

ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA

THE ACOUSTI-SEAL® PAIRED PANEL SYSTEM

- Used in straight-line openings that do not require multiple locations or offset storage
- No auxiliary storage track or support required
- Panels are hinged together in groups of two and provide quick and easy setup
- Ideally suited for applications that require exceptional durability, acoustic control, and frequent use
- Floor-supported (932FS) paired panels are available for installations where the existing overhead structure cannot support the partition's weight
- Used in classrooms, conference or meeting rooms, and office space

Modernfold Model

Acousti-Seal® 932

Flat Panels, Paired Panel Operation

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. Manually operated, paired panel operable partitions.
- B. Related Sections include the following:
1. Division 3 Sections for concrete tolerances required.
 2. Division 5 Sections for primary structural support, including pre-punching of support members by structural steel supplier per operable partition supplier's template.
 3. Division 6 Sections for wood framing and supports, and all blocking at head and jambs as required.
 4. Division 9 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.
- B. Protect panels during delivery, storage, and handling to comply with manufacturer's direction and as required to prevent damage.

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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 products by the following:
 - 1. Modernfold, Inc.
- B. Products: Subject to compliance with the requirements, provide the following product:
 - 1. Acousti-Seal® #932 manually operated paired panel operable partition.

2.2 OPERATION

- A. Acousti-Seal® #932: Series of paired flat panels hinged together in pairs, manually operated, top supported with operable floor seals.
- B. Final Closure (select one):
 - 1. Horizontally expanding panel edge with removable crank
 - 2. Hinged panel closure
 - 3. Enclose
 - 4. Pass door closure

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 or 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. 1/2-inch (13mm) tackable 100% recycled gypsum board, class "A" rated 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. 1/2-inch (13mm) tackable 100% recycled moisture and mold resistant gypsum board, class "A" rated 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
 - 3. 1/2-inch (13mm) NAUF 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
 - 4. Roll-formed steel wrapping around 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. 50 STC
 - b. 52 STC
 - C. Hinges for Closure Panels, Pass Doors, and Pocket Doors shall be:
 - 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 (available on steel skin panel only).
 - 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. 50 STC - 8 lbs./square foot
 - 2. 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.

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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. High pressure plastic laminate on MDF board.
 9. Wood veneer on MDF board.
 10. Uncovered for field finishing.
 11. Primed for field finishing.
- B. Panel trim: Exposed panel trim of one consistent color from manufacturer's standard offering.

2.5 SOUND SEALS

- A. Vertical Interlocking Sound Seals between panels: Roll-formed steel astragals, with reversible tongue and groove configuration in each panel edge for universal panel operation. Rigid plastic or aluminum 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 (select one):
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. Modernfold IM2 bottom seal: Manually activated bottom seals with self contained handle providing nominal 2-inch (51mm) operating clearance with an operating range of +1/2-inch (13mm) to -1-1/2-inch (38mm). Seal shall be operable from panel edge or face.
 3. Modernfold IC2 bottom seal: Manually activated operable bottom seals with removable handle providing nominal 2-inch (51mm) operating clearance with an operating range of +1/2-inch (13mm) to -1-1/2-inch (38mm). Seal shall be operable from panel edge or face.

2.6 SUSPENSION SYSTEM (select one)

- A. #17 Suspension System
1. Suspension Tracks: Minimum 11-gage, 0.12-inch (3 mm) roll-formed steel track, suitable for either direct mounting to a wood header or supported by adjustable steel hanger brackets, supporting the load-bearing surface of the track, connected to structural support by pairs of 3/8-inch (9.5mm) diameter threaded rods. Aluminum track is not acceptable.

- a. Exposed track soffit: Steel, integral to track, and pre-painted off-white.
2. Carriers: One all-steel trolley with steel-tired ball bearing wheels per panel (except hinged panels). Non-steel tires are not acceptable.
3. Warranty period: Five (5) 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 per panel 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.

- OR -

C. #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 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: One all steel trolley with steel-tired ball bearing wheels per panel (except hinged panels). Non-steel tires are not acceptable.
3. Warranty period: Twenty (20) years.

- OR -

- D. Modernfold Truss System: Pre-fabricated, self-supporting header system for the support of operable partitions. (For complete specification see Modernfold Truss System brochure Form #2600)

2.7 OPTIONS

- A. Single Pass Doors (select one):
1. Standard hollow metal door hung in a steel frame. ADA-compliant pass door to be equipped with friction latch and flush pulls for panic operation. No threshold will be permitted.

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- a. Pass door to be prime painted for field finishing.
 - b. Pass door to be painted one consistent color from manufacturer's standard offering.
2. 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.
3. Hardware
- a. Automatic door closures.
 - b. Self-Illuminated exit signs.
 - c. Panic hardware.
- B. 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 (6.35 mm) natural cork, covered with vinyl or fabric, with horizontal trim without exposed fasteners. Trim is not acceptable on vertical edges.
- C. Available Accessories/Options:
1. Pocket Doors: Acousti-Seal® Pocket Doors by Modernfold, Inc., with same construction, finish, and appearance as the adjacent panels.
 2. Finished end caps.
 3. Intersecting partition interface.
 4. Inset window options - glazed or unglazed.

- 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.

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.

