ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA

- Continuously Hinged Electric Partitions Provide Effortless Operation
- Extends and Stacks with the Activation of Key Operated Switches
- Integrated Safety with 2-Key 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 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 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."

1.4 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.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Clearly mark packages and panels with numbering systems used on Shop Drawings. Do not use permanent markings on panels.

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA

B. Protect panels during delivery, storage, and handling to comply with manufacturer's direction and as required to prevent damage.

1.6 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 #933E electrically operated continuously hinged operable partition.

2.2 OPERATION

A. Acousti-Seal #933E: Series of continuously hinged flat panels, electrically operated, top supported with operable floor seals.
B. Partition shall be operated by two (2) control stations wired in series and located on opposite sides of the partition. The drive unit motor shall be equipped with outboard limit switches to prevent over-extension and shall have an adjustable clutch type overload device. 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.
C. Electric motor shall consist of (select one):
   1. 115-volt, 1-phase, 1/2-horsepower, 60 hertz motor.
   2. 115-volt, 1-phase, 1-horsepower, 60 hertz motor.
   3. 208/230-volt, 1-phase, 1/2-horsepower, 60 hertz motor.
   4. 208/230-volt, 3-phase, 1-horsepower, 60 hertz motor.
   5. 460-volt, 3-phase, 1-horsepower, 60 hertz motor.

2.3 PANEL CONSTRUCTION

A. Nominal 3-inch (76mm) thick panels in manufacturer's standard 48-inch (1220mm) widths. All panel horizontal and vertical framing members fabricated from minimum 18-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. 1/2-inch (13mm) medium density fiberboard, single material or composite layers continuously bonded to panel frame. Acoustical ratings of panels with this construction (select one):
      a. 28 STC
      b. 41 STC
      c. 47 STC
      d. 50 STC
   2. Nominal 21-gage roll-formed steel wrapping around the panel edge. Panel skins shall be lockformed and welded directly to the frame for unitized construction. Acoustical ratings of panels with this construction (select one):
      a. 28 STC
      b. 45 STC
      c. 50 STC
      d. 52 STC
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:
   Non-Steel Skin
   1. 28 STC - 6 lbs./square foot
   2. 41 STC - 6.5 lbs./square foot
   3. 47 STC - 7 lbs./square foot
   4. 50 STC - 8 lbs./square foot
   Steel Skin
   1. 28 STC - 6 lbs./square foot
   2. 45 STC - 8 lbs./square foot
   3. 50 STC - 8 lbs./square foot
   4. 52 STC - 11 lbs./square foot

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA

2.4 PANEL FINISHES

A. Panel Finish: Factory applied, Class "A" rated material. Finish shall be (select one):
   1. Reinforced vinyl with woven backing weighing not less than 15 ounces per lineal yard.
   2. Reinforced heavy duty vinyl with woven backing weighing not less than 27 ounces 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 tackboard with vinyl or fabric covering.
      a. 1/4-inch natural cork
      b. 1/4-inch fiber board tackbase
   7. Full height steel work surfaces (chalkboard or markerboard).
   8. High pressure plastic laminate on MDF board.
   9. Wood veneer on MDF board.
   10. Reconstituted wood veneer (Uni-FormWood) on steel skin.
   11. Uncovered for field finishing.
   12. Primed for field finishing.

B. Panel Trim: Exposed panel trim of one consistent color (Smoke Gray or Dark Bronze).

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 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. Modernfold IA2 bottom seal. Automatic operable seals providing nominal 2-inch (51mm) operating clearance with an operating range of +1/2-inch (13mm) to –1-1/2 inch (38mm) 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 (89mm) operating clearance within operating range of +1/2-inch 15mm) to –3-inch (76mm) and shall provide continuous floor contact as panels are positioned with no need for tools or cranks.

2.6 SUSPENSION SYSTEM

A. #14 Suspension System
   1. Suspension Tracks: Minimum 7-gage, 0.18-inch (4.57mm) roll-formed steel. Static loading of track with brackets at 48-inch (1220mm) centers shall show no failure of track or brackets at 5,000 pounds (2250 kg) point loading at mid-span. Track shall be supported by adjustable steel hanger brackets connected to structural support by pairs of 1/2-inch (13mm) 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.

B. #30 Suspension System
   1. Suspension Tracks: Track shall be structural aluminum. Static loading of track with brackets at 48-inch (1220mm) centers shall show no failure of track or brackets at 5,000 pounds (2250 kg) point loading at mid-span. Track shall be supported by adjustable steel hanger brackets connected to structural support by pairs of 3/8-inch (9.5mm) diameter threaded rods.
      a. Exposed track soffit: Track soffit to be integral to track shape and shall be powder-coated off white paint finish. Design of track will not require or permit the use of any exposed guide rail installed below the ceiling line. 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 (76.2mm) 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 (12.7mm) diameter pendent bolt mounted to welded steel mounting plate.

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.

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA

a. Automatic door closures.
b. Self-Illuminated exit signs.
c. Panic hardware.

B. Work Surfaces:
1. 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.
2. 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.
3. Chalkboards: Porcelain 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.

C. 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. Inset window options - glazed or unglazed.
5. Resilient Padding

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.
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 insure 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.

