

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. Specialty custom designed HatchGrip® for Roof Hatches.
2. HatchGrip Hardware.

B. Related Sections:

1. Division 73 – Roof Hatches.
2. Division 05 – Pipe and Tube Railings.
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 one (1) year from date of shipment.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Design HatchGrip® to support, solely or in combination of, temporary super-imposed live loads as indicated. 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.
- 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 HATCHGRIP WITH HARDWARE

- A. Description: HatchGrip® including horizontal grab bars, support tube, gasketing mounting hardware, and mounting 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.psaccesssolutions.com or www.psindustries.com
 - a. Basis of Design Product: Model: HTG.

- B. Substitutions: Not permitted.
- C. Single Source Responsibilities: Obtain all HatchGrip® assemblies from single manufacturer.

2.3 EQUIPMENT

- A. Products Details:
 - 1. The HatchGrip® provides horizontal grab bars to assist in safely exiting/entering a roof hatch by providing horizontal hand holds to ascend or descent through the hatch opening.
 - a. Only horizontal grip members are reliable to sustain a fall of the body if the foot slides off the rung for any reason. If a vertical member is held, no matter what the shape of the side rail or the strength of grip, the force of falling causes the hand to slide, producing an impact with the next rail obstruction, which causes release of the handhold and a resulting fall.
 - 2. Mounting/Load Transfer: Anchor to existing roof hatch curb and new construction. HatchGrip® designed for specific loads and will transfer loads to adjacent curb and roof hatch.

2.4 MATERIALS

A. HatchGrip

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

- 1. Steel: Commercial quality, low carbon steel of appropriate size and strength, welded and structurally bonded.
 - 2. Stainless Steel Type 304 or 316: stainless steel of appropriate size and strength, welded and structurally bonded.
- B. Hardware/Fasteners: Finish to correspond with product material type. Zinc-plated fasteners supplied with mild steel products, except where specifically noted otherwise.
 - C. Finish:
 - 1. Steel Shop Finish: Apply the following paint system in accordance with manufacturer recommendations and instructions;
 - a. Finish: Powder Coat (#49 Gray)
 - 2. Stainless Steel products to be mill finish, welds are ground smooth, not polished.
 - D. 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.

3.4 FIELD QUALITY CONTROL

- A. Field Testing:
 - 1. Installer to operate and field verified products including the mounting surfaces to assure that they maintain contact at the correct points.
 - 2. Installer to verify that HatchGrip® is correctly mounted and secure.

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