrication. Pendant bolt shall be ¾" diameter and attach to panel through a steel plate mounted internally within the panel frame. Individual trolley capacity is 1,500 pounds.



HANGER ROD SPACING TEMPLATE

8|TRACK| SUPERTRACK COMPOSITE TRACK SOLID STEEL RUNNING SURFACE

Easy to operate extra large manual operable walls are proof of the performance of the SUPERTRACK® System. It consists of high capacity precision trolleys, long span track, 12" radius curves and Y's (and where applicable, remotely operated switches) of unrivaled strength and accuracy.

The SUPERTRACK® System gives you:

Unprecedented ease of operation
Minimum maintenance
Reduced number of structural attachments

You no longer need concern yourself with the brute force method of operation, and the constant maintenance headaches which are common to some other track systems employed on very large manual walls. SUPERTRACK® System... an important component of Advanced Equipment's WORLD CLASS® Operable Walls.

*U.S. Patent #4,569.164

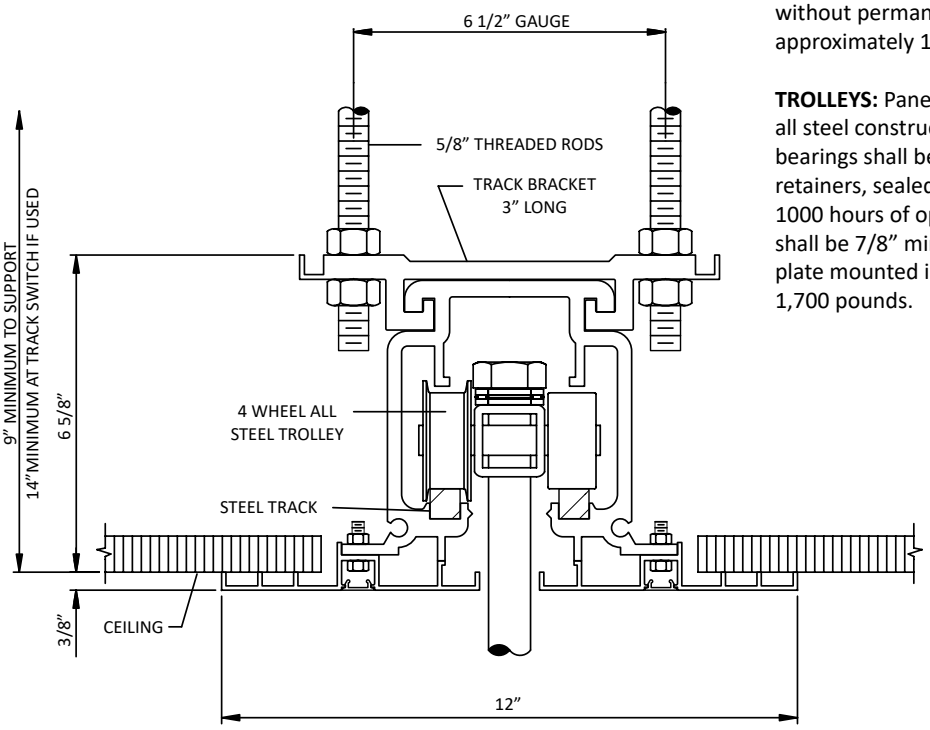
10 YEAR LIMITED WARRANTY

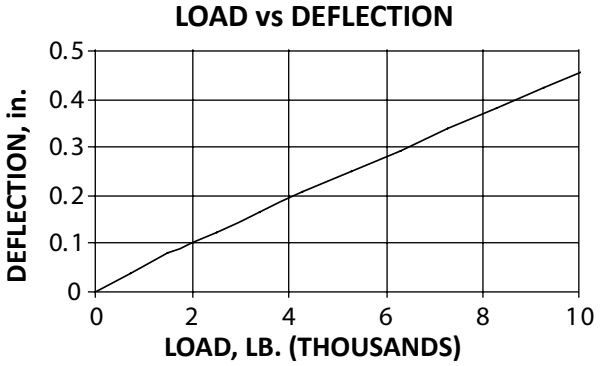
Maximum trolley load is 1,700 pounds

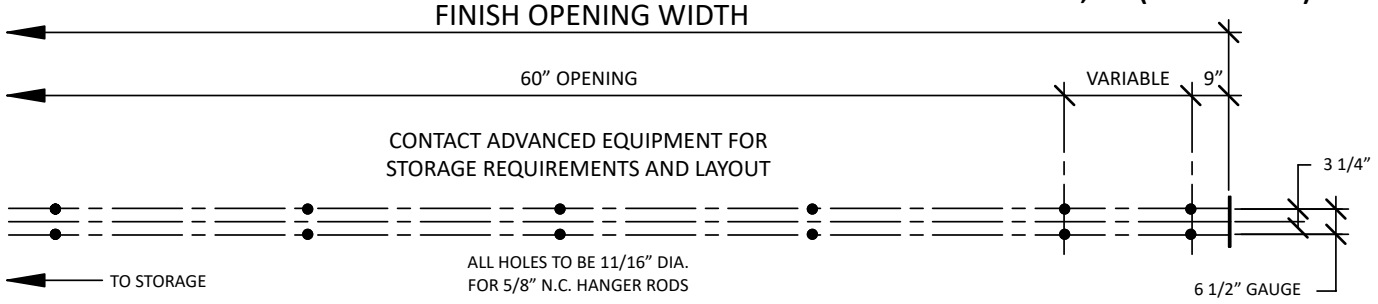
SPECIFICATIONS

TRACK: The top track shall consist of 6063-T6 aluminum alloy and cold rolled steel running surfaces. Track joints shall be aligned by concealed dowels in the vicinity of the running surface. Track brackets shall be 6063-T6 which interlock with top flange of the track. Hanger rods shall be 5/8" diameter or greater. Brackets shall be spaced to limit the track deflection to 0.08 inches due to applied trolley loads, but in no case greater than 7'-6" on center. Brackets over stacking area shall have a maximum spacing of 2'-6" on center. Independent testing laboratory results shall be supplied to the architect upon request showing that a single track bracket assembled with a section of track shall be capable of supporting a load of 10,000 pounds without permanent deformation, and a 10,000 pound concentrated load at mid-span without permanent deformation @ 7'-6" span. Weight of top track assembly approximately 13.5#/Lin. Ft.

TROLLEYS: Panel shall be supported by four-wheel trolley assemblies, of all steel construction, with 2" tread diameter all-steel wheels. Trolley roller bearings shall be precision ground, solid-race type, equipped with roller retainers, sealed, pre-lubricated and designed for a minimum service life of 1000 hours of operation at maximum loads. Trolley pendant bolt diameter shall be 7/8" minimum, and shall be attached to the panel through a steel plate mounted internally within the panel frame. Individual trolley capacity is 1,700 pounds.

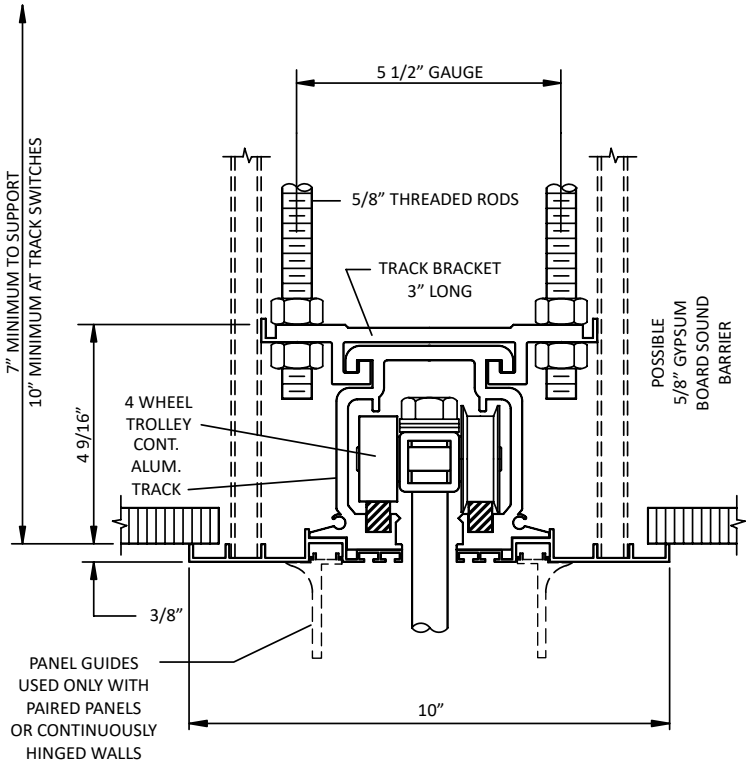






HANGER ROD SPACING TEMPLATE

8B|TRACK| SUPERTRACK
COMPOSITE TRACK-MANUAL
SOLID STEEL RUNNING SURFACE



#8B track may be used for straight runs with paired panels, remotely-stored individual panels, or continuously hinged electric walls (see page 30).

10 YEAR LIMITED WARRANTY

Maximum trolley load is 1,500 pounds.

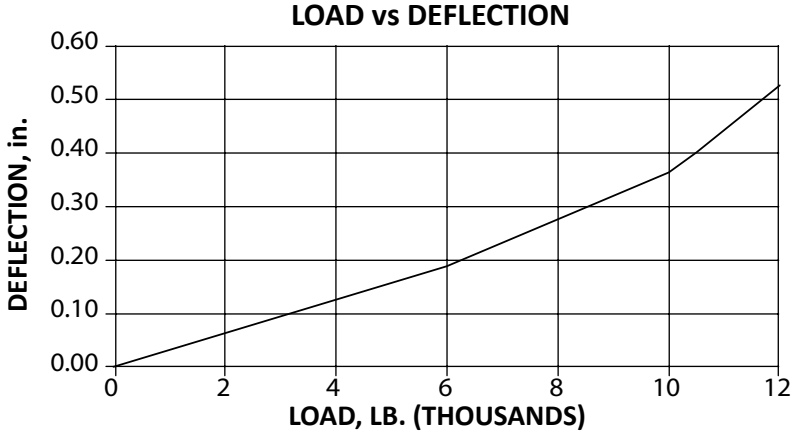
SPECIFICATIONS

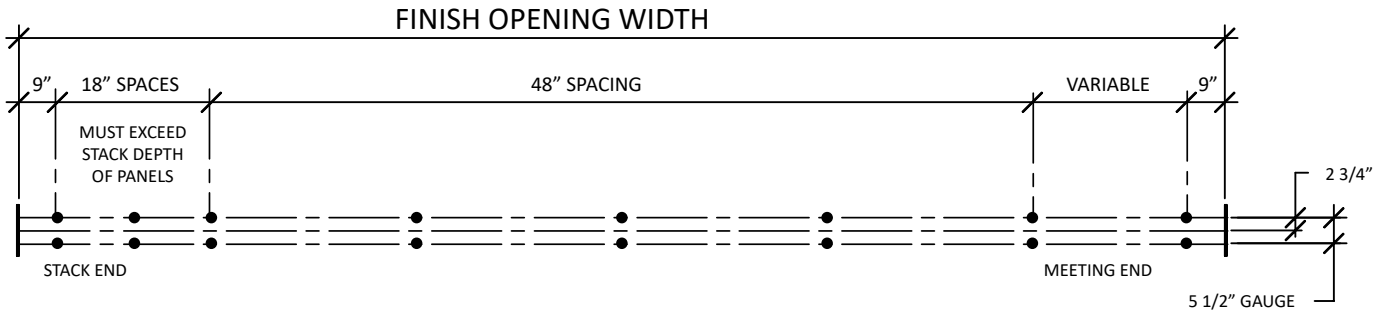
Suspension system shall include Advanced #8B composite aluminum alloy track with zinc-plated solid steel running surfaces. Track brackets interlock top flange and attach to structure with pairs of 5/8" inch diameter steel hanger rods. Approximate weight of track assembly is 13.0#/Lin. Ft.

TRACK: Track shall have minimum 12 inch-to-the-fourth moment of inertia. Provide test report from nationally recognized independent laboratory showing track/trolley/bracket/ hanger rod assembly sustains a load of 8,000 pounds at mid point of 48-inch simple span without damage.

TROLLEYS: Trolleys to have four all-steel wheels 1 3/4-inch diameter with radial and thrust type roller bearings, shielded and pre-lubricated. Bearings and wheels to be independently replaceable and capable of re-lubricating. Pendant bolt to be 3/4 inch diameter and attach to panel through a steel plate mounted internally within panel frame. Individual trolley capacity is 1,500 pounds.

LOAD vs DEFLECTION





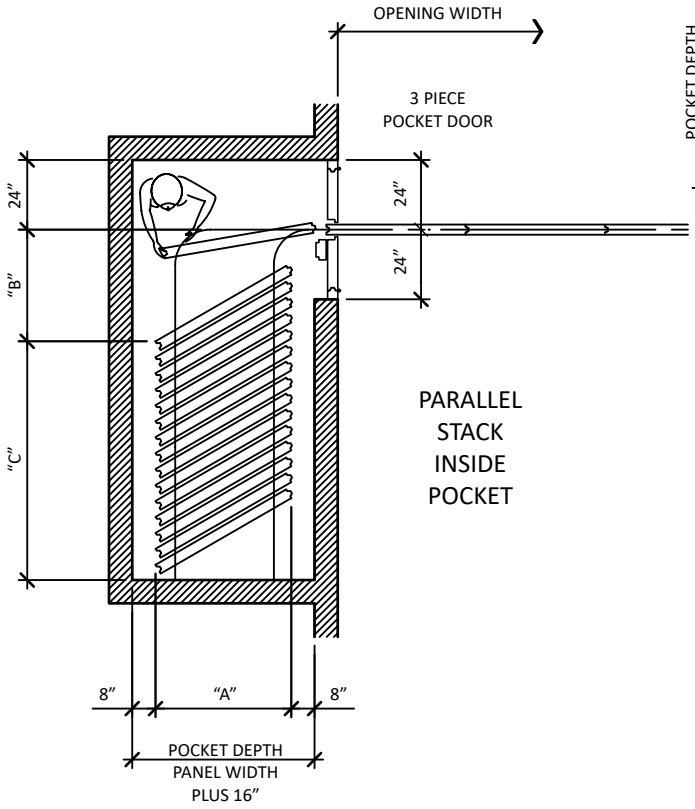
HANGER ROD SPACING TEMPLATE

REMOTE STACK PLANS #8 AND #8B TRACK

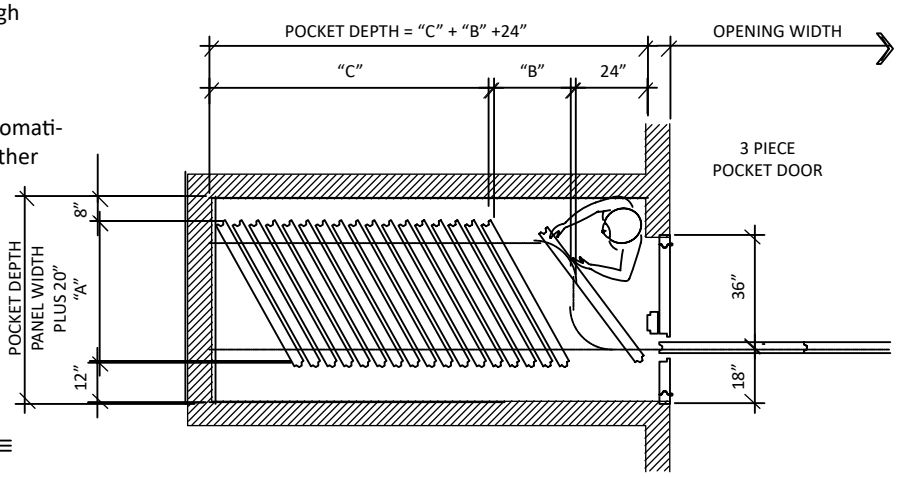
SPECIFICATIONS

Track and switch system shall provide the "free flow" method of panel travel through radius turns at every change in track direction, through switch turns and stacking "Y"s.

STACKING: In all stacking areas trolleys shall be pre-programmed to direction and select the appropriate and separate stacking track automatically and without the use of switches, cam-trip assemblies, or any other device.



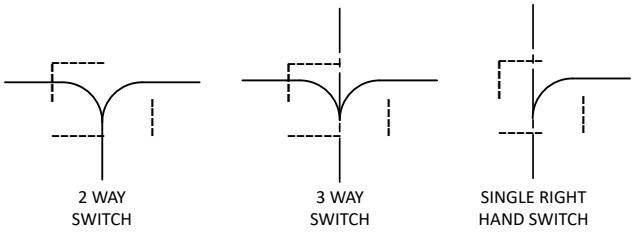
PARALLEL STACK INSIDE POCKET

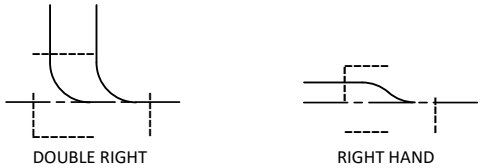


SIDE STACK INSIDE POCKET

FORMULAS
PANEL WIDTH = (OPENING WIDTH + 6") DIVIDED BY QUANTITY OF PANELS
"A"= COS (stack angle) x PANEL WIDTH.
"B"= SIN (stack angle) x PANEL WIDTH.
"C"= QUANTITY OF PANELS TIMES 5½".
" "= STACK ANGLE ≤ 30º.
NOTE: panels stored at 30 degrees for ease of operation.

ELECTRIC TRACK SWITCHES
SOME POSSIBLE CONFIGURATIONS





SPECIFICATIONS

ELECTRIC SWITCHES: Changes in direction of panel travel shall be through the use of an electric positive lock switch operated from a remote location using a key switch. Switch control locations shall be as indicated on the drawings.

Switch control panel, one for each visual operating area, shall be diagrammatic as to location and direction. Operator shall not be required to see track switch in order to set up desired panel flow.
Manufacturer to provide an etched plate with aforementioned diagrams to retain key-control assemblies.

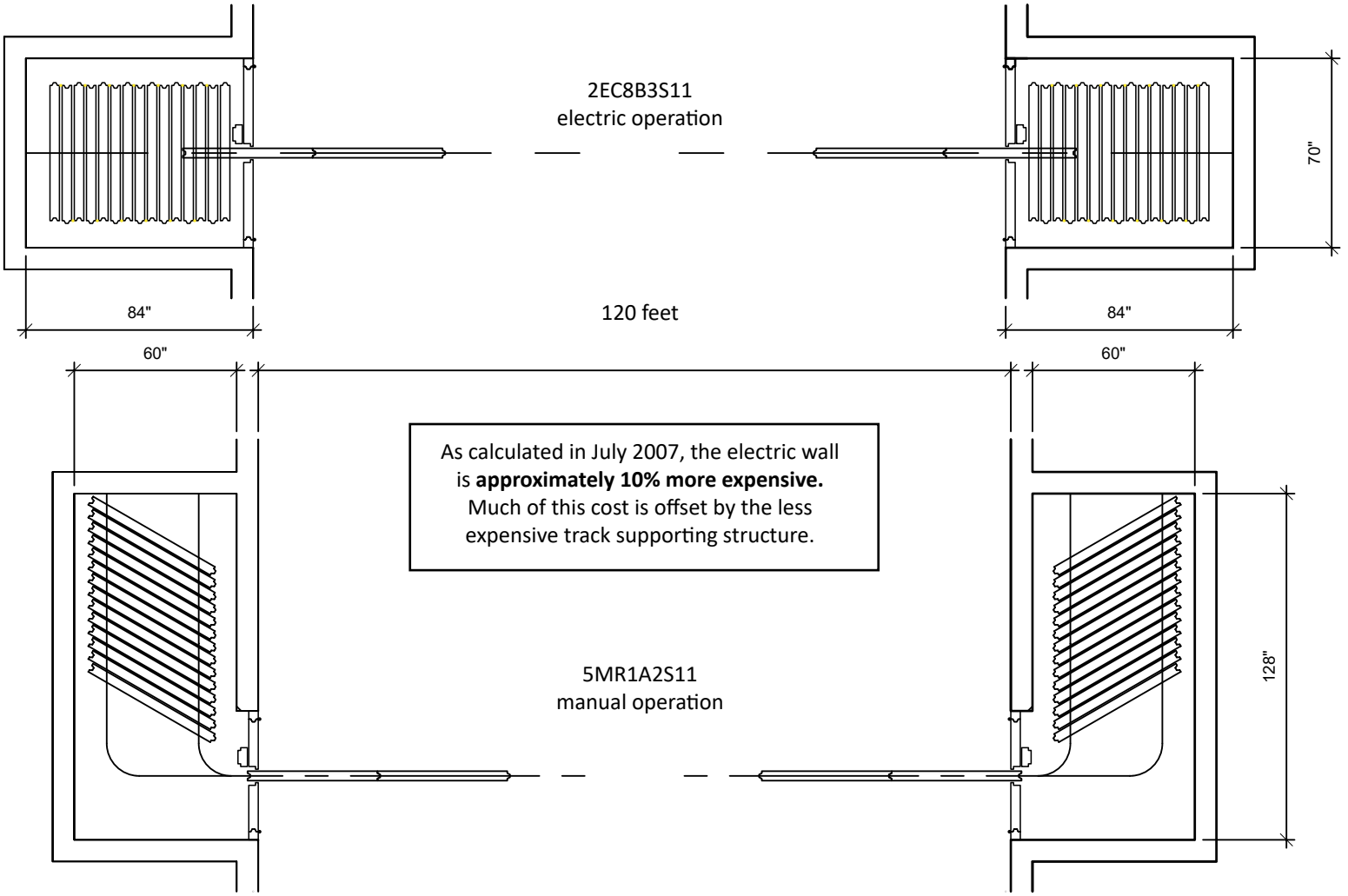
Switch operation by pole, trolley tripped devices or any other manual fashion will not be acceptable.

ELECTRIC OPERATION

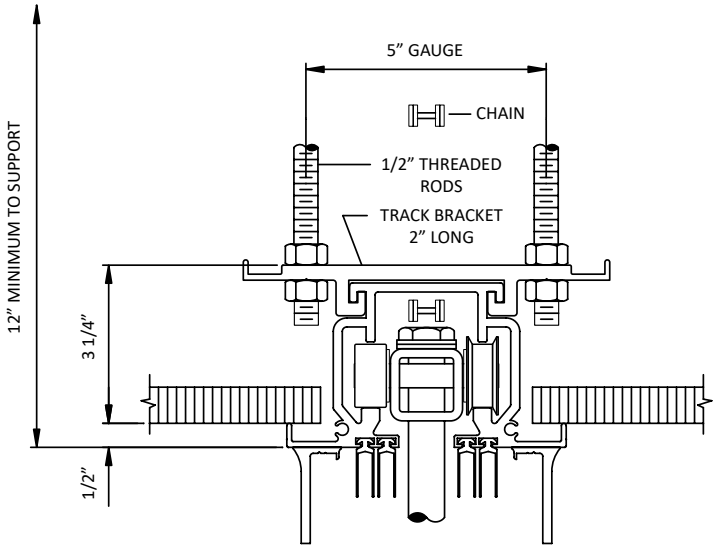
Few spaces are too large to be divided with Advanced operable walls. Convention centers, auditoriums, gymnasiums, civic centers and exhibition facilities are made more flexible using economical motorized walls. One person with a single key can control folding walls exceeding 40 feet in height and several hundred feet long with completely automatic opening and closing accomplished in just a few minutes.

