

Technical Data

10 22 26 (10650) Operable Partitions

ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA

- Continuously Hinged Electric Partitions Provide Effortless Operation
- Extends and Stacks with the Activation of Push Button Switches
- Integrated Safety with Key-Activated Two-Button Operation
- Two Year Warranty on Partition System
- Lifetime Warranty on Standard Hinges
- Operable Bottom Floor Seal Sets Automatically when Partition is Fully Extended
- Used in Hotel Ballrooms, Civic/Convention Centers, Classrooms, Gymnasiums, Meeting Rooms, Conference Rooms, and Multipurpose Rooms

Modernfold Model

Acousti-Seal® Legacy® Electric (933E)

Electrically Operated, Continuously Hinged Partitions

This specification along with product information and model details can be downloaded from www.modernfold.com

SPECIFICATION - SECTION 10 22 26 (10650) OPERABLE PARTITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
1. Electrically operated, continuously hinged partitions.
- B. Related Sections include the following:
1. Division 03 Sections for concrete tolerances required.
 2. Division 05 Sections for primary structural support, including pre-punching of support members by structural steel supplier per operable partition supplier's template.
 3. Division 06 Sections for wood framing and supports, and all blocking at head and jambs as required.
 4. Division 09 Sections for wall and ceiling framing at head and jambs.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is certified in writing by the operable partition manufacturer, as qualified to install the manufacturer's partition systems for work similar in material, design, and extent to that indicated for this Project.
- B. Acoustical Performance: Test operable partitions in an independent acoustical laboratory in accordance with ASTM E90 test procedure and classified in accordance with ASTM E413 to attain no less than the STC rating specified. Provide a complete and unedited written test report by the testing laboratory upon request.
- C. Preparation of the opening shall conform to the

criteria set forth per ASTM E557 Standard Practice for Architectural Application and Installation of Operable Partitions.

D. The operable wall must be manufactured by a certified ISO-9001-2015 company or an equivalent quality control system.

1.4 REFERENCE STANDARDS

- A. ASTM International
1. ASTM E557 Standard Practice for Architectural Application and Installation of Operable Partitions.
 2. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
 3. ASTM C1036 - Standard Specification for Flat Glass.
 4. ASTM C1048 - Heat-Treated Flat Glass—Kind HS, Kind FT Coated and Uncoated Glass.
 5. ASTM E84 - Surface Burning Characteristics of Building Materials.
 6. ASTM E413 - Classification for Rating Sound Insulation
- B. Health Product Declaration Collaborative
1. Health Product Declaration Open Standard v2.1
- C. International Standards Organization
1. ISO 14021 - Environmental Labels and Declarations - Self-Declared Environmental Claims (Type II Environmental Labeling).
 2. ISO 14025:2011-10, Environmental Labels and Declarations - Type III Environmental Declarations - Principles and Procedures.
 3. ISO 14040:2009-11, Environmental Management - Life Cycle Assessment - Principles and Framework.
 4. ISO 14044:2006-10, Environmental Management - Life Cycle Assessment - Requirements and Guidelines.

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5. ISO 21930 – Sustainability in Buildings and Civil Engineering Works — Core Rules for Environmental Product Declarations of Construction Products and Services.

D. Other Standards

1. ADA – Americans with Disabilities Act.
2. UL 508A – Standard for Industrial Control Panels
3. NFPA 70 – National Electrical Code
4. ANSI Z97.1 - Safety Glazing Materials Used in Buildings.
5. CPSC 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.
6. NEMA LD3 - High Pressure Decorative Laminates.

1.5 SUBMITTALS

- A. Product Data: Material descriptions, construction details, finishes, installation details, and operating instructions for each type of operable partition, component, and accessory specified.
- B. Shop Drawings: Show location and extent of operable partitions. Include plans, elevations, sections, details, attachments to other construction, and accessories. Indicate dimensions, weights, conditions at openings, and at storage areas, and required installation, storage, and operating clearances. Indicate location and installation requirements for hardware and track, including floor tolerances required and direction of travel. Indicate blocking to be provided by others.
- C. Setting Drawings: Show imbedded items and cutouts required in other work, including support beam punching template.
- D. Samples: Color samples demonstrating full range of finishes available by architect. Verification samples will be available in same thickness and material indicated for the work.
- E. Reports: Provide a complete and unedited written sound test report indicating test specimen matches product as submitted.
- F. Create spaces that are healthy for occupants.
 1. Furnish products and materials with Health Product Declaration (HPD), Manufacturer Inventory, or other material health disclosure documentation. Products without an HPD or other disclosure documentation are not acceptable.
- G. Furnish materials that generate the least amount of pollution.
 1. Furnish products and materials that have third party verified environmental product declarations (EPD's). Consider products and

materials that have optimized environmental performance (reduced life cycle impacts). Products without an EPD or other disclosure documentation are not acceptable.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Clearly mark packages and panels with numbering systems used on Shop Drawings. Do not use permanent markings on panels.
- B. Protect panels during delivery, storage, and handling to comply with manufacturer's direction and as required to prevent damage.

1.7 WARRANTY

- A. Provide written warranty by manufacturer of operable partitions agreeing to repair or replace any components with manufacturing defects.
- B. Warranty period: Two (2) years.

PART 2 – PRODUCTS

2.1 MANUFACTURERS, PRODUCTS, AND OPERATION

- A. Manufacturers: Subject to compliance with requirements, provide product by the following:
 1. Modernfold, Inc.
- B. Products: Subject to compliance with the requirements, provide the following product:
 1. Acousti-Seal Legacy – Electric Partition (933E) electrically operated continuously hinged operable partition.

2.2 OPERATION

- A. Acousti-Seal Legacy – Electric Partition (933E): Series of continuously hinged flat panels, electrically operated, top supported with operable floor seals.
- B. Final Closure (select one):
 1. Side Jamb with overlapping trail panel.
 2. Side Jamb with overlapping trail panel with "Modernfold Presto Automation Package". (For complete specification see Presto Package brochure Form #2514)
 3. Side Seal with pocket door interface (Remote stack only).
- C. Partition shall be operated by:
 1. Two push button control stations wired in series and located on opposite sides and opposite ends of the partition. Control stations shall be activated by key switch at stack end of partition.
 2. Modernfold Presto® Automation Package with Touch Screen Operator Control Station by Modernfold, Inc.
 3. Motor unit shall be reversible, continuous

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duty, and class A insulated. Motor unit shall have NEMA MG 1 service factor, high starting torque, thermal overload protection, and open/drip proof enclosure. Motor assembly shall have wiring compliant with NFPA 70, 24-volt controls, compliant with UL 508A, and speed of 28 feet/minute. The drive unit motor shall be equipped with outboard limit switches to prevent over-extension. A positive chain drive attached to the lead panel shall pull the partition across the opening. Cable, belt, or other friction type drives will not be accepted.

D. Electric motor shall be (select one):

1. 115-volt, 1-phase, 1 HP, 14.0 FLA
2. 208/230-volt, 1-phase, 1 HP, 7.0 FLA
3. 208/230-volt, 3-phase, 1 HP, 4.5 FLA
4. 460-volt, 3-phase, 1 HP, 2.0 FLA
5. 208/230-volt, 3-phase, 1-1/2 HP, 5.2 FLA

2.3 PANEL CONSTRUCTION

A. Nominal 3-inch (76 mm) thick panels in manufacturer's standard 48-inch (1220 mm) widths. All panel horizontal and vertical framing members fabricated from minimum 16-gage formed steel with overlapped and welded corners for rigidity. Top channel is reinforced to support suspension system components. Frame is designed so that full vertical edges of panels are of formed steel and provide concealed protection of the edges of the panel skin.

B. Panel Skin Options:

1. Roll-formed 21-gage steel wrapping around the panel edge. Panel skins shall be lock formed and welded directly to the frame for unitized construction. Acoustical ratings of panels with this construction (select one):
 - a. 28 STC
 - b. 50 STC
 - d. 52 STC
2. Roll-formed 21-gage Micro-perforated steel wrapping around panel edge provided on 50% of panel faces manufactured with sound absorptive backing. Panel skins shall be lock formed and welded directly to the frame for unitized construction. Acoustical ratings of panels with this construction shall be no less than:
 - a. 45 STC (net with NRC construction)
 - b. 0.65 NRC with wall covering and upholstery fabric or non-woven needle punch carpet covering

C. Hinges for Panels, Closure Panels, Pass Doors, and Pocket Doors shall be (select one):

1. Full leaf butt hinges, attached directly to panel frame with welded hinge anchor plates within panel to further support hinge mounting to frame. Lifetime warranty on hinges. Hinges mounted into panel edge or vertical astragal are not acceptable.
2. SOSS Invisible laminated hinge with antifriction segments mounted between each heat-treated link. Hinge to be attached directly to panel frame. Welded internal hinge bracket shall support the hinge and allow for adjustment of hinge plates. Concealed hinges mounted into edge or vertical astragal are not acceptable.

D. Panel Trim: No vertical trim required or allowed on edges of panels; minimal groove appearance at panel joints.

E. Panel Weights:

1. 28 STC - 6 lbs./square foot
2. 50 STC - 8 lbs./square foot
3. 52 STC - 11 lbs./square foot

2.4 PANEL FINISHES

A. Panel Face finish shall be (select as required):

1. Reinforced vinyl with woven backing weighing not less than 21 ounces (595 g) per lineal yard.
2. Reinforced heavy-duty vinyl with woven backing weighing not less than 30 ounces (850 g) per lineal yard.
3. Acoustical, non-woven needle punch carpet, with fused fibers to prevent unraveling or fray of material.
4. Wall covering and upholstery fabric with surface treatment to resist stains.
5. Customer's own material (subject to factory approval).
6. Full height steel markerboard work surface.
7. Full height 1/4-inch (6.35 mm) natural cork tackboard with vinyl or fabric covering.
8. Uncovered for field finishing.
9. Primed for field finishing.