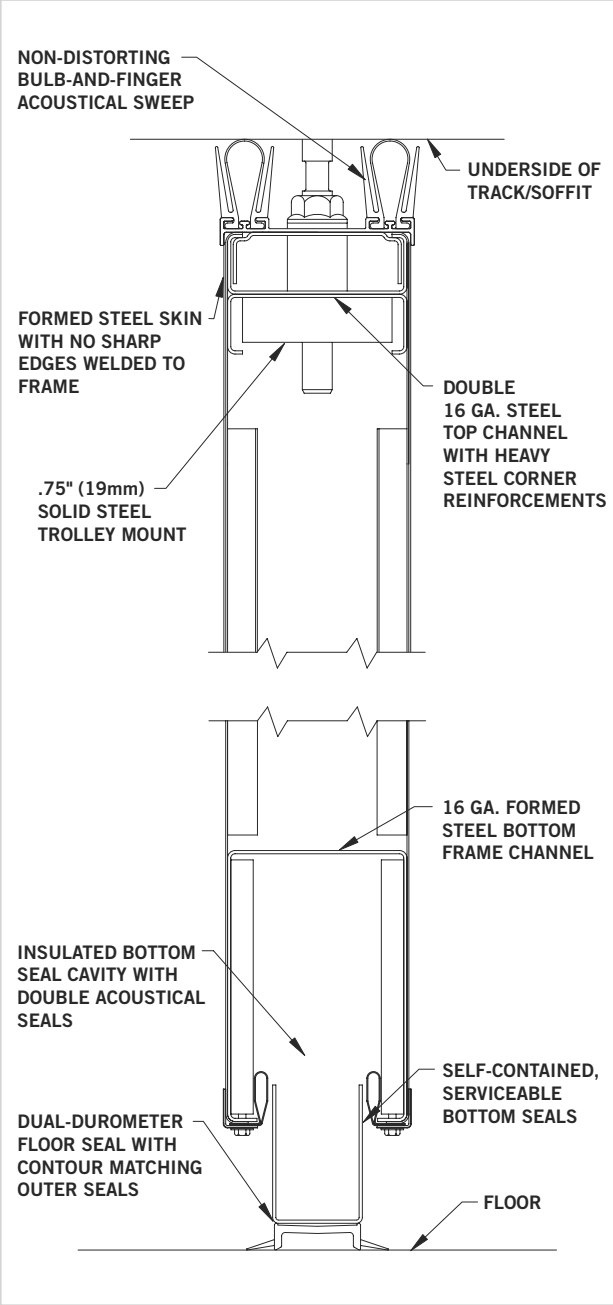
STC CONSTRUCTION AND TRACK SYSTEM HEIGHT LIMITATIONS

	Non-Steel Skin Max Height				Welded Steel Skin Max Height			
Acousti-Seal 933E	28 STC	41 STC	47 STC	50 STC	28 STC	45 STC	50 STC	52 STC
#14 Bracket Mounted Track	24'-2"	24'-2"	24'-2"	24'-2"	24'-2"	24'-2"	24'-2"	18'-2"
#30 Bracket Mounted Track	12'-2"	12'-2"	12'-2"	12'-2"	12'-2"	12'-2"	12'-2"	12'-2"

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
STEEL SKIN PANEL CONSTRUCTION

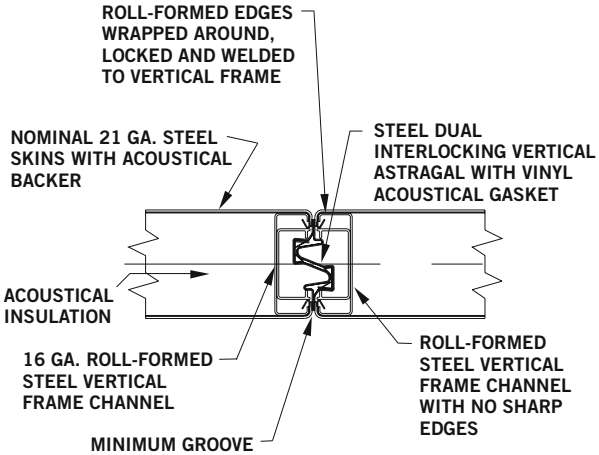
Acousti-Seal 933E
Panel Section Frame Details

PANEL DETAILS ARE NOT TO SCALE



Acousti-Seal 933E
Standard Panel Joint

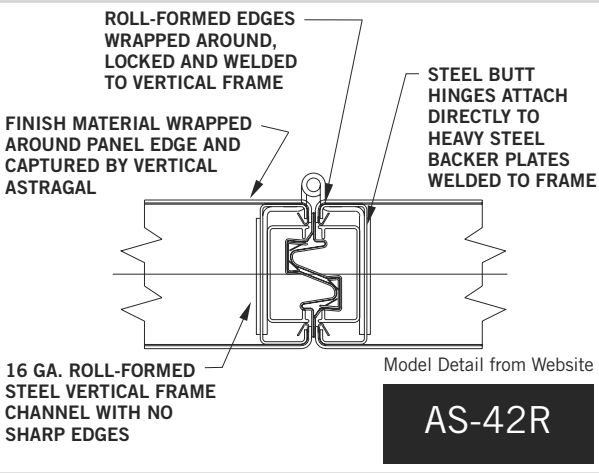
Roll-formed skin wraps completely around the edge of vertical 16-gage steel channel and is locked in place, eliminating any sharp edges and creating a unitized panel. The finish material is secured under the steel astragal to prevent peeling.



Model Detail from Website

AS-41

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.



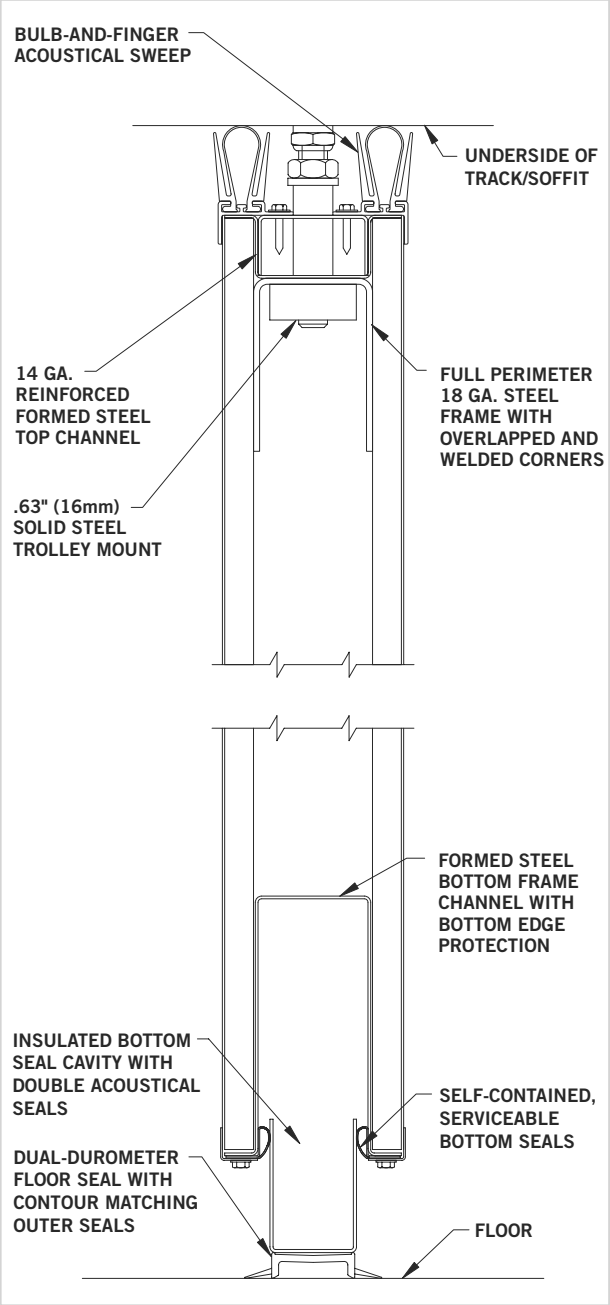
Model Detail from Website

AS-42R

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
NON-STEEL SKIN PANEL CONSTRUCTION