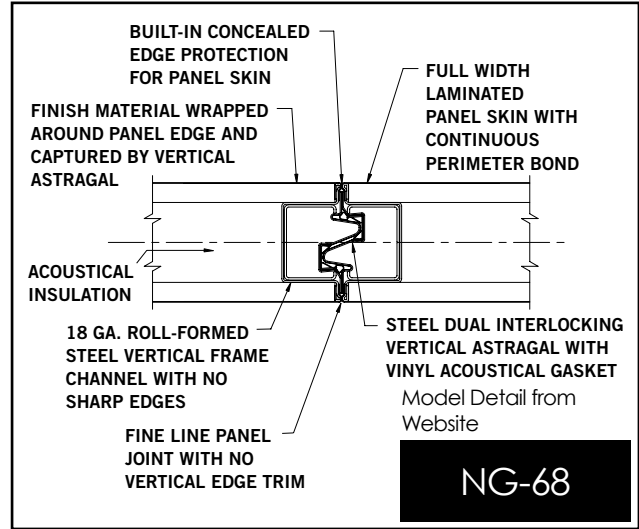
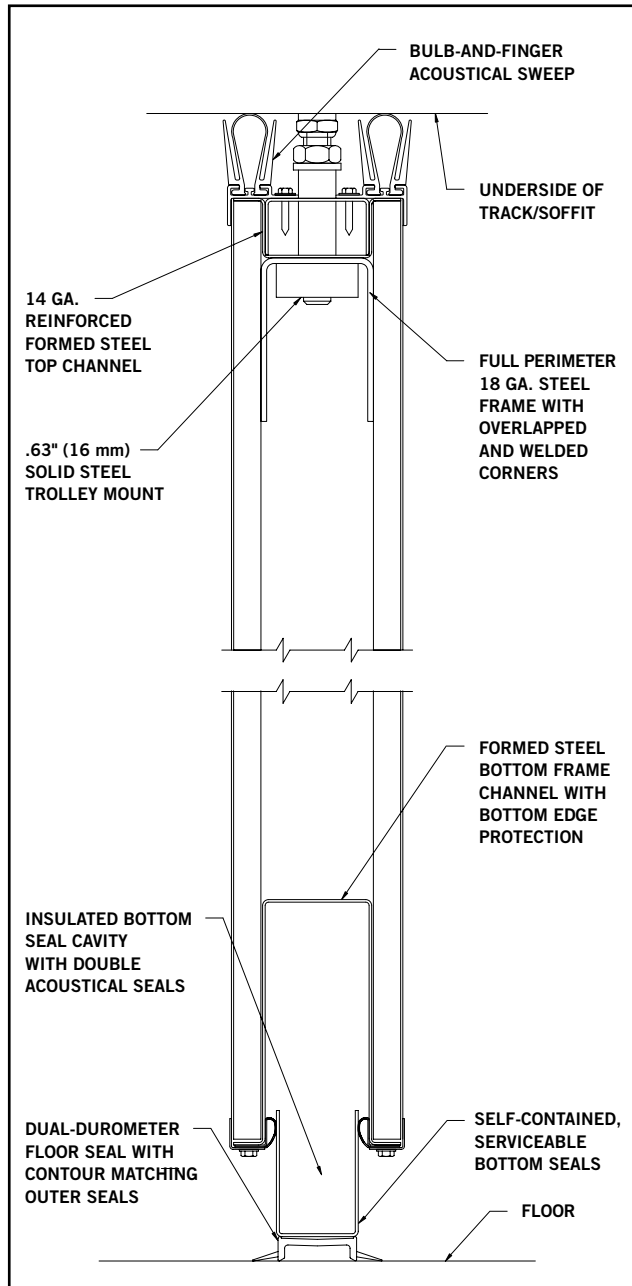
Acousti®-Seal 932	Non-Steel Skin Max Height			
	28 STC	41 STC	47 STC	50 STC
#17 Direct Mounted Track	14'-4" (4369 mm)	14'-4" (4369 mm)	12'-4" (3759 mm)	10'-4" (3150 mm)
#17 Bracket Mounted Track	18'-4" (5588 mm)	18'-4" (5588 mm)	18'-4" (5588 mm)	16'-4" (4978 mm)
#17 Bracket Mounted Track (w/pass door)	18'-4" (5588 mm)	18'-4" (5588 mm)	18'-4" (5588 mm)	16'-4" (4978 mm)
#14 Bracket Mounted Track	18'-4" (5588 mm)	18'-4" (5588 mm)	18'-4" (5588 mm)	18'-4" (5588 mm)
#30 Bracket Mounted Track	18'-4" (5588 mm)	18'-4" (5588 mm)	18'-4" (5588 mm)	16'-4" (4978 mm)

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

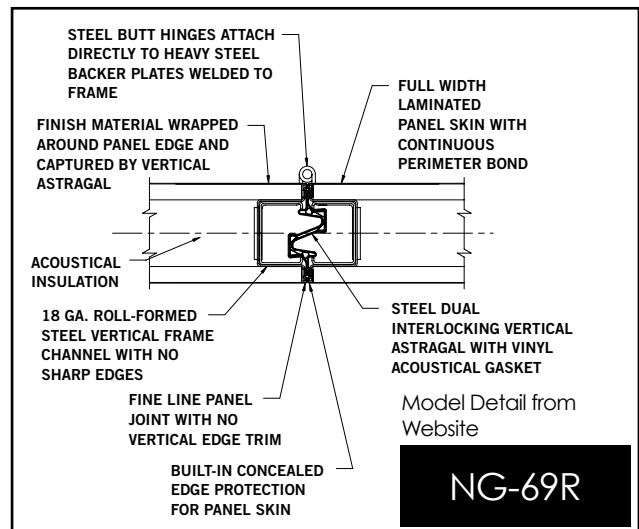
Acousti-Seal® 932
 Panel Section Frame Details

Acousti-Seal® 932
 Standard Panel Joint

PANEL DETAILS ARE NOT TO SCALE

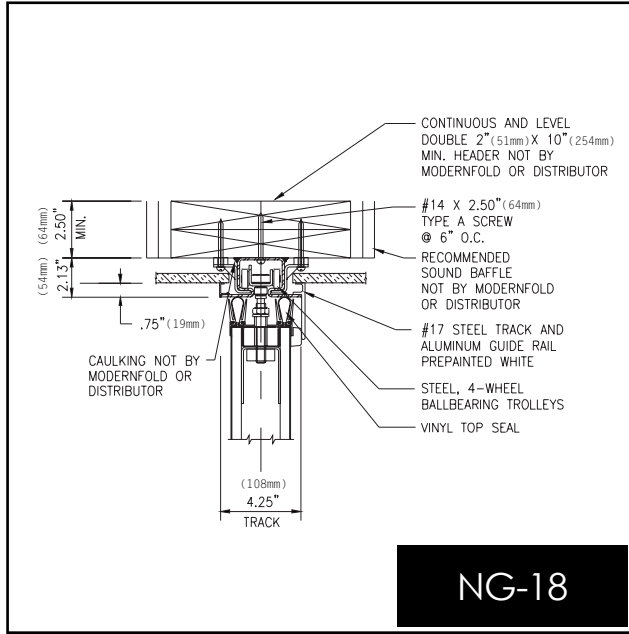


Heavy steel hinges are mounted directly to the center of the vertical frame channel, not simply on the outside edge of the panel. Steel plates on the back of the channel prevent buckling or bending and provide the strongest hinge connection.