B. Panel Trim: Exposed panel trim of one consistent color from manufacturer's standard offering.

1. Dark Bronze
2. Smoke Gray
3. Natural Choice

2.5 SOUND SEALS

A. Vertical Interlocking Sound Seals between panels: Roll-formed astragals, with reversible tongue and groove configuration in each panel edge, for universal panel operation. Rigid plastic astragals or astragals in only one panel edge are not

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acceptable.

B. Horizontal Top Seals: Continuous contact extruded vinyl bulb shape with pairs of non-contacting vinyl fingers to prevent distortion without the need for mechanically operated parts.

C. Horizontal Bottom Seals:

1. A2 - Automatic operable seals providing nominal 2-inch (51 mm) operating clearance with an operating range of +1/2-inch (13 mm) to -1-1/2 inch (38 mm) which automatically drop as panels are positioned, without the need for tools or cranks.
2. Floating Bottom Seal. Floating operable seals provide nominal 3-1/2 inch (89 mm) operating clearance within operating range of +1/2-inch (15 mm) to -3-inch (76 mm) and shall provide continuous floor contact as panels are positioned with no need for tools or cranks.
 - a. Carpet glides (carpet flooring)
 - b. Swivel casters (hard surface flooring)

2.6 SUSPENSION SYSTEM (select one)

A. #14 Suspension System

1. Suspension Tracks: Minimum 7-gage, 0.18-inch (5 mm) roll-formed steel. Track shall be supported by adjustable steel hanger brackets connected to structural support by pairs of 1/2-inch (13 mm) diameter threaded rods. Brackets must support the load bearing surface of the track.
 - a. Exposed track soffit: Steel, removable for service and maintenance, attached to track bracket without exposed fasteners, and pre-painted off-white.
2. Carriers: All-steel trolleys with steel-tired ball bearing wheels.
3. Warranty period: Ten (10) years.

– OR –

B. #30 Suspension System

1. Suspension Tracks: Track shall be structural aluminum. Track shall be supported by adjustable steel hanger brackets connected to structural support by pairs of 3/8-inch (9.5 mm) diameter threaded rods.
 - a. Exposed track soffit: Track soffit to be integral to track shape and shall be powder-coated off white paint finish. Track must accommodate termination of plenum sound barriers on both sides of track for maximum sound control.
2. Carriers: One trolley in alternating panels with

3-inch (76 mm) diameter glass reinforced nylon, all steel precision-ground ball-bearing wheels. Steel wheeled or reinforced polymer trolleys on aluminum track not permitted. Trolleys shall attach to panels with 1/2-inch (13 mm) diameter pendent bolt mounted to welded steel mounting plate.

3. Warranty period: Two (2) years.

2.7 OPTIONS

A. Single Pass Door:

1. Matching pass door same thickness and appearance as panels. ADA compliant pass door to be trimless and equipped with friction latch and flush pulls for panic operation. No threshold will be permitted.

B. Hardware:

1. Hand pull with push plate.
2. Lever handles both sides of door
3. Automatic door closer.
4. Door viewer.
5. Self-Illuminated exit signs:
 - a. Chemical exit sign – recess mount

C. Work Surfaces:

1. Markerboard: White enamel on steel, bonded to the face of the panel with horizontal trim without exposed fasteners. Trim is not acceptable on vertical edges to provide uninterrupted work surface.
2. Tackboard: Minimum 1/4-inch (6.35mm) natural cork, covered with vinyl or fabric, with horizontal trim without exposed fasteners. Trim is not acceptable on vertical edges.

D. "Presto" Safety Components:

1. Presto Safety Nose (wireless) – High sensitivity pressure leading edge requiring no more than 2.2 lb. of pressure to stop partition movement in case of obstruction. Lead sensors requiring hard wiring through partition system or requiring more than 2.2 lb. of pressure for activation are not acceptable. Sensing edge to be housed in fluid resistant housing and set in snap in channel for easy maintenance and be provided with 4-lead fail-safe wiring.
2. Presto Safety Mats – Located at panel storage area. Personnel sensing switch mat shall activate with the presence of a minimum 22 lb. obstruction in the stack area and prevent panels from stacking until the personnel/obstruction is removed. Mats shall be provided with 4-lead fail-safe wiring.
3. Presto Vision (PIR/Microwave Detector) – Wall or ceiling mounted motion sensors covering the travel area of the automated partition

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shall automatically stop the movement of the panels in the presence of unauthorized movement or obstruction. Detector can detect motion in an area up to 300 ft. (91M) long by 7.5 ft. (2.3M) wide and 10 ft. (3M) high and be equipped with anti-masking protection.

E. Available Accessories/Options:

1. Pocket Doors: Acousti-Seal Pocket Doors by Modernfold, Inc., with same construction, finish, and appearance as the adjacent panels. Equipped with electric interlock system.
2. Finished end caps.
3. Intersecting partition interface.
4. Window frame options:
 - a. Aluminum window frame, glazed or unglazed
 - b. Wood window frame, glazed or unglazed
5. Inset window glazing options:
 - a. 1/4-inch clear tempered glass – aluminum frame or wood frame
 - b. 1/4-inch low iron tempered glass – aluminum frame or wood frame
 - c. 1/4-inch Lexan – aluminum frame
 - d. 1/2-inch clear tempered glass – wood frame
 - e. 1/2-inch low iron tempered glass – wood frame
 - f. 1-inch insulated glass – wood frame
6. Resilient Padding – 1/2-inch (13mm) resilient material covered with heavy-duty vinyl.

- C. Match operable partitions by installing panels from marked packages in numbered sequence indicated on Shop Drawings.
- D. Broken, cracked, chipped, deformed or unmatched panels are not acceptable.

3.2 CLEANING AND PROTECTION

- A. Clean partition surfaces upon completing installation of operable partitions to remove dust, dirt, adhesives, and other foreign materials according to manufacturer’s written instructions.
- B. Provide final protection and maintain conditions in a manner acceptable to the manufacturer and Installer that ensure operable partitions are without damage or deterioration at time of Substantial Completion.

3.3 ADJUSTING

- A. Adjust operable partitions to operate smoothly, easily, and quietly, free from binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Lubricate hardware and other moving parts.

3.4 EXAMINATION

- A. Examine flooring, structural support, and opening, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of operable partitions. Proceed with installation only after unsatisfactory conditions have been corrected.

3.5 DEMONSTRATION

- A. Demonstrate proper operation and maintenance procedures to Owner’s representative.
- B. Provide Operation and Maintenance Manual to Owner’s representative.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. General: Comply with ASTM E557, operable partition manufacturer’s written installation instructions, Drawings and approved Shop Drawings.
- B. Install operable partitions and accessories after other finishing operations, including painting have been completed.

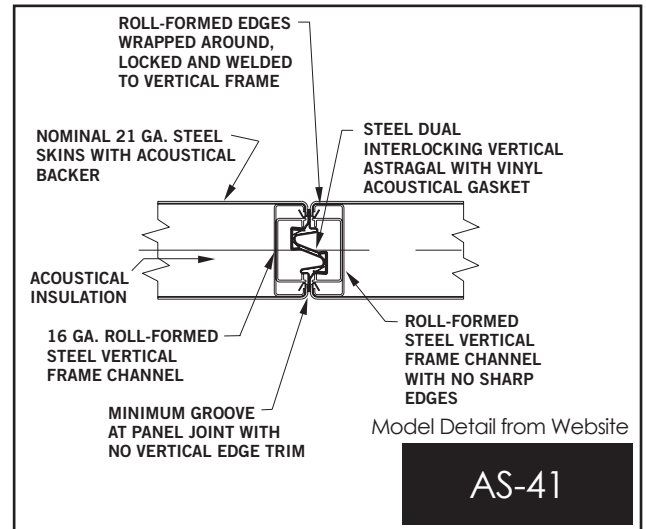
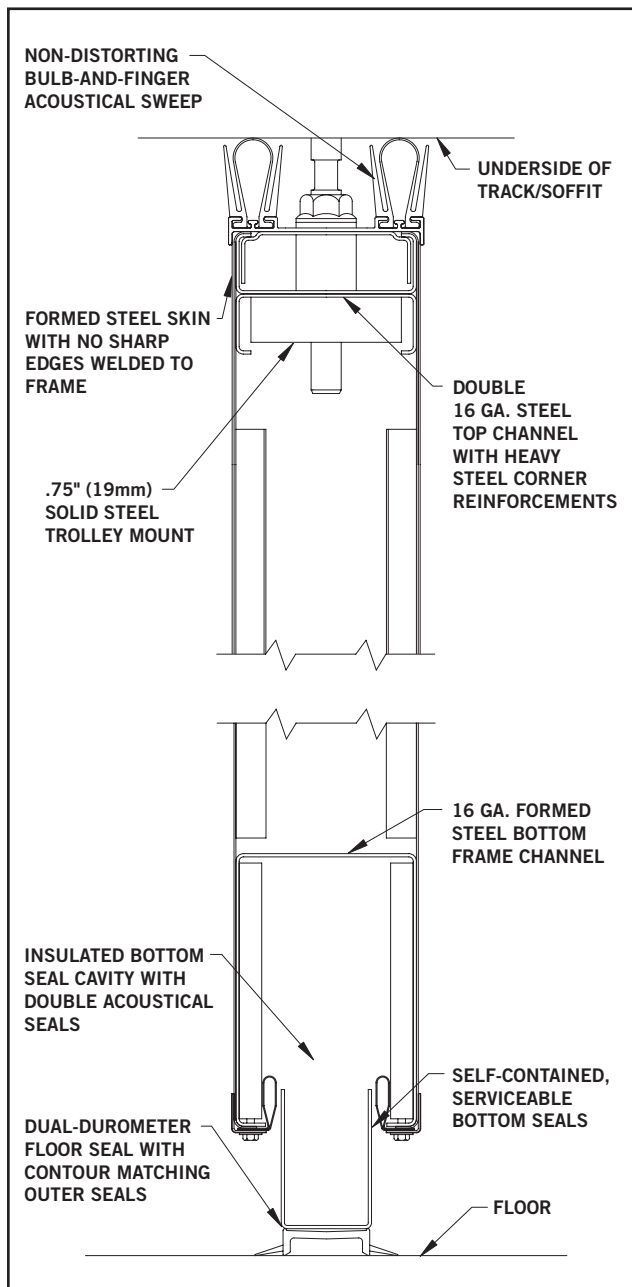
ACOUSTI-SEAL® LEGACY® ELECTRIC (933E)	STC CONSTRUCTION AND TRACK SYSTEM HEIGHT LIMITATIONS		
	28 STC	50 STC	52 STC
#14 Bracket Mounted Track	28'-4" (8636 mm)	26'-4" (8026 mm)	18'-4" (5588 mm)
#30 Bracket Mounted Track	12'-4" (3759 mm)	12'-4" (3759 mm)	12'-4" (3759 mm)

ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
STEEL SKIN PANEL CONSTRUCTION

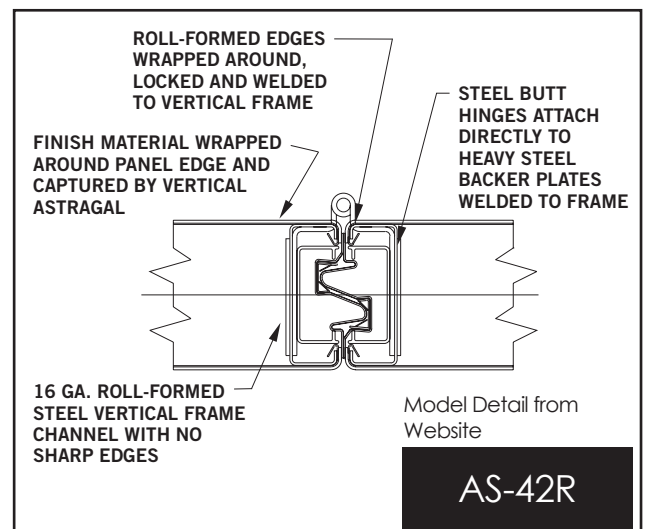
Acousti-Seal® Legacy® Electric
 Panel Section Frame Details

Acousti-Seal® Legacy® Electric
 Standard Panel Joint

PANEL DETAILS ARE NOT TO SCALE

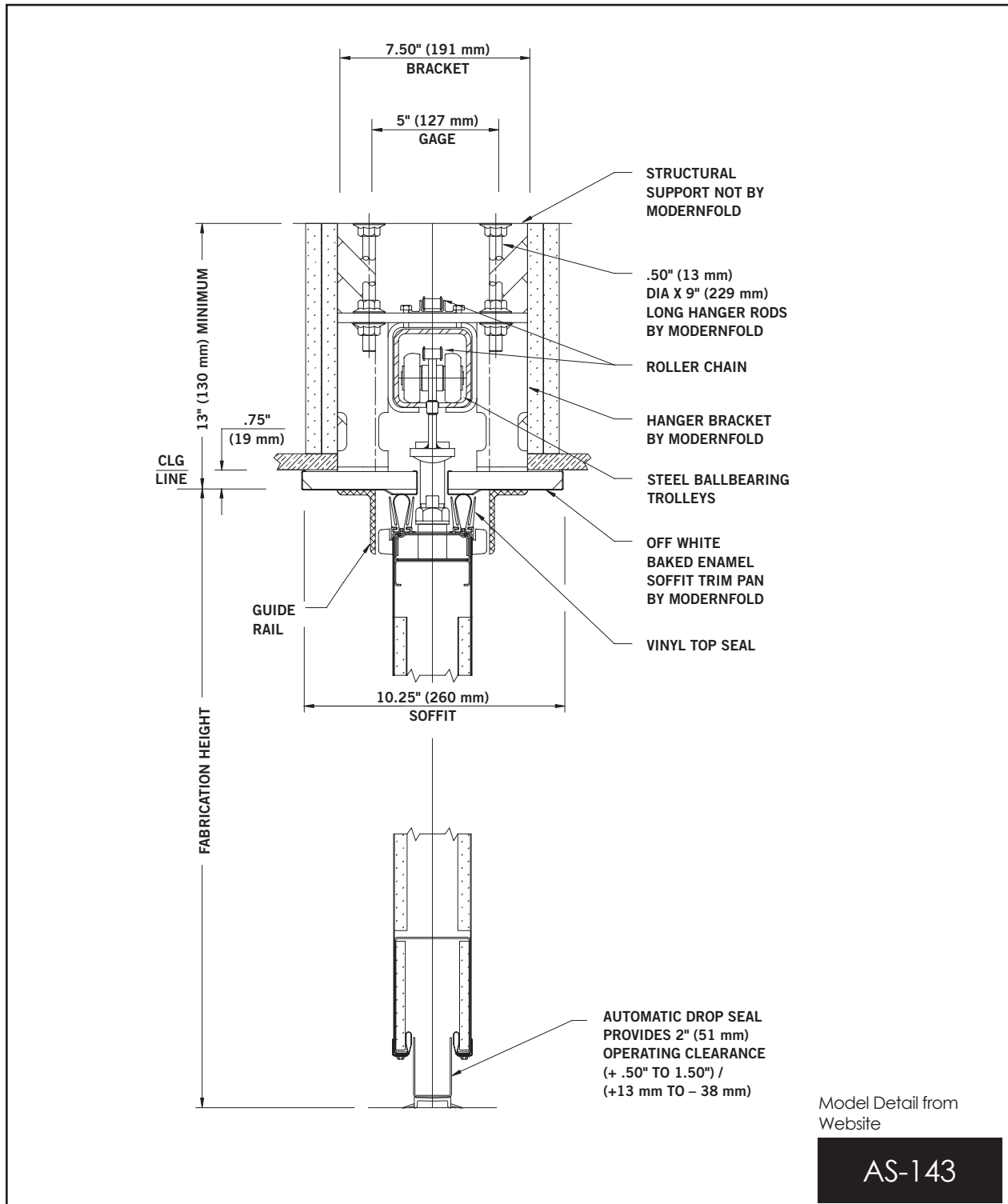


Heavy steel hinges are mounted directly to the center of the vertical frame channel, not simply on the outside edge of the panel. Steel plates welded to the back of the channel prevent buckling or bending and provide the strongest hinged connection.



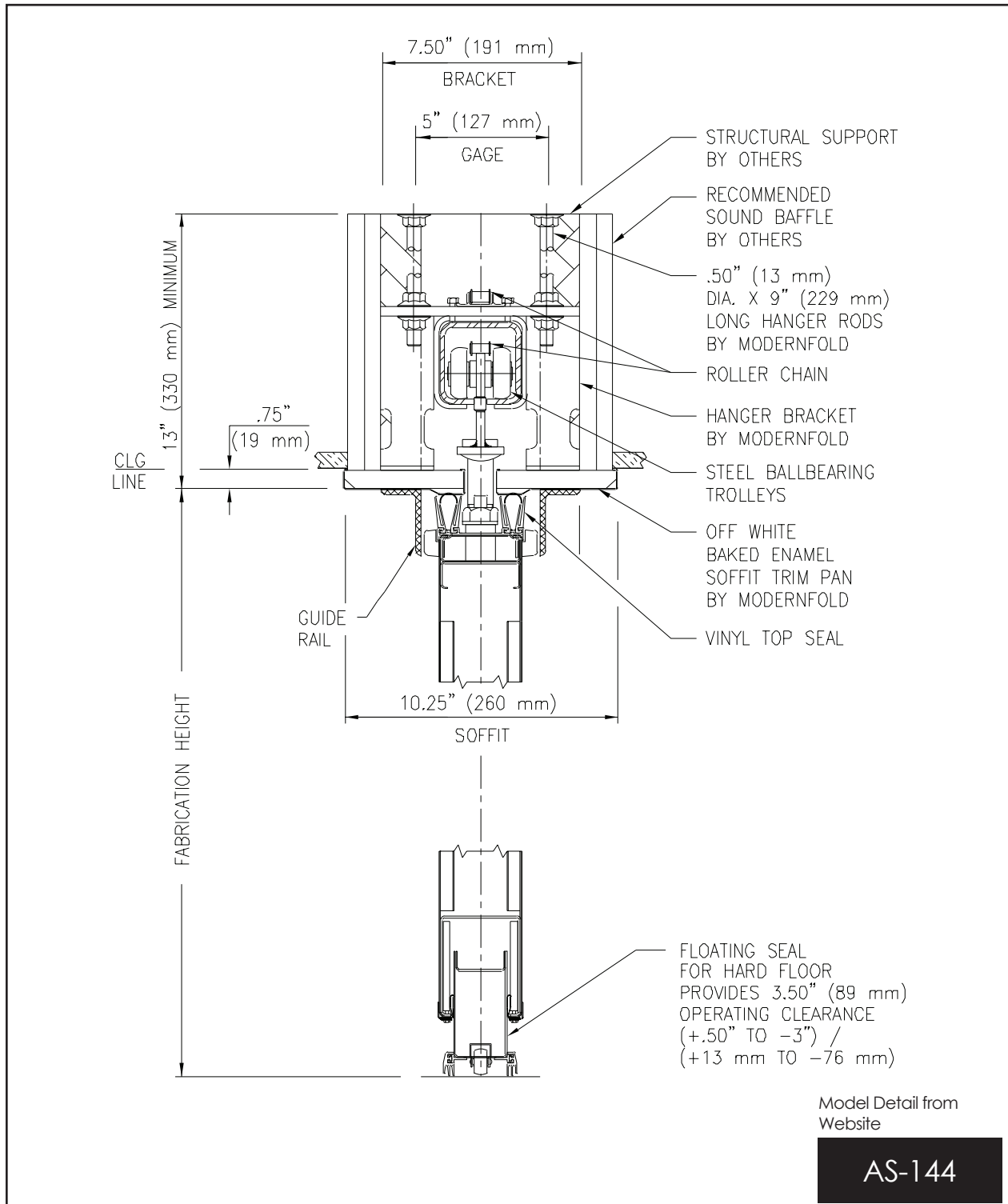
ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
SUSPENSION SYSTEM OPTIONS