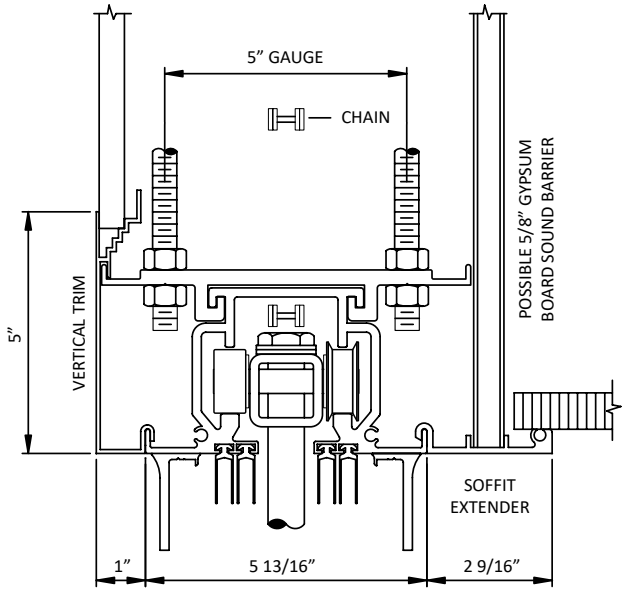
The time required to move manual systems of the same magnitude would be measured in man hours. AEC manufactures the most ruggedly constructed hardware and panels in the industry. This coupled with more than 50 years experience producing motorized systems, provides outstanding reliability and performance.

Electrically operated walls will fold and store at one or both sides of the room. The sketch below compares storage requirements for an electric and manual bi-parting wall that is 120 ft. wide by 22 ft. high. Both walls have ALPHA "S" panels. The electric has 15 panels approximately 50 inches wide folding each direction whereas the manual wall has 14 panels approximately 52 inches wide folding each way. The electric wall utilizes #8B track while the individual panel manual system uses #1A. Final closure for both walls is by means of three-piece acoustical storage pocket doors designed to seal against the trailing panels.



1 | TRACK | CONTINUOUS ALUMINUM TRACK

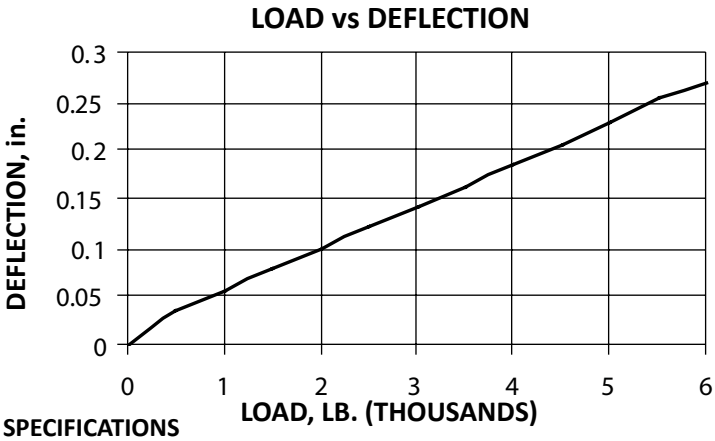




#1 track is one of several track systems suitable for electric operation. Selection is based on trolley load.

2-year limited warranty.

Maximum trolley load is 800 pounds.



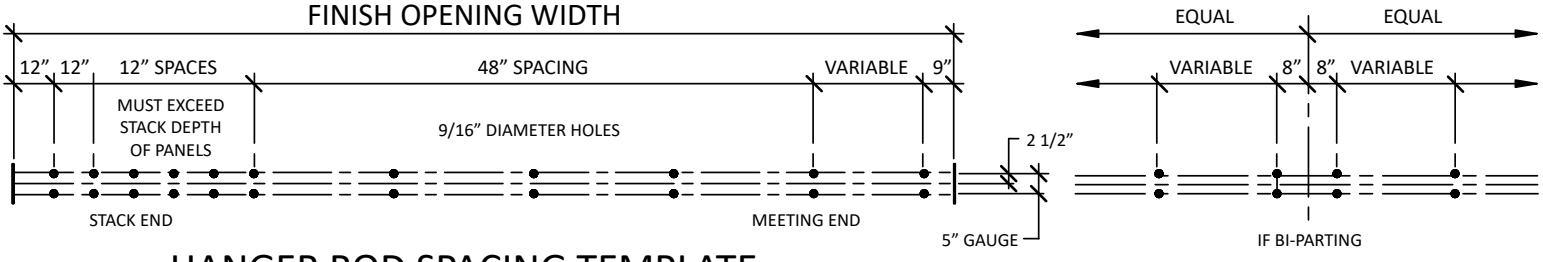
SPECIFICATIONS

Suspension system shall include Advanced #1 aluminum alloy track incorporating soffit trim and seal retainers. Track brackets interlock top flange and attach to structure with pairs of 1/2 inch diameter steel hanger rods. Approximate weight of track assembly is 7.5#/Lin. Ft.

TRACK: Track shall have minimum 6 inch-to-the-fourth moment of inertia. Provide test report from nationally recognized independent laboratory showing track/trolley/bracket/hanger rod assembly sustains a load of 6,000 pounds at mid point of 36 inch simple span without damage.

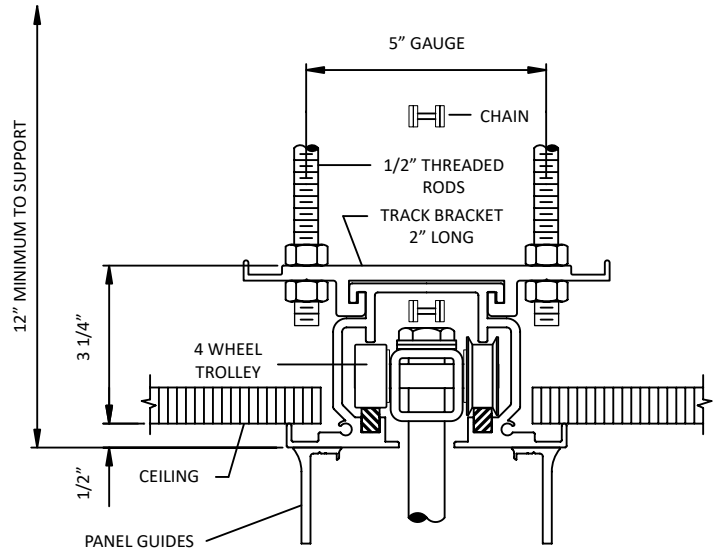
TROLLEYS: Trolleys to have four all-steel wheels 1 5/16 inch diameter with ball bearing and thrust type roller bearings, shielded and pre-lubricated. Wheels to be independently replaceable. Pendant bolt to be 3/4 inch diameter and attach to panel through a steel plate mounted internally within panel frame. Individual trolley capacity is 800 pounds.

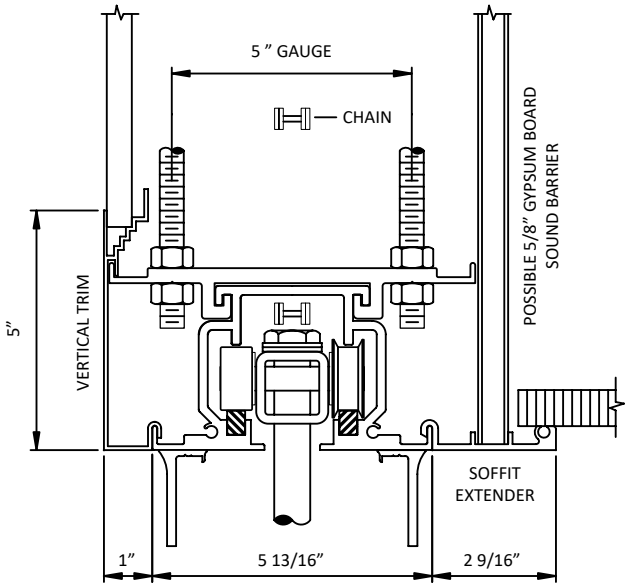
ELECTRO-MECHANICAL EQUIPMENT: 208/240V 3 phase (or 115/ 230V single-phase) operator designed to move the wall at approximately 24 FPM, with auto-reset overload relays, limit switches and key actuated control switch, transformer for 24V control circuits. Gears operate in oil bath. Drive shall include steel roller chain, torque limit clutch, and motor mounted electric brake. Brake must be provided to prevent "coasting" and ensure repeatable and accurate travel limits.



HANGER ROD SPACING TEMPLATE

1A|TRACK| SUPERTRACK COMPOSITE TRACK SOLID STEEL RUNNING SURFACE

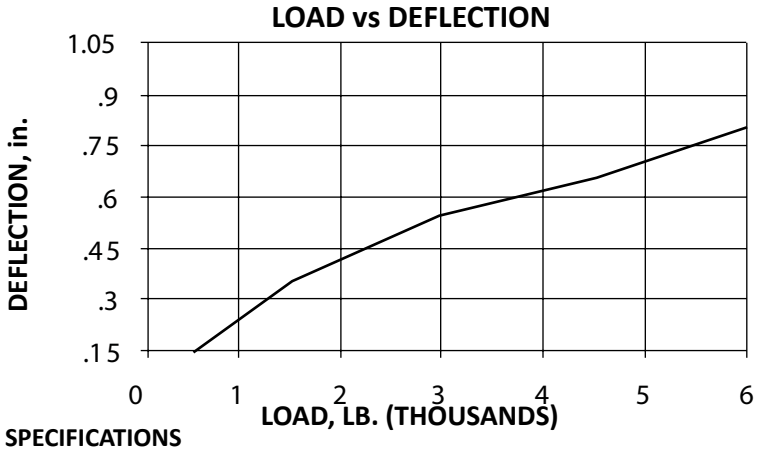




#1A track is one of several track systems suitable for electric operation. Selection is based on loads.

5 YEAR LIMITED WARRANTY

Maximum trolley load is 900 pounds.



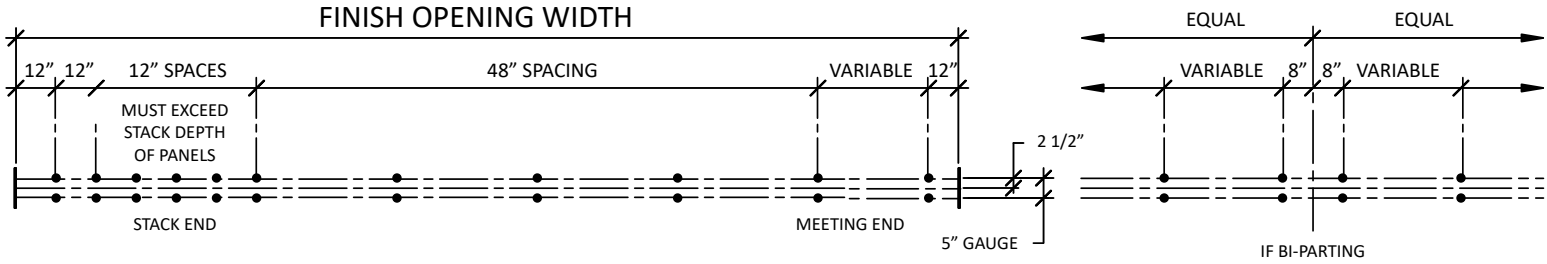
SPECIFICATIONS

Suspension system shall include Advanced #1A composite aluminum alloy track with zinc-plated solid steel running surfaces. Track brackets interlock top flange and attach to structure with pairs of 1/2 inch diameter steel hanger rods. Approximate weight of track assembly is 8.0#/Lin. Ft.

TRACK: Track shall have minimum 6 inch-to-the-fourth moment of inertia. Provide test report from nationally recognized independent laboratory showing track/trolley/bracket/ hanger rod assembly sustains a load of 6,000 pounds at mid point of 36 inch simple span without damage.

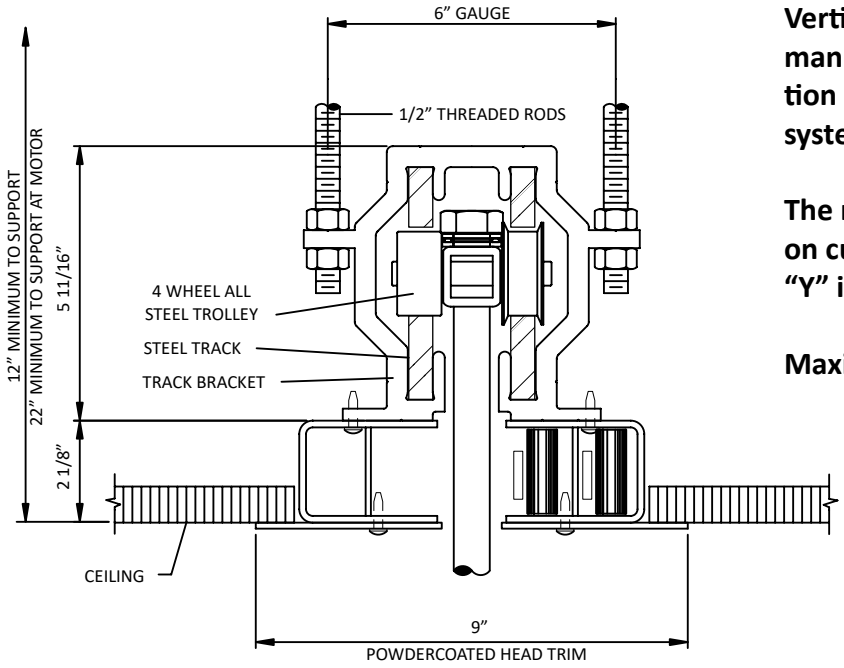
TROLLEYS: Trolleys to have four all-steel wheels 1 5/16 inch diameter with radial and thrust type roller bearings, shielded and pre-lubricated. Bearings and wheels to be independently replaceable and capable of re-lubricating. Pendant bolt to be 3/4 inch diameter and attach to panel through a steel plate mounted internally within panel frame. Individual trolley capacity is 900 pounds.

ELECTRO-MECHANICAL EQUIPMENT: 208/240V 3-phase (or 115/230V single-phase) operator designed to move the wall at approximately 24 FPM, with auto-reset overload relays, limit switches and key actuated control switch, transformer for 24V control circuits. Gears operate in oil bath. Drive shall include steel roller chain, torque limit clutch, and motor mounted electric brake. Brake must be provided to prevent "coasting" and ensure repeatable and accurate travel limits.



HANGER ROD SPACING TEMPLATE

4|TRACK| VERTICAL STEEL



ELECTRIC

Vertical steel track is to be used only for curved walls, manual or electric. Smooth operation and rigid construction allows the designer freedom to make the track system fit the building.

The radius to the track centerline may be as small as 12" on curves. Certain changes in track direction, such as a "Y" intersection may be accomplished without switches.

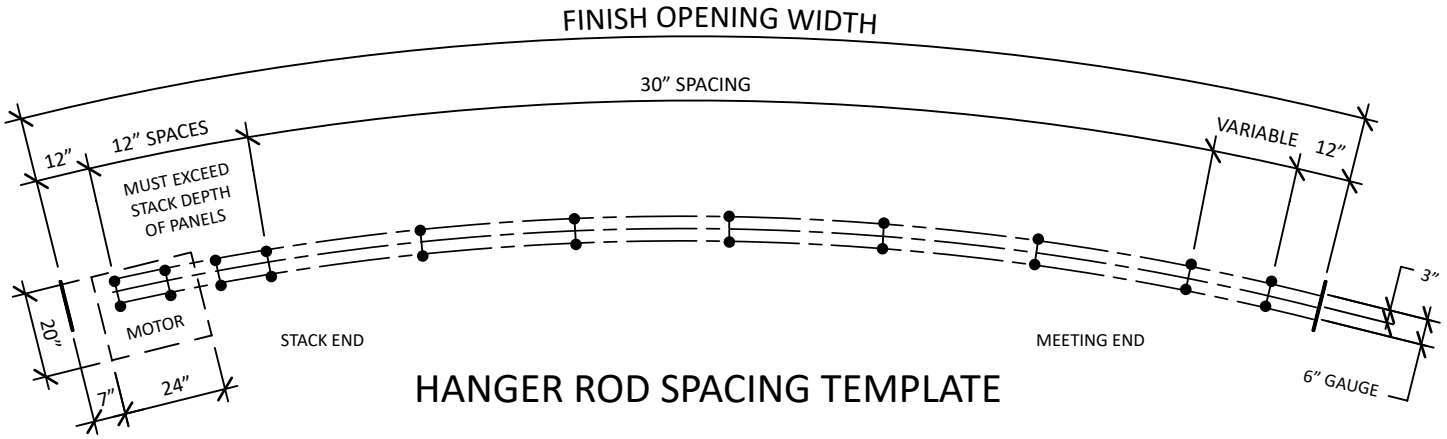
Maximum trolley load is 1,500 pounds.

SPECIFICATIONS

TRACK: Top track shall consist of two ½" x 1¼" and two ½" x 1¾" HR steel bars. Track members are to be zinc plated. Track brackets are 6063-T5 aluminum alloy, 3" long and located on 42" centers maximum, except over stacking area where spacing will be 18" O.C. maximum. Steel bar track shall be secured in the track bracket recess by means of 3/16" diameter spring pins acting in double shear. Independent testing laboratory results shall be supplied to the architect upon request showing that an assembly of hanger rod/track bracket/track/trolley sustains, without damage, a load of 5,000 pounds applied to trolley pendant bolt with trolley positioned in track at mid-point of 30" span between brackets.

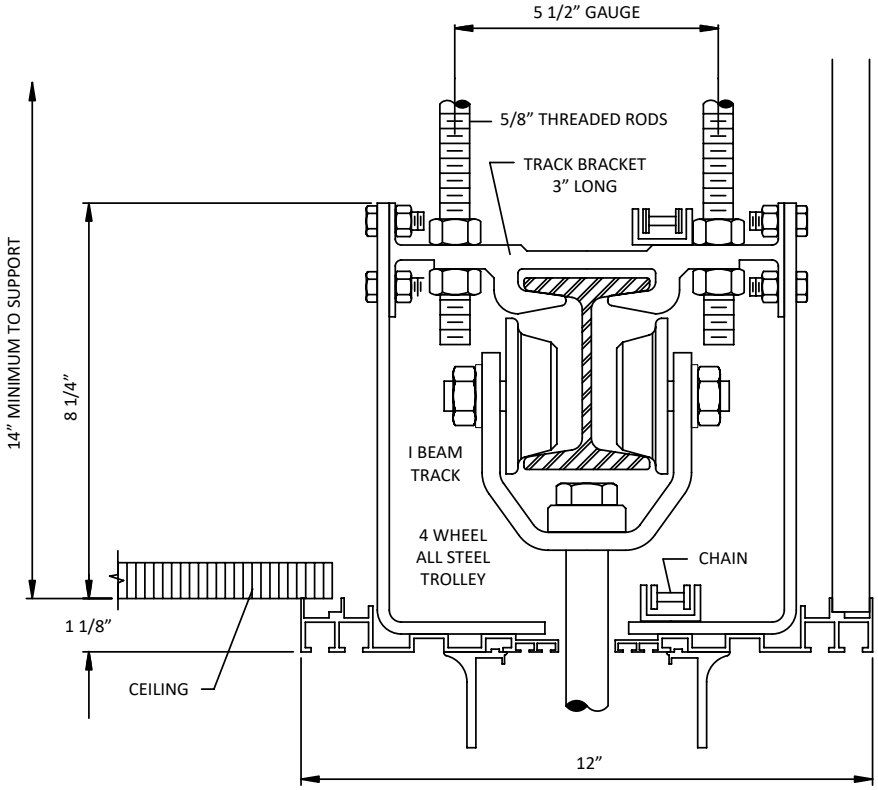
TROLLEYS: Trolleys shall have four all-steel wheels, 1¾" tread diameter, with radial and thrust type roller bearings and two (2) thrust bearings. Roller bearings shall be precision ground, solid-race type, equipped with roller retainers, sealed and pre-lubricated. Bearings and wheels are to be independently replaceable and capable of re-lubricating. Pendant bolt shall be ¾" diameter and attach to panel through a steel plate mounted internally within the panel frame. Individual trolley capacity is 1,500 pounds.

ELECTRO-MECHANICAL EQUIPMENT: 208/240 volt, 3 phase, electric operator designed to move the partition at approximately 24 FPM, with overload protection, magnetic brake and gears operating in an oil bath. Motor controls, limit switches, clutch, roller chain drive, sprockets, interlock switch, key control switch located as shown on plans, and all other necessary operating equipment shall be provided. Control circuits shall be 24 volt. Brake required to prevent "coasting" and ensure repeatable and accurate travel limits.



HANGER ROD SPACING TEMPLATE

5|TRACK| 4" STEEL "I" BEAM



10 YEAR LIMITED WARRANTY

When maximum trolley load exceeds 900# for electrically operated walls, #5 or #8b track is utilized. Designed for medium to large size areas such as banquet facilities, meeting rooms, multi-purpose rooms, gymnasiums, and auditoriums where maximum trolley load is 1800 pounds.

This system has been proven for over 30 years for quick, easy and dependable operation with the use of roller chain drive developed by A.E.C.

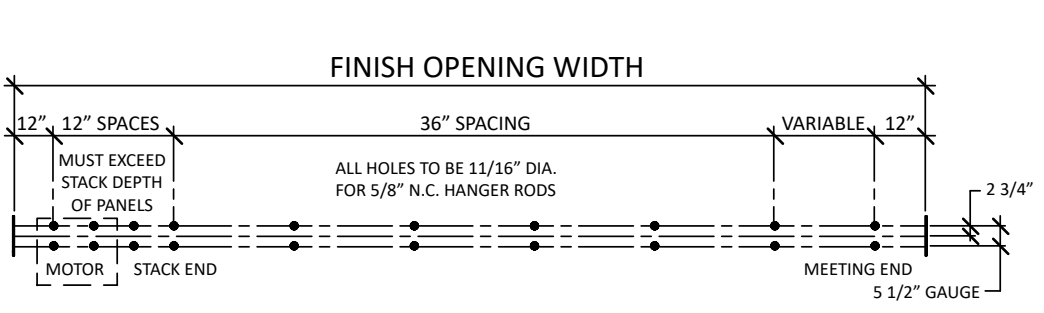
Maximum trolley load is 1,800 pounds.