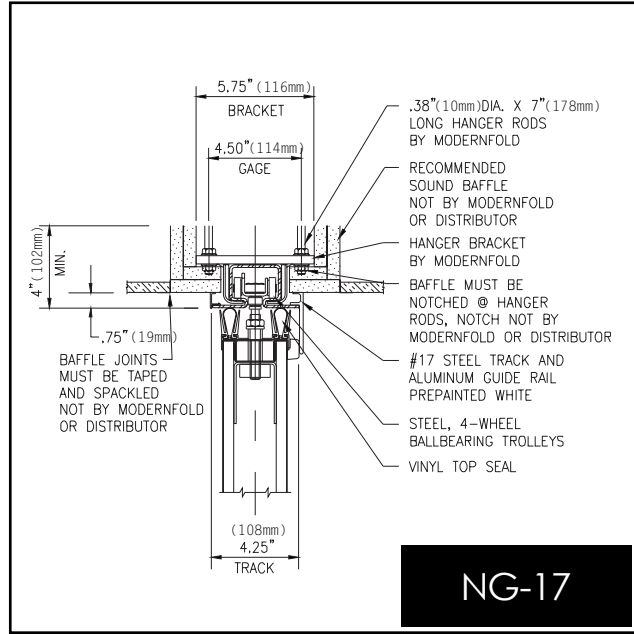
ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
SUSPENSION SYSTEM OPTIONS

#17 Track System Direct Mount



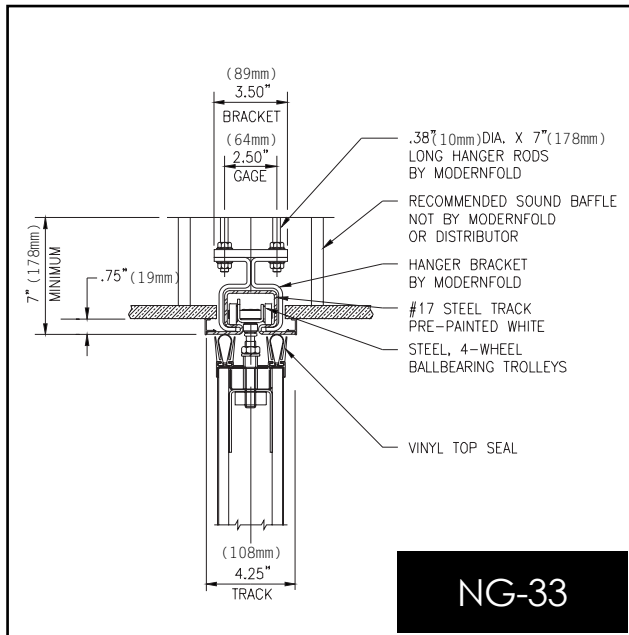
NG-18

#17 Track System Bracket Mount



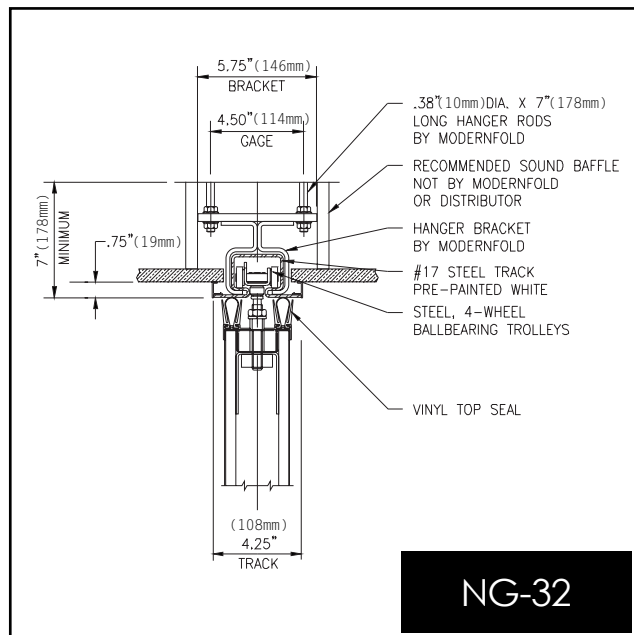
NG-17

#17 Track System Bracket Mount
 Heavy-Duty – 2.50" Gage



NG-33

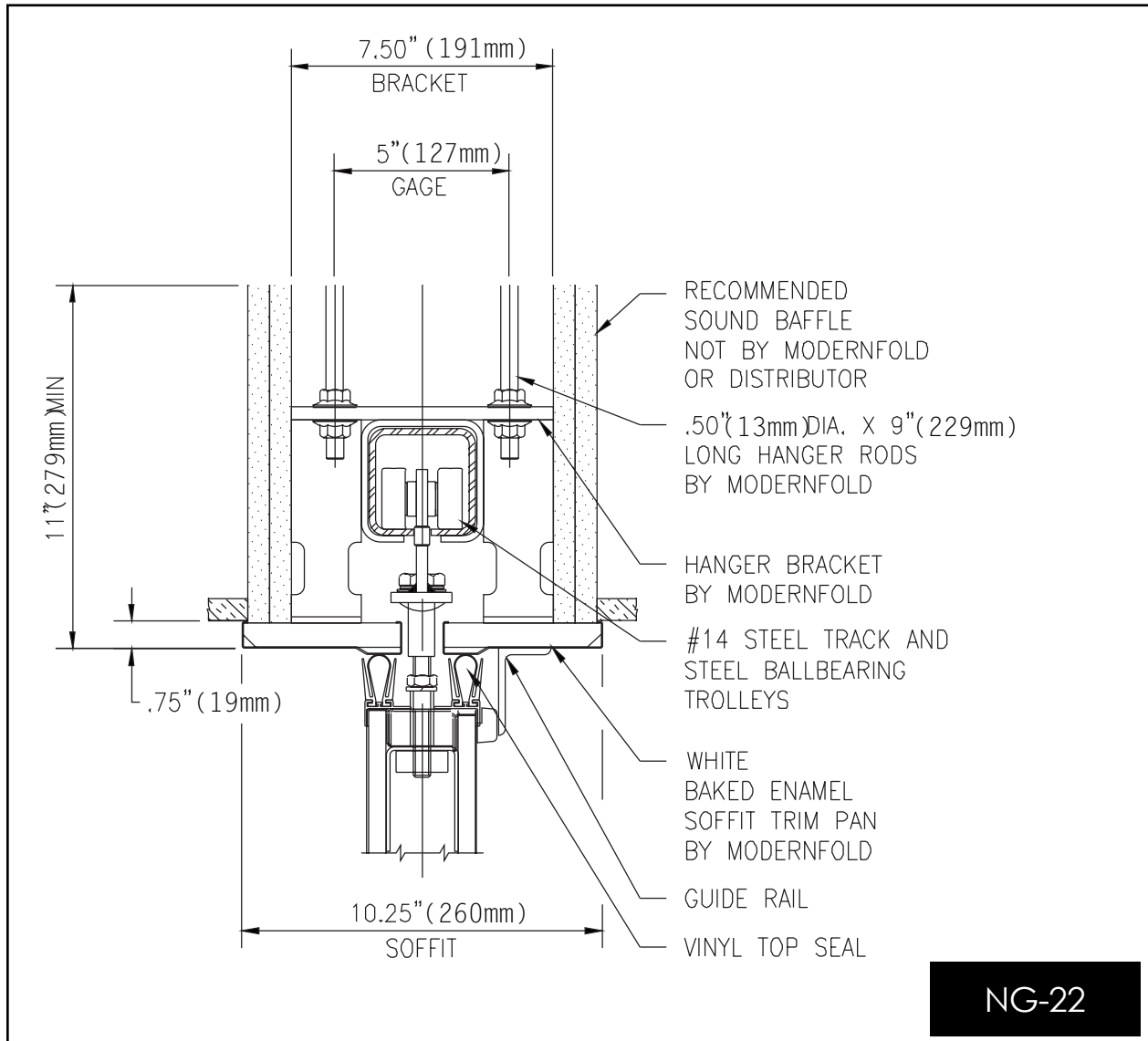
#17 Track System Bracket Mount
 Heavy-Duty – 4.50" Gage