#14 Track System Bracket Mounted with Automatic Drop Seal



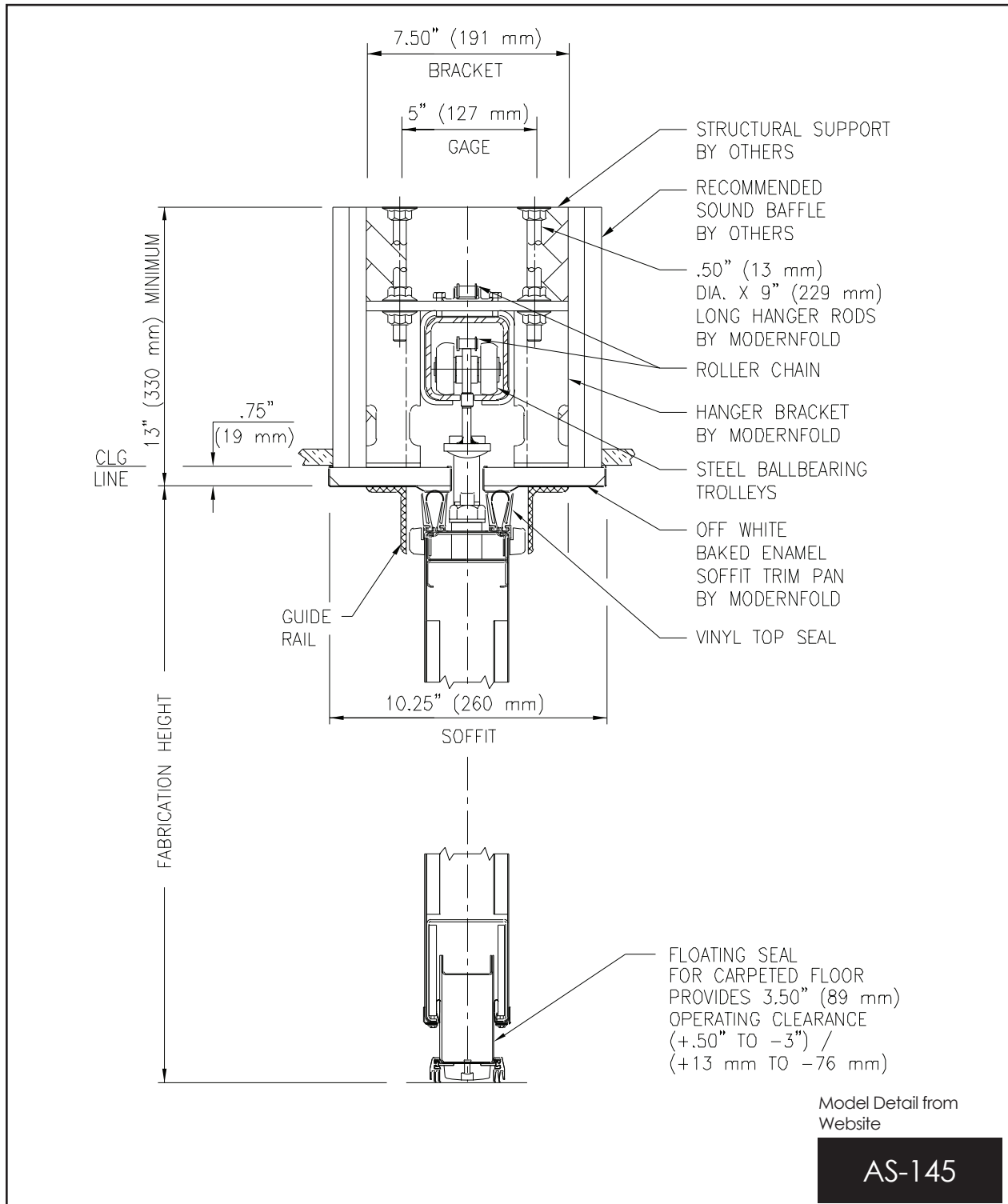
ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
SUSPENSION SYSTEM OPTIONS

#14 Track System Bracket Mounted with Floating Seal for Hard Floor



ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
SUSPENSION SYSTEM OPTIONS

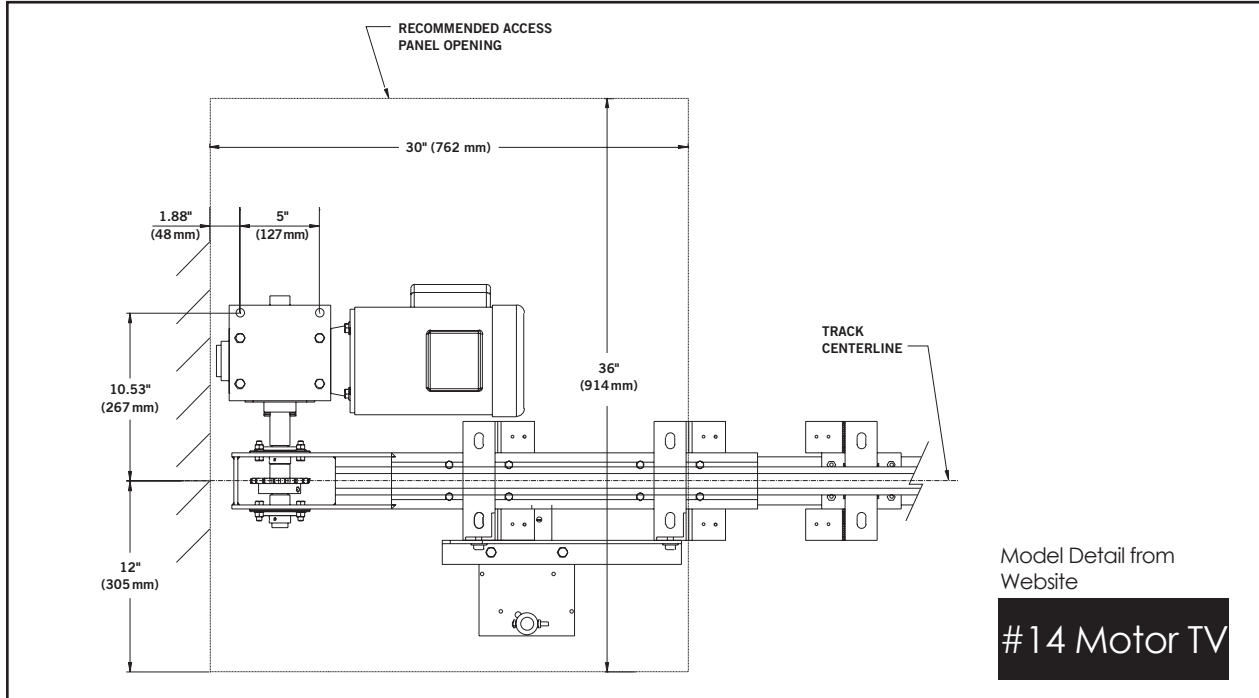
#14 Track System Bracket Mounted with Floating Seal for Carpet Floor



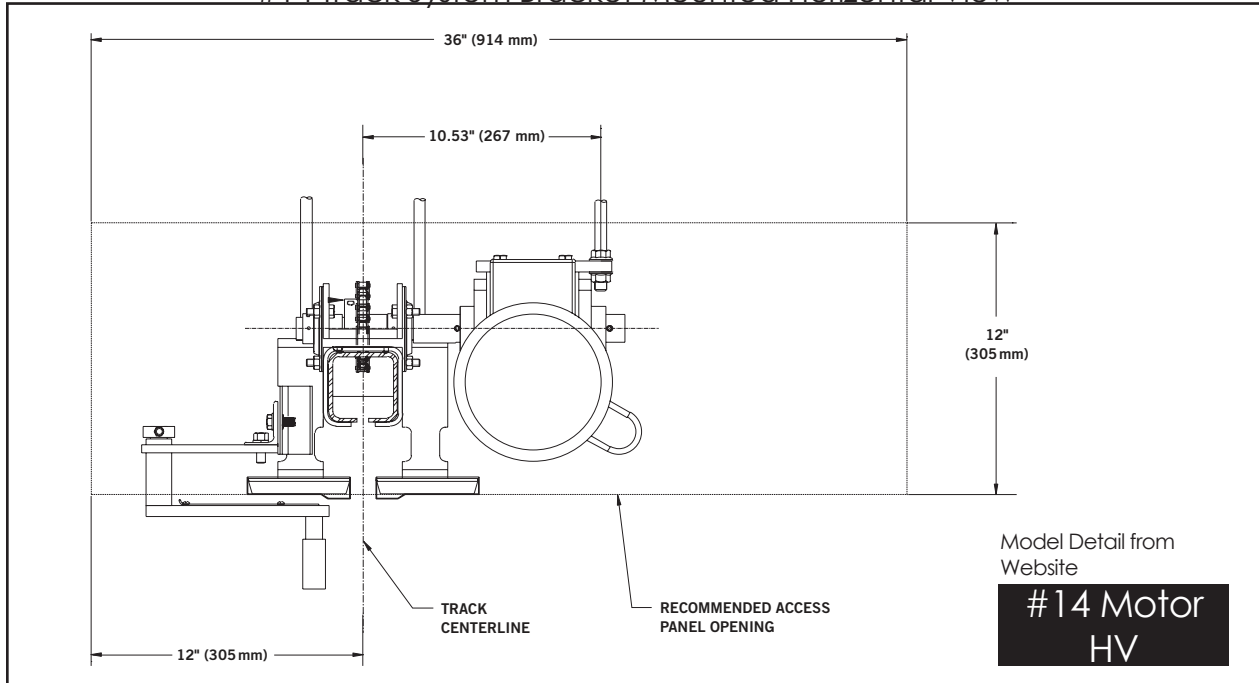
ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA