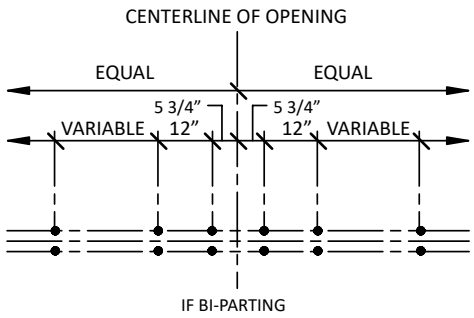
SPECIFICATIONS

TRACK: The track shall consist of a steel beam track with ground running surfaces. Track and all ferrous metal parts shall have shop applied rust inhibiting primer. Brackets shall be spaced to limit the track deflection to 0.09 inches due to applied trolley loads, but in no case greater than 5'-0" on center. Brackets over stacking area shall have maximum spacing of 2'-0" on center. Minimum section modulus shall be 3" cubed. Weight of track assembly approximately 15#/Lin. Ft.

TROLLEYS: Panels shall be supported by four-wheel trolley assemblies, of all-steel construction, with 2 1/2" tread diameter flange wheels. Trolley ball bearings shall be precision ground, solid race type, equipped with ball retainers, double shielded, pre-lubricated with provision for relubrication. Trolley pendant bolt diameter shall be 3/4" minimum, and shall be attached to the panel utilizing steel reinforcing plates internally mounted above and below the top panel frame rail. Individual trolley capacity is 1800 pounds.

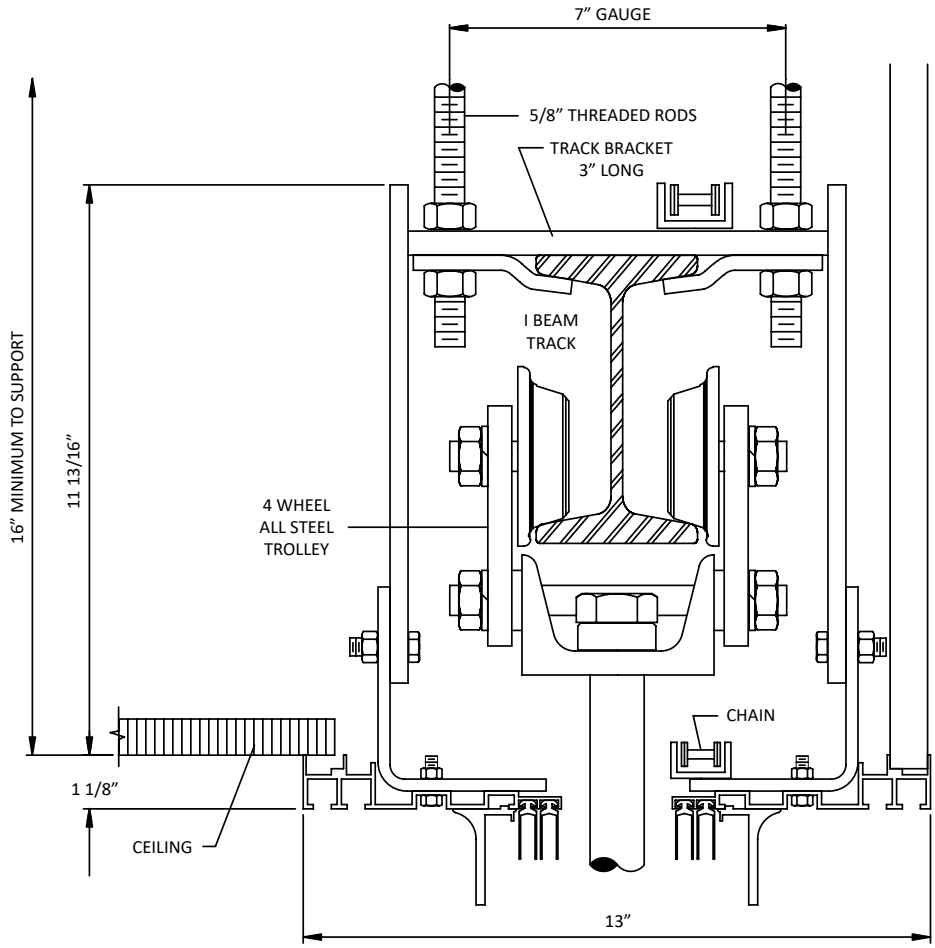
ELECTRO-MECHANICAL EQUIPMENT: 208/240 volt, 3 phase electric operator designed to move the partition at approximately 24 FPM, with overload protection, and gears operating in an oil bath. Motor controls, limit switches, clutch, motor mounted brake, roller chain drive, sprockets, interlock switch, key control switch located as shown on plans, and all other necessary operating equipment shall be provided. Cable drive will not be permitted. Control circuits shall be 24 volt. Brake must be provided to prevent "coasting" and ensure repeatable and accurate travel limits.





HANGER ROD SPACING TEMPLATE

6|TRACK| 6" STEEL "I" BEAM



10 YEAR LIMITED WARRANTY

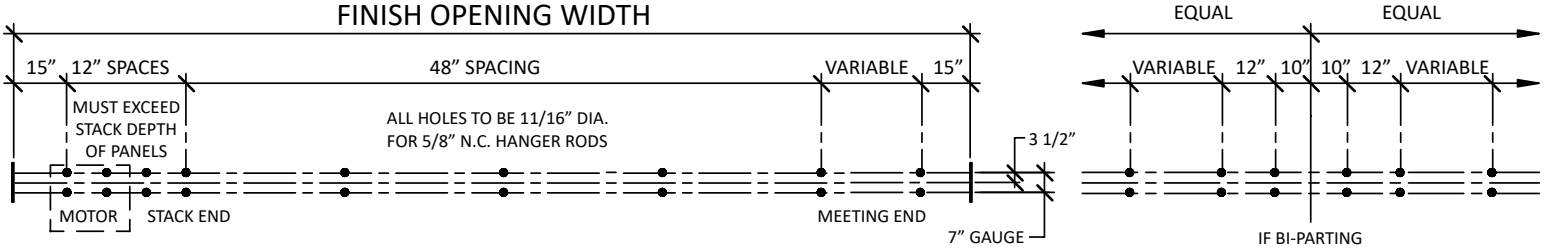
Maximum trolley load is 6,000 pounds.

SPECIFICATIONS

TRACK: The top track shall consist of a steel beam track with ground running surfaces. Track and all ferrous metal parts shall have shop applied rust inhibitive primer. Brackets shall be spaced to limit the track deflection to 0.09 inches due to applied trolley loads, but in no case greater than 5'-0" on center. Brackets over stacking area shall have maximum spacing of 2'-0" on center. Minimum section modulus shall be 7.1 inches cubed. Weight of top track assembly approximately 20#/lin. ft.

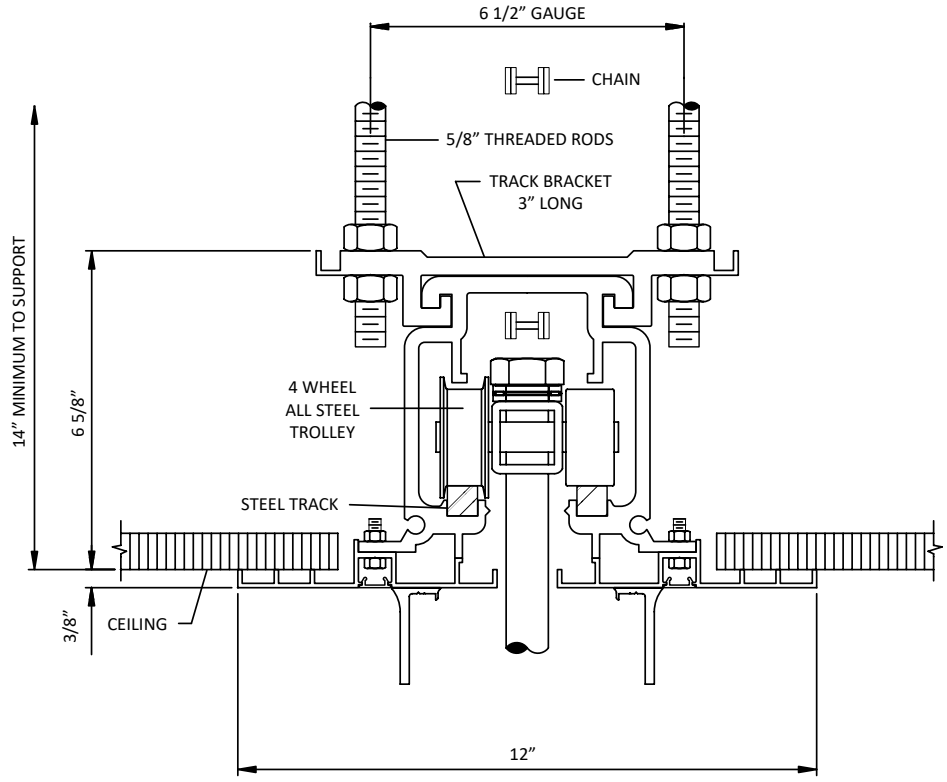
TROLLEYS: Panels shall be supported by four-wheel trolley assemblies, of all-steel construction, with 3" tread diameter flange wheels. Trolley ball bearings shall be precision ground, solid-race type, equipped with ball retainers, double shielded, pre-lubricated with provision for relubrication. Trolley pendant bolt diameter shall be 1" minimum, and shall be attached to the panel utilizing steel reinforcing plates internally mounted above and below the top panel frame rail. Individual trolley capacity is 6,000 pounds.

ELECTRO-MECHANICAL EQUIPMENT: 208/240 volt, 3 phase electric operator designed to move the partition at approximately 24 FPM, with overload protection, and gears operating in an oil bath. Motor controls, limit switches, clutch, motor mounted brake, roller chain drive, sprockets, interlock switch, key control switch located as shown on plans, and all other necessary operating equipment shall be provided. Cable drive will not be permitted. Control circuits shall be 24 volt. Brake must be provided to prevent "coasting" and ensure repeatable and accurate travel limits.



HANGER ROD SPACING TEMPLATE

8|TRACK| SUPERTRACK
COMPOSITE TRACK
SOLID STEEL RUNNING SURFACE®



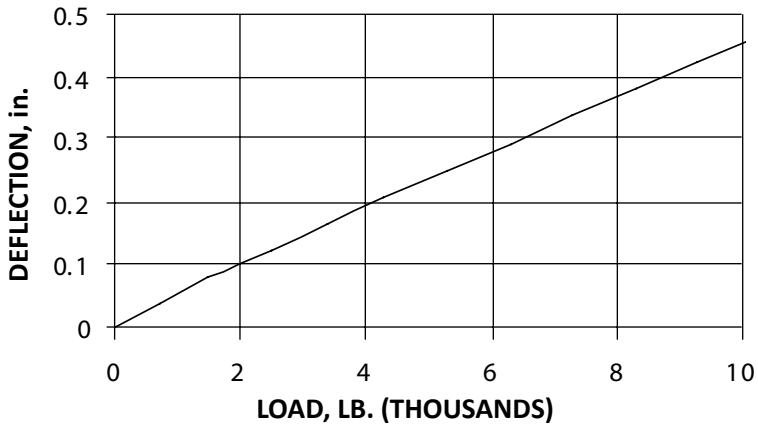
10 YEAR LIMITED WARRANTY

Maximum trolley load is 1,700 pounds.

SPECIFICATIONS

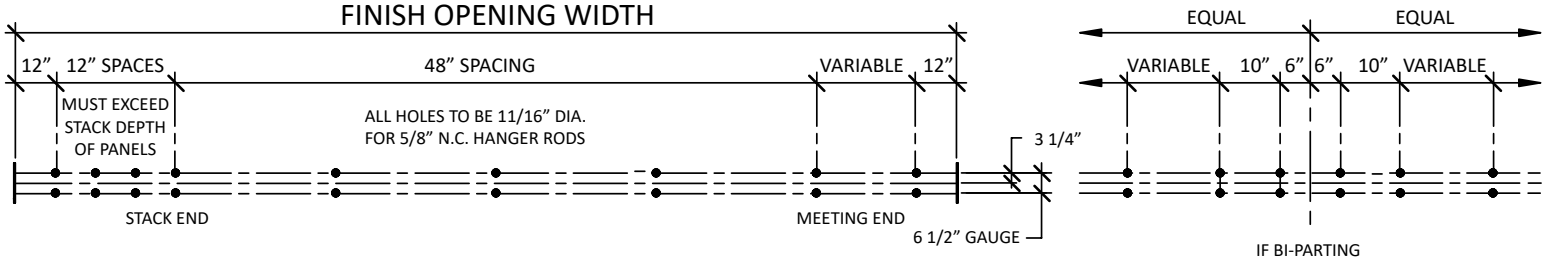
TRACK: The top track shall consist of a 6063-T6 aluminum alloy case and cold rolled steel running surfaces. Track joints shall be aligned by concealed dowels in the vicinity of the running surface. Track brackets shall be 6063-T6 which interlock with top flange of the track. Hanger rods shall be 5/8" or greater in diameter. Brackets shall be spaced to limit the track deflection to 0.08 inches due to applied trolley loads, but in no case greater than 7'-6" on center. Brackets over stacking area shall have a maximum spacing of 2'-6" on center. Independent testing laboratory results shall be supplied to the architect upon request showing that a single track bracket assembly with a section of track shall be capable of supporting a load of 10,000 pounds without permanent deformation, and a 10,000 pound concentrated load at mid- span without permanent deformation @ 7'-6" span. Weight of top track assembly approximately 13.5#/lin. ft.

LOAD vs DEFLECTION



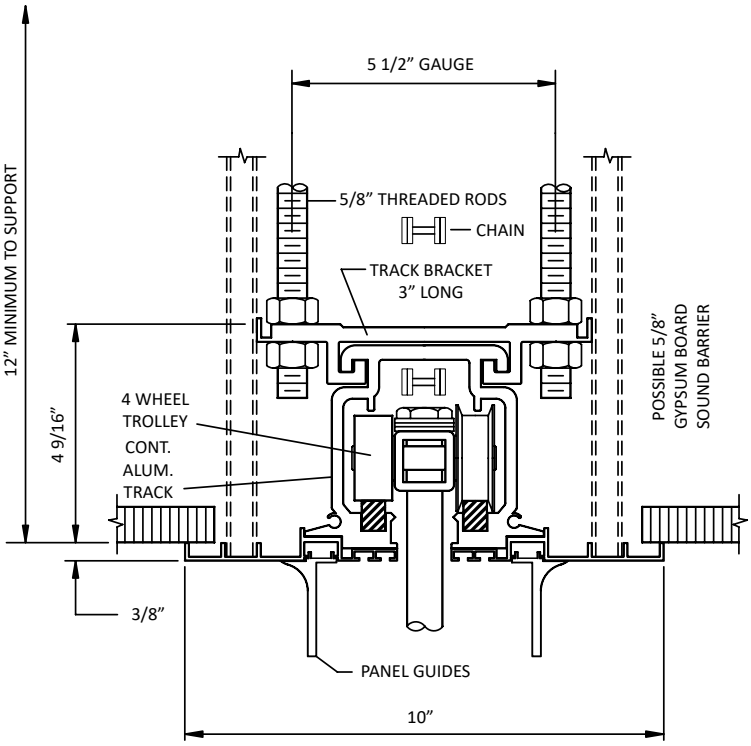
TROLLEYS: Panels shall be supported by four-wheel trolley assemblies, of all steel construction, with 2" tread diameter wheels. Trolley roller bearings shall be precision ground, solid-race type, equipped with roller retainers, sealed, pre-lubricated and designed for a minimum service life of 1000 hours of operation at maximum loads. Trolley pendant bolt diameter shall be 7/8" minimum, and shall be attached to the panel through a steel plate mounted internally within the panel frame. Individual trolley capacity is 1,700 pounds.

ELECTRO-MECHANICAL EQUIPMENT: 208/240 volt, 3 phase electric operator designed to move the partition at approximately 24 FPM, with overload protection, and gears operating in an oil bath. Motor controls, limit switches, clutch, motor mounted brake, roller chain drive, sprockets, interlock switch, key control switch located as shown on plans, and all other necessary operating equipment shall be provided. Cable drive will not be permitted. Control circuits shall be 24 volt. Brake must be provided to prevent "coasting" and ensure repeatable and accurate
travel limits.



HANGER ROD SPACING TEMPLATE

8B|TRACK| SUPERTRACK COMPOSITE TRACK SOLID STEEL RUNNING SURFACE



#8B track is one of several track systems suitable for electric operation. Selection is based on loads.

10 YEAR LIMITED WARRANTY

Maximum trolley load is 1,500 pounds.

SPECIFICATIONS

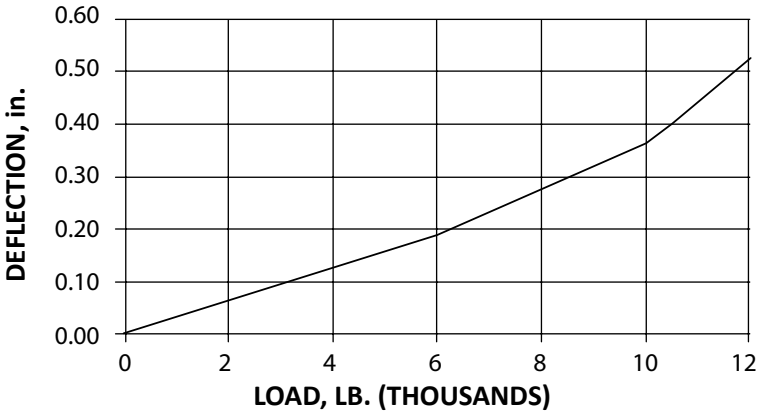
Suspension system shall include Advanced #8B composite aluminum alloy track with zinc-plated solid steel running surfaces. Track brackets interlock top flange and attach to structure with pairs of 5/8 inch diameter steel hanger rods. Approximate weight of track assembly is 13.0#/Lin. Ft.

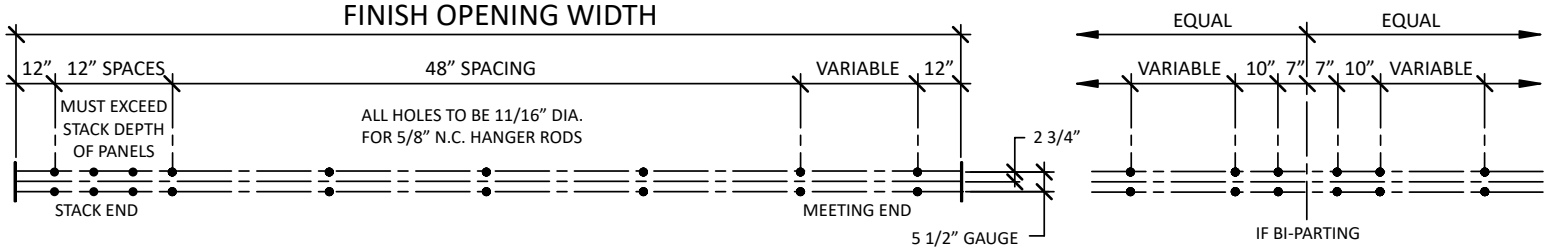
TRACK: Track shall have minimum 12 inch-to-the-fourth moment of inertia. Provide test report from nationally recognized independent laboratory showing track/trolley/bracket/hanger rod assembly sustains a load of 8,000 pounds at mid point of 36 inch simple span without damage.

TROLLEYS: Trolleys to have four all-steel wheels 1 3/4-inch diameter with radial and thrust type roller bearings, shielded and pre-lubricated. Bearings and wheels to be independently replaceable and capable of re-lubrication. Pendant bolt to be 3/4 inch diameter and attach to panel through a steel plate mounted internally within panel frame. Individual trolley capacity is 1,500 pounds.

ELECTRO-MECHANICAL EQUIPMENT: 208/240V 3-phase (or 115/230V single-phase) operator designed to move the wall at approximately 24 FPM, with auto-reset overload relays, limit switches and key actuated control switch, transformer for 24V control circuits. Gears operate in oil bath. Drive shall include steel roller chain, torque limit clutch, and motor mounted electric brake. Brake must be provided to prevent "coasting" and ensure repeatable and accurate travel limits.

LOAD vs DEFLECTION



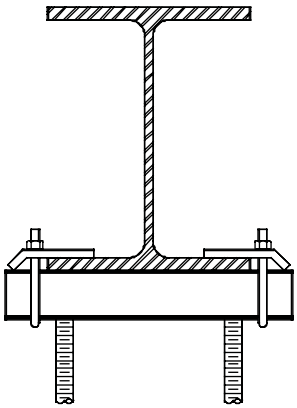


HANGER ROD SPACING TEMPLATE

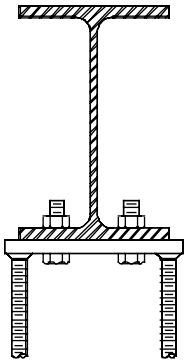
SUPPORT DETAILS

Track hanger rods are continuously threaded for adjustment - i.e., leveling the track at the proper elevation.

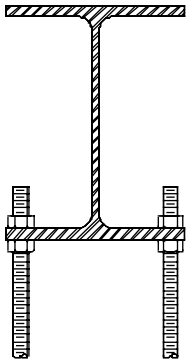
Common methods of attaching your hanger rods to the structure are illustrated here. Should you require other details to fit your condition, contact Advanced Equipment.