NG-32

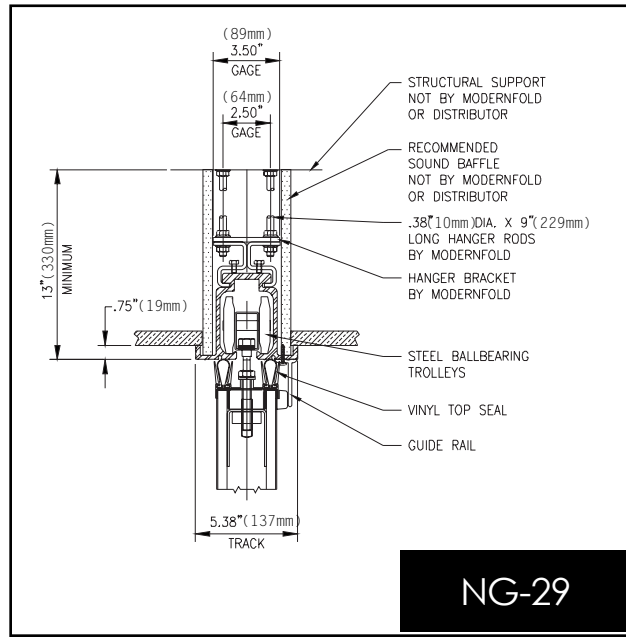
ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA SUSPENSION SYSTEM OPTIONS

