

**3-PART CSI MASTERFORMAT SPECIFICATION
SECTION 07 7200
ROOF ACCESSORIES: ROOF HATCH AND SMOKE VENT**

Rev 03/26

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Roof Hatches.
 - a. Personnel Series are metal, single door hatches used by personnel. Tested for wind-uplift, forced entry and air infiltration where basic wind speed reached greater than 70 miles per hour
 - 2. Accessory Products for Roof Hatches
 - a. Safety Railings for all roof hatches
 - b. Safety posts for vertical ladder access roof hatches
 - c. Remote-controlled operation

1.2 RELATED REQUIREMENTS:

- A. Division 05 for ladders and stairs.
- B. Division 07 for roofing and sealants.

1.3 COORDINATION

- A. Coordinate layout and installation of roof accessories with roofing membrane and base flashing and interfacing and adjoining construction to provide a watertight installation.
- B. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.

1.4 ACTION SUBMITTALS

- A. Shop Drawings: Indicate configuration and dimension of components, adjacent construction, required clearances and tolerances, and other affected Work.
 - 1. Hatch Units: Show types, elevations, thickness of metals, and full-size profiles.
 - 2. Hardware: Show materials, finishes, locations of fasteners, types of fasteners, locations and types of operating hardware, and details of installation.
 - 3. General: Show connections of units and hardware to other Work. Include schedules showing location of each type and size of unit
- B. Product Data: Manufacturer's technical data for each type of hatch assembly, including setting drawings, templates, finish requirements, and details of anchorage devices.
 - 1. Include complete schedule, types, locations, construction details, finishes, latching or locking provisions, and other pertinent data.

1.5 INFORMATIONAL SUBMITTALS

- A. Provide manufacturer's standard warranty.

B. Sustainable Design Submittals:

1. Building Product Disclosure Requirements: To encourage the use of building products that are working to minimize their environmental and health impacts, provide the following information when available:
 - a. Material Ingredients Documentation demonstrating the chemical inventory of the product

1.6 CLOSEOUT SUBMITTALS

- A. Manufacturer's Installation Instructions and Operation & Maintenance: Indicate installation, operation and maintenance requirements and rough-in dimensions.

1.7 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Miami-Dade County, FL Approved NOA
 - a. TAS 201 Impact test
 - b. TAS 202 Uniform Static Air Pressure
 - c. TAS 203 Cyclic Wind Pressure Loading
2. OSHA 29 CFR 1910.23 Ladders
3. OSHA 29 CFR 1910.28 Duty to have fall protection
4. OSHA 29 CFR 1910.29 Fall protection systems and falling object protection—criteria and practices.
5. OSHA 29 CFR 1926.502 Fall protection systems criteria
6. International Building Code (IBC) Section 1013.6 Roof Access
7. International Building Code (IBC) Section 1009.11 Means of Egress, Stairways, Stairway to Roof

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site ready for use.
- B. Exercise proper care in handling of Work so as not to disrupt finished surfaces.
- C. Store materials under cover in a dry and clean location off the ground.

1.9 WARRANTY

- A. Provide manufacturer's standard 5 year warranty. Roof hatches and smoke vents shall be free from manufacturing defects in materials and fabrication for a period of 5 years from the date of shipment. Should a product fail to function in normal use within this period, manufacturer shall furnish a replacement or new part at Babcock-Davis discretion.