SUSPENSION SYSTEM OPTIONS

#14 Track System Bracket Mounted Top View

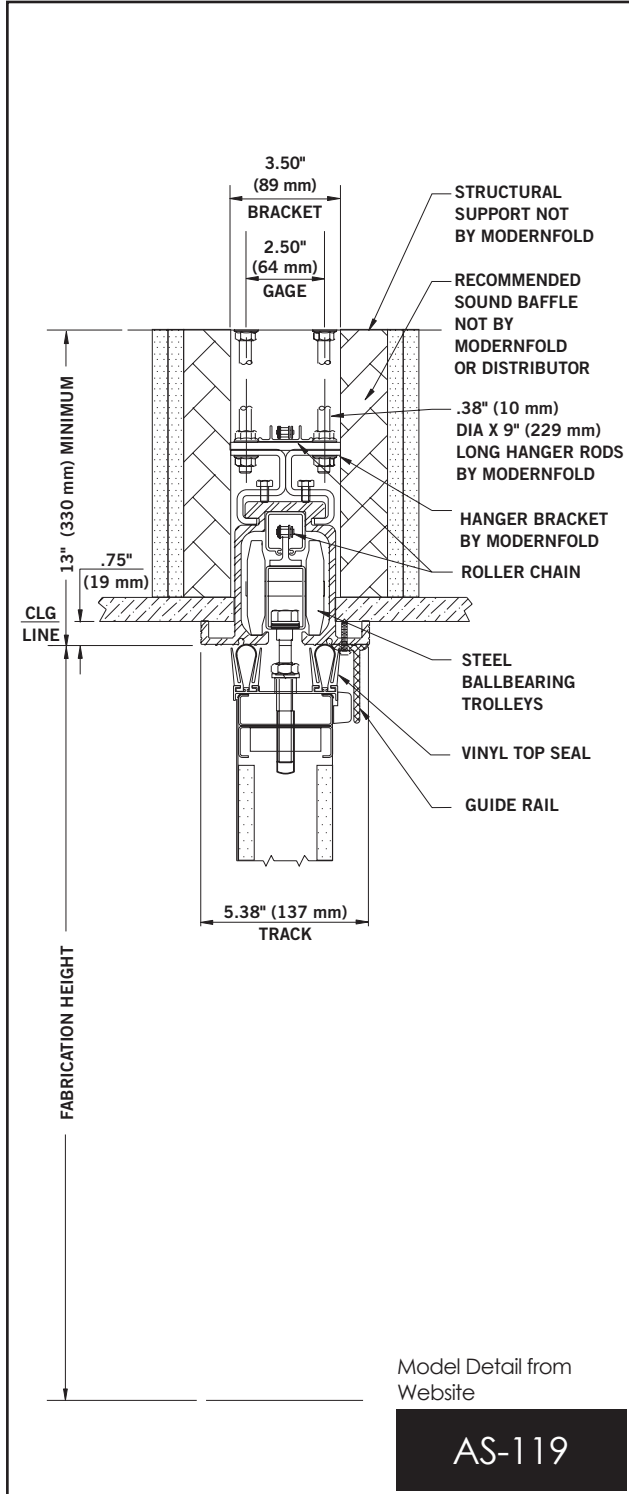


#14 Track System Bracket Mounted Horizontal View

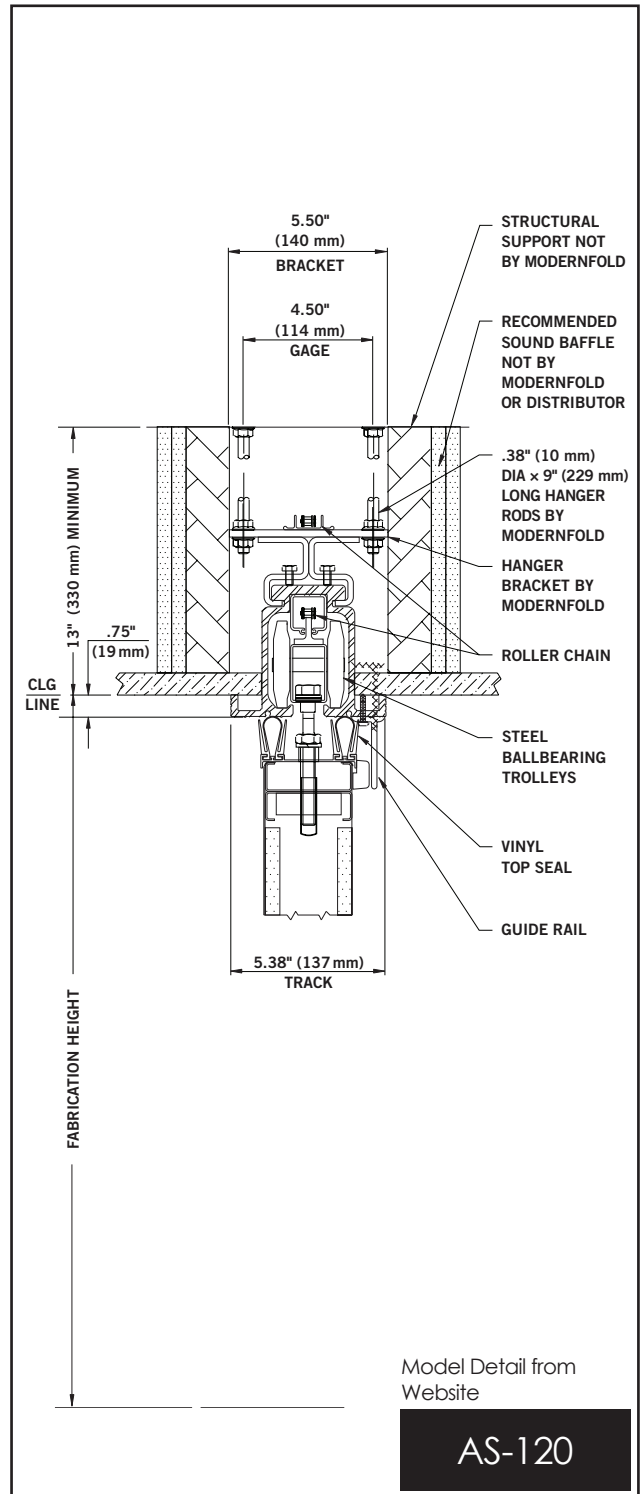


ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
SUSPENSION SYSTEM OPTIONS

#30 Track System Standard Spacing



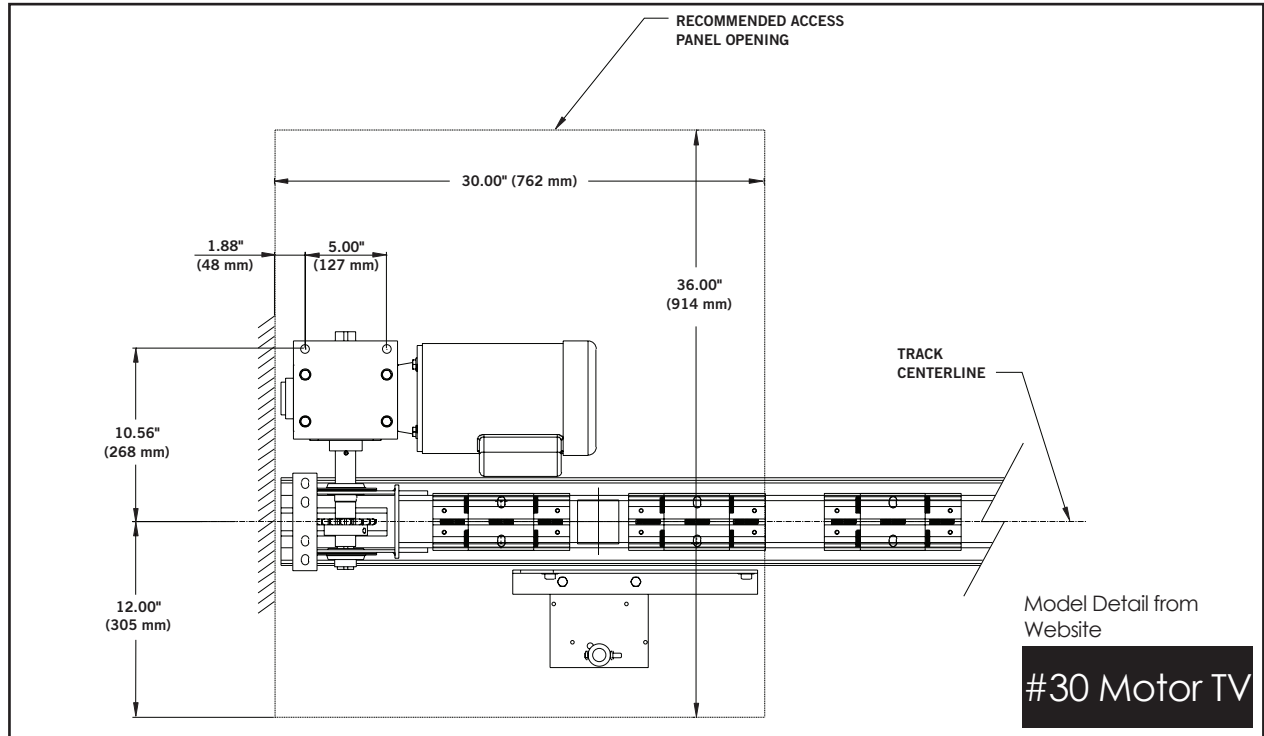
#30 Track System Optional Wider Spacing



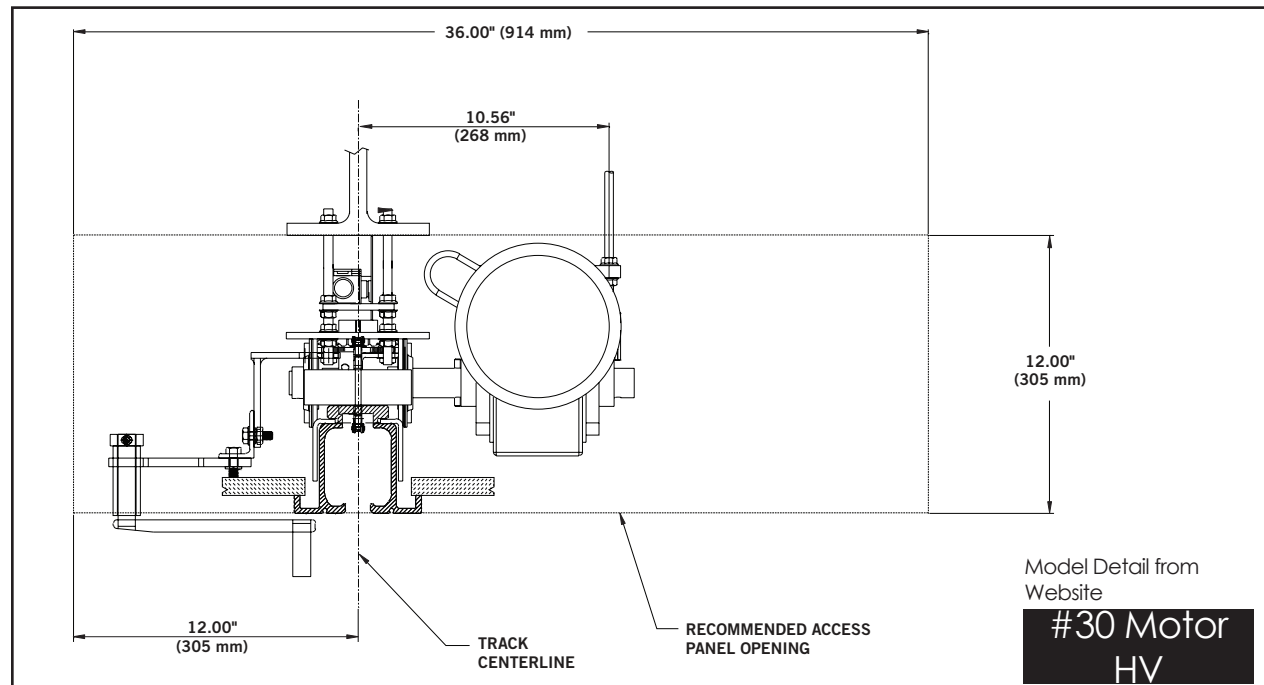
ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA

SUSPENSION SYSTEM OPTIONS

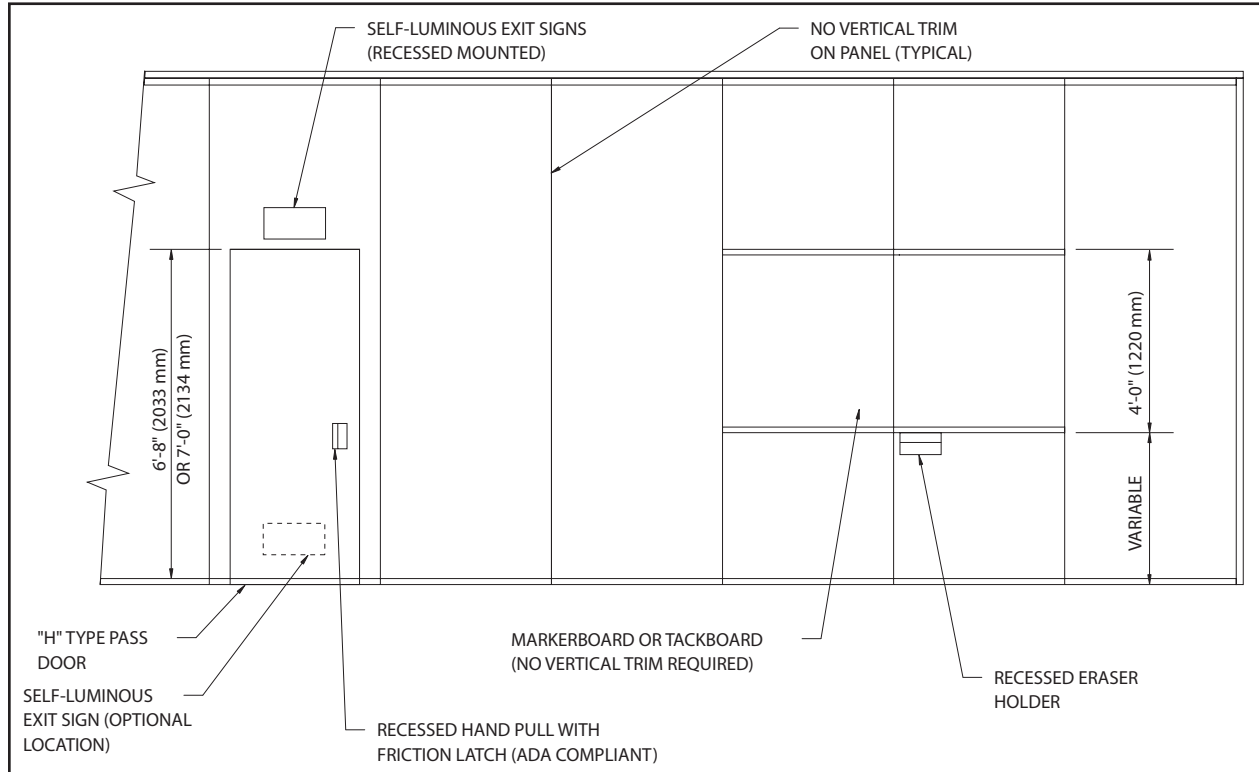
#30 Track System Motor Top View



#30 Track System Motor Horizontal View



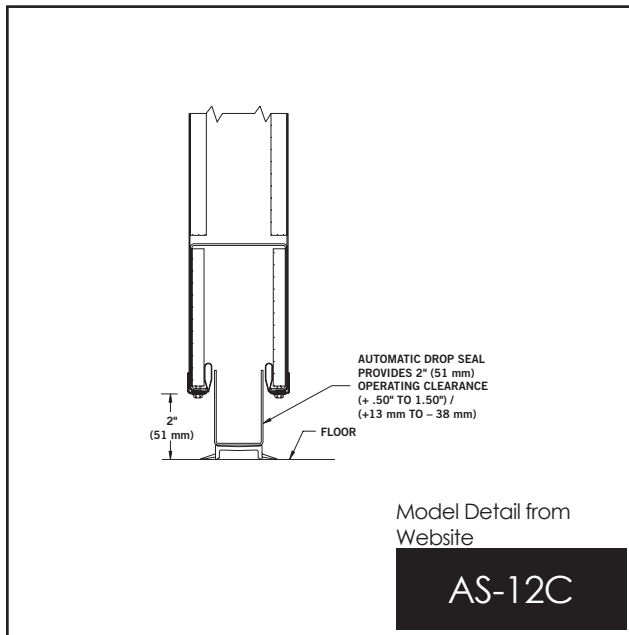
**ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
PANEL, WORK SURFACE, AND PASS DOOR OPTIONS**



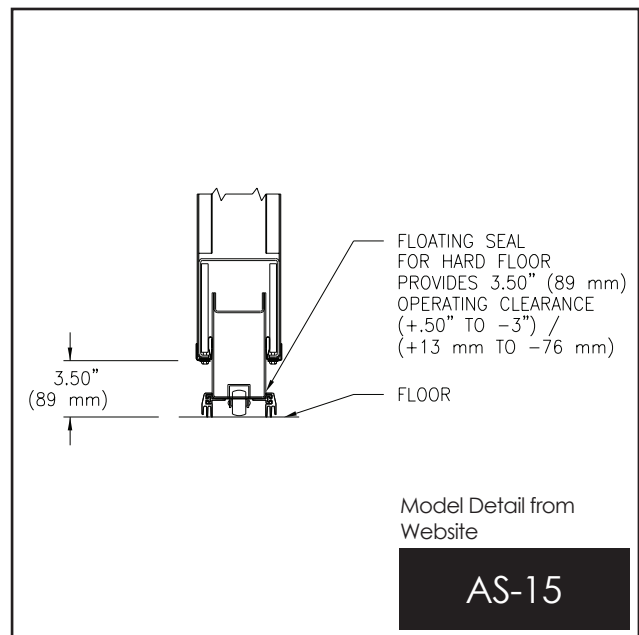
ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
PANEL, WORK SURFACE, AND PASS DOOR OPTIONS

