

SECTION 07 72 33 (CSI Master Format 2004)

ROOF HATCHES (HatchSAFE – Safety Railing)

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Specialty custom designed HatchSAFE for roof hatch openings, including,
 - 1. HatchSAFE - Model Numbers: HSF-775, HSF-780, HSF-785, HSF-790
 - 2. GRABSAFE® - Model Number: GBS-HSF (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. (Optional – add on.)
 - 3. Deck Mounting Kit – Model Number: DMK-107 for mounting HatchSAFE to protect floor opening, includes toeboards.

1.02 RELATED SECTIONS

- A. Section 07 72 33 – Roof Hatches
- B. Section 05 52 13 – Pipe and Tube Railings
- C. Alternates: Similar products of other manufacturers subject to A-E prior approval and must meet the requirements provided by this specification.

1.03 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. ASTM Z325 (Bolts, Nuts, and Washers)
- E. Joint Surface Preparation, SSPC-3, Power Tool Cleaning
- F. American Society for Testing and Materials (ASTM) - ASTM A36 Standard Specification for Carbon Structural Steel
- G. American Iron and Steel Institute (AISI) - AISI CL 304.
- H. American Welding Society Structural Welding Code (AWS) - AWS D1.1, D1.2

1.04 SYSTEM DESCRIPTION

- A. The HatchSAFE provides a permanent, four-sided safety railing with self closing safety gate to guard roof hatch/floor openings.
- B. HatchSAFE meets applicable OSHA Standards to include 1910.23 and 1910.27.

1.05 SUBMITTALS

- A. General: Provide submittals in accordance with Conditions of the Contract.
- B. Shop Drawings: Provide shop drawings showing layout, hardware, and finishes. Include applicable material specifications and sections detailing mounting and connections.
- C. Installation: Provide installation instructions and drawings detailing installation procedure.
- 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.

1.06 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.

1.07 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 distributor/sales agent Ellis Ladder Improvements at 1-800-372-7775 or ELI@FallSafety.com.
- C. Handling
 - 1. Use caution when unloading and handling product to avoid bending, denting, crushing, or other damage to the product.

1.08 WARRANTY

- A. Special Warranty
 - 1. Manufacturer guarantees this product and components to be free from manufacturing defects for a period of One (1) year from date of shipment.

1.09 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

2.01 MANUFACTURERS

- A. Ellis Ladder Improvements, Inc. is a distributor and sales agent for HatchSAFE. Contact ELI at 800-372-7775; ELI@FallSafety.com or write to 306 Country Club Drive, Wilmington, DE 19803.
- B. Substitutions not permitted.

2.02 PERFORMANCE

- 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. HatchSAFE consists of a top rail, midrail and a self-closing swing gate. Note: Roof hatch curb acts as toeboard. Available in Hot Dip Galvanized finish.
 - 2. Add On Option: GRABSAFE® - Horizontal Grab Bars provides a firm, stable grip for exiting/entering roof hatch opening. Available in Hot Dip Galvanized finish.
 - 3. Add On Option: Deck Mounting Kit – May be utilized to mount the HatchSAFE to floor openings and consists of mounting brackets and toeboards. Available in Hot Dip Galvanized finish.
 - 4. Model/Operation Options:
 - a. Model: HSF-775 – Fits Roof Hatch sizes: 30" x 30", 36" x 30", 36" x 36"
 - b. Model: HSF-780 – Fits Roof Hatch Sizes: 48" x 48"
 - c. Model: HSF-785 – Fits Roof Hatch Sizes: 30" x 54"
 - d. Model: HSF-790 – Fits Roof Hatch Sizes: 30" x 96", 36" x 96"
 - e. Model: GBS-HSF: GRABSAFE® - Fits all Models "HSF"
 - f. Model: DMK-107: Deck Mounting Kit – Fits All Models "HSF"
 - 5. Material requirements: See Section 2.03 COMPONENTS.

2.03 COMPONENTS

A. Attributes

1. HatchSAFE to be fabricated from structural or formed steel shapes, ASTM A36; tubing, ASTM-A-500 Grade B, ASTM-A-513; bars, ASTM-A-36, M1020; of appropriate size and strength, welded construction.
2. GRABSAFE® to be fabricated from structural or formed steel shapes, ASTM A36; tubing, ASTM-A-500 Grade B, ASTM-A-513; bars, ASTM-A-36, M1020; of appropriate size and strength, welded construction.
3. Deck Mounting Kit to be fabricated from structural or formed steel shapes, ASTM A36; tubing, ASTM-A-500 Grade B, ASTM-A-513; bars, ASTM-A-36, M1020; of appropriate size and strength, welded construction.
4. Finish on all exposed surfaces to be Hot Dip Galvanized.

2.04 SOURCE QUALITY CONTROL

- A. Obtain HatchSAFE product from single manufacturer.

PART 3 EXECUTION

3.01 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.

3.02 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.

3.03 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.

3.04 CLEANING

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

3.05 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.