

SECTION 07 72 33

ROOF HATCHES

****Note to Specifier**** This specification contains component and configuration options.
Where indicated, choose the appropriate choice for your specific project requirements.

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Sliding Roof Hatch with Frame.
 2. Roof Hatch Hardware.
- B. Related Sections:
1. Division 03 – Cast-In-Place Concrete.
 2. Division 04 – Concrete Unit Masonry.
 3. Division 05 – Structural Steel Framing.

1.2 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation instructions.
- B. Shop Drawings: Provide shop drawings showing layout, profiles, and product components, including anchorage, hardware, and finishes. Include dimensional plans, applicable material specifications, elevations and sections detailing mounting and connections.
1. Contractor to provide manufacturer with field measurements and mounting structure prior to commencement of shop drawings.
- C. Calculations: Upon signed finalization and approval of dimensions, mounting location material and configuration, and load requirements;

****Note to Specifier**** Choose one (1) of the following statements.

1. Engineering calculations are not required for this roof hatch.
2. Submit calculations by a qualified engineer, to verify roof hatch's ability to withstand the design loading.

3. Submit stamped calculations by a registered professional engineer from within the state or territory where the project will be constructed or substantially improved, to verify the roof hatch's ability to withstand the design loading.

1.3 CLOSEOUT SUBMITTALS

- A. Provide Operation and Maintenance data to include methods for maintaining installed products, precautions against cleaning materials and methods detrimental to finishes and performance.

1.4 QUALITY ASSURANCE

- A. **Manufacturer Qualifications:** Manufacturer must demonstrate a minimum of five (5) years successful experience in design and manufacture of similar related closures. Upon request, provide supporting evidence including list of installations, descriptions, name, and method of contact.
- B. **Minimum Qualifications:** Manufacturer must demonstrate compliance and certification of a Quality Management System administered by the International Organization for Standardization (ISO). Documentation of current certification status to be provided upon request.
- C. **Welder Qualifications:** Welders Certified in accordance with American Welding Society Procedures for applicable material used in production of specified product.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging container with identification markings intact until ready for installation.
- B. Protect materials from exposure to moisture during storage.
- C. Store materials in a dry, warm, ventilated weathertight location. If outdoor storage is required, block materials to store at an incline, to prevent pooling of any moisture and promote runoff. Tarp materials in a tent-like arrangement, elevated above the product with open sides to allow airflow. Store loose or high value components in a dry, controlled environment.
- D. Use caution when unloading and handling product to avoid bending, denting, crushing, or other damage to the product.
- E. When using forklifts, use forks of proper length to fully support product being moved. Consult "Approved for Construction" drawings or consult with factory for proper lift points.

1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's indicated limits.

1.7 COORDINATION

- A. Conduct site survey and provide to manufacturer, prior to manufacturer's commencement of shop drawings, the actual site conditions of the mounting location, to include; material type, dimensions and configuration, interferences with mounting surface, or any other condition that may impact the ability of the gate to be properly installed.
- B. Coordinate work with other operations and installation of adjacent materials to avoid damage.

1.8 WARRANTY

- A. Manufacturer's Standard Warranty: Product to be free from defects in material and workmanship for a period of five (5) years from date of shipment.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Design industrial sliding roof hatch to support, solely or in combination of, temporary superimposed live loads as indicated below. All applied types of related loadings are transferred from industrial product barriers, solely or in combination of, by anchorage to existing curbs or new construction, and direct pressure contact to structural walls or other structural elements.

****Note to Specifier** Delete any loading types that do not apply.**

- 1. Positive Wind/Draft Pressure Loading
- 2. Negative Wind/Draft Pressure Loading
- 3. Snow (service) Downward Load Rating: 50 PSF
- 4. Wind (service) Upward Load Rating: 25 PSF
- B. Engineer Code Practices: Engineer industrial products to conform to the design requirements that are based on the latest adopted edition of the International Building Code (IBC). LFRD and/or ASD methodologies are applied as appropriate to align with specific project specifications and/or limited published material data.

2.2 SLIDING ROOF HATCH WITH FRAME

- A. Description: Slidewise™, Fully assembled Sliding Roof Hatch including hatch frame, hatch panel, and hatch hardware.
 - 1. Approved Manufacturer: PS Access Solutions™, which is located at: 1150 S. 48th Street, Grand Forks, ND 58201; Toll Free Tel: 877.446.1519; Email: 4psinfo@psindustries.com; Web: www.psaccessolutions.com or www.psindustries.com
 - a. Basis of Design Product: Model: SRH.