FLOOR SEAL OPTIONS

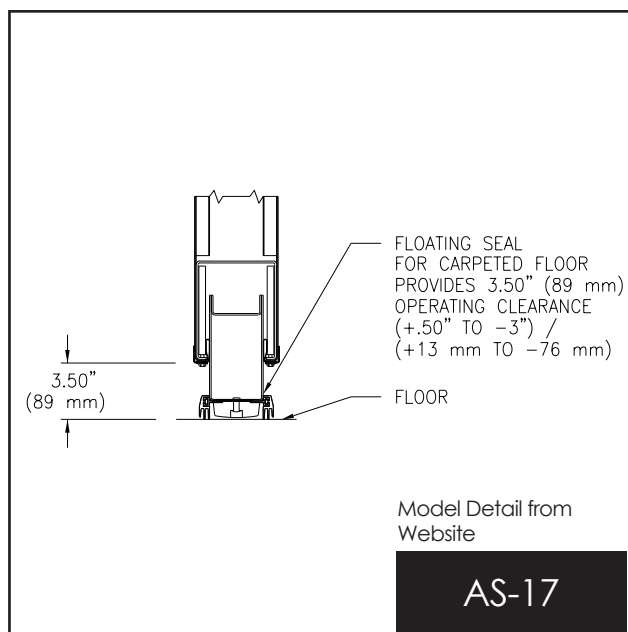
2-inch Automatic Seal



Floating Seal - Hard Floors



Floating Seal - Carpet

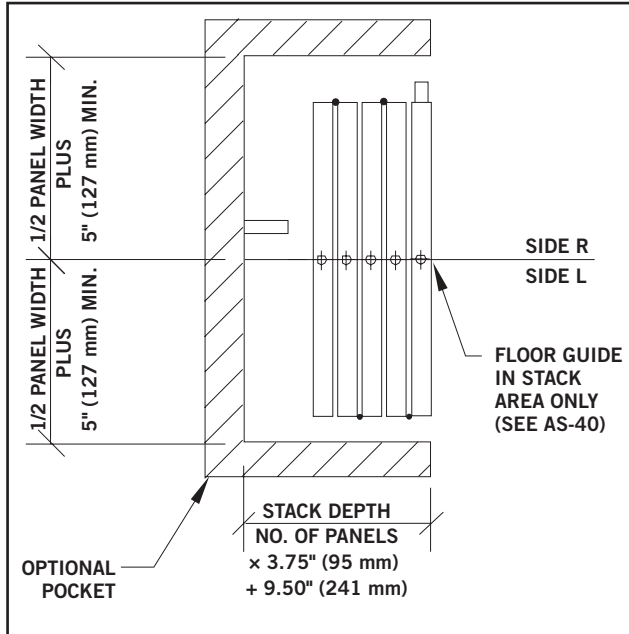


Technical Data

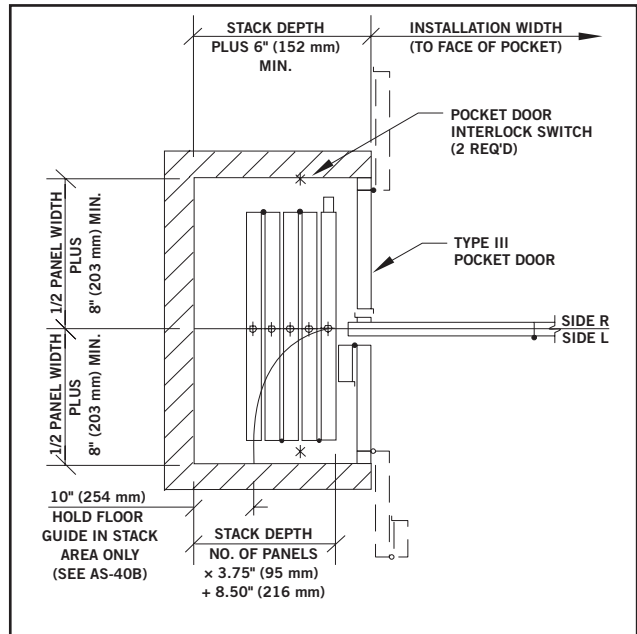
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ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
POCKET ENCLOSURE AND STACKING OPTIONS