#14 Track System Bracket Mount

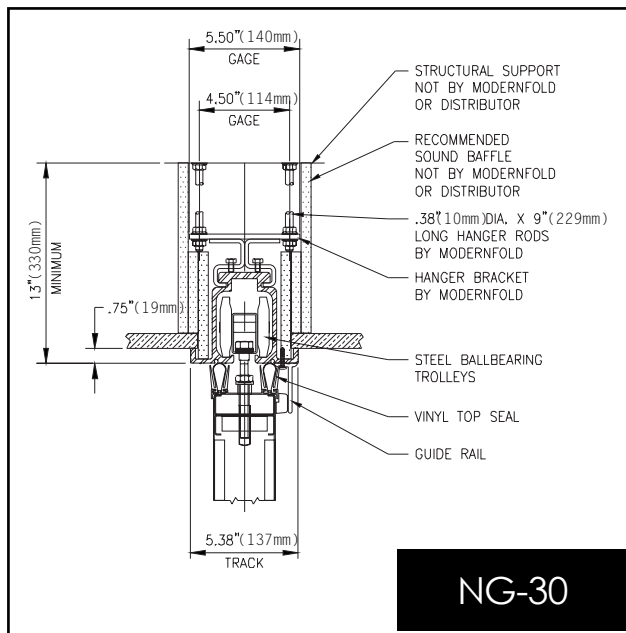


ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
SUSPENSION SYSTEM OPTIONS

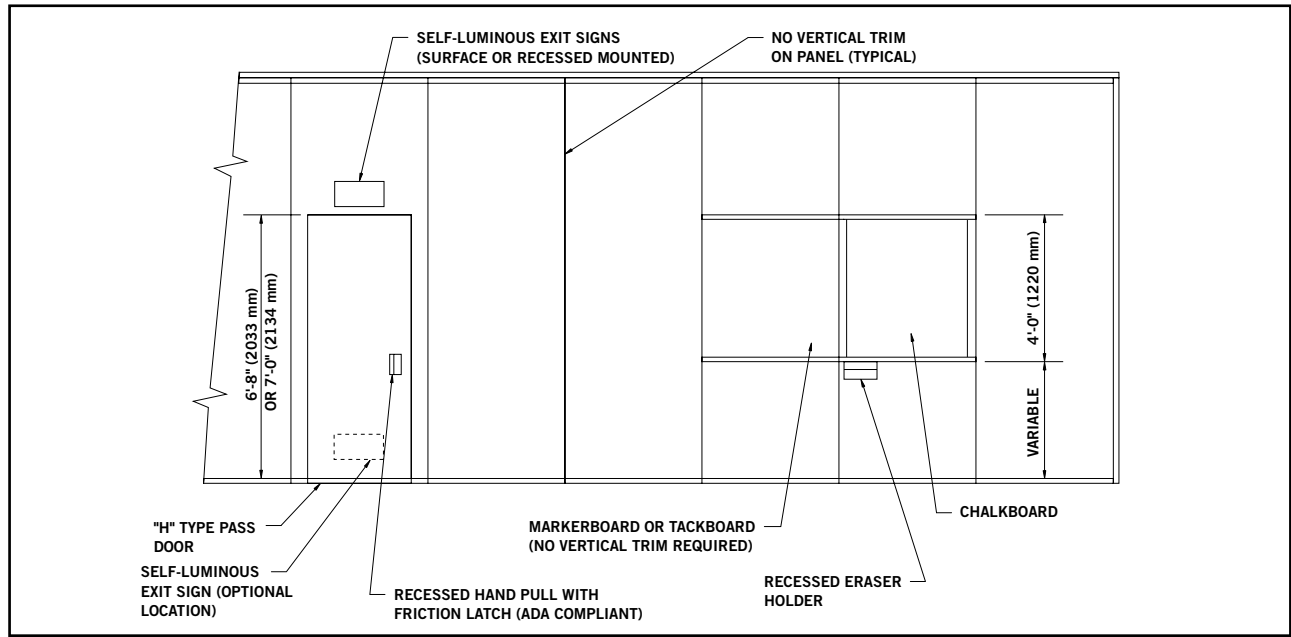
#30 Track System Standard Spacing



#30 Track System Optional Wider Spacing

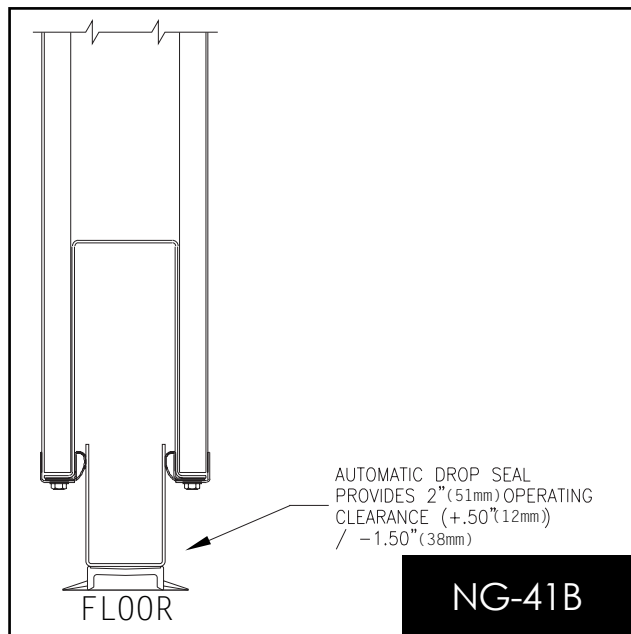


ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
PANEL, WORK SURFACE, AND PASS DOOR OPTIONS

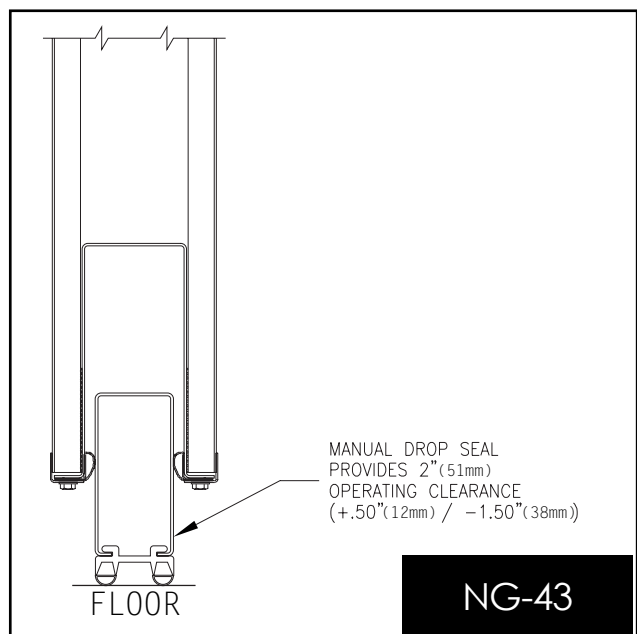


FLOOR SEAL OPTIONS

2-inch Automatic Seal

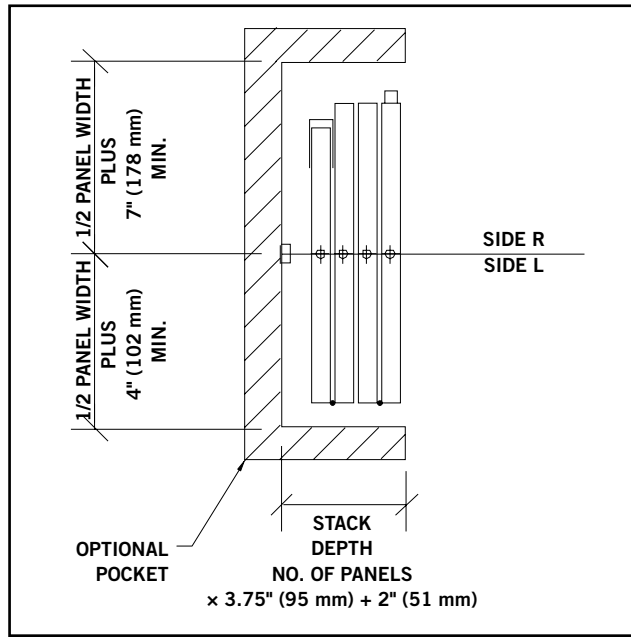


2-inch Manual Seal

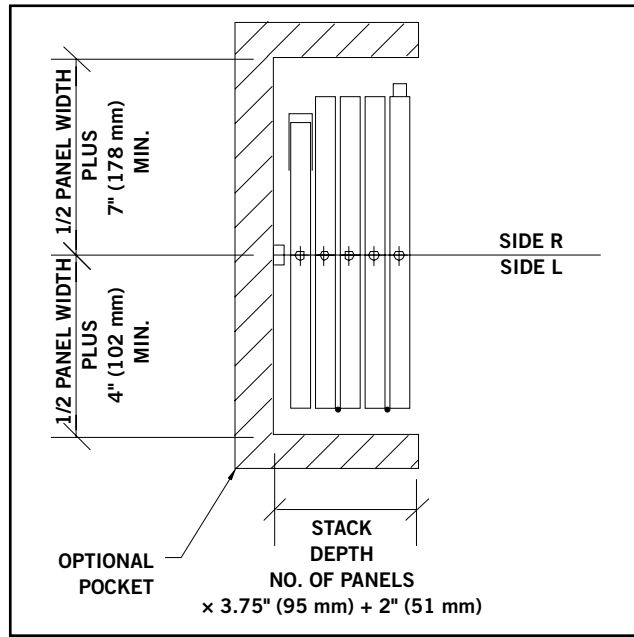


ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
POCKET ENCLOSURE AND STACKING OPTIONS