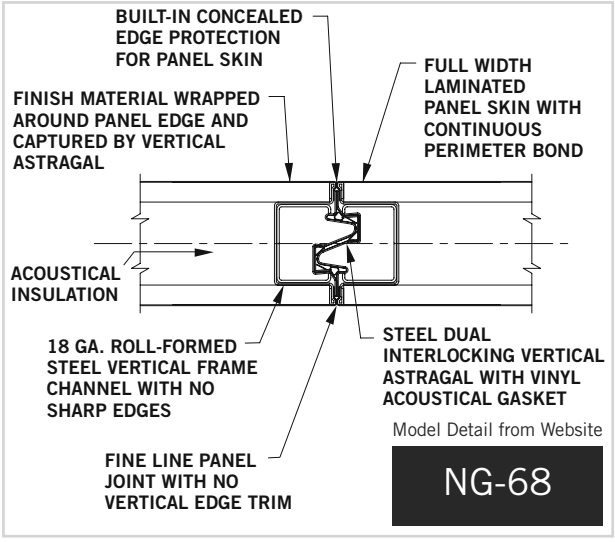
Acousti-Seal 933E
Panel Section Frame Details

PANEL DETAILS ARE NOT TO SCALE

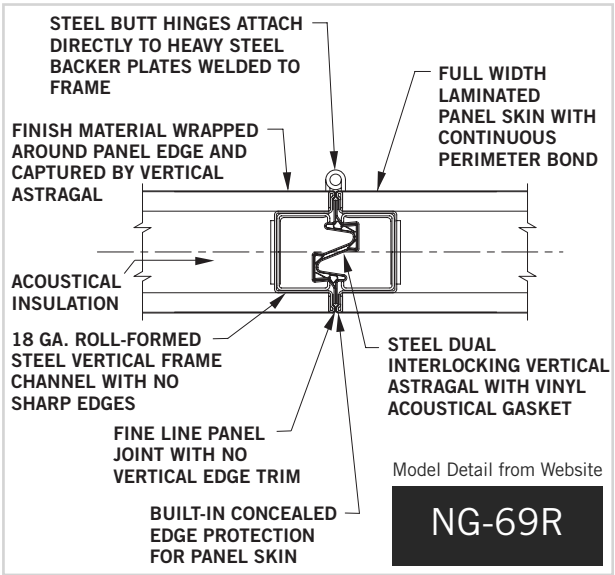


Acousti-Seal 933E
Standard Panel Joint

Roll-formed vertical frame channel provides added strength while eliminating any sharp edges. The outer covering is secured under the steel astragal to prevent peeling. The complete vertical edge of the panel is steel for maximum durability.

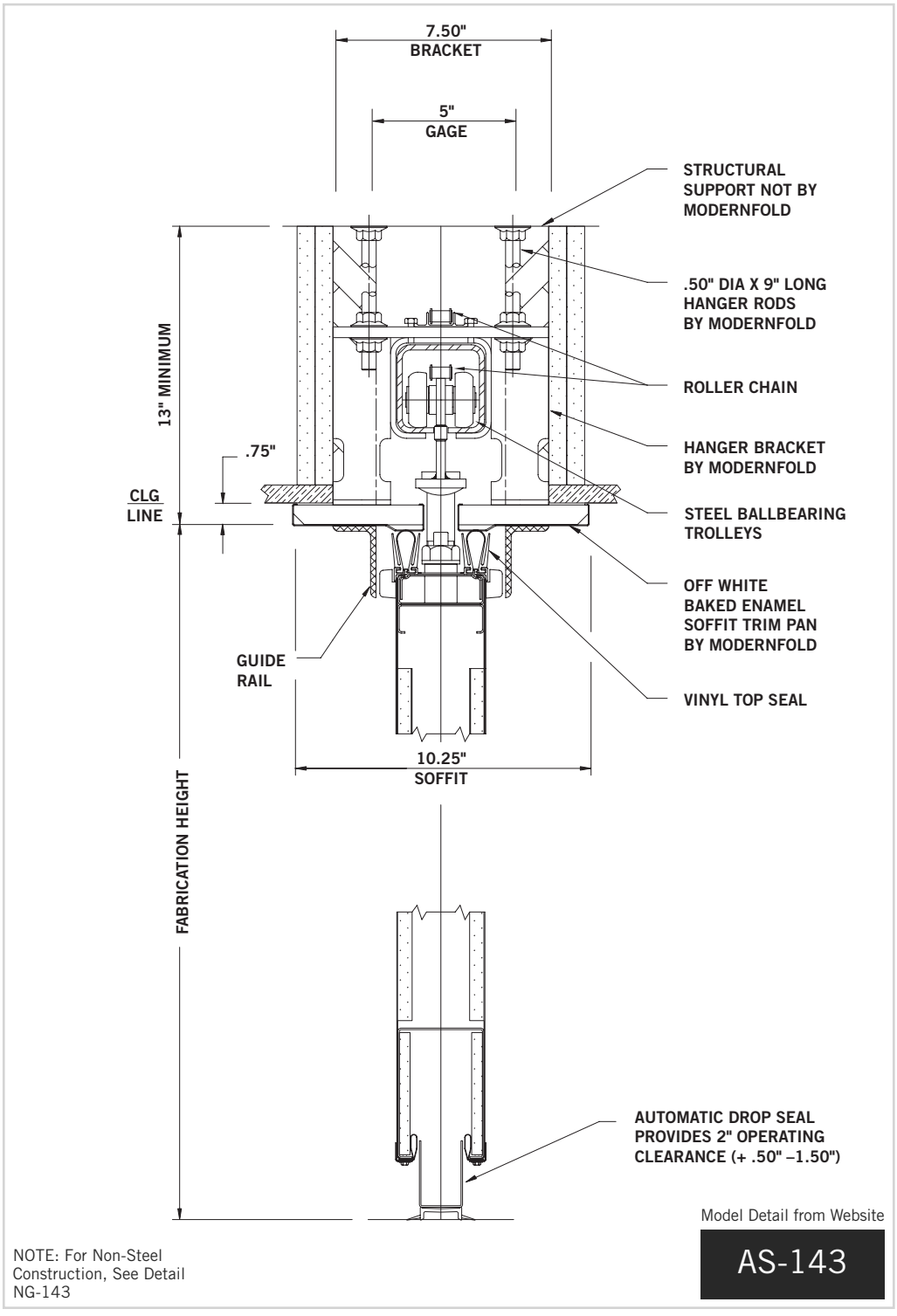


Heavy steel hinges are mounted directly to the center of the vertical frame channel, not simply on the outside edge of the panel. Steel plates welded to the back of the channel prevent buckling or bending and provide the strongest hinge connection.



ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
SUSPENSION SYSTEM OPTIONS

#14 Track System Bracket Mounted with Automatic Drop Seal



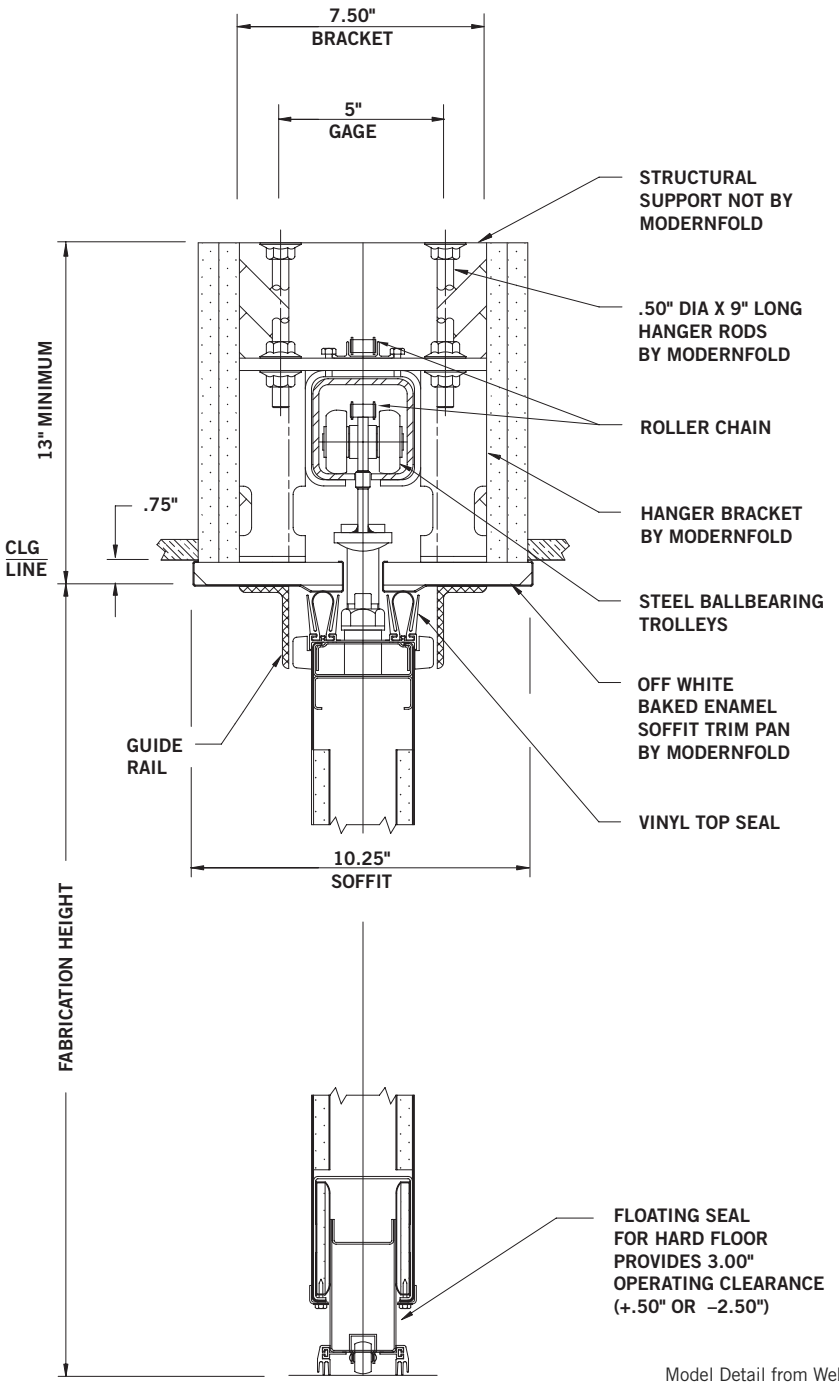
Model Detail from Website

AS-143

NOTE: For Non-Steel Construction, See Detail NG-143

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
SUSPENSION SYSTEM OPTIONS

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



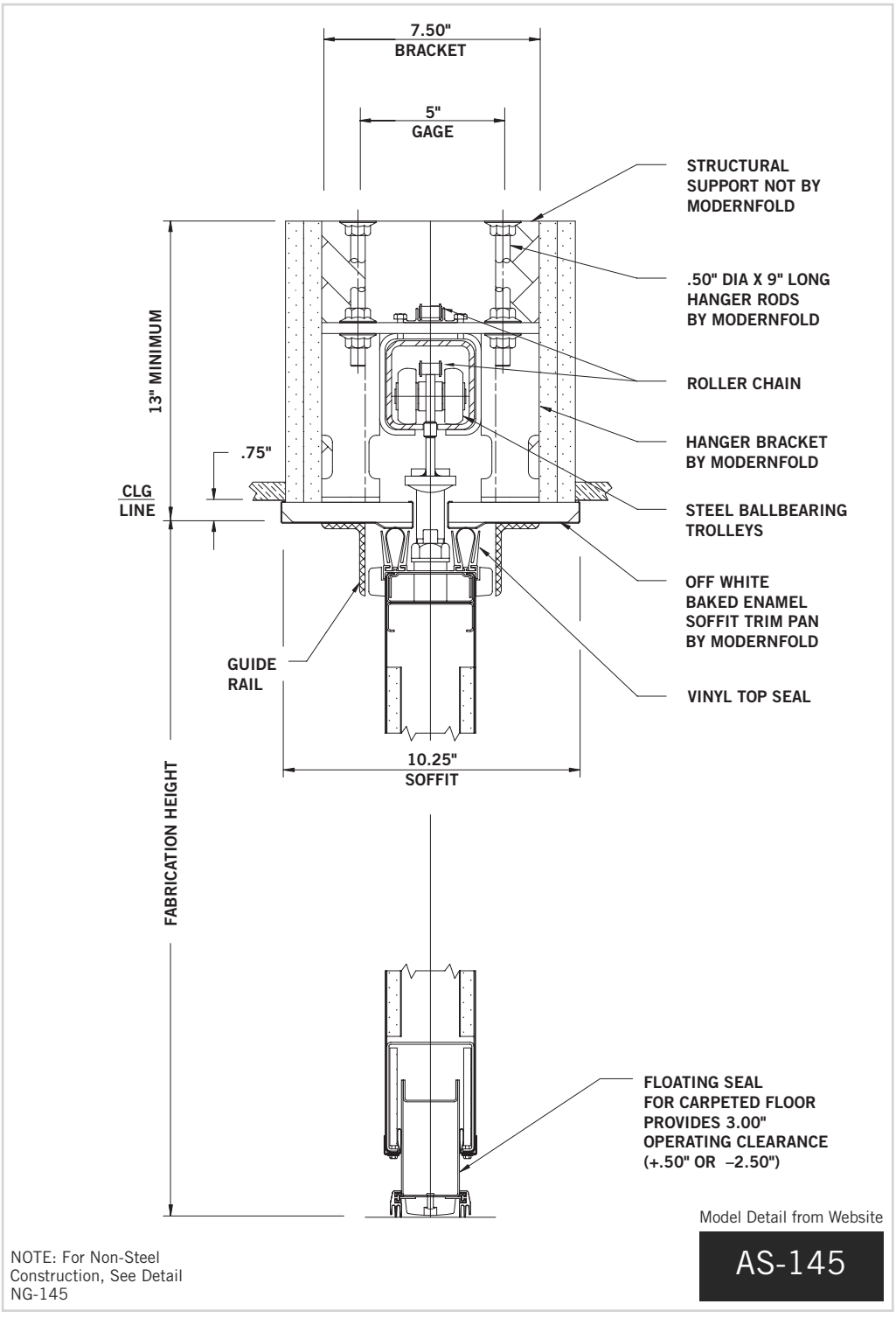
Model Detail from Website

AS-144

NOTE: For Non-Steel Construction, See Detail NG-144

