

## TYPE D-50T ROOF HATCH SPECIFICATION

### I. PART ONE - GENERAL

#### 1.01 SUMMARY

- A. Work included: Furnishing and installing factory fabricated roof hatches
- B. Related Work: [\[Insert applicable specifications sections\]](#)

#### 1.02 REFERENCES

- BS EN 12207:2000 Air Permeability
- BS EN 12208:2000 Water tightness
- BS EN 12210:2000 Wind Resistance
- BS EN 1991-1 Snow Load
- BS 8200 Impact Resistance
- BS EN ISO 140 Acoustic
- BS EN 1627 – 1630 Security

#### 1.03 SUBMITTALS

- A. Product Data: Provide manufacturer's product data for all materials in this specification.
- B. Shop Drawings: Show profiles, accessories, location, and dimensions.
- C. Samples: Manufacturer to provide upon request; sized to represent material adequately.
- D. Contract Closeout: Roof hatch manufacturer shall provide the manufacturer's Warranty prior to the contract closeout [\[if applicable\]](#).

#### 1.04 PRODUCT HANDLING

- A. All materials shall be delivered in manufacturer's original packaging.
- B. Store materials in a dry, protected, well-vented area. The contractor shall thoroughly inspect product upon receipt and report damaged material immediately to delivering carrier and note such damage on the carrier's freight bill of lading.
- C. Remove protective wrapping immediately after installation [\[if applicable\]](#).

#### 1.05 SUBSTITUTIONS

- A. Proposals for substitution products shall be accepted only from bidding contractors and not less than (10) working days before bid due date. Contractor guarantees that proposed substitution shall meet the performance and quality standards of this specification.

#### 1.06 JOB CONDITIONS

- A. Verify that other trades with related work are complete before installing roof hatch(s).
- B. Mounting surfaces shall be straight and secure; substrates shall be of proper width.
- C. Refer to the construction documents, shop drawings, and manufacturer's installation instructions.
- D. Coordinate installation with roof membrane and roof insulation manufacturer's instructions before starting.
- E. Observe all appropriate OSHA safety guidelines for this work.

#### 1.07 WARRANTY/GUARANTEE

- A. Manufacturer's standard warranty: Materials shall be free of defects in material and workmanship for a period of ten years from the date of purchase. Should a part fail to function in normal use within this period, manufacturer shall furnish a new part at no charge. Electrical motors, special finishes, and other special equipment (if applicable) shall be warranted separately by the manufacturers of those products.

### II. PART TWO - PRODUCTS

#### 2.01 MANUFACTURER

- A. The BILCO Company, P.O. Box 1203, New Haven, CT 06505,  
1-203-934-6363, Fax: 1-203-933-8478, Web: [www.bilcouk.com](http://www.bilcouk.com)

## 2.02 ROOF HATCH

- A. Furnish and install where indicated on plans metal roof hatch Type D-50T, size width: \_\_\_\_\_mm x length: \_\_\_\_\_mm. Length denotes hinged side. The roof hatch shall be double leaf. The roof hatch shall be pre-assembled from the manufacturer unless otherwise specified.
- B. Performance characteristics:
1. Covers shall be reinforced to support a maximum live load of 195 kg/m<sup>2</sup> with a maximum deflection of 1/150th of the span or 97 kg/m<sup>2</sup> wind uplift.
  2. Operation of the covers shall be smooth and easy with controlled operation throughout the entire arc of opening and closing.
  3. Operation of the covers shall not be affected by temperature.
  4. Entire hatch shall be weathertight with fully welded corner joints on covers and curb.
- C. Covers: Shall be 2.3mm aluminium with a 100 mm beaded flange with formed reinforcing members. Covers shall have a heavy extruded EPDM rubber gasket that is bonded to the cover interior to ensure a continuous seal when compressed to the top surface of the curb.
- D. Cover insulation: Shall be polyisocyanurate of 50mm thickness with a U-value of 0.47 W/m<sup>2</sup>K. Insulation shall be fully covered and protected by an aluminium liner.
- E. Curb: Shall be 305mm in height and of 2.3mm aluminium. The curb shall be formed with a 114mm flange with 11mm holes provided for securing to the roof deck. The curb shall be equipped with an integral metal capflashing of the same gauge and material as the curb, fully welded at the corners, that features the Bil-Clip<sup>®</sup> flashing system, including stamped tabs, 153mm on center, to be bent inward to hold single ply roofing membrane securely in place.
- F. Curb insulation: Shall be polyisocyanurate of 50mm thickness with a U-value of 0.47 W/m<sup>2</sup>K.
- G. Lifting mechanisms: Manufacturer shall provide compression spring operators enclosed in telescopic tubes to provide, smooth, easy, and controlled cover operation throughout the entire arc of opening and closing. The upper tube shall be the outer tube to prevent accumulation of moisture, grit, and debris inside the lower tube assembly. The lower tube shall interlock with a flanged support shoe that is through bolted to the curb assembly.
- H. Hardware
1. Heavy pintle hinges shall be provided
  2. Cover fitted with enclosed two point spring latch with interior and exterior turn handles
  3. Roof hatch shall be equipped with interior and exterior padlock hasps.
  4. The latch strike shall be a stamped component bolted to the curb assembly.
  5. Covers shall automatically lock in the open position with a rigid hold open arm equipped with a 25mm diameter red vinyl grip handle to permit easy release for closing.
  6. Compression spring tubes shall be an anti-corrosive composite material and all other hardware shall be zinc plated and chromate sealed. Springs shall have an electrocoated acrylic finish for corrosion resistance. [\[For installation in highly corrosive environments or when prolonged exposure to hot water or steam is anticipated, specify Type 316 stainless steel hardware\].](#)
  7. Cover hardware shall be bolted into heavy gauge channel reinforcing welded to the underside of the cover and concealed within the insulation space.
- I. Finishes: Factory finish shall be mill finish aluminium.

## 2.03 PERFORMANCE \*

BS EN 12207:2000	Air Permeability	4.83 m <sup>3</sup> /hour/m <sup>2</sup> @ 600 Pa
BS EN 12208:2000	Water tightness	Class 9A
BS EN 12210:2000	Wind Resistance	Class E2400
BS EN 1991-1	Snow Load	1200Pa for 1 hour
BS 8200	Impact Resistance	Pass
BS EN ISO 140	Acoustic	25dB
BS EN 1627 – 1630	Security	Pass
Wind Speed with open cover		30 m/s

NOTE – \* of S-50T product. Copies of Taylor Woodrow Developments test reports for S-50T product available on request.

## III. PART THREE - EXECUTION

### 3.01 INSPECTION

- A. Verify that roof hatch installation will not disrupt other trades. Verify that the substrate is dry, clean, and free of foreign matter. Report and correct defects prior to any installation.

3.02 INSTALLATION

- A. Submit product design drawings for review and approval to the architect or specifier before fabrication.
- B. The installer shall check as-built conditions and verify the manufacturer's roof hatch details for accuracy to fit the application prior to fabrication. The installer shall comply with the roof hatch Manufacturer's installation instructions.
- C. The installer shall furnish mechanical fasteners consistent with the roof requirements.

SPEC D50T 30/10/08