

## **HatchSafe® Specifications**

### 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

- 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.

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(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 (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.

## 1.8 WARRANTY

- A. Special Warranty
  - (1) The manufacturer warrants 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.psddoors.com](http://www.psddoors.com). E-mail: [4psinfo@psdoors.com](mailto:4psinfo@psdoors.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:

Model	Access Width*	Length*
HSF-4848M	30"x30"	48"x48"
HSF-4866M	30"x48"	48"x66"
HSF-4884M	30"x66"	48"x84"
HSF-5448M	48"x30"	54"x48"
HSF-5466M	48"x48"	54"x66"
HSF-5484M	48"x66"	54"x84"

\*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.

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- 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, Operation and Maintenance manuals, reference drawings, shipping and handling, and storage instructions.

#### 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
  - (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