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
SUSPENSION SYSTEM OPTIONS

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



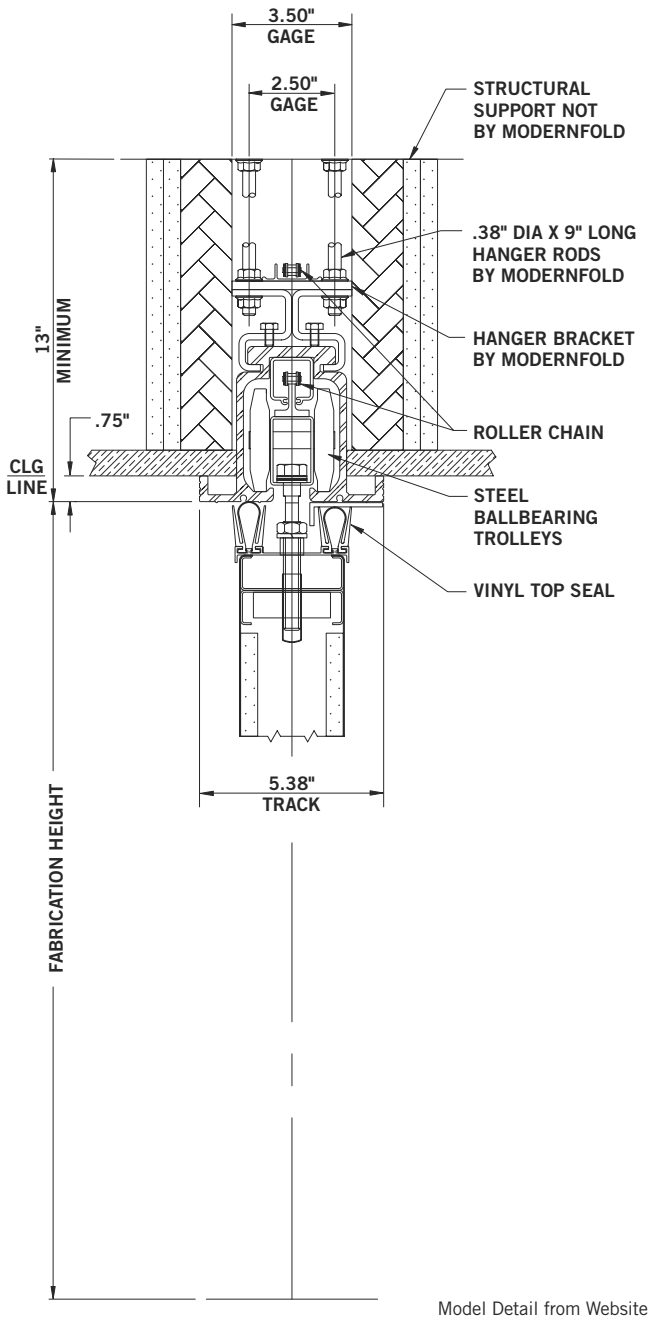
Model Detail from Website

AS-145

NOTE: For Non-Steel
Construction, See Detail
NG-145

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
SUSPENSION SYSTEM OPTIONS

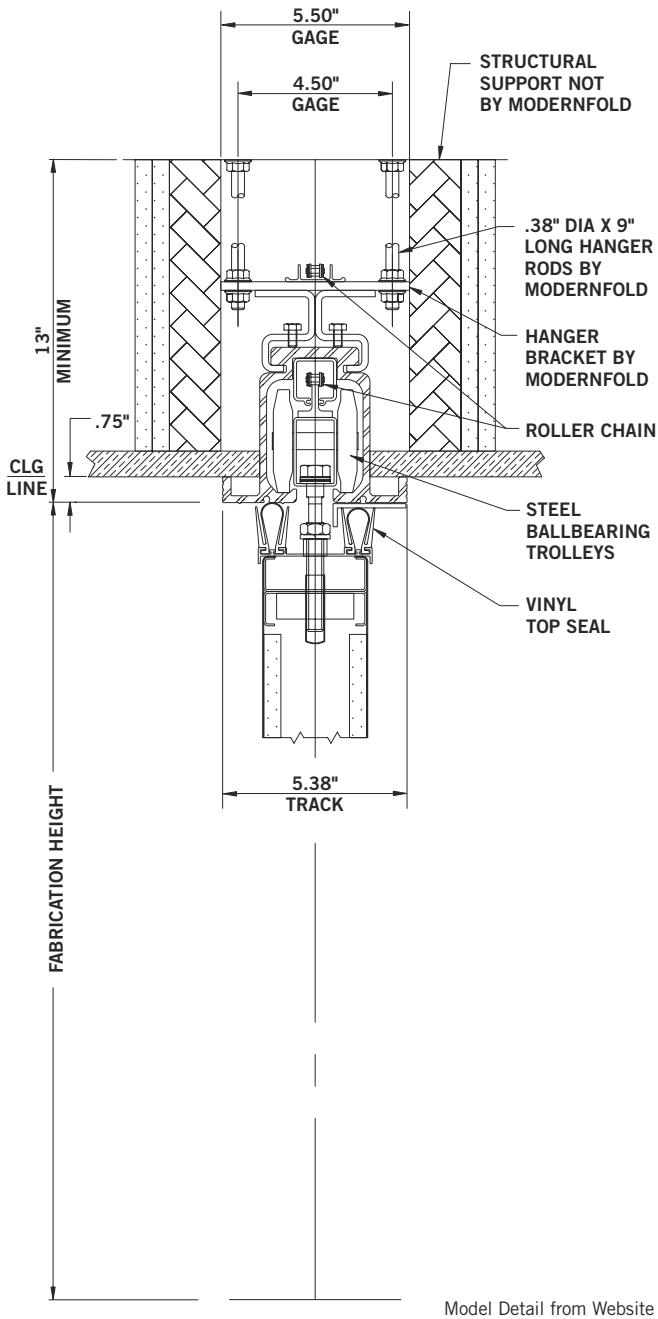
#30 Track System Standard Spacing



Model Detail from Website

AS-119

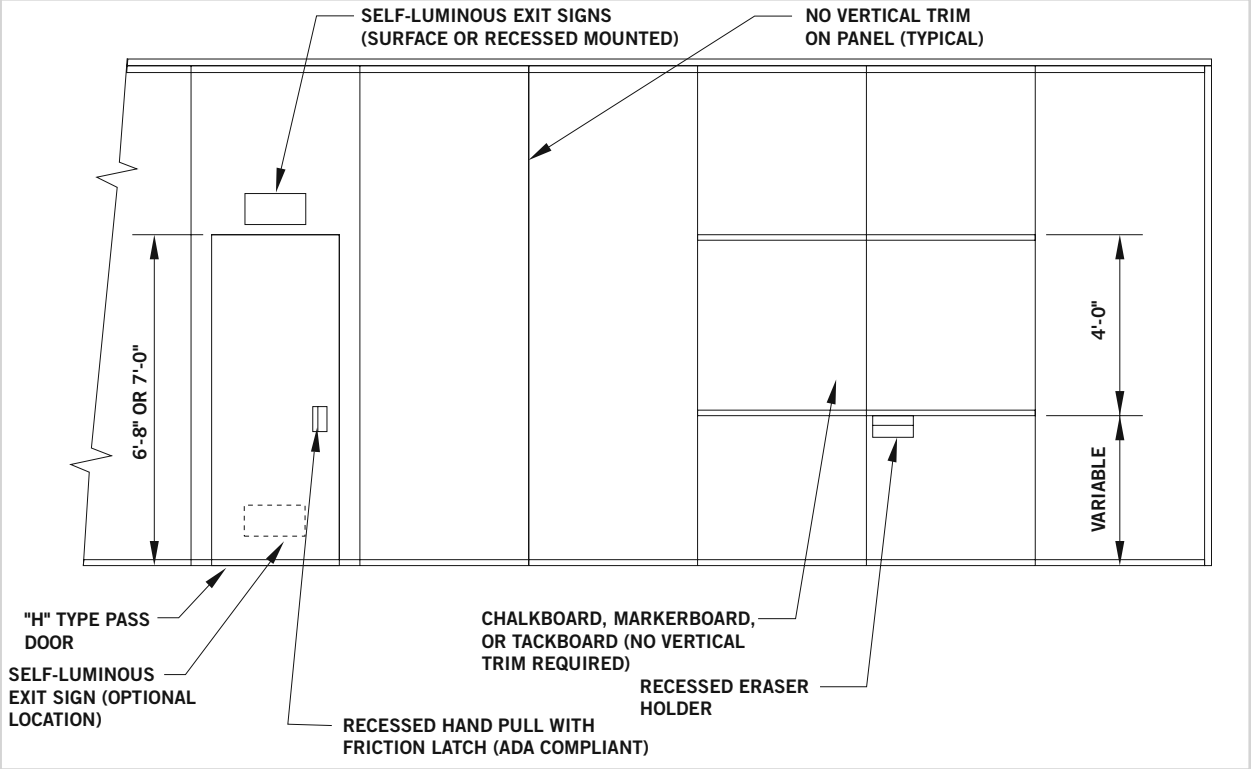
#30 Track System Optional Wider Spacing