PART 2 - PRODUCT

2.1 MANUFACTURER

- A. Babcock-Davis
9300 73rd Ave N
Brooklyn Park, MN 55428
Available exclusively through Logistics Lighting with an extended warranty and National Account pricing. Contact for quotes or product questions: Sales@LogisticsLighting.com or 307-633-9696 or Toll-Free at 844-455-7283 website: www.LogisticsLighting.com

2.2 ROOF HATCH

- A. Roof Hatches:

1. Type and Size: Personnel, Single-leaf metal lid for ladder, ship stair, or alternating tread stair access, **[BG3630, 36 by 30 inches (900 by 750 mm)] [BG3054, 30 by 54 inches (750 by 1370 mm)] [BG3636, 36 by 36 inches (900 by 900 mm)] [BG4848, 48 by 48 inches (1220 by 1220 mm)] [BA3630, 36 by 30 inches (900 by 750 mm)] [BA3054, 30 by 54 inches (750 by 1370 mm)] [BA3636, 36 by 36 inches (900 by 900 mm)] [BA4848, 48 by 48 inches (1220 by 1220 mm)] [BRHUA width by length] [BRHUB width by length] [BRHUG width by length] [As selected by Architect from manufacturer's full range] [as indicated on drawings]**

Verify load requirements with authorities having jurisdiction.

- a. Performance Requirements
 - 1) Units shall be Miami-Dade County, FL Product Control Approved meeting large and small impact requirements. Miami-Dade County Approved NOA# 21-1201.02 Expiration Date January 27, 2027
 - 2) Hatch shall be reinforced to support live load of **40-lbf/sq. ft. (1.9-kPa)** with a maximum deflection of 1/150th of the span with a wind load of plus or minus **140-lbf/sq. ft. (6.70-kPa)**.
- b. Loads
 - 1) Units less than or equal to **60 inches (152 cm)** in length: Minimum **40-lbf/sq. ft. (1.9-kPa)** external live load with a maximum deflection of 1/150 of the span and **20-lbf/sq. ft. (0.95-kPa)** internal uplift load
 - 2) Units greater than **60 inches (152 cm)** in length: Minimum **40-lbf/sq. ft. (1.9-kPa)** external live load with a maximum deflection of 1/150 of the span and **90-lbf/sq. ft. (4.31-kPa)** internal uplift load
- c. Hatch Material:
 - 1) Cover: **[0.07895 inch (1.9 mm) galvanized steel] [0.0907 inch (2.3 mm) aluminum] [0.0907-inch (2.3-mm-) thick Type 304 stainless steel]**.
 - 2) Cover Insulation: **1 inch (25 mm)** polystyrene
 - a) Insulation Options: **[1 inch (25 mm) polyisocyanurate] [2 inch (50 mm) polyisocyanurate]**
 - 3) Curb: **[0.07895 inch (1.9 mm) galvanized steel] [0.0907 inch (2.3mm) aluminum]** with a [single wall] [double wall] [consult manufacturer for additional curb options], curb and integral railing ready EZ tabbed counter flash. Mounting flange continuous around base of frame.
 - a) Fabricate curbs to minimum height of **[12 inches (305 mm)] [<Insert dimension>** above roofing surface unless otherwise indicated.
 - b) Sloping Roofs: Where slope or roof deck exceeds 7:12, fabricate curb with perimeter curb height that is tapered to accommodate roof slope so that top surfaces of perimeter curb are level.
 - 4) Curb Insulation: **1 inch (25 mm)** Polyisocyanurate
 - a) Insulation options: **[2 inch (50 mm) polyisocyanurate]**

First option in "Finish" subparagraph below applies only to aluminum

- d. Finish: **[Mill finish] [TGIC Polyester powder coat paint] [Trinar]**.
- e. Color: **[Red Oxide] [High Reflectance White] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range] [<Insert color>]**.
- f. Hardware: **[Zinc plated steel] [Stainless Steel]**.
 - 1) Hinge Assembly: Pintle hinge with stainless steel hinge pin.
 - 2) Spring: Gas spring with integrated damper.
 - 3) Hold Open Device: Automatic zinc plated steel hold open arm with red vinyl grip handle.
 - 4) Latch: Zinc plated steel spring-type slam latch with inside and outside operating turn handles and padlock hasp provisions.

- 5) Pull Handle: Interior pull down handle, powder coated safety yellow.
- 6) Gasket: Extruded EPDM adhesive back seal, continuous around cover.