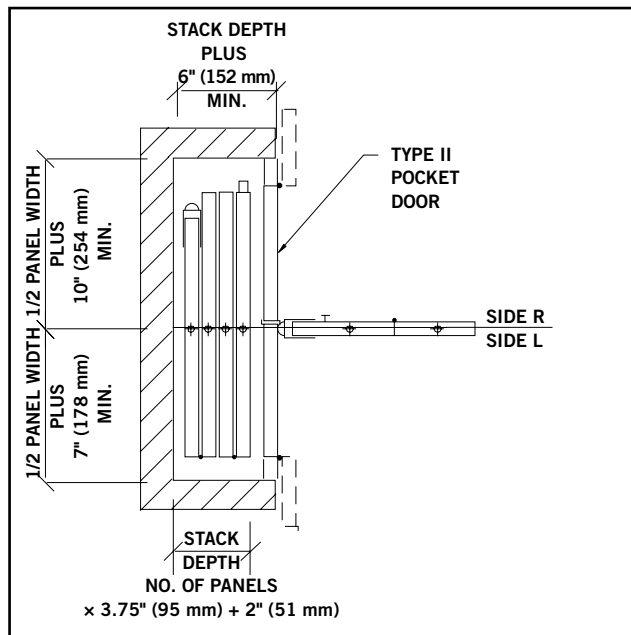
Expandable Jamb Closure –
 Even Panel Quantity



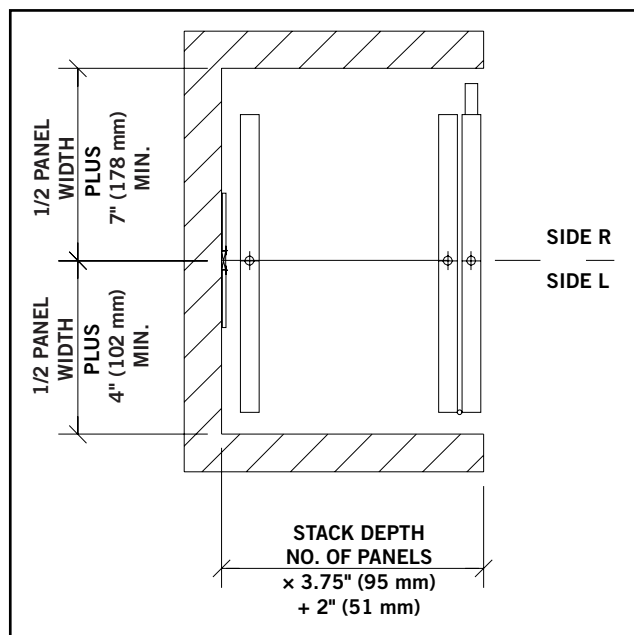
Expandable Jamb Closure –
 Odd Panel Quantity



Remote Expandable Jamb Closure

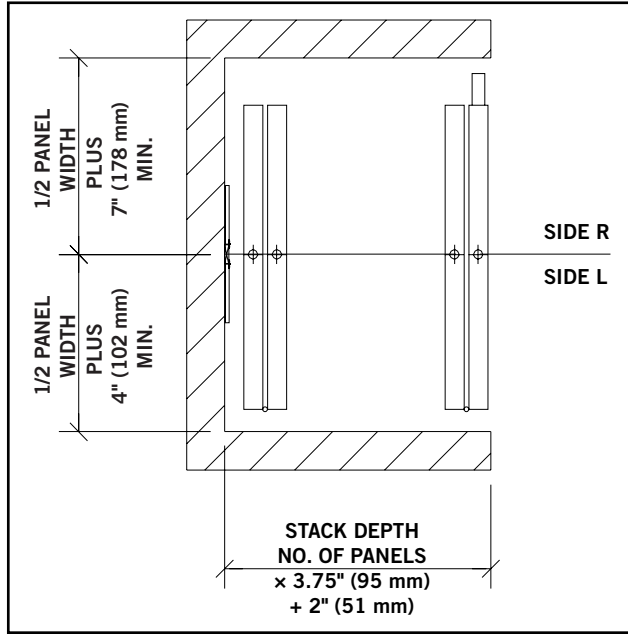


Enclose – Odd Panel Quantity

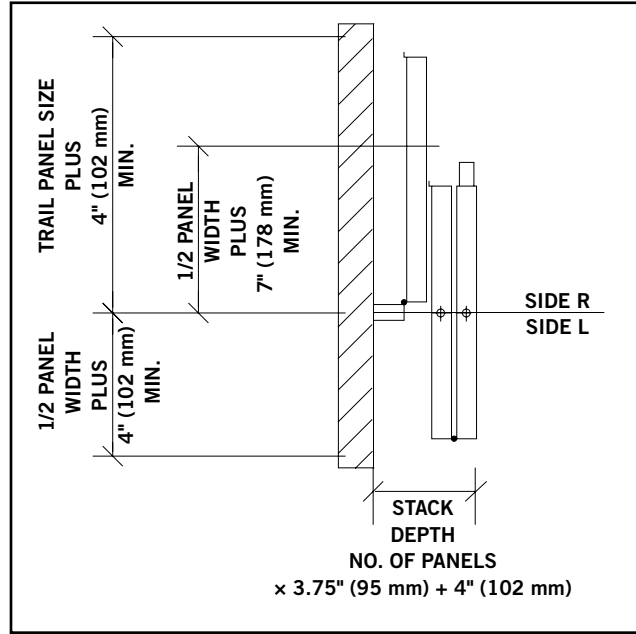


ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
POCKET ENCLOSURE AND STACKING OPTIONS