Model Detail from Website

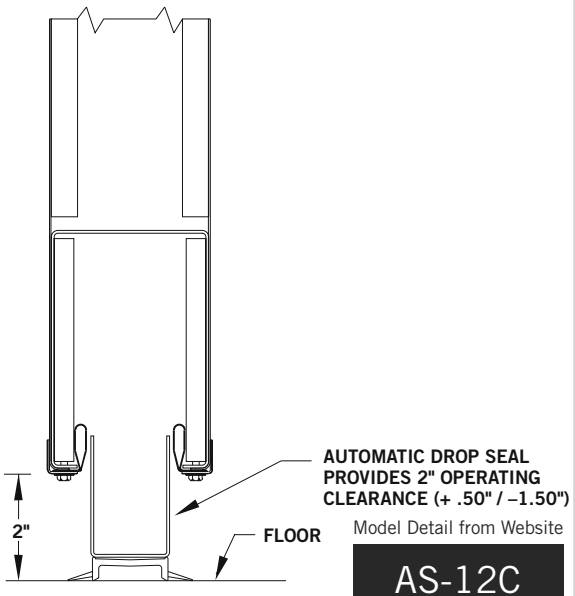
AS-120

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
PANEL, WORK SURFACE, AND PASS DOOR OPTIONS



FLOOR SEAL OPTIONS

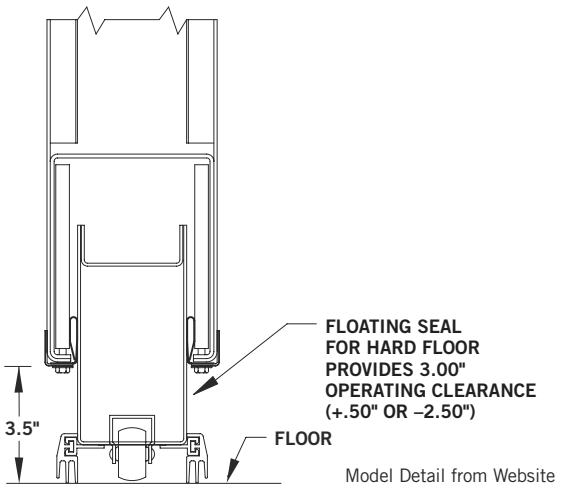
2" Automatic Seal



Model Detail from Website

AS-12C

Floating Seal

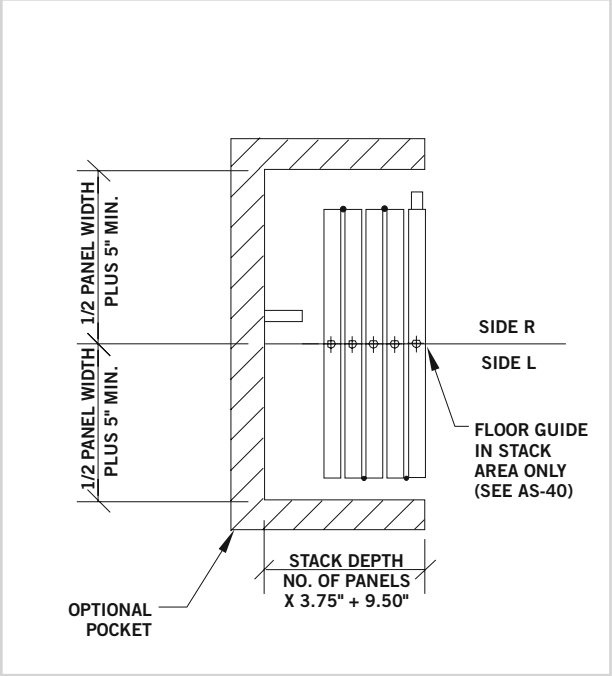


Model Detail from Website

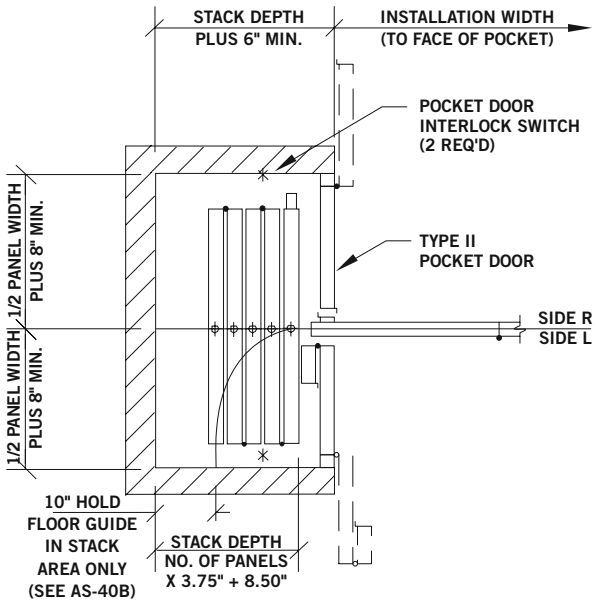
AS-15

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
POCKET ENCLOSURE AND STACKING OPTIONS

