

Primary applications for Harden Security Roof Hatches include government, industrial, commercial and residential properties where protection of people and property is of utmost concern and where forced entry and ballistic threats are present singularly or in combination; locations that require emergency access and FE/BR protection such as roofs of secure facilities and roofs or floors of safe rooms; and where conformance to U.S. Department of State forced-entry and ballistic threat levels is required. For more information, please call our toll-free number above or visit our website.

The widespread acceptance and success of our products stem from Harden's test-proven designs and extremely high level of manufacturing quality.

## SECTION 077233

### SECURITY ROOF HATCHES

#### (HARDEN EH1-2133 (SLIDING) AND EH2-2133 (HINGED) STEEL ROOF HATCHES)

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:

1. Security steel roof hatches.

##### 1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data for each type of product.
- B. Shop Drawings: Submit shop drawings including the following:
1. Complete list of materials and manufacturer's descriptive and technical literature.
  2. Proposed layout, details of construction and anchorage and relationship to other parts of the work.
  3. Manufacturer's certification of security performance.
- C. Warranty: Submit executed copy of manufacturer's standard limited warranty.

##### 1.3 QUALITY ASSURANCE

- A. Installer: Minimum 2-year documented history of installing similar hatches and acceptable to the manufacturer. Installer shall accept responsibility for all field verifications.

##### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Store materials in a location protected from the weather, humidity, temperature variation, dirt and dust, or other contaminants.

##### 1.5 WARRANTY

- A. Warranty: Provide manufacturer's standard limited 5-year warranty.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURER

- A. Basis-of-Design Manufacturer: Harden Architectural Security Products, LLC, 31 Industrial Circle, Lancaster, PA 17601. Toll-free 717-308-9227. www.hardensecure.com. No substitutions.

### 2.2 SECURITY ROOF HATCHES

- A. Security Roof Hatches: Steel Security Roof Hatches by Harden Architectural Security Products, LLC complying with the following:

1. Model EH1-2133:

- a. Hatch and Frame Construction: Steel, sliding panel.
- b. Frame Depth: 11.25 inches (286 mm).
- c. Frame Profile: T-shape; does not require secondary ballistic stop bars.
- d. Frame Size: 30 inches (762 mm) by 59 inches (1499 mm).
- e. Clear Opening Size: 26.5 inches (673 mm) by 26.75 inches (679 mm).
- f. Mounting Technique: M12 bolts.
- g. Ballistic Resistance: 5.56 M193, 5.56 M855, 7.62 M80 per DOS SD-STD-01.01 Rev G (Amended).
- h. Forced Entry Resistance: 60 minutes per DOS SD-STD-01.01 Rev G (Amended).
- i. DOS Code: 2133.
- j. Blast Resistance: Not applicable.
- k. Standard Features: Sliding door, handle, heavy duty rollers, single point latch, manually thrown.

2. Model EH2-2133:

- a. Hatch and Frame Construction: Steel, hinged panel.
- b. Frame Depth: 5.25 inches (133 mm).
- c. Frame Profile: T-shape; does not require secondary ballistic stop bars.
- d. Frame and Clear Opening Size: 42 inches (1067 mm) by 44.9 inches (1141 mm) frame size with 36 inches (914 mm) by 36 inches (914 mm) clear opening size.
- e. Frame and Clear Opening Size: 48 inches (1219 mm) by 44.9 inches (1141 mm) frame size with 42 inches (1067 mm) by 36 inches (914 mm) clear opening size.
- f. Mounting Technique: M12 bolts.
- g. Ballistic Resistance: 5.56 M193, 5.56 M855, 7.62 M80 per DOS SD-STD-01.01 Rev G (Amended).
- h. Forced Entry Resistance: 60 minutes per DOS SD-STD-01.01 Rev G (Amended).
- i. DOS Code: 2133.
- j. Blast Resistance: Not applicable.
- k. Standard Features: Hinged door, handle, gas strut assist, multiple locks, manually thrown.

3. Additional Features: (optional)

- a. Access ladder.
- b. Weather cover.
- c. Safety post.
- d. Sub-frames for installation, pre-drilled and tapped plate-type embeds.
- e. Sub-frames for installation, pre-drilled and tapped tube-type frames.

4. Finish:
  - a. Hot-dip galvanized, ASTM A123 and primed finish. (standard).
  - b. Hot-dip galvanized, ASTM A123 and epoxy primed and manufacturer's standard powder coat. (contact Harden for color chart and minimum quantities)

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates and site conditions for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 INSTALLATION

- A. Install products in strict accordance with manufacturer's instructions and approved submittals. Locate security roof hatches level, plumb, and in proper alignment with adjacent work. Provide installation method suitable for substrate and project conditions:
  1. Pre-drilled and tapped plate-type embeds cast into concrete.
  2. Pre-drilled and tapped steel tube-type sub-frames bolted into the roof structure or curbing.
  3. Pre-drilled and tapped steel tube-type sub-frames welded to the roof structure.
- B. Protect adjacent areas against damage; repair or patch damaged areas. Restore damaged finishes so no evidence remains of corrective work.

#### 3.3 ADJUSTING AND CLEANING

- A. Clean exposed surfaces using methods acceptable to the manufacturer which will not damage finish.

END OF SECTION

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