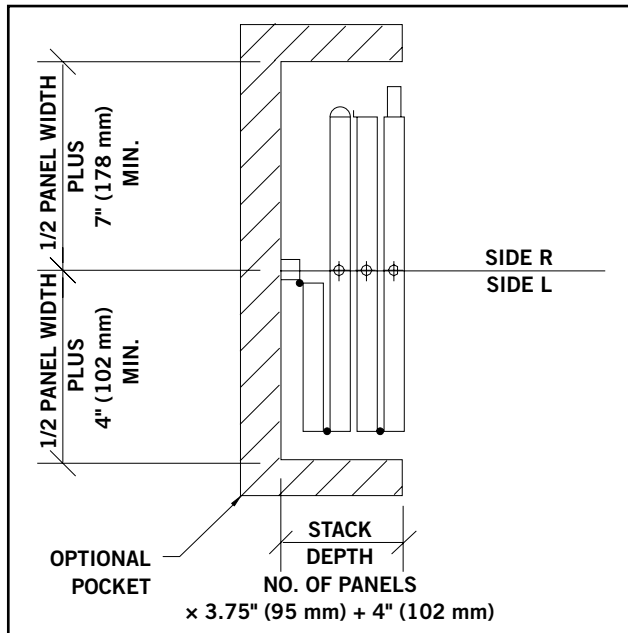
Enclose – Even Panel Quantity



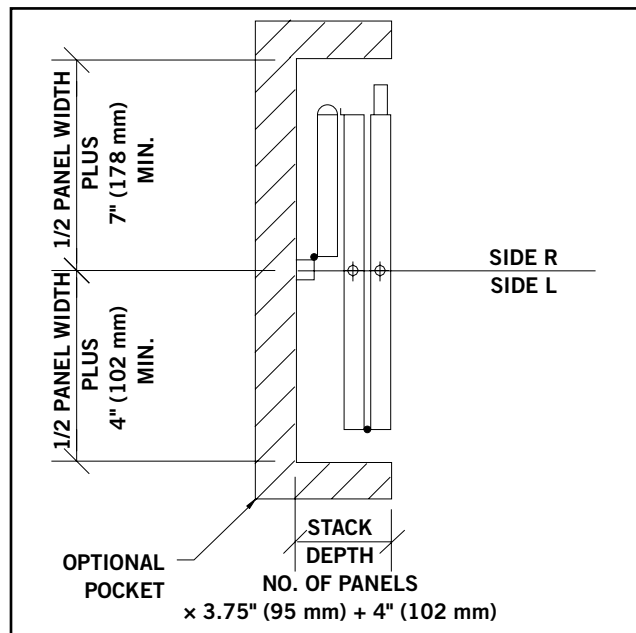
Pass Door Closure



Bi-fold Hinged Panel Closure

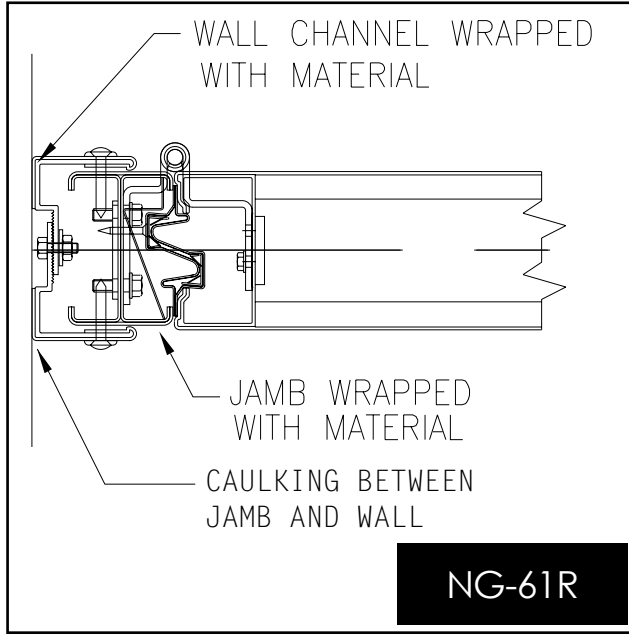


Single Hinged Panel Closure

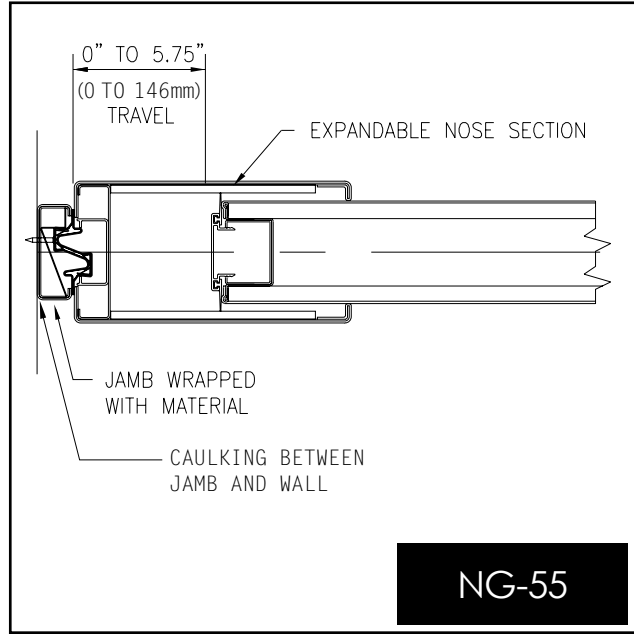


ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
PANEL CROSS SECTIONS

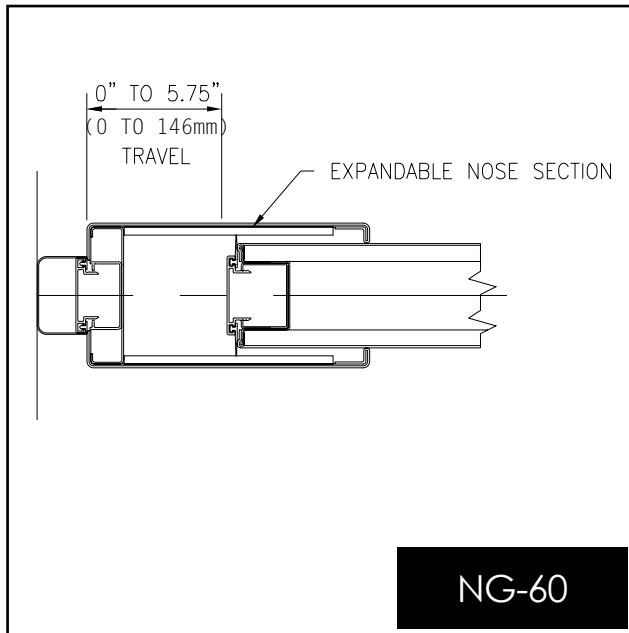
Hinged Jamb



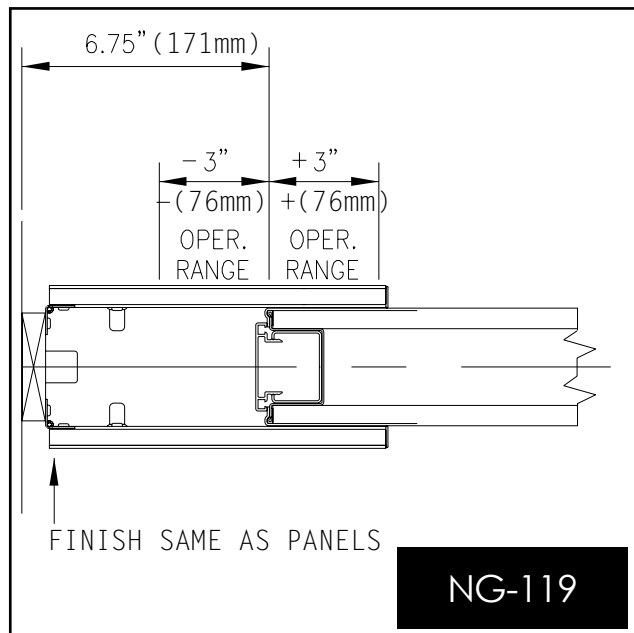
Expandable Panel w/ Jamb



Expandable Panel w/ Bulb Seal

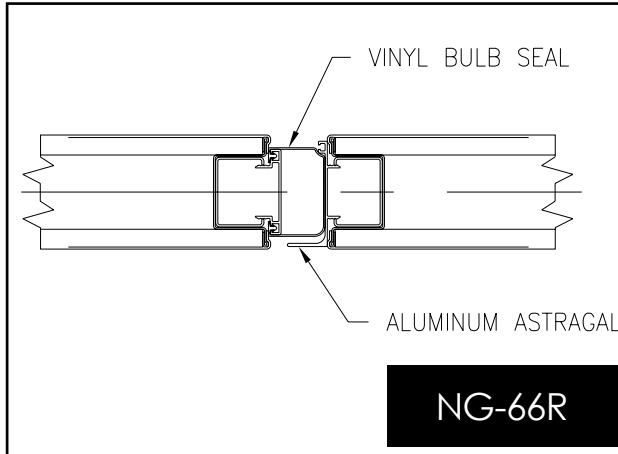