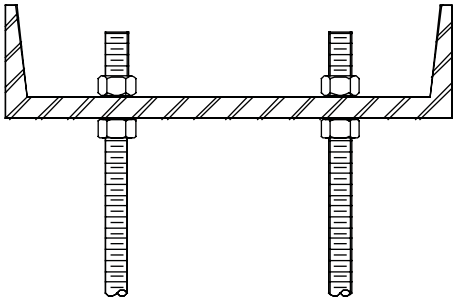
BEAM CLAMP



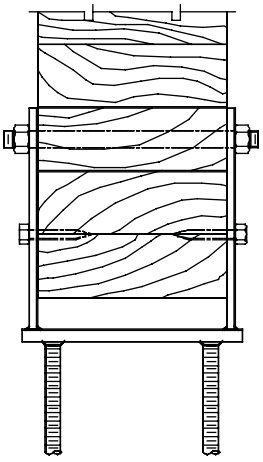
ADAPTER PLATE



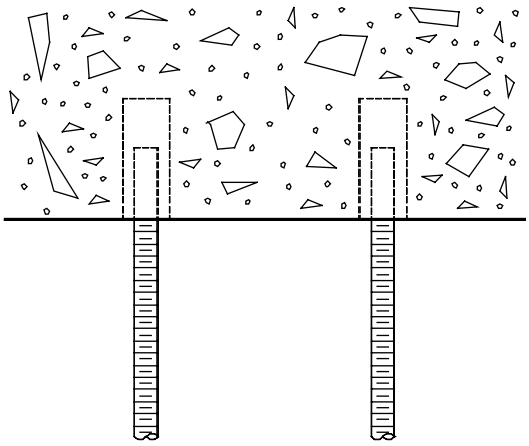
WIDE FLANGE BEAM



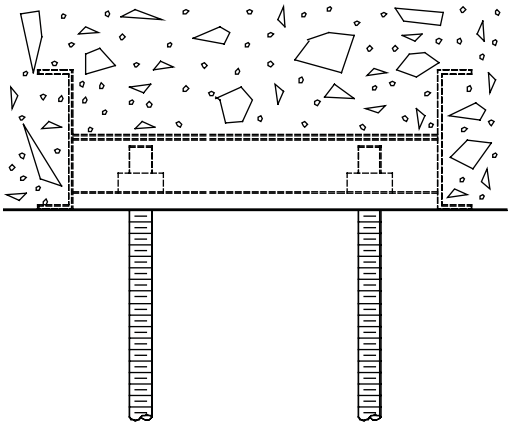
CHANNEL



BEAM SADDLE



CONCRETE ANCHORS

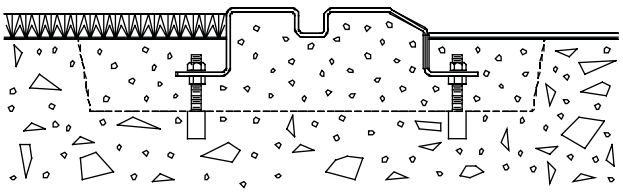


UNISTRUT CONCRETE INSERT

FLOOR TRACK

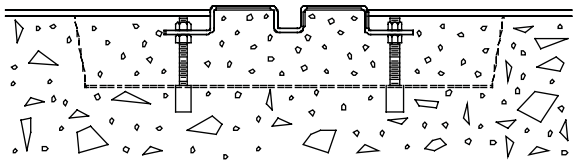
REQUIRED ON ALL TYPE 9 AND TYPE 3MS OPERABLE WALLS

CARPET/TILE GROUTED FLOOR TRACK



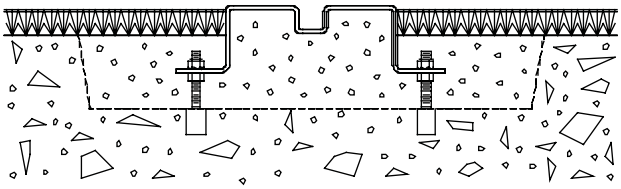
FT1

TILE/TILE GROUTED FLOOR TRACK



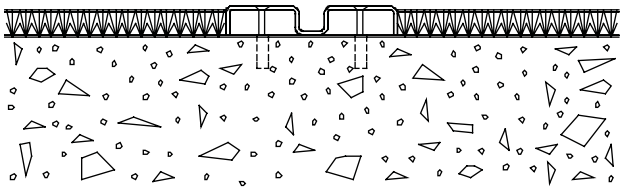
FT2

CARPET/CARPET GROUTED FLOOR TRACK



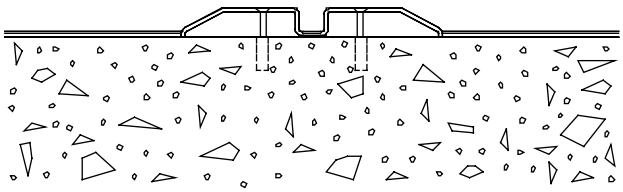
FT3

CARPET/CARPET SURFACE APPLIED FLOOR TRACK



FT4 FOR USE WITH 3MS ONLY

TILE/TILE SURFACE APPLIED FLOOR TRACK



FT5 FOR USE WITH 3MS ONLY

SPECIFICATIONS

Floor supported operable walls (Type 9) require floor track to be level ±1/16" (1.6 mm). Where surface applied floor track (FT4 & FT5) is employed, shimming may be required to maintain level condition. If floor is exceedingly out of level, surface applied floor track should not be used.

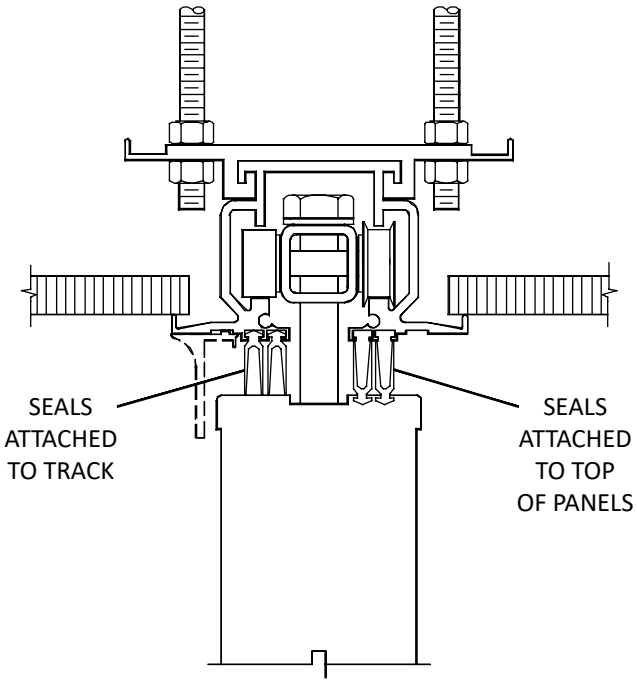
FLOOR TRACK: Shall be a minimum 16 gauge type 304 stainless steel with 40,000 psi yield and Rockwell "B" hardness of 85, with t=rectangular slot to permit easy cleaning. Floor chase formed with beveled 2 x 10 and grouting by general contractor.

NOTE: Solid bar floor tracks may be supplied on some applications.

PANEL SEALS

TOP SEALS

Horizontal seals extending between the top of the panels and the track, and seals occuring at vertical panel intersections shall be fixed-flexible.



DIGIT | 5 | BOTTOM SEALS

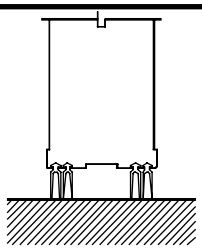
1 = FIXED-FLEXIBLE	CAN BE USED ON ALL COMBINATIONS OF PANEL DESIGN.
2 = MECHANICAL-SINGLE	LEVER OPERATED MECHANICAL MANUAL SEAL FOR INDIVIDUAL PANEL OPERATION.
3 = MECHANICAL-AUTOMATIC	AUTOMATICALLY OPERATED MECHANICAL SEAL FOR ELECTRIC AND MANUAL HINGED PAIRS.
4 = MECHANICAL-CRANK	CRANK OPERATED MECHANICAL SEAL FOR MANUAL HINGED PAIRS OR CONTINUOUSLY HINGED 2MC.

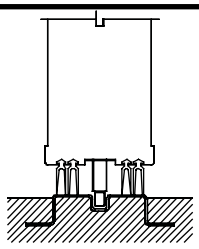
1 | FIXED-FLEXIBLE

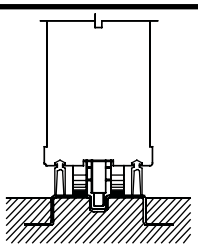
SPECIFICATIONS

SEALS: Multi-finger fixed-flexible top and bottom seals and panel intersection seals shall be formed from flexible poly-vinylchloride. Use of hydraulic, pneumatic, or mechanically activated seals will not be permitted.

SEE PAGE 32 FOR "FLOOR TRACK" DETAILS


PLAIN


FLOOR TRACK WITH SPRING LOADED BOTTOM GUIDE TYPE 3MS

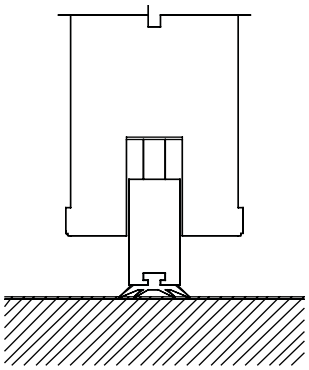

FLOOR TRACK WITH BOTTOM ROLLER TYPE 9

BOTTOM SEALS

2|MECHANICAL-SINGLE

SPECIFICATIONS

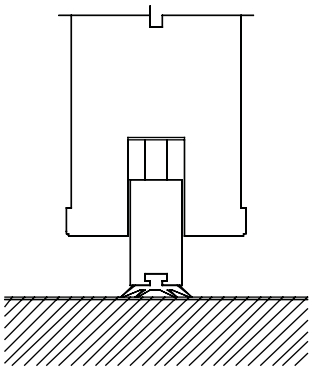
SEALS: Retractable floor seals shall be spring loaded, internally guided and employ a waist high pivoted lever handle. The seal shall have a vertical travel range greater than 2", 4" or 5 1/2" capable of acting as a locking mechanism to fix the panel in any desired location in the opening with constant pressure serving to seal each panel. The seal system shall be completely self-contained within each panel and have no visible mechanism or fasteners on any panel face. Portal panels hinged to full width panels shall have fixed-flexible floor seals or mechanical crank seals. The base of these panels shall match in appearance the base of all other panels. Multi-finger fixed-flexible top seals and panel intersection seals shall be formed from flexible polyvinylchloride.



3|MECHANICAL-AUTOMATIC

SPECIFICATIONS

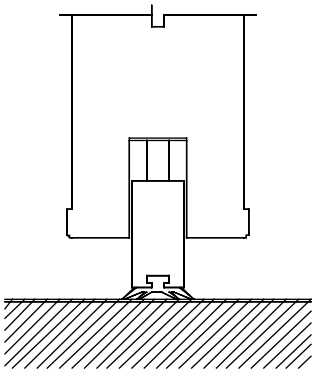
SEALS: Automatic floor seals shall accommodate a 1" minimum operational clearance between the bottom of the panels and floor. The seal shall be activated by the final extension of the wall serving to seal the entire partition by compressing a continuous molded neoprene seal, locking all panels in the fully closed position. The seal system shall have no visible mechanism or fasteners on any panel face. Multi-finger fixed-flexible top seals and panel intersection seals shall be formed from flexible polyvinylchloride.



4|MECHANICAL-CRANK

SPECIFICATIONS

SEALS: Retractable floor seals shall develop a downward force of approximately 40 - 60 pounds per panel and have a travel range of 2" or 4", and shall be operated by rotation of a removable crank inserted into a socket located approximately 8 inches above the floor and centered on the panel face. Socket grommet finish color shall match panel trim. Multi-finger fixed-flexible top seals and panel intersection seals shall be formed form flexible polyvinylchloride.



FIELD SOUND TESTING

When sound isolation between adjacent spaces separated by the operable wall is important, only field sound testing will guarantee the operable wall is performing as required.

Acoustical Engineers consider NIC (noise isolation class) measurement the most utilitarian and widely used method of determining the sound reducing effectiveness of operable walls. The NIC value, determined by field testing the actual product purchased for use by the Owner/Operator, usually predicts Customer Satisfaction. A further advantage of field measurement of NIC is the ability to locate, define and correct sound leakage not related to the operable wall. Examples would be holes in sound barrier above common ceiling, or common ductwork or conduit.

In 2005, a new field sound testing procedure, ASTM E 336-05, was introduced. The new test method will produce test results 2-3 points lower than results achieved by the prior ASTM procedure. For this reason, one should clarify which procedure is to be used when evaluating the operable wall. The new procedure will give a more accurate measurement of the operable wall's sound stopping ability since it reduces the effects of room characteristics such as volume and absorptive surfaces.

AEC guarantees that its operable walls will achieve certain NIC values provided that the surrounding building construction is compatible with that rating. The following table lists guaranteed NIC by ASTM standard by panel type.

When specified, AEC guarantees that all operable walls, manual or electric operation, will meet the above listed NIC values. Guaranteed performance is not reduced by the introduction of pass doors in the wall.

Series	Panel Construction	ASTM E 336-05	ASTM E 336-97
ALPHA	S	40	42
ALPHA	T	40	42
ALPHA	U	40	42
ALPHA	P	40	42
ALPHA	X	40	42
SIGMA	A	38	40
SIGMA	B	39	41
SIGMA	C	39	41
SIGMA	D	40	42
GAMMA	H	37	39
GAMMA	L	39	41
GAMMA	M	37	39
GAMMA	N	38	40

FIELD SOUND TESTING

MANDATORY OR OPTIONAL FIELD SOUND TESTING

Once the decision has been made to field sound test the operable wall, it is then necessary to determine if the testing will be mandatory or optional. Mandatory testing requires that the wall be tested and that cost for the testing be included in the operable wall cost and paid for by the wall supplier. Optional testing reserves the right for the purchaser, at his option and cost, to test the operable wall within a stipulated time after installation.

OPTIONAL

Optional testing has the advantage of keeping the operable wall cost to a minimum while informing the wall supplier that the purchaser is serious about getting the acoustical performance he is paying for. Specification wording might be drafted as follows:

3.3 FIELD QUALITY CONTROL

A. Optional Testing: Owner reserves the right to fielD sound test any or all operable walls within 60 days of completed installation. Owner shall engage a qualified, professional, independent acoustical engineer to perform field tests and to prepare test reports. Cost of the field sound tests shall be responsibility of the Owner.

B. Testing Methodology: Testing of the installed operable wall(s) for noise isolation shall be performed according to ASTM E-336-05, determined by ASTM E-413, and rated for not less than the NIC indicated earlier in this specification. Wall(s) are to be adjusted and fitted to comply with NIC test method requirements.

C. Should an operable wall fail to achieve the specified NIC, wall
supplier shall have 60 days to make corrections/adjustments and pay for cost of retesting. This procedure shall be followed until all walls achieve the specified NIC.

D. Should a wall fail to achieve the specified NIC after corrections and/or adjustments and it is determined that failure is not due to sound flanking through surrounding building construction then the wall supplier, at its own cost, shall replace the operable wall with a new wall that is capable of achieving the specified NIC and pay for the cost of testing this wall.

E. Written results of the field sound tests shall be submitted to the Owner.

MANDATORY

Mandatory testing permits the inclusion of a monetary penalty in the specification.

3.4 FIELD QUALITY CONTROL

A. Mandatory Testing: Those operable walls as identified previously in this specification shall be field sound tested within 60 days of completed installation. Wall supplier shall engage a qualified, independent, professional, acoustical engineer to perform field sound tests and to prepair reports. Cost of the field sound tests shall be the responsibility of the wall supplier.

B. Testing Methodology: Testing of the installed operable walls for noise isolation shall be performed according to ASTM E-336-05, determined by ASTM E-413, and rated for not less than the NIC indicated earlier in this specification. Walls are to be adjusted and fitted to comply with NIC test method requirements.

C. Should an operable wall fail to achieve the specified NIC, wall supplier shall make corrections/adjustments and pay for the cost of retesting. This procedure shall be followed until all walls achieve the specified NIC.

D. The purchaser shall retain an amount equal to 15% of the contract amount until the operable walls achieve the specified NIC. This amount shall be prorated by surface area of the walls to be tested and released for payment as the walls achieve the NIC.

E. Should a wall fail to achieve the specified NIC after corrections and/or adjustments and it is determined that failure is not due to sound flanking through the surrounding building construction then the wall supplier, at its own cost, shall replace the operable wall with a new wall that is capable of achieving the specified NIC and pay for the cost of the testing of this wall. Retention funds shall not be released until this new wall has been tested and achieved the specified NIC.

F. Written results of the field sound tests shall be submitted to the Owner.

ALPHA® SERIES | S PANEL CONSTRUCTION

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DELIVERING WHAT YOU WANT MOST-MEASURABLE HIGH PERFORMANCE AND UNMATCHED DURABILITY - AT A COST THAT MAKES SENSE.

•SUPERIOR PERFORMANCE
Guaranteed field-tested sound control.
Guaranteed operating force.

•UNMATCHED DURABILITY
Unitized one piece steel, robotically welded.
10-year limited warranty.

•COMPETITIVE COST
Ask us for budget pricing for a variety of useful options and finishes.

•PROTECTIVE EDGE TRIM
Saves the otherwise vulnerable exposed finish on corners of "wrap around" or "trimless" design.
"Trimless" design available as an extra-cost option.

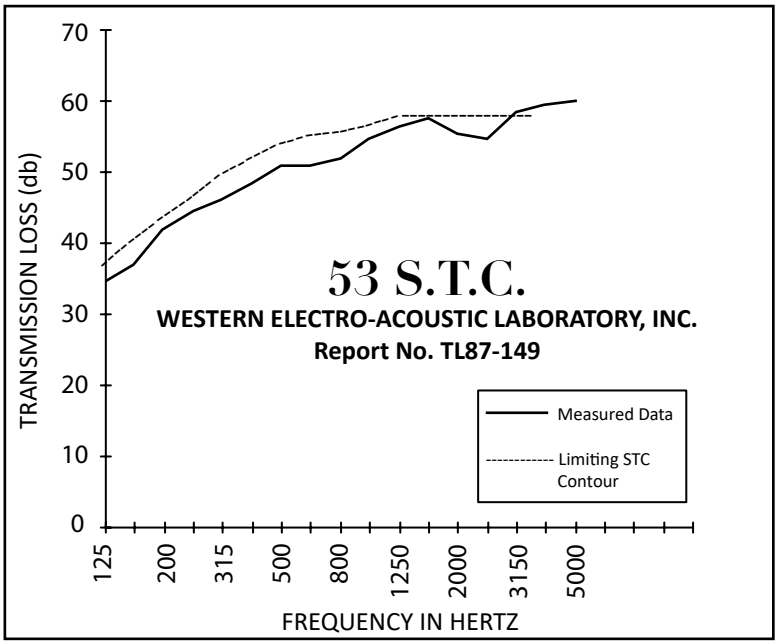
MANUAL OR ELECTRIC OPERATION.

PANEL HEIGHT: 40' max.

PANEL WIDTH: 60" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 8 pounds per square foot.

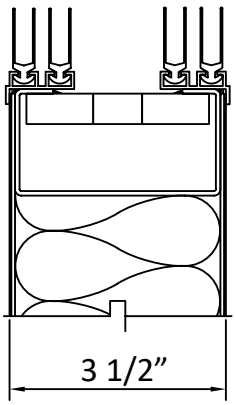
40 N.I.C.
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336



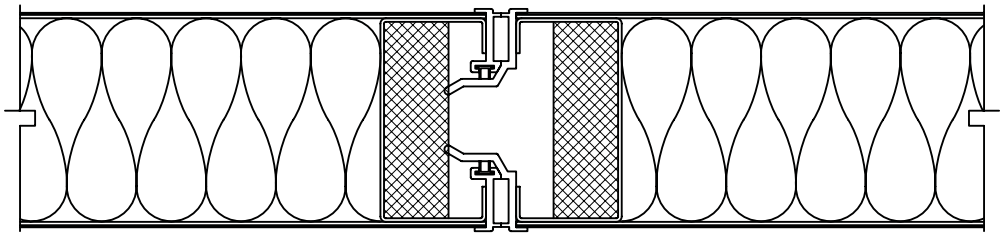
SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel, approx. 3 1/2" thick, incombustible, with 16 gauge steel faces fusion welded 8" o.c. (max.) to 16 gauge steel channel perimeter frame with 14 gauge top rail. Panel faces internally stiffened by welded steel members. Core shall be fibrous glass sound attenuating material. Panel weight shall be approx. 8 psf (39.1 kg/m2). Panel perimeter trim of approx. 1/8" thick aluminum alloy shall incorporate protective edge feature and form tongue and groove vertical intersections having multi-fin acoustical gaskets. Optional trim allowing finish to wrap around vertical edge. Panels shall be one piece; field joints not permitted. No fasteners shall be visible on panel face when wall is in extended position.

TEST DATA: Sound transmission class (S.T.C.) 53 when tested in accordance wit ASTM E90-85 in NVLAP independent laboratory. Trolley plate anchorage in panel top rail withstands a 10,000-pound minimum tensile load applied via pendant bolt. When tested in accordance with ASTM E-72, a 23'x4' panel resists a uniform load of 20 pounds per square foot applied normal to the panel face without damage.



(detail shows protective vertical edge trim)



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Guaranteed field-tested sound control.
Guaranteed operating force.

•UNMATCHED DURABILITY
Unitized one piece all steel, robotically welded.
10-year limited warranty.

•COMPETITIVE COST
Ask us for budget pricing for a variety of useful options and finishes.

•PROTECTIVE EDGE TRIM
Saves the otherwise vulnerable exposed finish on corners of "wrap around" or "trimless" design.
"Trimless" design available as an extra-cost option.

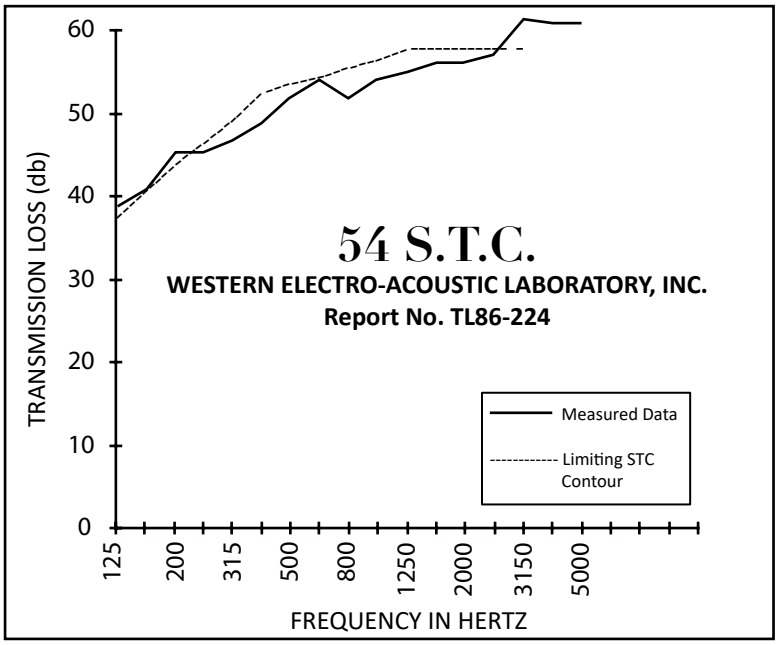
MANUAL OR ELECTRIC OPERATION.