- B. Substitutions: Not permitted.
- C. Single Source Responsibilities: Obtain all sliding roof hatch assemblies from single manufacturer.

2.3 EQUIPMENT

A. Products Details:

1. The Slidewise™ is a low profile, mild steel hatch for ladder access to roofs. Unlike traditional tip-up hatches, the Slidewise™ Roof Hatch opens horizontally, eliminated the effect of wind. It provides a safer access point for personnel and reduces maintenance cost from wind damage.

a. Model/Opening Size Dimensions:

SRH MODEL #	OPENING SIZE DIMS		SHIPPING WEIGHT
	WIDTH	LENGTH	
SRH-3030M	30"	30"	231 lbs.
SRH-3630M	36"	30"	249 lbs.
SRH-3636M	36"	36"	274 lbs.
SRH-9636M	96"	36"	480 lbs.

2. Sealing Requirements: EPDM bulb seal, full perimeter design shall provide an effective barrier against wind, hot/cold temp differences, dust, debris, and moisture.
3. Operation: One-handed operation allows personnel to always keep one hand on a ladder.
4. Mounting/Load Transfer: Anchor to existing curb and new construction. Sliding roof hatch designed for specific loads and will transfer loads to adjacent structure.
5. Frames to be anchored utilizing mechanical, chemical or other framing methods as designed. Installer to provide anchors, unless otherwise.
6. Provide rectangular curb opening with square corners to facilitate easy passage.

2.4 MATERIALS

- A. Hatch Panel: Nominal 2" thickness, fabricated from an internal welded mild steel framework. Sheeting to be mild steel, factory bonded in place. Integrated, full length pull handle, interior and exterior. Panel to be constructed as one (1) piece.
- B. Hatch Panel Insulation: Rigid polystyrene between internal framing members, full depth of panel cavity. Nominal R-Value = 10.
- C. Track and Frame: Unitized track mounting frame. Hatch operates on four (4) aluminum rollers with double sealed stainless steel ball bearings.
- D. Weatherseals to be compressible rubber type, full perimeter, and field replaceable.
 1. Material: UV Resistant EPDM bulb seal.

- E. Lock/Latch: Deadbolt, keyed exterior and keyed interior. Provided with small format construction core.
- F. Hardware/Fasteners: Corrosion resistant, zinc coated and/or Stainless Steel type 18-8.
- G. Finish:
 - 1. Steel Shop Finish: Apply the following paint system in accordance with manufacturer recommendations and instructions;
 - a. Finish: Powder Coat Gray
- H. Options:

****Note to Specifier** The following are offered as options. Delete if not required.**

- 1. Curb: Four-sided 16-gauge formed galvanized steel, 12” in height. Curb to have formed flange for securing to roof structure. Insulation shall be 1” fiberboard, Nominal R-Value = 5.
- 2. Osha Compliant Safety Railing System: Four-sided railing system providing permanent protection for guarding roof hatch opening. Includes self-closing safety gate at entry, to ensure no openings are left unprotected, and integrated horizontal grab bars.
- 3. Deadbolt: Keyed exterior with interior thumb turn. Provided with small format construction core.
- I. Placards: Factory mounted, danger labels with graphic fall hazard symbols.
- J. Labeling: Factory mounted, decal labels for product identification.

2.5 FABRICATION

- A. Fit and factory assemble items in largest practical sections, for shipment to site.
- B. Fabricate items with joints tightly fitted and secured.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until mounting substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another subcontractor, notify Architect of uncompleted preparation before proceeding.
- C. Inspect opening for compliance with manufacturer requirements. Verify open conditions are within required tolerances.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's installation instructions, "Approved for Construction" drawings, shipping, handling, and storage instructions, and product carton instructions for installation.
- B. Product must be installed level, square, plumb, and rigid.
- C. Tolerances: All dimensional requirements must be in accordance with manufacturer's installation instructions and "Approved for Construction" drawings.
- D. Verify all anchorage is in accordance with manufacturer's installation instructions and applicable data sheets.
- E. Inspect weatherseal for damage, wear, and adhesion. Replace compromised weatherseals immediately.

3.4 FIELD QUALITY CONTROL

- A. Field Testing:
 - 1. Installer to operate and field verified products including the sealing surfaces to assure that they maintain contact at the correct sealing points.
 - 2. Installer to verify that rollers and locking assemblies operate freely and correctly.

3.5 CLEANING

- A. Touch-up, repair or replace damaged products or components before Substantial Completion.
- B. Clean all sealing surfaces.

3.6 PROTECTION

- A. Protect installed products until completion of project.

END OF SECTION