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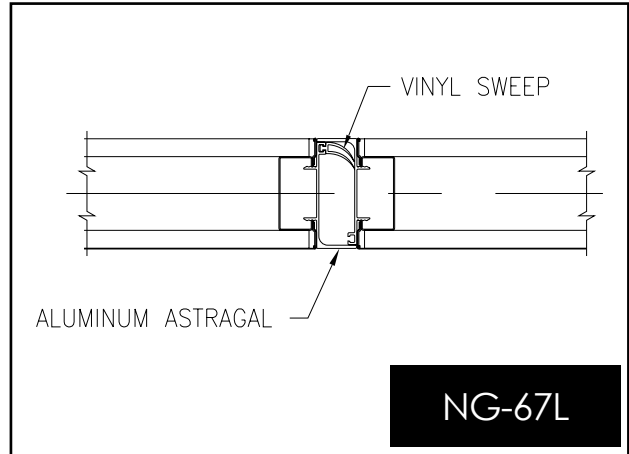


ACOUSTI-SEAL® 900 SERIES TECHNICAL DATA
PANEL CROSS SECTIONS

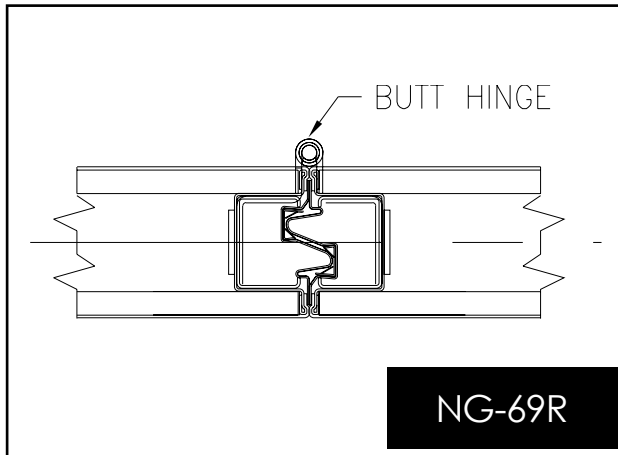
Hinged Panel Meeting w/ Bulb Seal



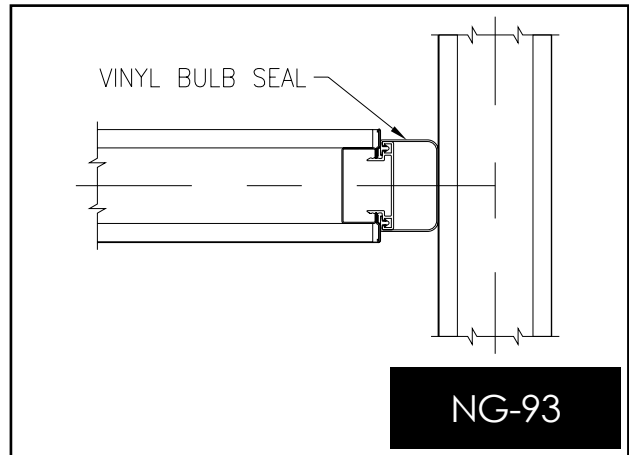
Hinged Panel Meeting w/ Pass Door Astragal



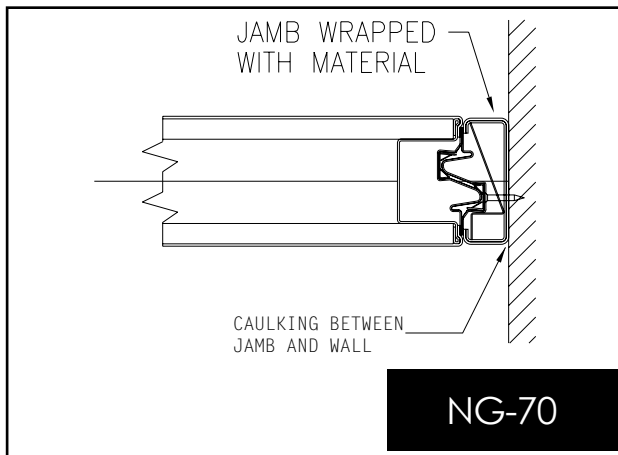
Standard Hinged Panel Joint



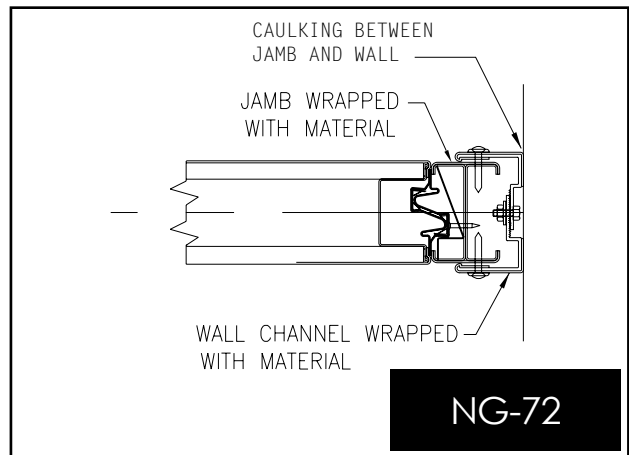
Bulb Seal and Intersection



Nominal Fixed Jamb



Variable Fixed Jamb



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