Legacy® Electric Standard Stack

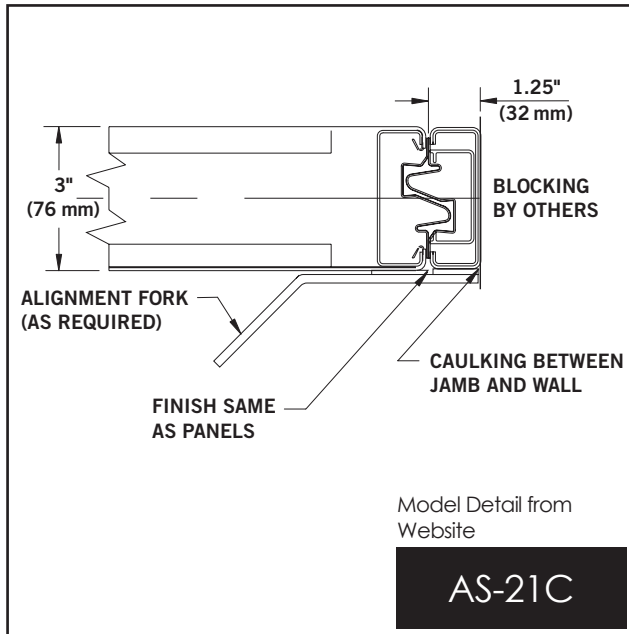


Legacy® Electric Remote Stack

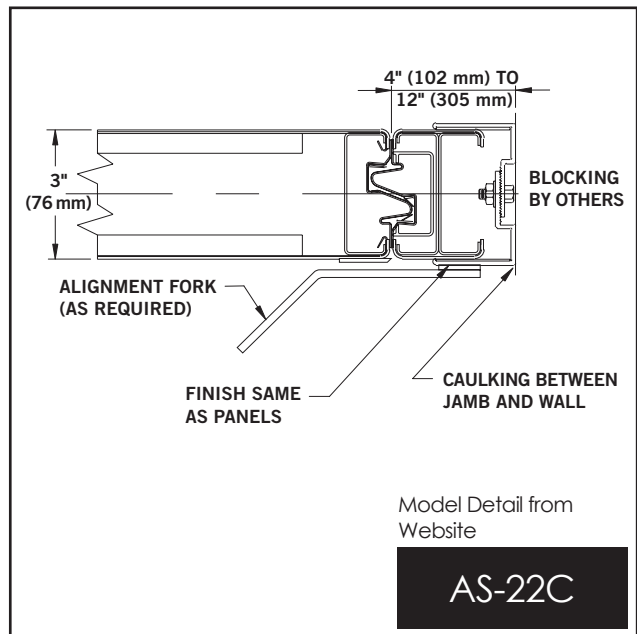


PANEL CROSS SECTIONS

Nominal Fixed Jamb

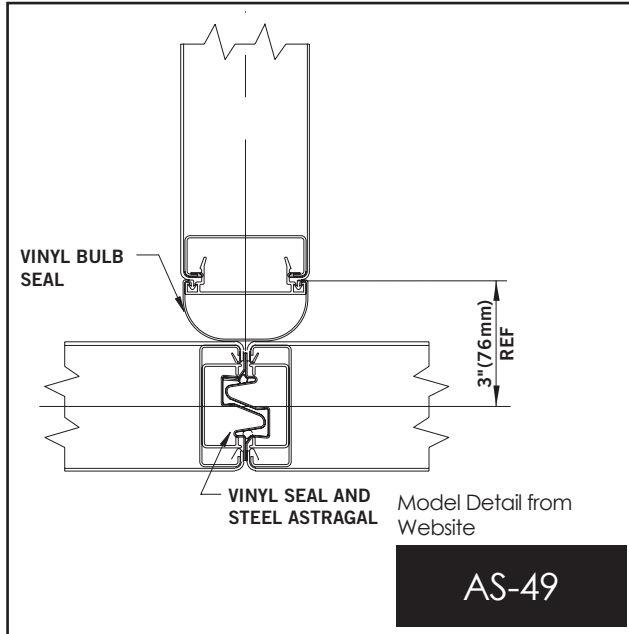


Variable Fixed Jamb

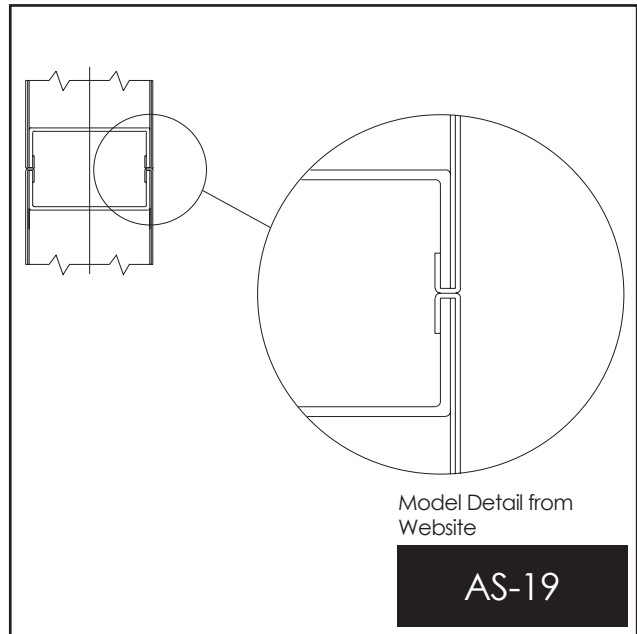


ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
PANEL CROSS SECTIONS

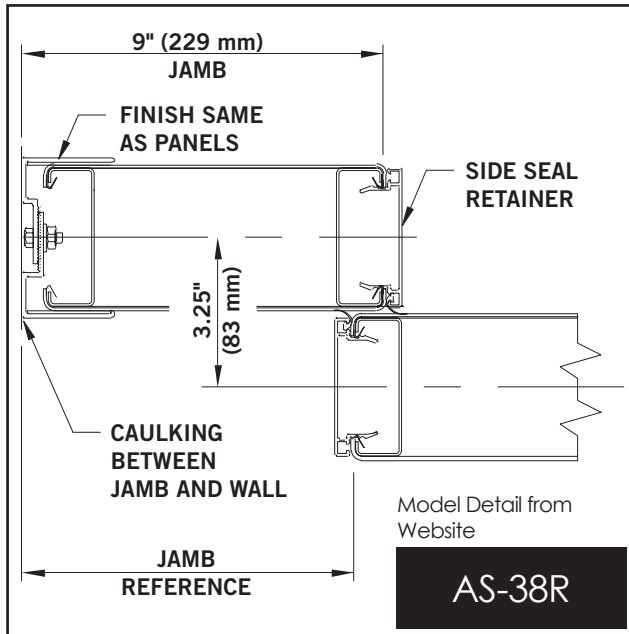
Bulb Seal and Intersection



Panel Splice Steel Skin



Side Jamb Steel Skin

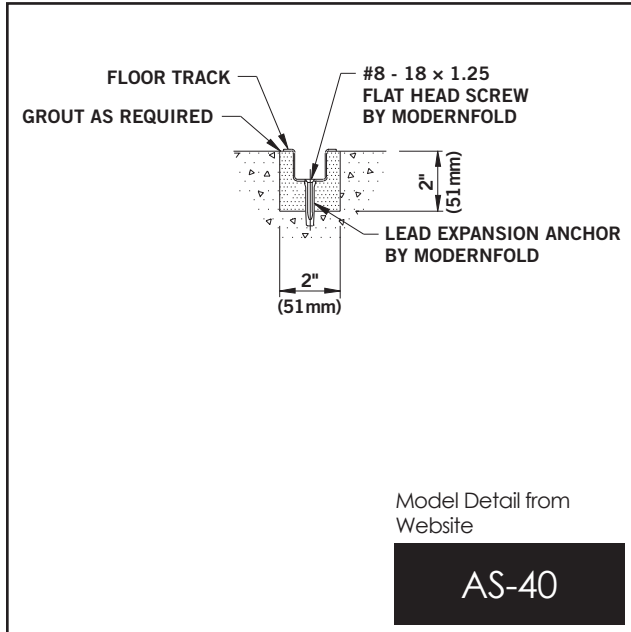


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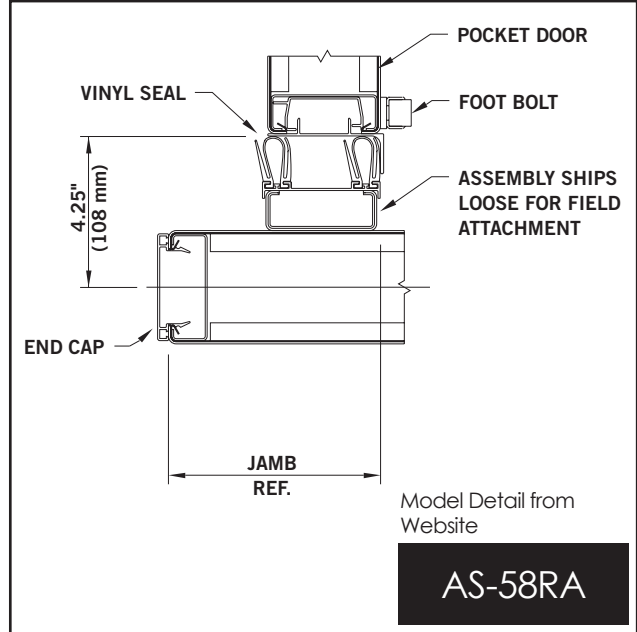
10 22 26 (10650) Operable Partitions

ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
 PANEL CROSS SECTIONS

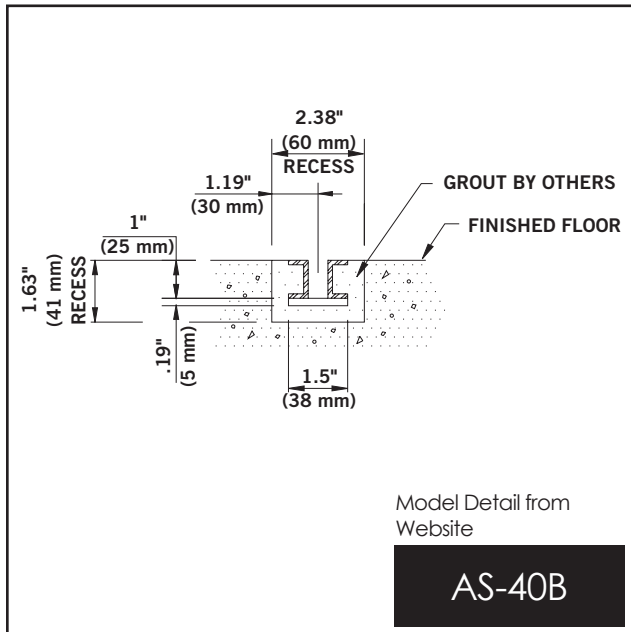
Standard Floor Guide



Side Seal Remote Stack

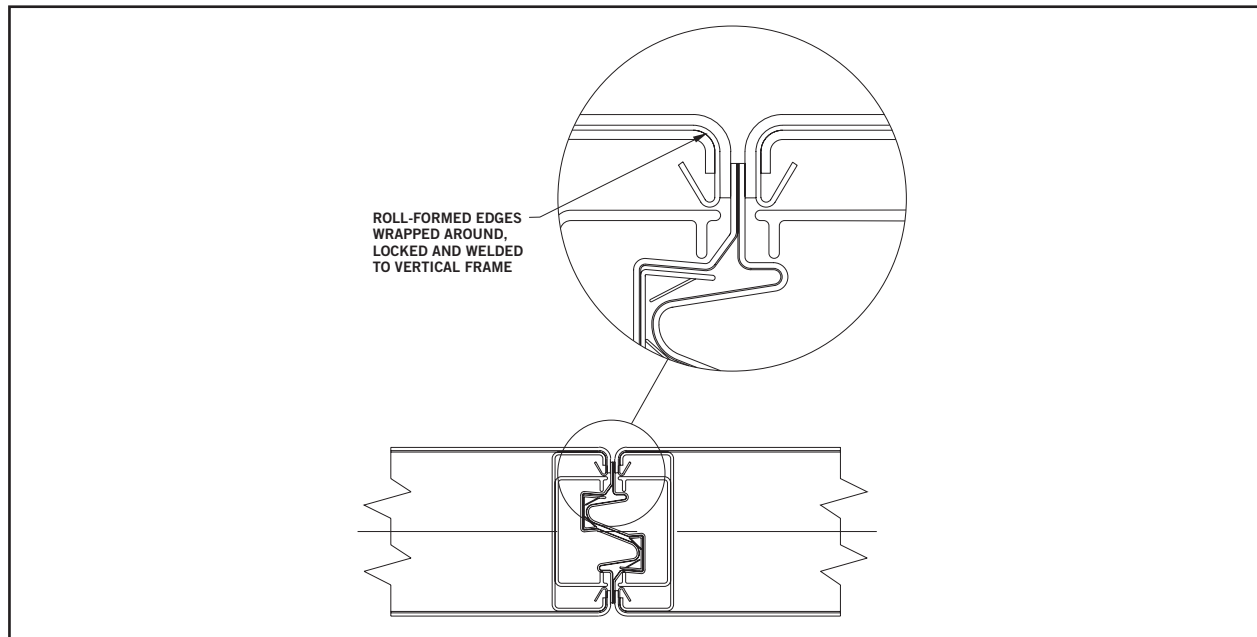


Remote Stack Floor Guide

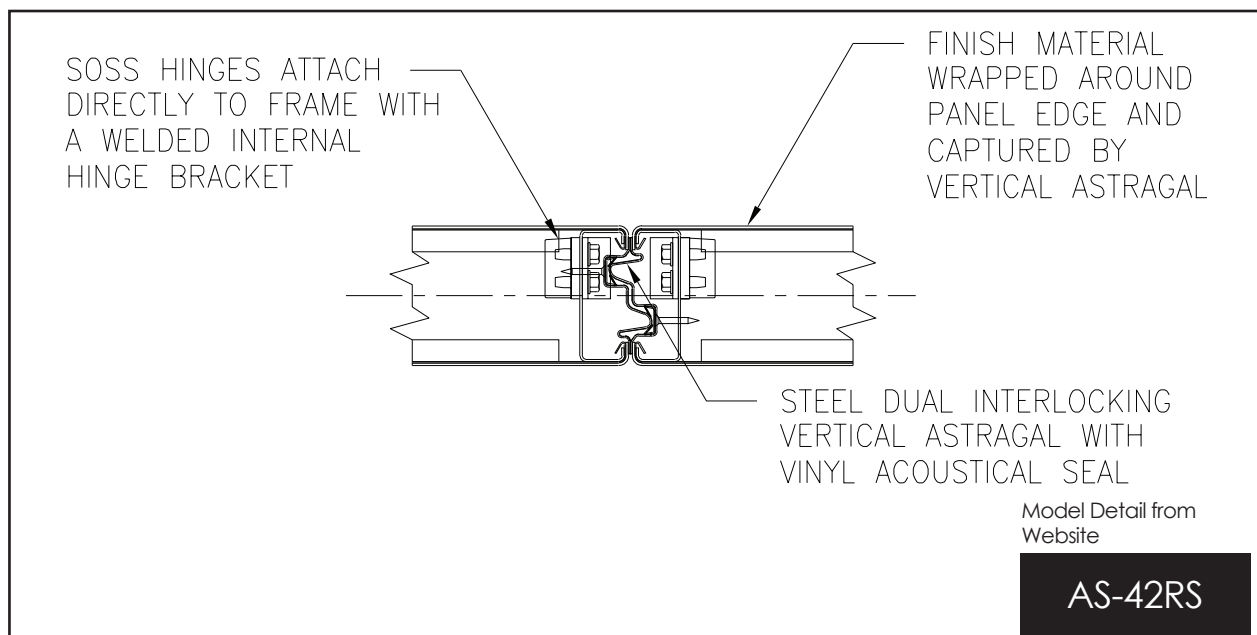


ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA PANEL CROSS SECTIONS

Steel Panel Construction



SOSS Hinged Panel Joint



Acousti-Seal® Legacy® Electric (933E)

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**ACOUSTI-SEAL® LEGACY® SERIES TECHNICAL DATA
NON-STEEL SKIN PANEL CONSTRUCTION**



215 West New Road
Greenfield, IN 46140

Tel: 800.869.9685

Email: info@modernfold.com
Website: www.modernfold.com