

SECTION 077233  
ROOF HATCHES (HATCHGRIP® – Horizontal Grips)

Part 1. GENERAL

1.1 SECTION INCLUDES

- A. Specialty custom designed HATCHGRIP® (Patent Numbers 6,095,283; 6,347,685; 6,619,428) for roof hatches, including,
  - (1) HATCHGRIP® - Model Number HTG-PCG

1.2 RELATED SECTIONS

- A. Section 077233 – Roof Hatches
- B. Section 055213 – Pipe and Tube Railings
- C. Section 05120 – Structural Steel
- D. Alternates: Similar products of other manufacturers subject to A-E prior approval and must meet the requirements provided by this specification.

1.3 REFERENCES

- A. AISC M016 Manual of Steel Construction, Allowed Stress Design
- B. ASTM A 36/A 36M Standard Specification for Structural Steel
- C. ASTM Z325 (Bolts, Nuts, and Washers)
- D. Joint Surface Preparation, SSPC-3, Power Tool Cleaning
- E. American Society for Testing and Materials (ASTM) - ASTM A36 Standard Specification for Carbon Structural Steel
- F. American Iron and Steel Institute (AISI) - AISI CL 304
- G. American Welding Society Structural Welding Code (AWS) - AWS D1.1, D1.2

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. The HATCHGRIP® provides horizontal grab bars to assist in safely exiting/entering a roof hatch.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. 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.
- C. 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.

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- D. Closeout Submittals: Provide Operation and Maintenance data to include methods for maintaining installed products, precautions against cleaning materials and methods detrimental to finishes and performance.
- E. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

## 1.6 QUALITY ASSURANCE

- A. Experience: Manufacturer must demonstrate a minimum of Five (5) years successful experience in design and manufacture of similar related products.
- B. Provide evidence to the effect, including list of installations, descriptions, name and method of contact shall be provided.
- C. Welder Qualifications: Welders Certified in accordance with American Welding Society Procedures: AWS-1-GMAW-S, WPS No. B2.004.90 for applicable material used in production of specified product.

## 1.7 DELIVER, STORAGE, AND HANDLING

- A. Delivery
  - (1) Deliver materials in manufacturer's original, unopened, undamaged shipping container with identification labels intact.
- B. Storage
  - (1) Store all materials in a dry, controlled area to protect from elements and damage. If outdoor storage is required, block materials to store at an incline, to prevent pooling of any moisture and promote runoff.
  - (2) Do not tarp tightly, as this will entrap moisture. Instead, tarp materials in a tent-like arrangement, elevated above the product with open sides to allow airflow.
  - (3) For additional questions on delivery, storage, or handling, contact the manufacturer at 877-446-1519 or 701-746-4519 or email to [4psinfo@psdoors.com](mailto:4psinfo@psdoors.com).
- C. Handling
  - (1) Use caution when unloading and handling product to avoid bending, denting, crushing, or other damage to the product.
  - (2) When using forklifts, use forks of proper length to fully support product being moved. Consult shop drawings or consult with factory for proper lift points.

## 1.8 WARRANTY

- A. Special Warranty
  - (1) The manufacturer provides a limited warranty on this product and components to be free from manufacturing defects for a period of one (1) year from ship date.

## 1.9 MAINTENANCE

- A. Routine inspections and maintenance (Determined by owner).
- B. General housekeeping of immediate area.

- C. Immediate replacement or repair of damaged or missing components.

## Part 2. PRODUCTS

### 2.1 MANUFACTURERS

A. Acceptable Manufacturer: PS DOORS, 1150 S. 48<sup>th</sup> Street., Grand Forks, ND 58201.  
Phone Toll Free: 877-446-1519. Phone: 701-746-4519. Fax: 701-746-8340.  
Web Site: [www.psdors.com](http://www.psdors.com). E-mail: [4psinfo@psdors.com](mailto:4psinfo@psdors.com).

B. Substitutions: Not permitted.

C. Obtain all HATCHGRIP® assemblies from single manufacturer.

### 2.2 EQUIPMENT

A. Products Details:

- (1) HATCHGRIP® provides horizontal grab bars to assist in safely exiting/entering a roof hatch by providing horizontal hand holds to ascend or descend through the hatch opening.
- (2) 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.
- (3) Model/Operation Options:
  - a) Model: HTG-PCG - HATCHGRIP®
- (4) Material requirements: See Section 2.3 MATERIALS.

### 2.3 MATERIALS

A. Attributes

- (1) HATCHGRIP® to be fabricated from structural or formed steel shapes, ASTM-A-569; tubing, ASTM A513; bar/plate, ASTM-A-36; of appropriate size and strength, welded construction. Optional materials include Stainless Steel (304 or 316L).
- (2) Finish on all exposed surfaces to be Powder Coat Gray.

### 2.4 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

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Part 3. EXECUTION

### 3.1 EXAMINATION

- A. Compliance: Comply with all manufacturer's product data, including installations instructions, reference drawings, shipping, handling, and storage instructions, and product carton instructions for installation.

### 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/APPLICATION

- A. HATCHGRIP® Installation
  - (1) Install in accordance with manufacturer's installation instructions, shop drawings, and details.
  - (2) All bolted connections must be tight with no fewer than two threads exposed and the nuts are to be positively locked by provide lock nuts.
- B. Tolerances
  - (1) All dimensional requirements must be in accordance with manufacturer's installation instructions and shop drawings.

### 3.4 FIELD QUALITY CONTROL

- A. Installation: Product to be installed using good general construction methods and practices, in accordance with manufacturer's instructions and drawings.
- B. Field Tests/Installation Verification:
  - (1) Verify all anchorage is in accordance with manufacture's installation instructions and applicable data sheets.

### 3.5 CLEANING

- A. Repair or replace damaged installed products or components.
- B. Touch up damaged finish.

### 3.6 PROTECTION

- A. Protect installed product and finish surfaces from damage during handling, storage, and installation.
- B. Protect installed product and finish surfaces during normal and general use.

END OF SECTION

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