PANEL HEIGHT: 40' max.

PANEL WIDTH: 60" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 8.6 pounds per square foot.

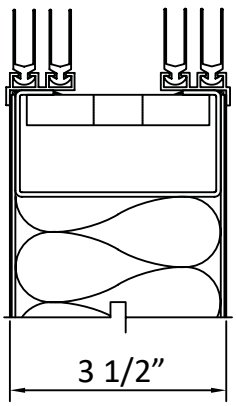
40 N.I.C.
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336



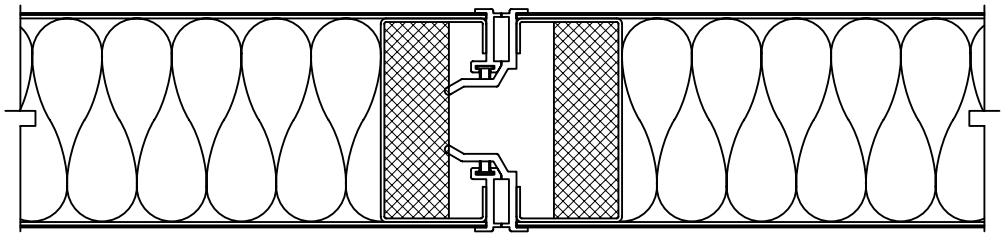
SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel, approx. 3 1/2" thick, incombustible, with 16 gauge steel faces fusion welded 8" o.c. (max.) to 16 gauge steel channel perimeter frame with 14 gauge top rail. Panel faces internally stiffened by welded steel members. Core shall be fibrous glass sound attenuating material. Panel weight shall be approx. 8.6 psf (42 kg/m2). Panel perimeter trim of approx. 1/8" thick aluminum alloy shall incorporate protective edge feature and form tongue and groove vertical intersections having multi-fin acoustical gaskets. Optional trim allowing finish to wrap around vertical edge. Panels shall be one piece; field joints not permitted. No fasteners shall be visible on panel face when wall is in extended position.

TEST DATA: Sound transmission class (S.T.C.) 54 when tested in accordance with ASTM E90-85 in NVLAP independent laboratory. Trolley late anchorage in panel top rail withstands a 10,000-pound minimum tensile load applied via pendant bolt. When tested in accordance with ASTM E-72, a 23'x4" panel resists a uniform load of 20 pounds per square foot applied normal to the panel face without damage.



(detail shows protective vertical edge trim)



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Guaranteed field-tested sound control. Guaranteed operating force.

•UNMATCHED DURABILITY
Unitized one piece all steel, robotically welded. 20-year limited warranty.

•COMPETITIVE COST
Ask us for budget pricing for a variety of useful options and finishes.

•PROTECTIVE EDGE TRIM
Saves the otherwise vulnerable exposed finish on corners of "wrap around" or "trimless" design.
Trimless design available as an extra-cost option.

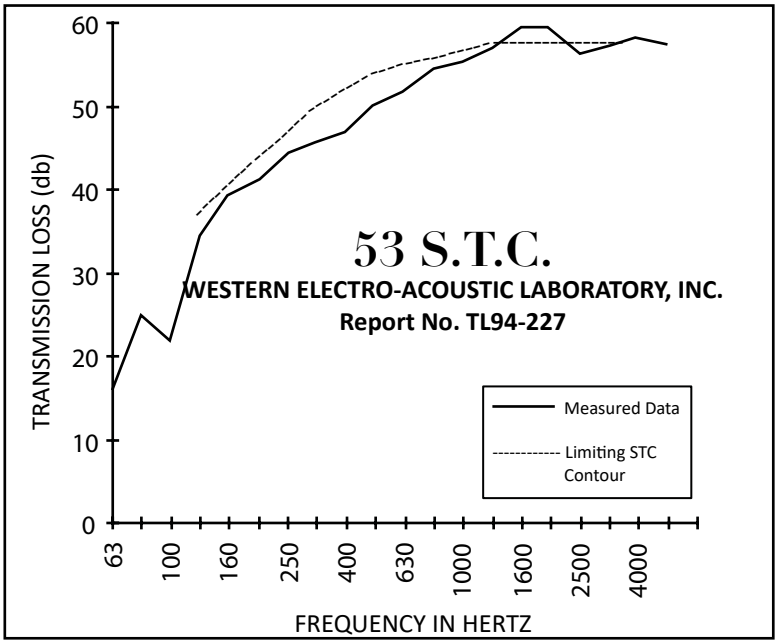
MANUAL OR ELECTRIC OPERATION.

PANEL HEIGHT: 60' max.

PANEL WIDTH: 60" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 9.2 pounds per square foot.

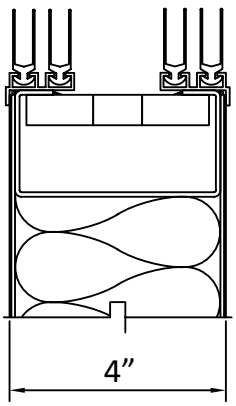
40 N.I.C.
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336



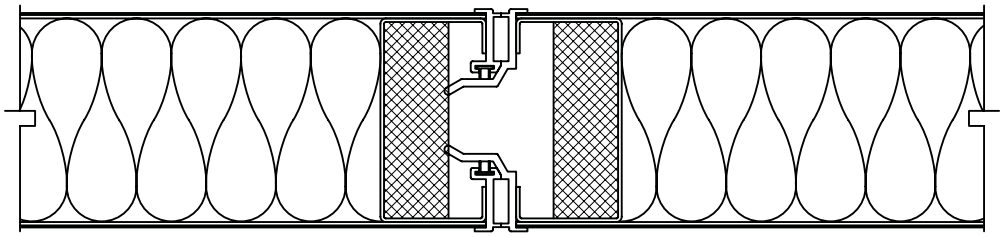
SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel, approximately 4" thick, incombustible, with 14 gauge steel faces fusion welded 8" o.c. (max.) to 14 gauge steel channel perimeter frame with 14 gauge top rail. Panel faces internally stiffened by welded steel members. Core shall be fibrous glass sound attenuating material. Panel weight shall be approx. 9.2 psf (45 kg/m2). Panel perimeter trim of approx. 1/8" thick aluminum alloy shall incorporate protective edge feature and form tongue and groove vertical intersections having multi-fin acoustical gaskets. Optional trim allowing finish to wrap around vertical edge. Panels shall be one piece; field joints not permitted. No fasteners shall be visible on panel face when wall is in extended position.

TEST DATA: Sound transmission class (S.T.C.) 53 when tested in accordance with ASTM E90-85 in NVLAP independent laboratory. Trolley plate anchorage in panel top rail withstands a 10,000-pound minimum tensile load applied via pendant bolt. When tested in accordance with ASTM E-72, a 23'x4' panel resists a uniform load of 20 pounds per square foot applied normal to the panel face without damage.



(detail shows protective vertical edge trim)



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ALPHA ALL WELDED ALL STEEL SOUND *ABSORBENT NRC 0.65*

•RUGGED 14 GA. PERFORATED STEEL FACE COVERS FIBERGLASS SOUND ABSORBING MEDIUM. ONE FACE OF EA. PANEL IS ABSORBENT.

•CONTROLS REVERBERATION.

•ACOUSTICALLY TRANSPARENT MATERIAL SUCH AS CARPET OR WOVEN FABRIC COVERS THE PERFORATED STEEL AND RESULTS IN AN ATTRAC-TIVE DURABLE FINISH.

•UNMATCHED DURABILITY
Unitized one piece all steel, robotically welded.
20-year limited warranty.

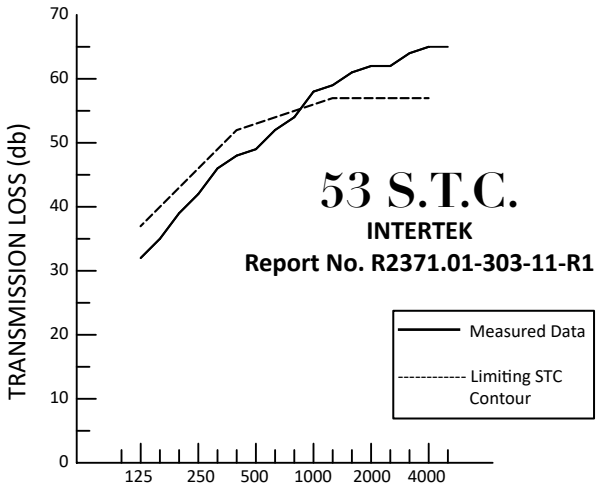
MANUAL OR ELECTRIC OPERATION.

PANEL HEIGHT: 60’ max.

PANEL WIDTH: 48” normal, 60“ max. but do not exceed width of finish fabric.

PANEL WEIGHT: 11 pounds per sq. ft.

40 N.I.C.
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336

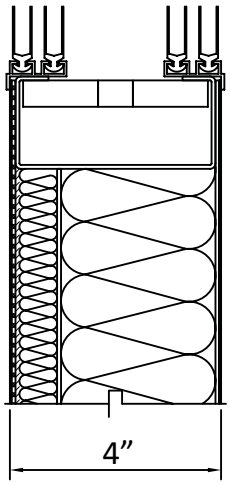


53 S.T.C.
INTERTEK
Report No. R2371.01-303-11-R1

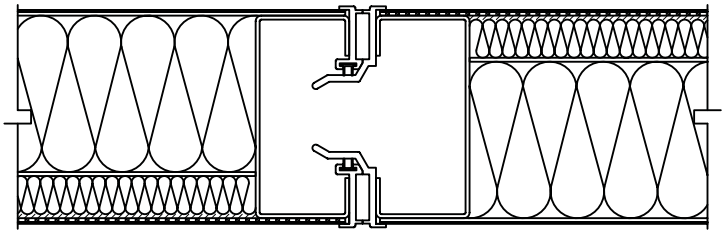
SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel, 4” thick, incombustible, with 14 gauge steel faces and internal septum, fusion welded 8” o.c. (max.) to 14 gauge steel channel perimeter frame. Panel faces internally stiffened by welded steel members. Panels, other than those containing pass doors, or portal panels, shall have one face perforated for sound absorption. Such absorptive treatment shall not reduce the required N.I.C. rating. Maximum hole diameter of perforations shall be 1/8”, and maximum open area shall be 36%. Absorptive media shall be spaced 1/8” clear from back of perforated sheet to prevent inadvertent painting of such media. Panel weight shall be approx. 11 psf (53.8 kg/m2). Panel perimeter of approx. 1/8” thick aluminum alloy shall incorporate protective edge feature and form tongue and groove vertical intersections having multi-fin acoustical gaskets. Panels shall be one piece; field joints not permitted. No fasteners shall be visible on panel face when wall is in extended position.

TEST DATA: Sound transmission class (S.T.C.) 53 when tested in accordance with ASTM E90, and Noise Reduction Coefficient (N.R.C.) shall be 0.65 minimum, when tested in accordance with ASTM C423-66. Trolley plate anchorage in panel top rail withstands a 10,000-pound minimum tensile load applied via pedant bolt. When tested in accordance with ASTM E-72, a 36’ long panel resists a uniform load of 9.8 pounds per square foot applied normal to the panel face without damage.



(detail shows protective vertical edge trim)



ALPHA® SERIES | X PANEL CONSTRUCTION

ALPHA ALL WELDED ALL STEEL FIRE-RATED U.L. ONE HOUR

•CONFIGURATION OF OPERABLE WALLS, END DETAILS, AND TRACKS MUST BE COMPATIBLE WITH PREVIOUSLY TESTED SPECIMENS. CONTACT ADVANCED EQUIPMENT OFFICE FOR PARTICULARS AND EXAMPLES.

•FINISH MATERIALS USED TO COVER FIRE RATED PANELS MUST ALSO HAVE BEEN TESTED AND APPROVED BY U.L. ADVANCED EQUIPMENT STANDARD VINYL AND CARPET QUALIFY. CONSULT FACTORY ABOUT OTHERS.

MANUAL OPERATION.

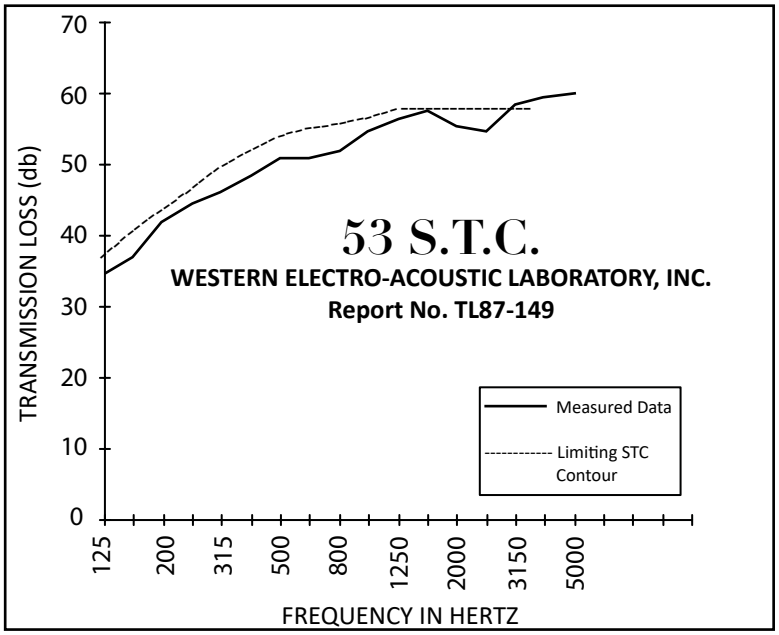
10-YEAR LIMITED WARRANTY.

PANEL HEIGHT: 40’ max.

PANEL WIDTH: 48” normal, 52“ max. but do not exceed width of finish fabric.

PANEL WEIGHT: 9.5 pounds per square foot.

40 N.I.C.
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336

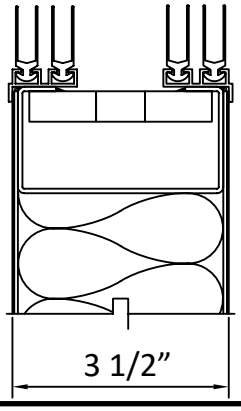


SPECIFICATIONS

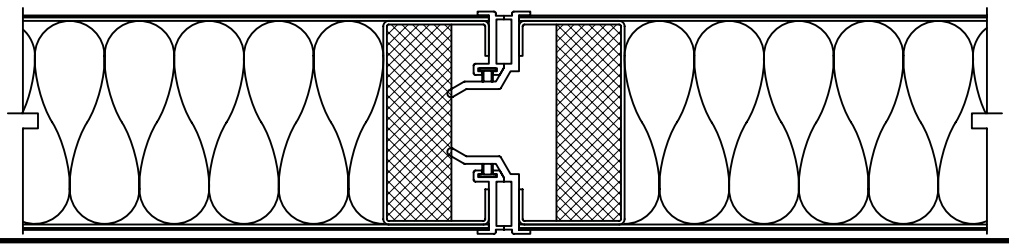
PANEL CONSTRUCTION: Acoustical panel, approx. 3 1/2” thick, 1HR fire-rated, with 16 gauge steel faces fusion welded 8” o.c. (max.) to 16 gauge steel channel perimeter frame with 14 gauge top rail. Panel faces internally stiffened by welded steel members. Core shall be fire rated fibrous glass sound attenuating material. Panel weight shall be approximately 9.5 psf (46.5 kg/m2). Panel perimeter trim of approximately 1/8” thick aluminum alloy shall incorporate protective edge feature and form tongue and groove vertical intersections having incombustible acoustic gaskets. Optional trim allowing finish to wrap around edge.

FIRE RATING: With shop drawing submittal, provide U.L. (Underwriters Laboratories Inc.) issued card showing Registration Number and one hour rating applicable to submitted product. On completion of manufacture, provide Architect and Owner with U.L. Certificate showing operable walls provided are the same as tested per U.L. 10B and are as registered with underwriters Laboratories with rating of “one hour.

TEST DATA: U.L. issued card with Registration Number and one-hour rating applicable to product is provided with submittals. Upon completion of installing, a U.L. Certificate is provided showing operable walls are the same as tested per U.L. 10B and are registered with Underwriter’s Laboratories with a rating of “one hour”. Sound transmission class (S.T.C.) 53 when tested in accordance with ASTM E90-85 in NVLAP independent laboratory. Trolley plate anchorage in panel top rail withstands a 10,000-pound minimum tensile load applied via pendant bolt. When tested in accordance with ASTM E-72, a 23’x4’ panel resists a uniform load of 20 pounds per square foot applied normal to the panel face without damage.



(detail shows protective vertical edge trim)



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INCOMBUSTIBLE STEEL, QUALITY, STRENGTH, PERFORMANCE, AND VALUE at competitive prices.

ROBOTICALLY FUSION WELDED

•1-YEAR LIMITED WARRANTY.

•MINIMUM 20 - GAUGE STEEL FACE.

•FACE SHEET WELDED TO FRAME.

•PROTECTIVE VERTICAL EDGE TRIM
or
FINISH WRAPPED AROUND EDGE.

•LIGHT WEIGHT.

MANUAL OR ELECTRIC OPERATION.

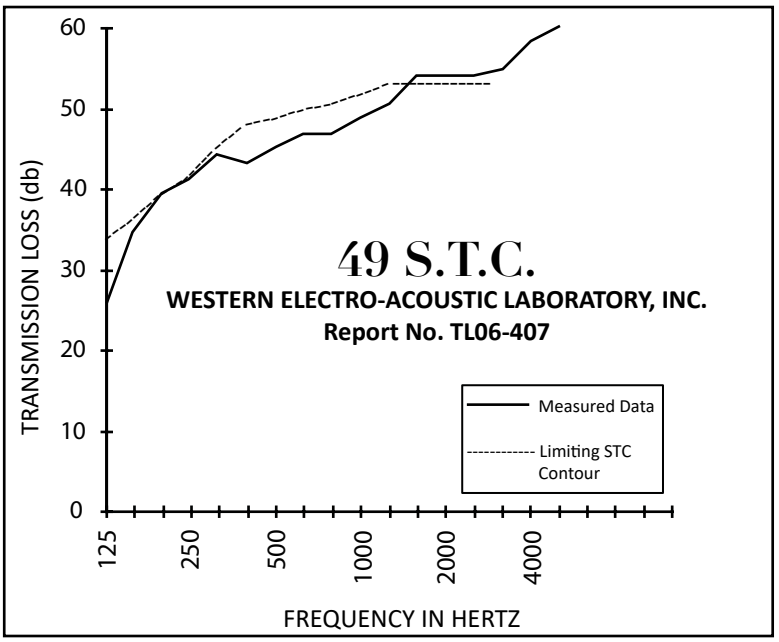
PANEL HEIGHT: 18' max.

PANEL WIDTH: 54" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 5.9 pounds per square foot.

38 N.I.C.

GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336



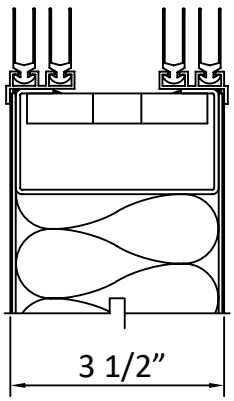
49 S.T.C.

WESTERN ELECTRO-ACOUSTIC LABORATORY, INC.
Report No. TL06-407

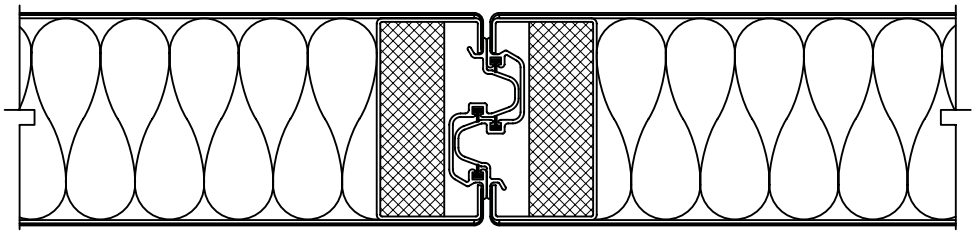
SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel is approximately 3½" inches thick. Panel faces are minimum 20-gauge CR steel sheet. Face sheets are robotically fusion welded to 16-gauge, vertical and 14-gauge, horizontal steel frame members. Steel panel faces are permanently stiffened by steel members welded to interior surfaces. Interior cavity is filled with appropriate sound attenuating material. Panel weight is approximately 5.9 pounds per square foot. Entire perimeter of panel is encased in aluminum alloy trim. Panel is a steel weldment with one-piece face sheets.

ACOUSTICAL PERFORMANCE: Operable wall with this panel construction shall serve as an effective barrier with a sound transmission class rating of 49 S.T.C. based on a full-scale laboratory test in accordance with ASTM-E90 and conducted at a NVLP acoustic laboratory. Certification of such laboratory tests shall be furnished upon written request. Operable wall shall achieve a minimum 38 N.I.C. when field sound tested in accordance with ASTM E-336-05, or 40 N.I.C. with ASTM E-336-97 provided that the surrounding building construction is compatible with this rating.



(detail shows finish wrapped around vertical edge)



SIGMA® SERIES | B PANEL CONSTRUCTION

SIGMA

INCOMBUSTIBLE STEEL, QUALITY, STRENGTH, PERFORMANCE, AND VALUE at competitive prices.

ROBOTICALLY FUSION WELDED

•1-YEAR LIMITED WARRANTY.

•MINIMUM 20 - GAUGE STEEL FACE.

•FACE SHEET WELDED TO FRAME.

•PROTECTIVE VERTICAL EDGE TRIM
or
FINISH WRAPPED AROUND EDGE.

•LIGHT WEIGHT.

MANUAL OR ELECTRIC OPERATION.

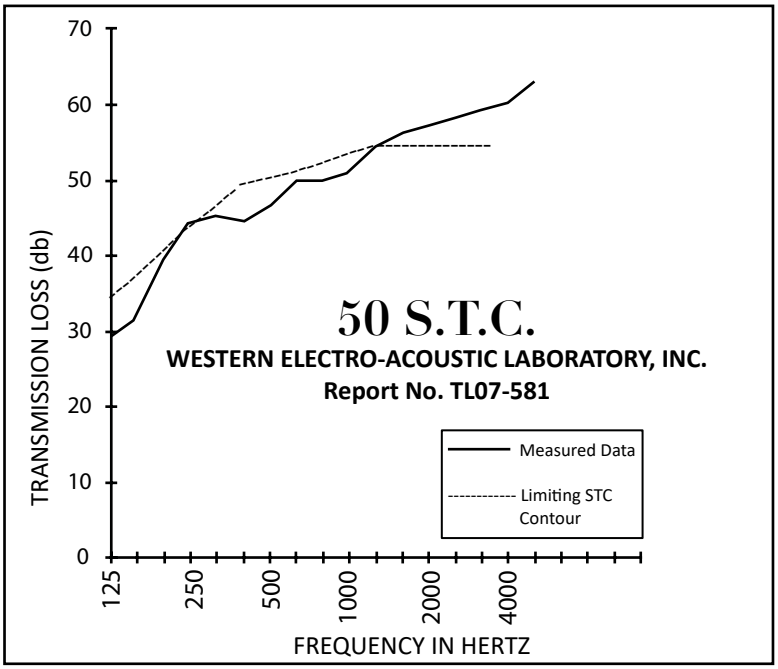
PANEL HEIGHT: 18' max.