B. Safety Railing System: Model BSRC Roof-hatch manufacturer's standard system including rails, clamps, fasteners, safety barrier at railing opening, and accessories required for a complete installation; attached to roof hatch and complying with 29 CFR 1910.28 and 1910.29 requirements and authorities having jurisdiction.

1. Height: **42 inches (1060 mm)** above finished roof deck.
2. Rails:
 - a. Aluminum, **1-1/4 inch (31 mm), 1.66 inch (42 mm)** outside diameter, schedule 40 pipe, 6061-T6 alloy
 - b. Finish: **[TGIC Polyester powder coat paint] <Insert finish>**.
 - c. Color: **[Safety Yellow] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range] <Insert color>**.
 - d. Fittings: 5052-H32 Cast aluminum alloy with set screw hold.
 - e. Mounting Brackets: **3/16 inch (4.75 mm)** steel, zinc plated with nut backing plate.
 - f. Exit: Self-closing gate, **1-1/4 inch (32 mm)** aluminum, self-closing with coil spring.

C. Ladder-Assist Post: Model BSP Roof-hatch manufacturer's standard device for attachment to roof-access ladder.

1. Operation: Post locks in place on full extension; release mechanism returns post to closed position.
2. Height: **42 inches (1060 mm)** <Insert dimension> above finished roof deck.
3. Material: **[Steel tube] [Stainless steel] [Aluminum]**.
4. Post: **1-1/2 inch (38.1mm)** by **1-1/2 inch (38.1mm)** by **1/8 inch (2.3mm)** <Insert dimension> diameter high strength square.
5. Finish: **[Manufacturer's standard baked enamel or powder coat] <Insert finish>**.
6. Color: **[As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range] <Insert color>**.

D. Safety Grab Bar: Model BSGB provide safe access through roof hatches while providing added functionality and weight bearing support

1. Operation: mounts through a corner section through the curb counterflashing.
2. Material: Aluminum pipe **1-1/4 inch (32 mm)** inside diameter Schedule 40
3. Fittings: Cast aluminum alloy with set screw hold
4. Hardware: Hex head bolts **3/8 inch (9.5 mm)** by **3/4 inch (19 mm)**
5. Finish: **[Manufacturer's standard baked enamel or powder coat] <Insert finish>**.
6. Color: **[Safety Yellow] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range] <Insert color>**.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Examine areas and conditions under which Work is to be performed and identify conditions detrimental to proper or timely completion.

- B. Verify that deck, curbs, roof membrane, base flashing, and other items affecting Work of this Section are in place and positioned correctly.
- C. Verify tolerances and correct improper condition
- D. Identify conditions detrimental to providing proper quality and timely completions of work.
- E. Do not proceed with installation until detrimental conditions have been corrected.

3.2 INSTALLATION

- A. Comply with manufacturer's recommendations.
 - 1. For Miami-Dade Hurricane Hatch™, install using the manufacturer's anchoring options as detailed on shop drawings and installation instructions for wood curbs, steel curbs or concrete curbs.
- B. Coordinate installation of components of this Section with installation of roof deck, roof structure, roofing membrane, and base flashing.
- C. Coordinate installation of sealant and roofing cement with Work of this Section to ensure water tightness.
- D. Securely anchor roof accessories in compliance with manufacturer's instructions.
- E. Set units plumb, level, and true to line without warp or rack. Separate metal from incompatible metal or corrosive substrates, including wood, by coating concealed surfaces, at locations of contact, with bituminous coating or providing other permanent separation.
- F. Flange Seals: Unless otherwise indicated, set flanges of accessory units in a thick bed of roofing cement to form a seal

3.3 ADJUSTING

- A. Adjust movable parts for smooth operation
- B. Operational Units: Test-operate units with operable components. Clean and lubricate joints and hardware. Adjust for proper operation.

3.4 CLEANING

- A. Clean exposed surfaces per manufacturer's written instructions. Touch up damaged metal coatings.

END OF SECTION