933E Standard Stack



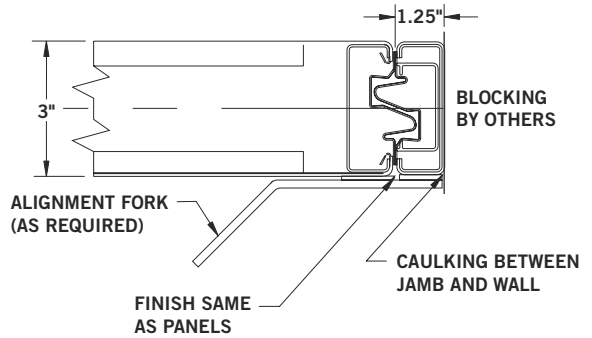
933E Remote Stack



Additional detail page 14

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
PANEL CROSS SECTIONS

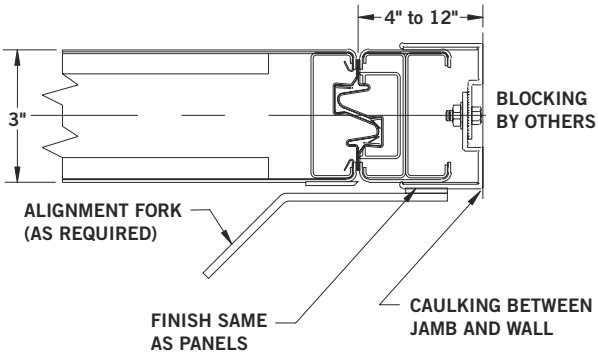
Nominal Fixed Jamb



Model Detail from Website

AS-21C

Variable Fixed Jamb

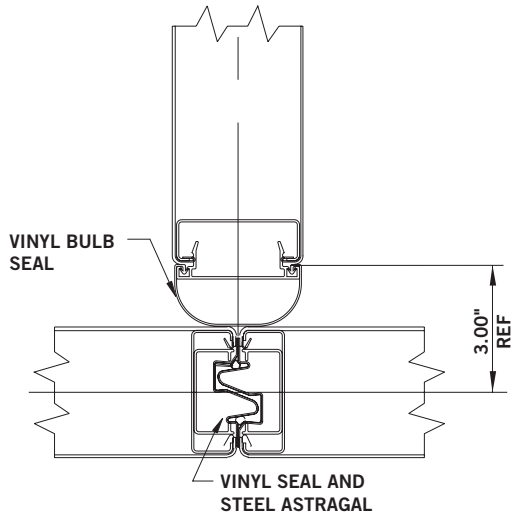


Model Detail from Website

AS-22C

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
PANEL CROSS SECTIONS

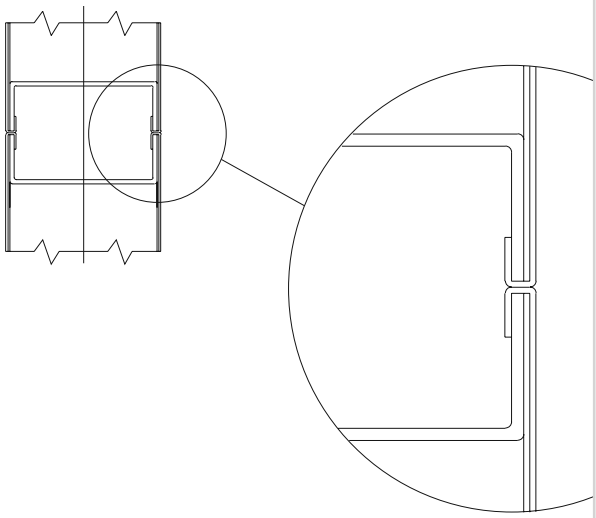
Bulb Seal and Intersection



Model Detail from Website

AS-49

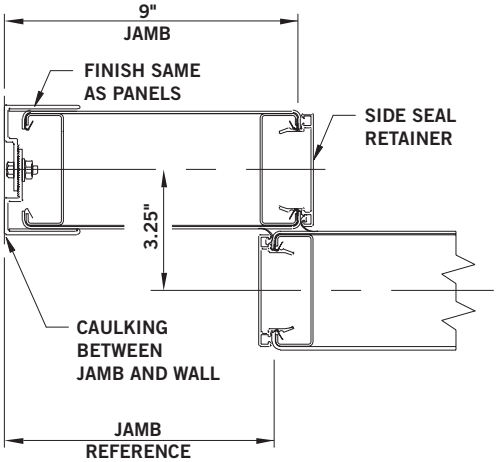
Panel Splice Steel Skin



Model Detail from Website

AS-19

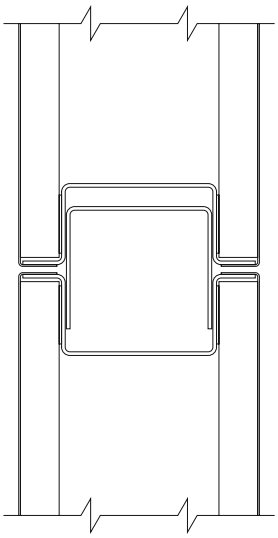
Side Jamb Steel Skin



Model Detail from Website

AS-38R

Panel Splice Non-Steel Skin

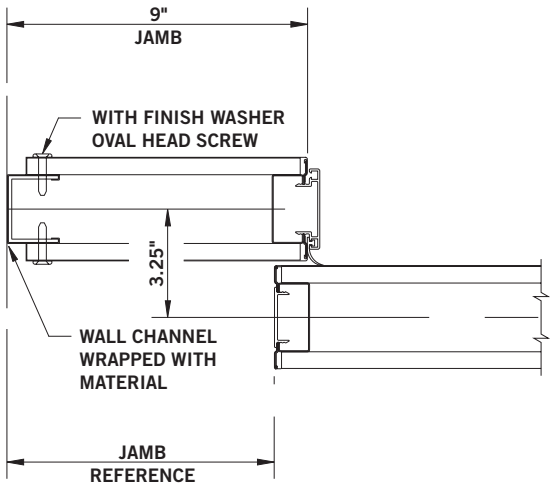


Model Detail from Website

NG-54

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