PANEL WIDTH: 54" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 6.4 pounds per square foot.

39 N.I.C.

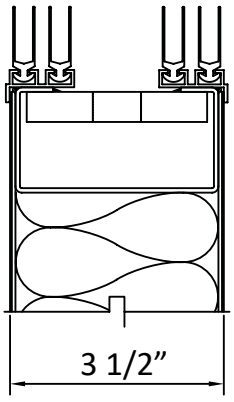
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336



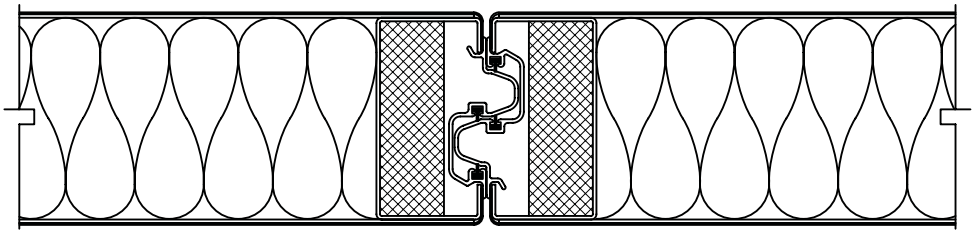
SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel is approximately 3½" inches thick. Panel faces are minimum 20-gauge CR steel sheet. Face sheets are robotically fusion welded to 16-gauge, vertical and 14-gauge, horizontal steel frame members. Steel panel faces are permanently stiffened by steel members welded to interior surfaces. Interior cavity is filled with appropriate sound attenuating material. Panel weight is approximately 6.4 pounds per square foot. Entire perimeter of panel is encased in aluminum alloy trim. Panel is a steel weldment with one-piece face sheets.

ACOUSTICAL PERFORMANCE: Operable wall with this panel construction shall serve as an effective barrier with a sound transmission class rating of 50 S.T.C. based on a full-scale laboratory test in accordance with ASTM-E90 and conducted at a NVLP acoustic laboratory. Certification of such laboratory tests shall be furnished upon written request. Operable wall shall achieve a minimum 39 N.I.C. when field sound tested in accordance with ASTM E-336-05, or 41 N.I.C. with ASTM E-336-97 provided that the surrounding building construction is compatible with this rating.



(detail shows finish wrapped around vertical edge)



SIGMA® SERIES | C PANEL CONSTRUCTION

SIGMA

INCOMBUSTIBLE STEEL, QUALITY, STRENGTH, PERFORMANCE, AND VALUE at competitive prices.

ROBOTICALLY FUSION WELDED

•5-YEAR LIMITED WARRANTY

•MINIMUM 18 - GAUGE STEEL FACE.

•FACE SHEET WELDED TO FRAME.

•PROTECTIVE VERTICAL EDGE TRIM
or
FINISH WRAPPED AROUND EDGE.

•LIGHT WEIGHT.

MANUAL OR ELECTRIC OPERATION.

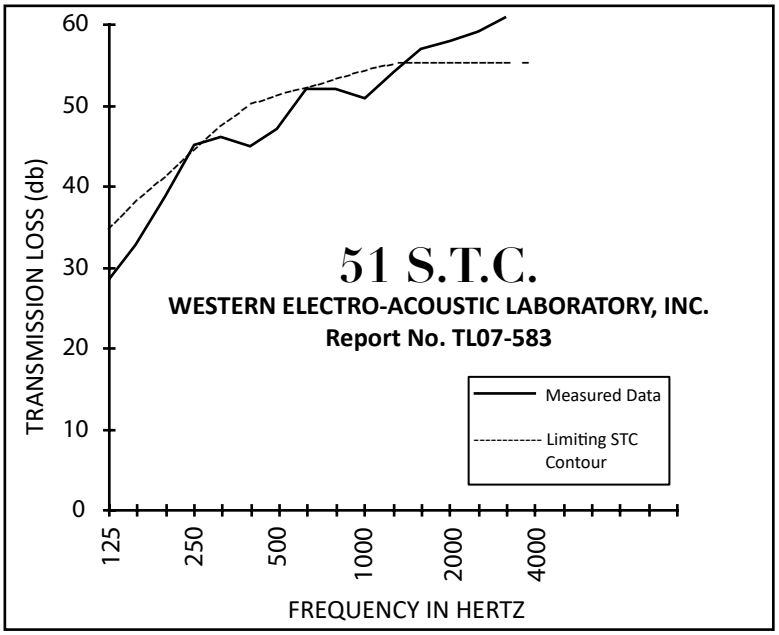
PANEL HEIGHT: 25' max.

PANEL WIDTH: 54" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 6.9 pounds per square foot.

39 N.I.C.

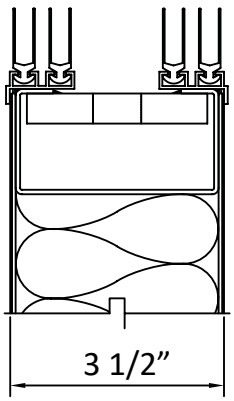
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336



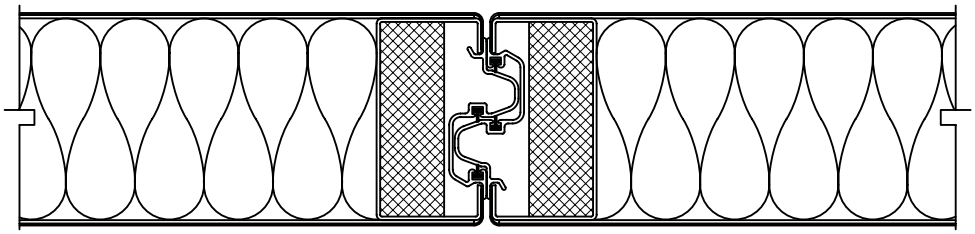
SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel is approximately 3½" inches thick. Panel faces are minimum 18-gauge CR steel sheet. Face sheets are robotically fusion welded to 16-gauge, vertical and 14-gauge, horizontal steel frame members. Steel panel faces are permanently stiffened by steel members welded to interior surfaces. Interior cavity is filled with appropriate sound attenuating material. Panel weight is approximately 6.9 pounds per square foot. Entire perimeter of panel is encased in aluminum alloy trim. Panel is a steel weldment with one-piece face sheets.

ACOUSTICAL PERFORMANCE: Operable wall with this panel construction shall serve as an effective barrier with a sound transmission class rating of 51 S.T.C. based on a full-scale laboratory test in accordance with ASTM-E90 and conducted at a NVLP acoustic laboratory. Certification of such laboratory tests shall be furnished upon written request. Operable wall shall achieve a minimum 39 N.I.C. when field sound tested in accordance with ASTM E-336-05, or 41 N.I.C. with ASTM E-336-97 provided that the surrounding building construction is compatible with this rating.



(detail shows finish wrapped around vertical edge)



SIGMA® SERIES | D PANEL CONSTRUCTION

SIGMA

INCOMBUSTIBLE STEEL, QUALITY, STRENGTH, PERFORMANCE, AND VALUE at competitive prices.

ROBOTICALLY FUSION WELDED

•5-YEAR LIMITED WARRANTY

•MINIMUM 18 - GAUGE STEEL FACE.

•FACE SHEET WELDED TO FRAME.

•PROTECTIVE VERTICAL EDGE TRIM
or
FINISH WRAPPED AROUND EDGE.

•LIGHT WEIGHT.

MANUAL OR ELECTRIC OPERATION.

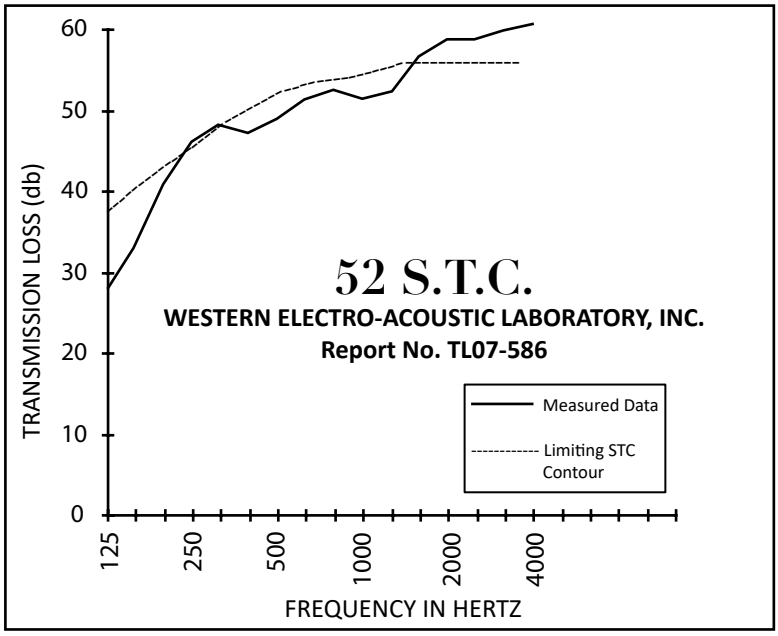
PANEL HEIGHT: 25' max.

PANEL WIDTH: 54" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 7.5 pounds per square foot.

40 N.I.C.

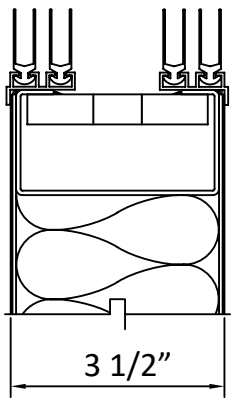
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336



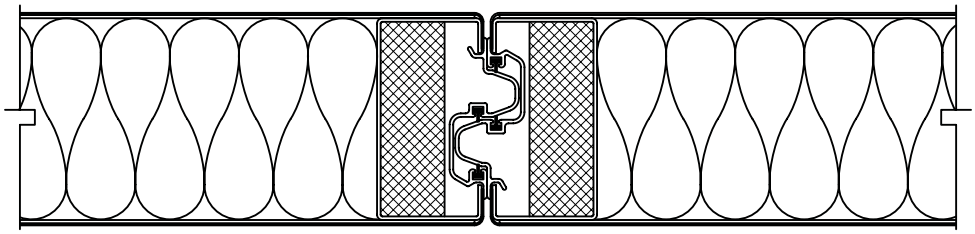
SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel is approximately 3½" inches thick. Panel faces are minimum 18-gauge CR steel sheet. Face sheets are robotically fusion welded to 16-gauge, vertical and 14-gauge, horizontal steel frame members. Steel panel faces are permanently stiffened by steel members welded to interior surfaces. Interior cavity is filled with appropriate sound attenuating material. Panel weight is approximately 7.5 pounds per square foot. Entire perimeter of panel is encased in aluminum alloy trim. Panel is a steel weldment with one-piece face sheets.

ACOUSTICAL PERFORMANCE: Operable wall with this panel construction shall serve as an effective barrier with a sound transmission class rating of 52 S.T.C. based on a full-scale laboratory test in accordance with ASTM-E90 and conducted at a NVLP acoustic laboratory. Certification of such laboratory tests shall be furnished upon written request. Operable wall shall achieve a minimum 40 N.I.C. when field sound tested in accordance with ASTM E-336-05, or 42 N.I.C. with ASTM E-336-97 provided that the surrounding building construction is compatible with this rating.



(detail shows finish wrapped around vertical edge)



GAMMA® SERIES | H PANEL CONSTRUCTION

GAMMA™
FULL HEIGHT FIBERBOARD TACKABLE SUBSTRATE

SIMPLY THE BEST AVAILABLE MID-PRICE RANGE OPERABLE WALL

•SUPERIOR SOUND STOPPING ABILITY

•GREATER STRENGTH AND DURABILITY

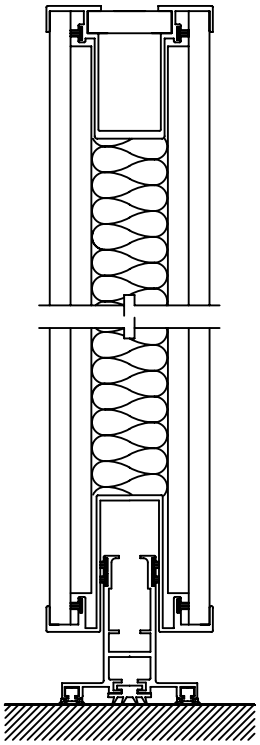
•DISCREET AND EFFECTIVE PROTECTIVE EDGE TRIM
Saves the otherwise vulnerable exposed finish on corners of "wrap-around" and "trimless" designs.

MANUAL OPERATION.

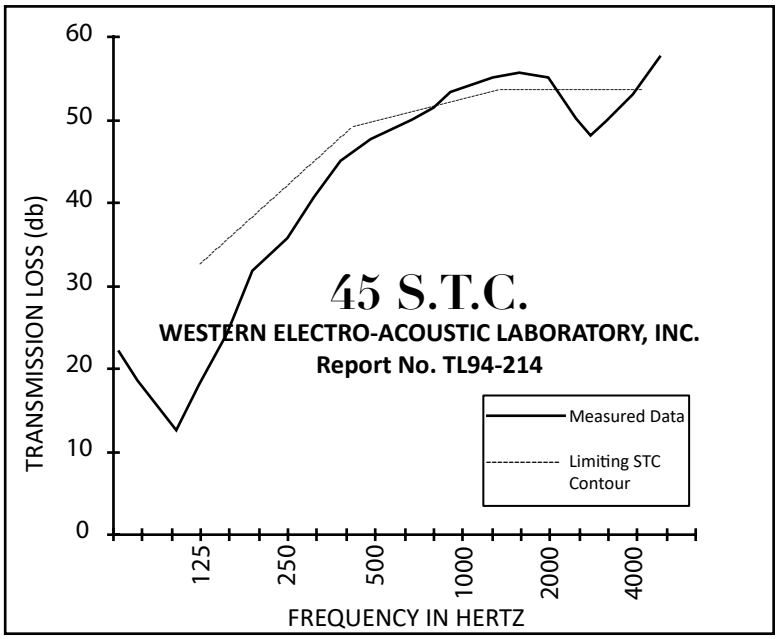
PANEL HEIGHT: 16' max.

PANEL WIDTH: 48" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 8.6 pounds per square foot.



37 N.I.C.
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336

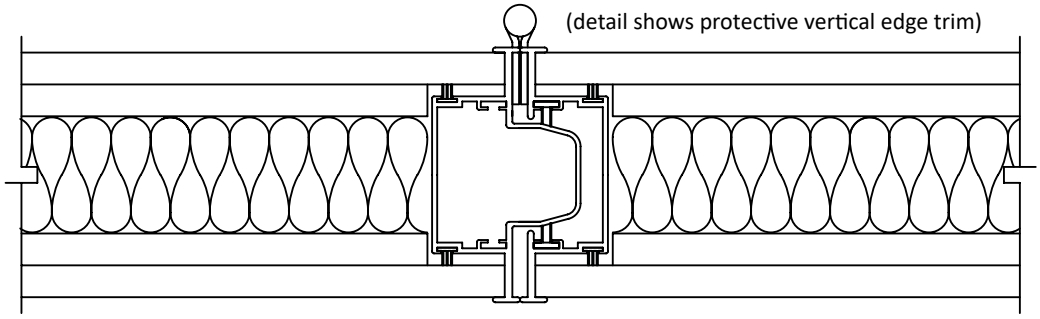


SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel, approx. 3 7/8" thick, shall have 1/2" thick tackable medium density fiberboard (full surface tackboard) laminated to 1/2" rigid backer board. Core shall be fibrous glass sound attenuating material. Panel weight shall be approximately 8.6 psf (42.1 kg/m2). Frame members shall be roll formed steel, 16 gauge vertical and 14 gauge horizontal top rail. Steel frame members shall encapsulate face sheets add provide a protective edge feature.. Tongue and groove vertical intersections shall incorporate multi-fin acoustical gaskets. metal perimeter trim shall have bronze anodized finish. No fasteners shall be visible on panel face when wall is in extended position.

TEST DATA: Sound transmission class (S.T.C.) 45 when tested in accordance with ASTM E90-90 in NSA accredited independent laboratory.

(detail shows protective vertical edge trim)



GAMMA® SERIES | L PANEL CONSTRUCTION

GAMMA™
IMPACT TOUGH
REINFORCED SUBSTRATE

SIMPLY THE BEST AVAILABLE MID-PRICE RANGE OPERABLE WALL

•SUPERIOR SOUND STOPPING ABILITY

•GREATER STRENGTH AND DURABILITY

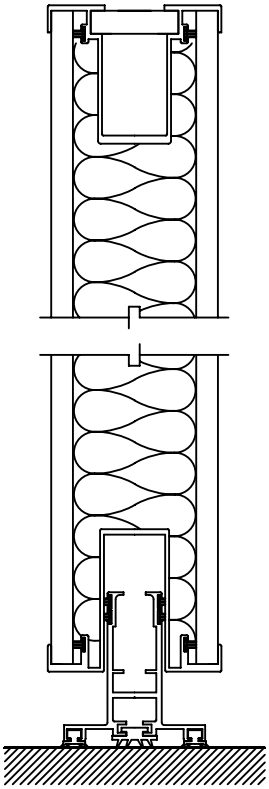
•DISCREET AND EFFECTIVE PROTECTIVE EDGE TRIM
Saves the otherwise vulnerable exposed finish on corners of "wrap-around" and "trimless" designs.

MANUAL OPERATION.

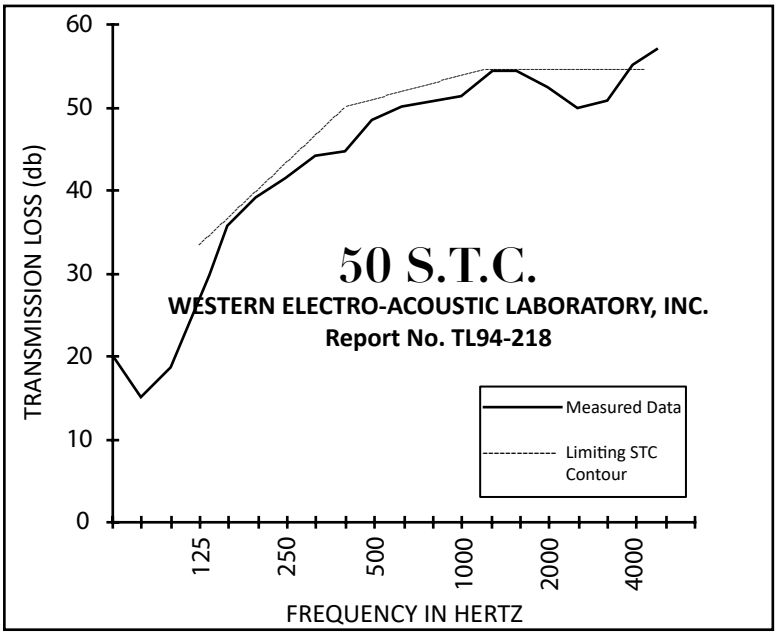
PANEL HEIGHT: 16' max.

PANEL WIDTH: 48" max. but do not exceed width of finish fabric

PANEL WEIGHT: 6.7 pounds per square foot.



39 N.I.C.
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336

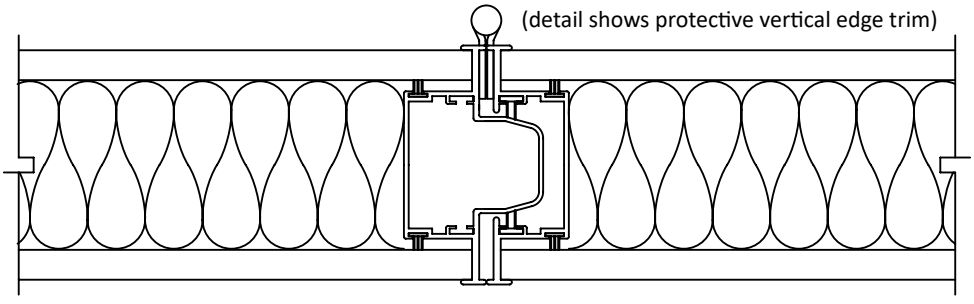


50 S.T.C.
WESTERN ELECTRO-ACOUSTIC LABORATORY, INC.
Report No. TL94-218

SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel, approx. 3 7/8" thick, shall have 1/2" thick impact resistant, particleboard faces. Core shall be fibrous glass sound attenuating material. Panel weight shall be approximately 6.7 psf (32.7 kg/m2). Frame members shall be roll formed steel, 16 gauge vertical and 14 gauge horizontal top rail. Steel frame members shall encapsulate face sheets add provide a protective edge feature. Tongue and groove vertical intersections shall incorporate multi-fin acoustical gaskets. Metal perimeter trim shall have bronze anodized finish. No fasteners shall be visible on panel face when wall is in extended position.

TEST DATA: Sound transmission class (S.T.C.) 50 when tested in accordance with ASTM E90-90 in NSA accredited independent laboratory.



GAMMA® SERIES | M PANEL CONSTRUCTION

GAMMA™

SIMPLY THE BEST AVAILABLE MID-PRICE RANGE OPERABLE WALL

•SUPERIOR SOUND STOPPING ABILITY

•GREATER STRENGTH AND DURABILITY

•DISCREET AND EFFECTIVE PROTECTIVE EDGE TRIM
Saves the otherwise vulnerable exposed finish on corners of "wrap-around" and "trimless" designs.

