

SECTION 077233

ROOF HATCHES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Specialty custom designed HatchSafe® for roof hatch openings, including,
 - 1. HatchSafe® - Model Numbers: HSF-4848M, HSF-4866M, HSF-4884M, HSF- 5448M, HSF-5466M, HSF-5484M,
 - 2. Patent Numbers: 6,095,283; 6,347,685; 6,619,428) horizontal grab bars to ensure a firm, stable grip when exiting/entering the roof hatch.

1.2 RELATED SECTIONS

- A. Section 077233 – Roof Hatches
- B. Section 055213 – Pipe and Tube Railings
- C. Section 05120 – Structural Steel

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 A123 (Standard Specification for Zinc coating – Hot Dip Galvanizing of Iron and Steel Products)
- 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 HatchSafe® provides a permanent, four-sided railing with self-closing gate to guard roof hatch/floor openings.
- B. HatchSafe® meets applicable OSHA Standards to include 1910.28 and 1910.29.

1.5 SUBMITTALS

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- 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.
- 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.

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, upon request.
- 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 email to 4psinfo@psindustries.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.

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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. Approved Manufacturer: PS Access Solutions™, 1150 S. 48th Street, Grand Forks, ND 58201. Toll Free Tel: 877-446-1519. Web Site: www.psaccesssolutions.com or www.psindustries.com. E-mail: 4psinfo@psindustries.com.
- B. Substitutions: Not permitted.
- C. Obtain all HatchSafe® assemblies from single manufacturer.

2.2 EQUIPMENT

- A. Products Details:
1. HatchSafe® is a full railing system providing four-sided, permanent protection for guarding roof hatch/floor openings. Includes self-closing safety gate at entry to ensure no openings are left unprotected, and integrated horizontal grab bars. HatchSafe® consists of a top rail, mid-rail, self-closing swing gate, and horizontal grab bars. Note: Roof hatch curb acts as toeboard. Available in powder coat gray finish.
 2. Model/Operation Options:

PART 2 Model	PART 3 Access Width*	PART 4 Length*
PART 5 HSF-4848M	PART 6 30"x30"	PART 7 48"x48"
PART 8 HSF-4866M	PART 9 30"x48"	PART 10 48"x66"
PART 11 HSF-4884M	PART 12 30"x66"	PART 13 48"x84"
PART 14 HSF-5448M	PART 15 48"x30"	PART 16 54"x48"
PART 17 HSF-5466M	PART 18 48"x48"	PART 19 54"x66"
PART 20 HSF-	PART 21 48"x66"	PART 22 54"x84"

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5484M		
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a. *Outside Roof Hatch dimensions.

3. Material requirements: See Section 2.3 MATERIALS.

2.3 MATERIALS

A. Attributes

1. HatchSafe® to be fabricated from structural or formed steel shapes, tubing - ASTM A513; formatting- ASTM-A-556 Grade B; bar/plate -ASTM-A-36, of appropriate size and strength, welded construction.
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.

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. HatchSAFE® 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

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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