PANEL CROSS SECTIONS

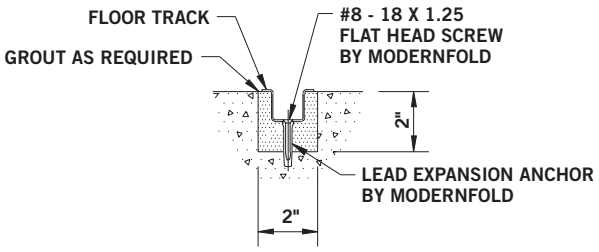
Side Jamb Non-Steel Skin



Model Detail from Website

NG-65R

Standard Floor Guide

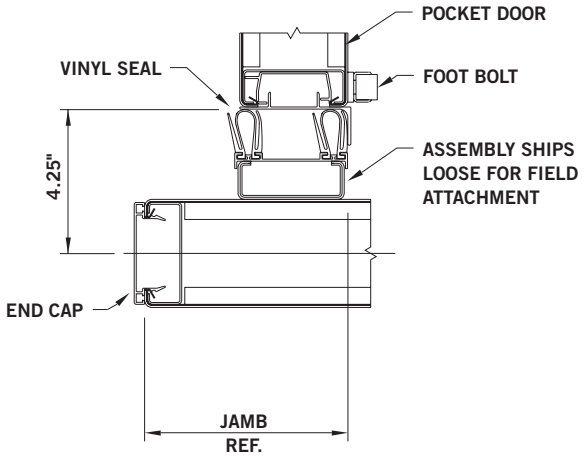


Model Detail from Website

AS-40

In Stack
Area Only

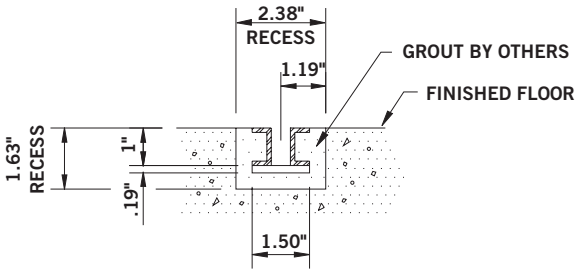
Side Seal Remote Stack



Model Detail from Website

AS-58RA

Remote Stack Floor Guide



Model Detail from Website

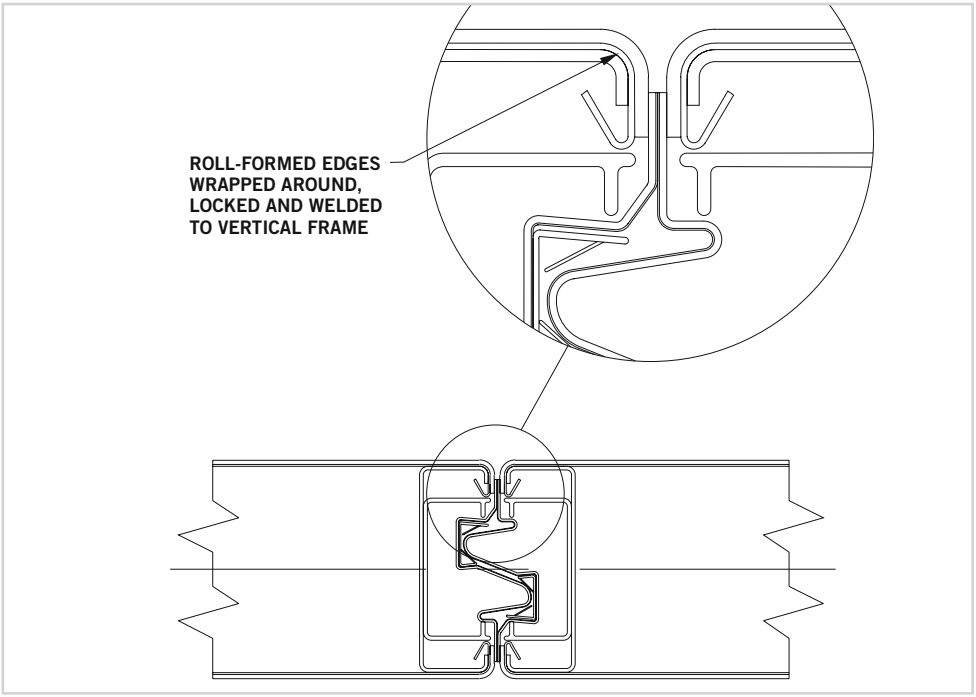
AS-40B

In Stack
Area Only

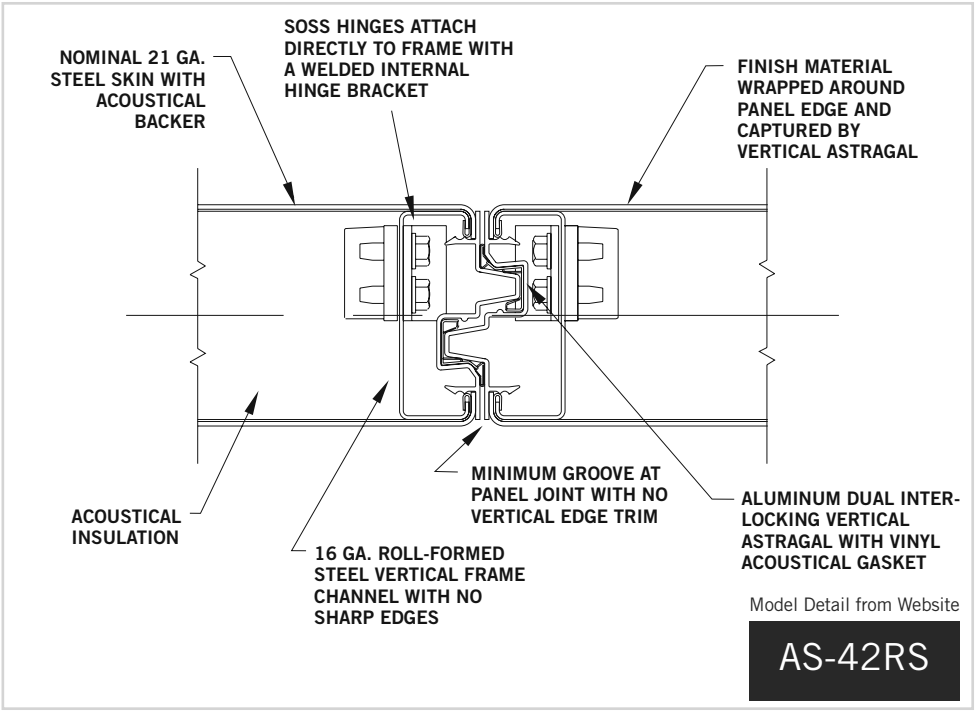
Please contact your local Modernfold distributor for further assistance, or visit our website at www.modernfold.com.

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
PANEL CROSS SECTIONS

Steel Panel Construction



SOSS Panel Joint (Steel Skin Construction Only)



Model Detail from Website

AS-42RS

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