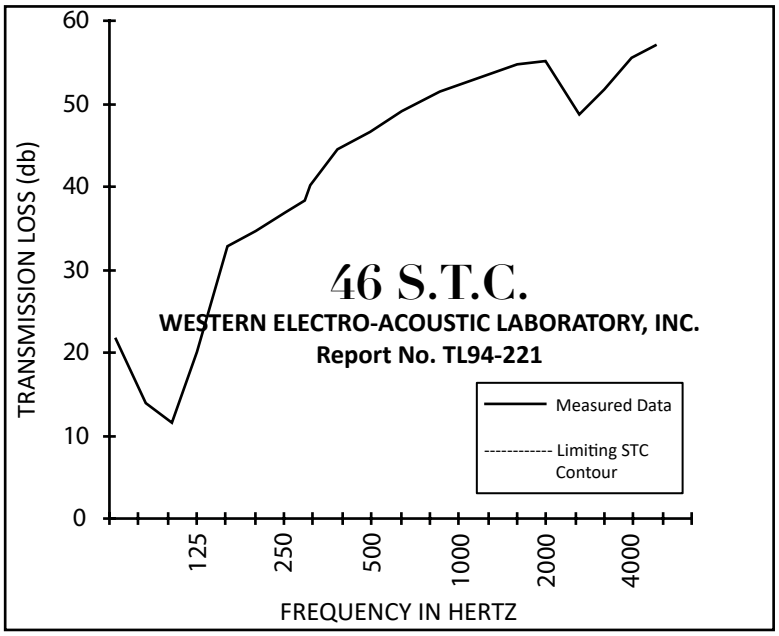
MANUAL OPERATION.

PANEL HEIGHT: 16' max.

PANEL WIDTH: 44" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 7 pounds per square foot.

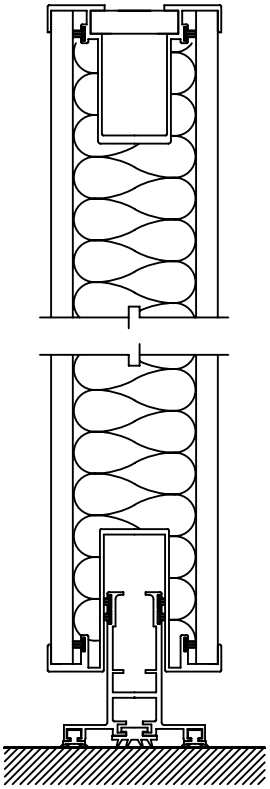
37 N.I.C.
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336

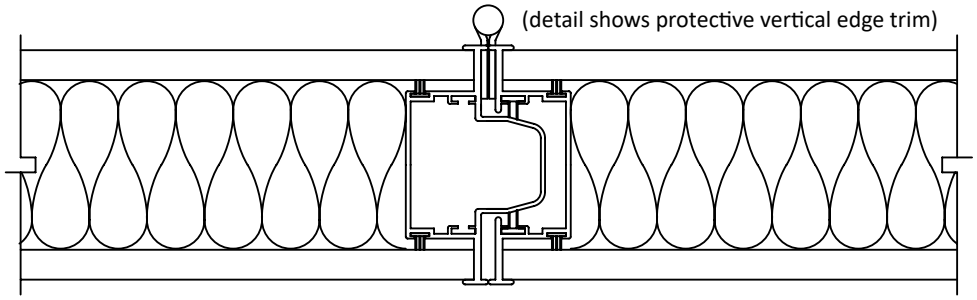


SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel, approx. 3 7/8" thick, shall have in-combustible rigid faces. Core shall be fibrous glass sound attenuating material. Panel weight shall be approximately 7 psf (34.2 kg/m2). Frame members shall be roll formed steel, 16 gauge vertical and 14 gauge horizontal top rail. Steel frame members shall encapsulate face sheets add provide a protective edge feature. Tongue and groove vertical intersections shall incorporate multi-fin acoustical gaskets. Metal perimeter trim shall have bronze anodized finish. No fasteners shall be visible on panel face when wall is in extended position.

TEST DATA: Sound transmission class (S.T.C.) 46 when tested in accordance with ASTM E90-90 in NSA accredited independent laboratory.





GAMMA® SERIES | N PANEL CONSTRUCTION

GAMMA™

SIMPLY THE BEST AVAILABLE MID-PRICE RANGE OPERABLE WALL

•SUPERIOR SOUND STOPPING ABILITY

•GREATER STRENGTH AND DURABILITY

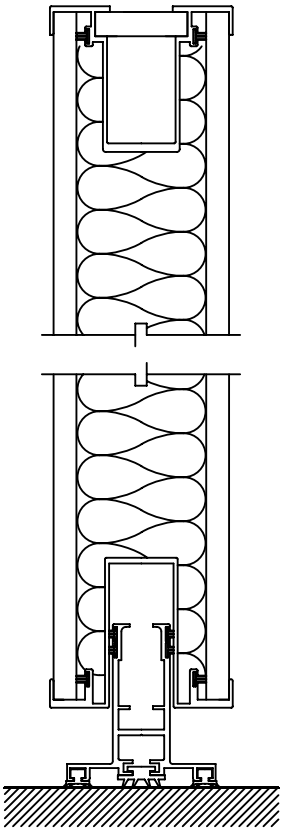
•DISCREET AND EFFECTIVE PROTECTIVE EDGE TRIM
Saves the otherwise vulnerable exposed finish on corners of "wrap-around" and "trimless" designs.

MANUAL OPERATION.

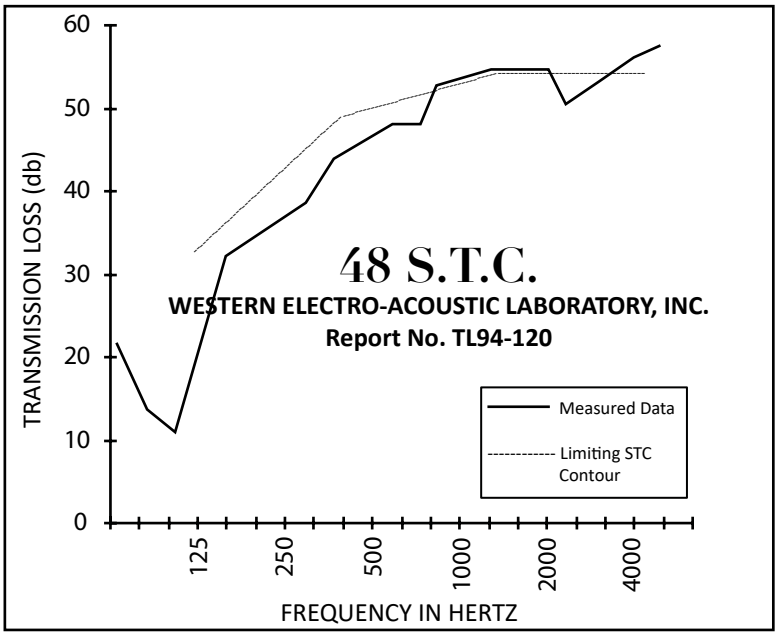
PANEL HEIGHT: 16' max.

PANEL WIDTH: 44" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 8.1 pounds per square foot.



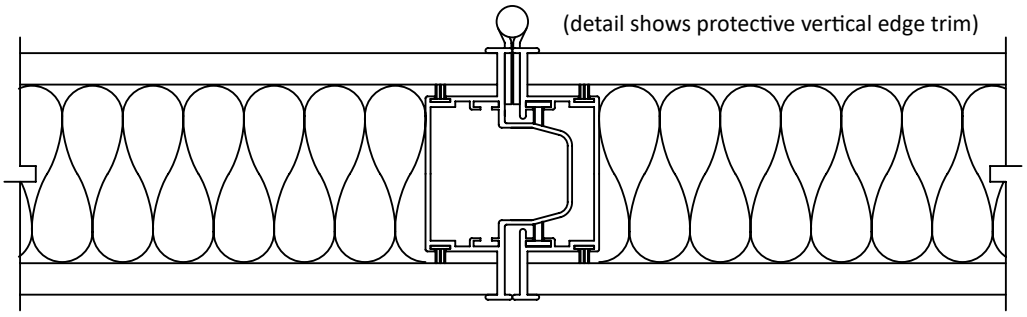
38 N.I.C.
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336



SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel, approx. 3 7/8" thick, shall have incombustible rigid faces. Core shall be fibrous glass sound attenuating material. Panel weight shall be approximately 8.1 psf (39.6 kg/m2). Frame members shall be roll formed steel, 16 gauge vertical and 14 gauge horizontal top rail. Steel frame members shall encapsulate face sheets add provide a protective edge feature. Tongue and groove vertical intersection shall incorporate multi-fin acoustical gaskets. metal perimeter trim shall have bronze anodized finish. No fasteners shall be visible on panel face when wall is in extended position.

TEST DATA: Sound transmission class (S.T.C.) 48 when tested in accordance with ASTM E90-90 in NSA accredited independent laboratory.



GAMMA® SERIES | O PANEL CONSTRUCTION

GAMMA™

SIMPLY THE BEST AVAILABLE MID-PRICE RANGE OPERABLE WALL

•SUPERIOR SOUND STOPPING ABILITY

•GREATER STRENGTH AND DURABILITY

•DISCREET AND EFFECTIVE PROTECTIVE EDGE TRIM
Saves the otherwise vulnerable exposed finish on corners of "wrap-around" and "trimless" designs.

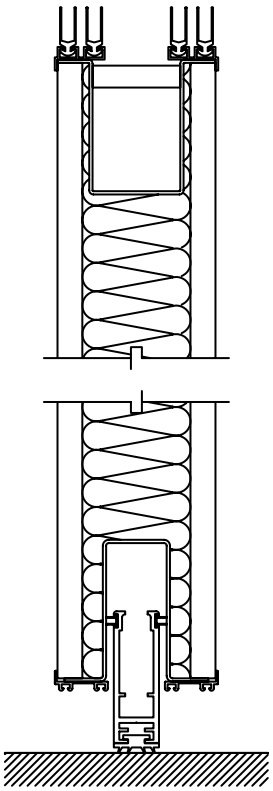
MANUAL OPERATION.

PANEL HEIGHT: 18' max.

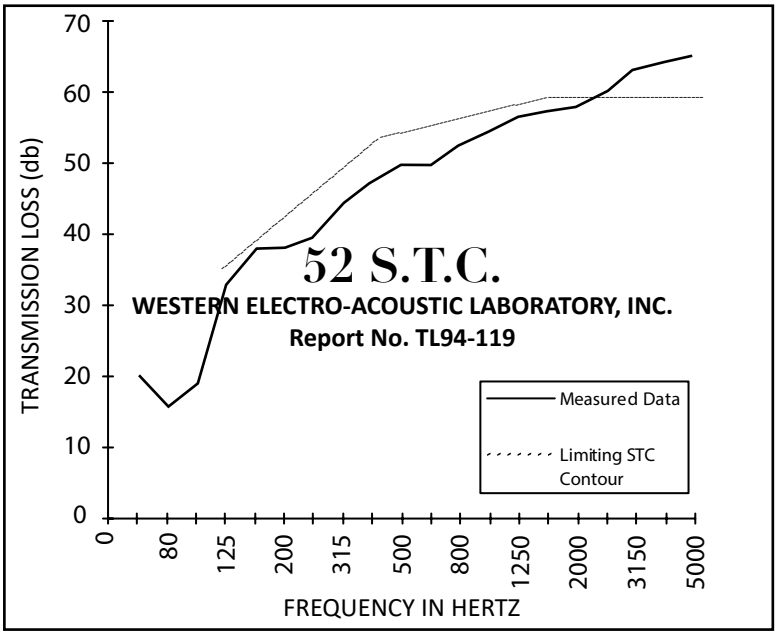
PANEL WIDTH: 44" max. but do not exceed width of finish fabric.

PANEL WEIGHT: 10.1 pounds per square foot.

SUBSTRATE: 20 gauge steel with rigid backing.



40 N.I.C.
GUARANTEED WHEN SPECIFIED
TESTED IN ACCORDANCE WITH ASTM E336



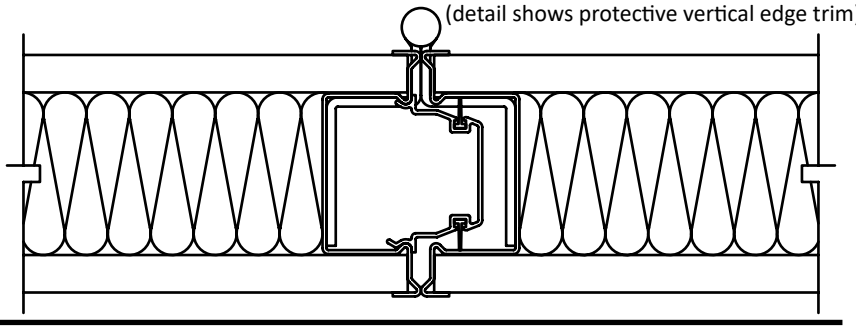
SPECIFICATIONS

PANEL CONSTRUCTION: Acoustical panel, approx. 4" thick, shall have composite faces consisting of ½" gypsum board and 20 gauge (0.036") steel. Core shall be fibrous glass sound attenuating material. Panel weight shall be approximately 10.1 psf (49.4 kg/m2). Frame members shall be roll formed steel, 16 gauge vertical and 14 gauge horizontal top rail. Steel frame members shall encapsulate face sheets add provide a protective edge feature. Tongue and groove vertical intersections shall incorporate multi-fin acoustical gaskets. No fasteners shall be visible on panel face when wall is in extended position. Frame members shall have paint finish (bronze and silver as standard colors with optional powder-coat available).

TEST DATA: Sound transmission class (S.T.C.) 52 minimum when tested in accordance with ASTM E90-90 in NSA accredited independent laboratory.

NOTE: Panel faces are a composite of cold rolled steel sheet and gypsum board. The standard orientation is with the steel IN, so the gypsum board substrate is a TACKABLE surface. When requested, for increased impact resistance and a NON-TACKABLE surface, the steel sheet can be furnished OUT.

(detail shows protective vertical edge trim)



IMAGE® SERIES | J PANEL CONSTRUCTION

IMAGE™

INCOMBUSTIBLE STEEL, QUALITY, STRENGTH, PERFORMANCE AND VALUE at competitive prices.

WELDED TUBE STEEL FRAME

•SINGLE OR DOUBLE GLAZED.

•MANUAL OR ELECTRIC OPERATION.

•PANEL HEIGHT 30’ max.

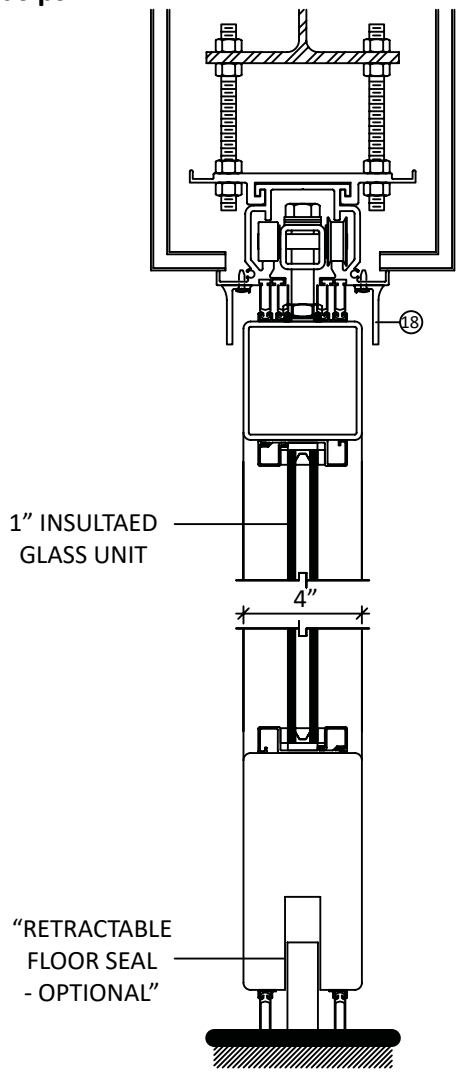
•PANEL WIDTH MAX.: Folding operation 60“, individual panel operation 96”, sliding operation 180”.

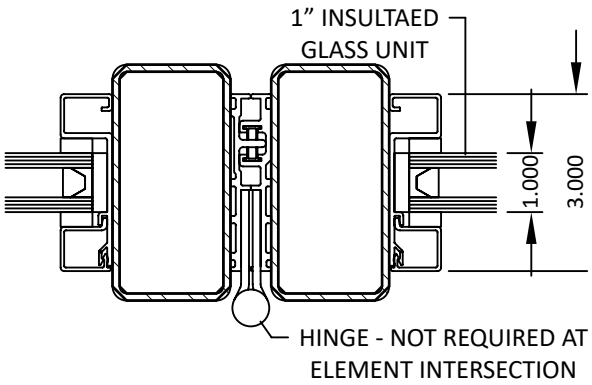
•PANEL WEIGHT May range between 6.5 pounds psf. and 12 pounds psf.

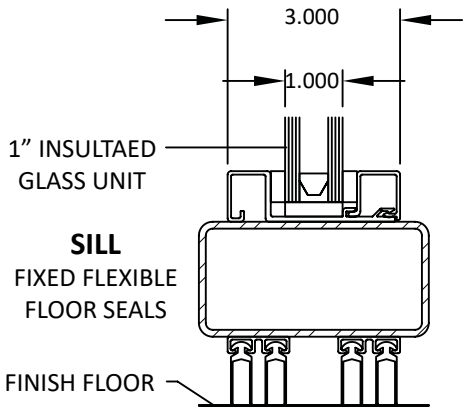
SPECIFICATIONS

PANEL CONSTRUCTION: SINGLE GLAZED or DOUBLE GLAZED - Four inch thick panel consisting of minimum 2” x 4” steel tube for vertical and horizontal sill member and minimum 4” x 4” horizontal top member. Panels higher than 9 ft shall have a minimum of one intermediate horizontal frame member. Glazing can be single (minimum 1/4” thick tempered glass) or 1” air-space glass (sealed unit consisting of 2 panes of 1/4” thick tempered glass with a 1/2” air space). Frame members are MIG welded to create a one-piece steel weldment. All exposed weld-joints shall be ground for a finished appearance. Glazing stops are aluminum and incorporate gaskets. Top and bottom of the panel shall be equipped multi-fin, PVC, fixed flexible seals secured within an aluminum extrusion. An optional mechanical, retractable seal is available when floor track is not used. Vertical edge trim shall be aluminum, tongue and grove design that incorporates acoustical gaskets. When required, alignment of adjacent panels at vertical edge shall be by means of steel alignment pins. Aluminum components can be clear satin anodized, bronze anodized or powder-coated to match steel frames.

Image walls that are exposed to building exterior will have recessed floor track to provide lateral stability and resist wind loads.







7|ALUMINUM|FINISH

DIGIT	FINISH	SPECIFICATIONS
1	STANDARD CLEAR SATIN ANODIZED	Aluminum shall be 6063-T5 alloy, having Aluminum Association finish AA-C22-A21, clear satin anodized. Exposed hardware shall have powder coat finish compatible with perimeter trim.
3	STANDARD BRONZE ANODIZED	Aluminum shall be 6063-T5 alloy, having Aluminum Association finish AA-C22-A32, commercial medium bronze anodized. Exposed hardware shall have powder coat finish compatible with perimeter trim.
5	OPTIONAL POWDER COAT, STANDARD RAL COLORS	Aluminum shall be 6063-T5 alloy, having a polyester powder coating selected from standard gloss colors. Exposed hardware shall have powder coat finish compatible with perimeter trim.
6	OPTIONAL POWDER COAT, CUSTOM RAL COLORS	Aluminum shall be 6063-T5 alloy, having a custom color polyester powder coating selected by Architect. Exposed hardware shall have powder coat finish compatible with perimeter trim.

NOTE: The normal finish for exposed aluminum track or aluminum soffit trim is clear satin anodized. When standard track finish is supplied and panel trim is different the 7th digit is followed by an asterisk.

For example: **TYPE 3MC14S3*1**, in which case panel perimeter finish is bronze anodized, jambs bronze powder coat, and track clear satin anodized.

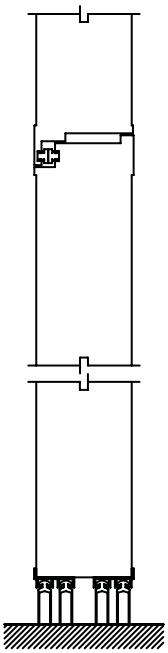
8|PANEL|FINISH

DIGIT	FINISH	SPECIFICATIONS
1	VINYL WALL COVERING - AEC STANDARD	Panel finish shall be Koroseal vinyl fabric, choice of patterns and colors from manufacturers standards. Vinyl shall conform to Federal Specifications CCC-W-408, Type II, minimum 20 oz. per lineal yard. Architect to select color pattern within this range.
2	VINYL WALL COVERING	ARCHITECT SPECIFY
3	CARPET WALL COVERING HYTEX "RIB"	Panel finish shall be manufacturers standard carpet. Architect to select from a minimum of 35 colors.
4	CARPET WALL COVERING	ARCHITECT SPECIFY
5	MARKER BOARD	Panel faces shall be 28 gauge porcelain enamel steel chalk-boards manufactured by Writanium. The base metal shall be of 28 gauge steel, suitable to perform as described by the Porcelain Enamel Institute in Standard PEI: S-100 and C.S.I. Specification 10111.
6	WOOD VENEER	ARCHITECT SPECIFY
7	FABRIC WALL COVERING HYTEX "ZEST" CRYPTON WALL® 'GREEN'	Panel faces shall be manufacturer's standard fabric. High performance eco-fabric utilizing 67% pre&post-consumer recycled polyester.33% olefin. Architect to select from 22 lustorous colors.
8	PLASTIC LAMINATE - AEC STANDARD	Wilsonart Matte. Architect to select from 34 colors.
9	PAINTED	Prime painted panel face if final finish is to be field applied by others. Finish paint: Architect specify final finish.
0	NOT LISTED ABOVE	ARCHITECT SPECIFY

NOTE: If the panel finish is to be furnished by others, freight prepaid to the factory for application, the 8th digit is to be followed by an (*) asterisk. For example: **TYPE 5MR12S32***
Panel finish to be vinyl, furnished by others.
For those finishes marked "SPECIFY" above, please contact Advanced Equipment for suitability of factory application.

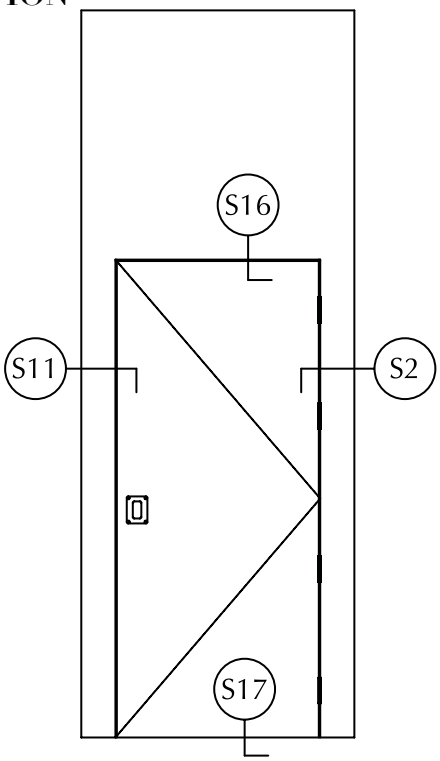
PASSDOOR SECTIONS

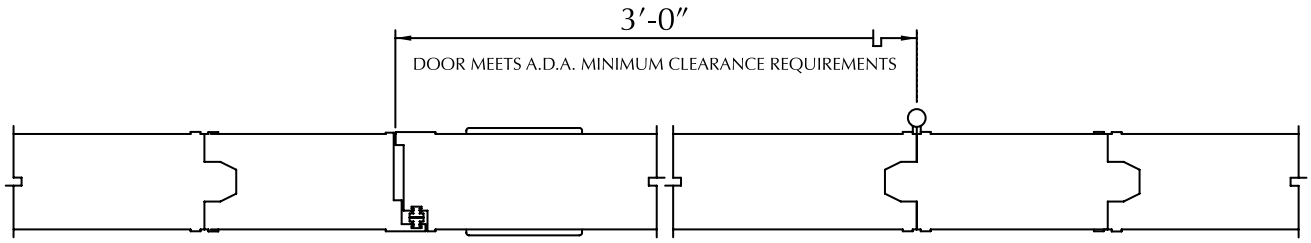
S16 DOOR HEAD



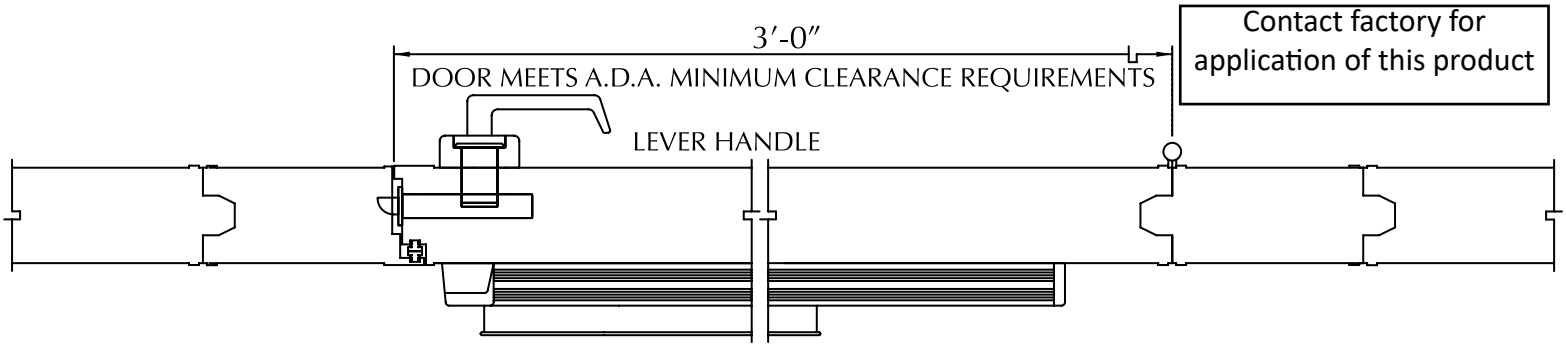
S17 DOOR SILL

TYPICAL ELEVATION





S11 DOOR STRIKE — STANDARD HARDWARE — S2 HINE INTERSECTION



S11 DOOR STRIKE — PANIC HARDWARE — S2 HINGE INTERSECTION

PASSDOORS

ALL DOOR HARDWARE TO INCLUDE:

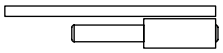
- TWO PAIR FULL MORTISE BUTT HINGES

- MAGNETIC DOOR SEALS

- FLUSH PULL - BOTH SIDES

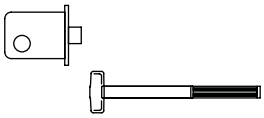
OPTIONAL DOOR HARDWARE:

- CONCEALED DOOR CLOSER



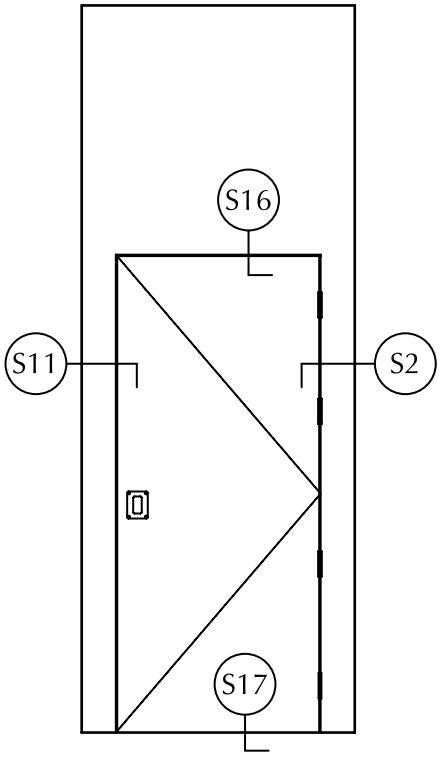
- EXIT SIGN - SELF-ILLUMINATING
  FLUSH MOUNTED - PUSH SIDE ONLY
  COLOR: RED OR GREEN

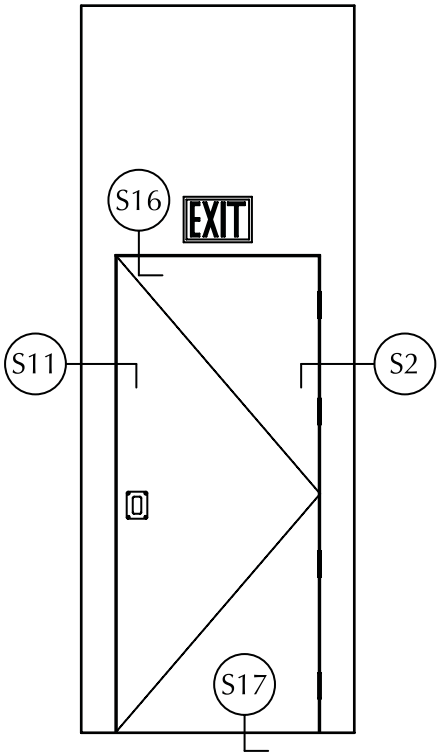
- YALE 300 SERIES DEADLOCK

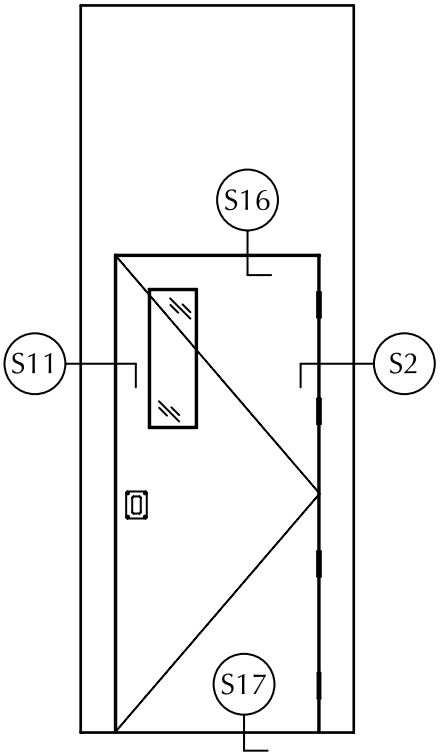


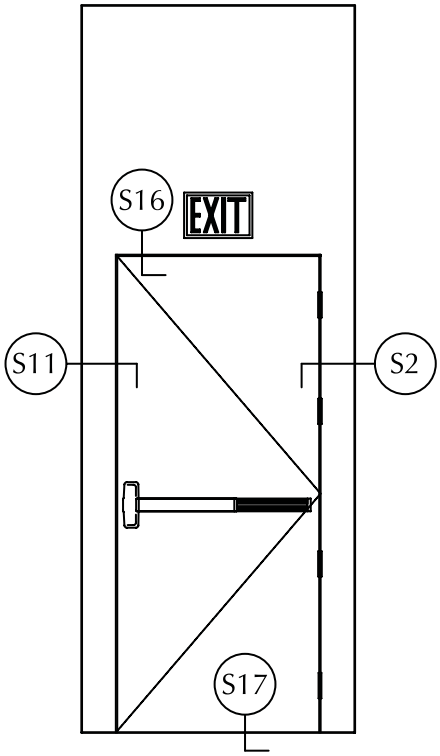
- VON DUPRIN PANIC HARDWARE

TYPICAL ELEVATION



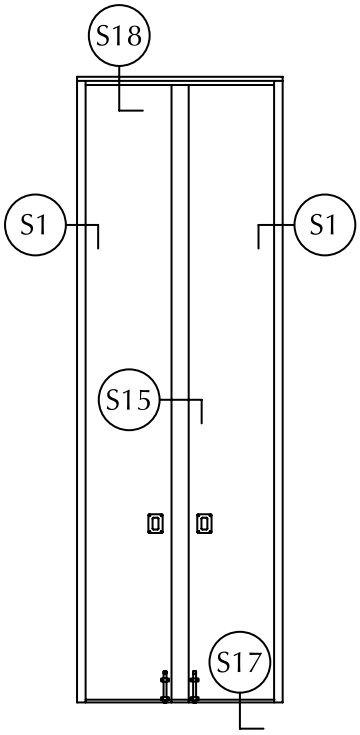




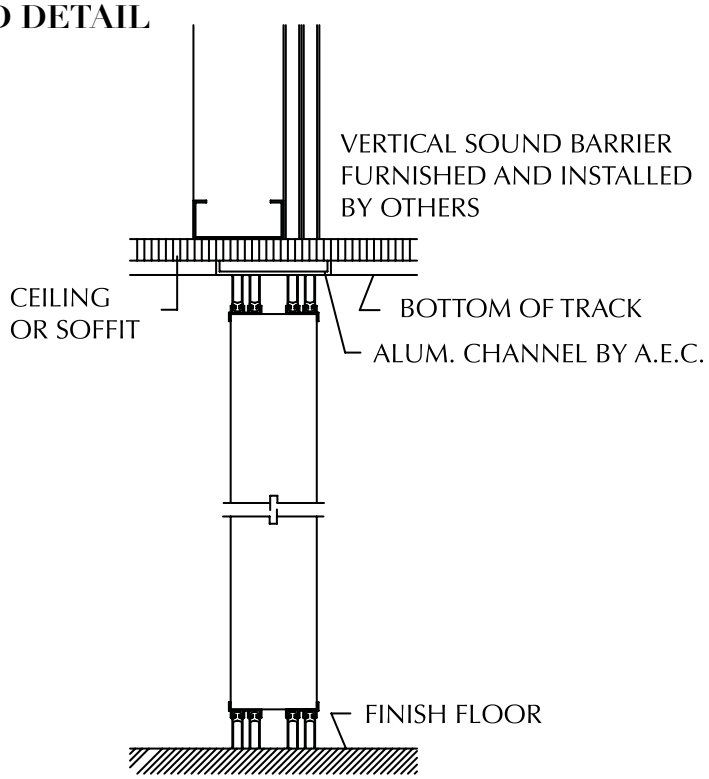


POCKET DOORS

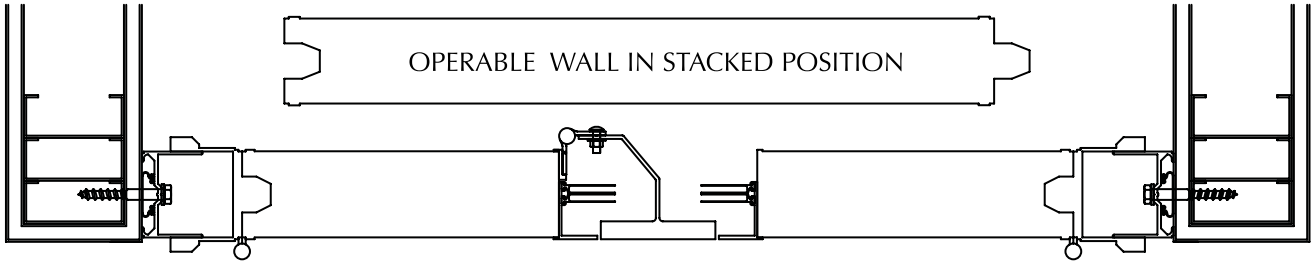
ELEVATION



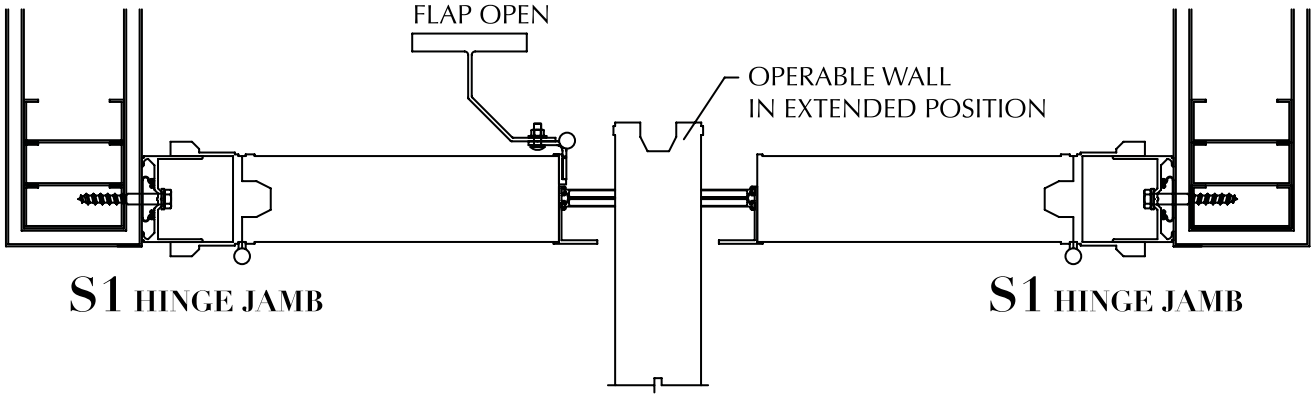
S18 HEAD DETAIL



S17 SILL DETAIL



S1 HINGE JAMB — S15.1 FLAP-CLOSED — S1 HINGE JAMB

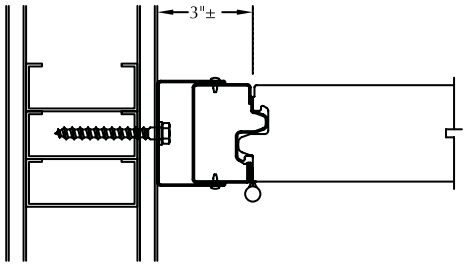


S1 HINGE JAMB — S1 HINGE JAMB

S15.2 FLAP-OPEN

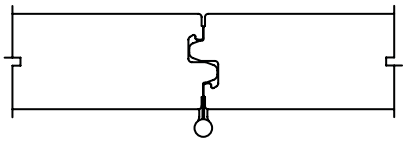
SECTIONS

HINGE JAMB - STEEL



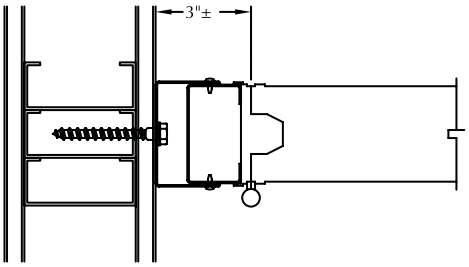
S1

HINGE INTERSECTION
TRIMLESS VERTICAL INTERSECTION



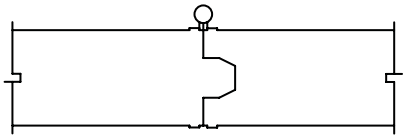
S2

HINGE JAMB - STEEL



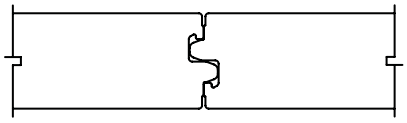
S1

HINGE INTERSECTION
PROTECTIVE VERTICAL EDGE TRIM



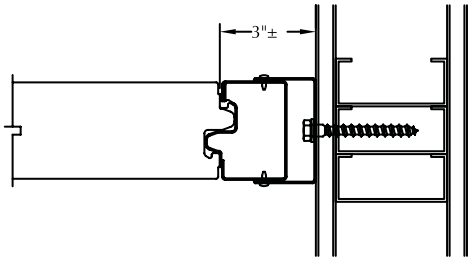
S2

TYPICAL INTERSECTION
TRIMLESS VERTICAL INTERSECTIONS



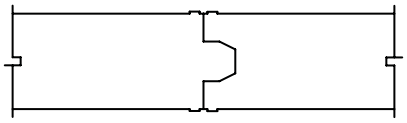
S8

MEETING JAMB - STEEL



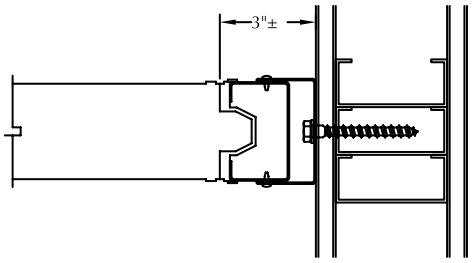
S9

TYPICAL INTERSECTION
PROTECTIVE VERTICAL EDGE TRIM



S8

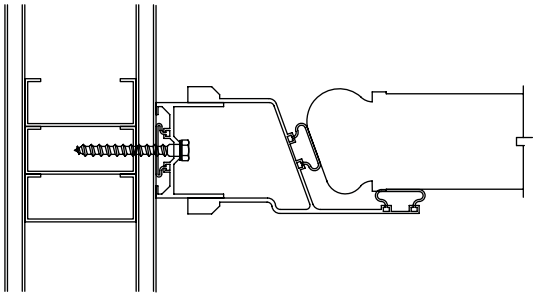
MEETING JAMB - STEEL



S9

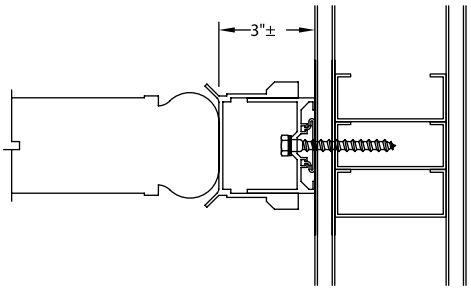
SECTIONS

STACK JAMB ELECTRIC WALL ONLY



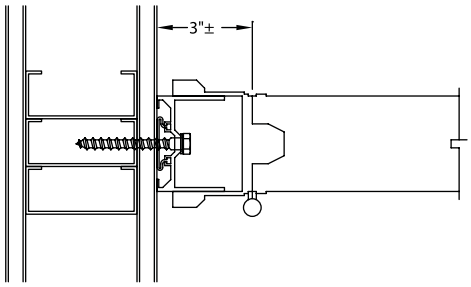
S10

BULBSEAL MEETING JAMB - ALUMINUM



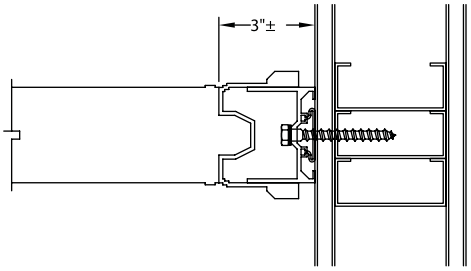
S3

HINGE JAMB - ALUMINUM



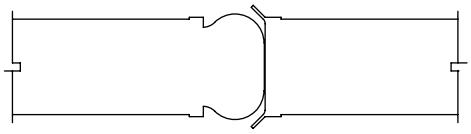
S1

MEETING JAMB - ALUMINUM



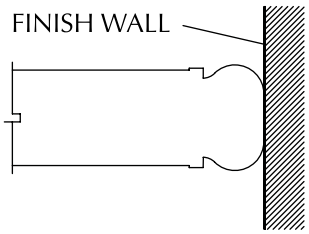
S9

BULBSEAL/FEMALE



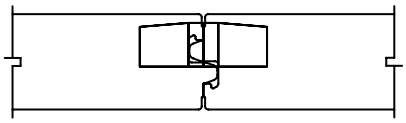
S5

BULBSEAL



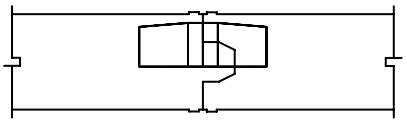
S7

SOSS HINGE INTERSECTION
TRIMLESS VERTICAL INTERSECTION



S2

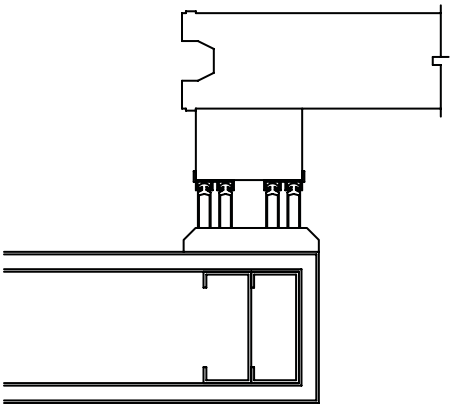
SOSS HINGE INTERSECTION
PROTECTIVE VERTICAL EDGE TRIM



S2

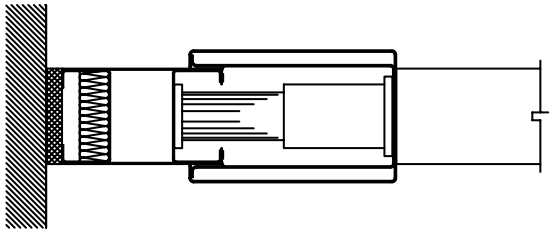
SECTIONS

WING JAMB



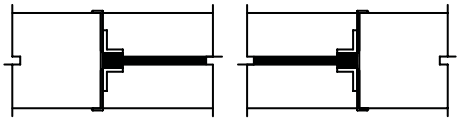
S18

EXPANDABLE JAMB 6" TRAVEL



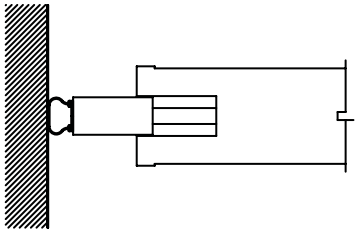
S4

SINGLE WINDOW



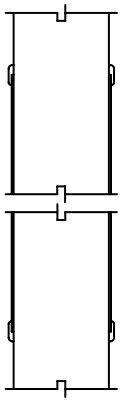
S19

EXPANDABLE JAMB 2" TRAVEL



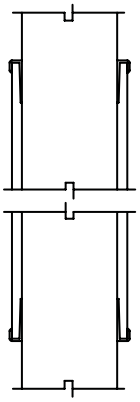
S4

MARKERBOARD



S14

MARKERBOARD OR TACKBOARD



S13